

**Bilingual Code Switching Patterns in  
Libyan Arabic-English School-Aged  
Children: A Study of Linguistic and  
Communicative Competence**

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## **ABSTRACT**

The aim of this study was to investigate language use in school-aged Arabic-English bilingual children growing up in the UK. Specifically, the main focus was to examine how bilingual children's linguistic and communicative competence is reflected through their use of code switching in their interactions with other bilingual speakers. 30 children of Libyan families living aged between 8 and 11 were recruited for this study and were audio recorded while interacting with their friends in a Libyan Arabic school context, and with members of their families at home. Standardized language tests in both languages and sociolinguistic questionnaires were used to measure language competence, language use and the social context underpinning the children's language development. All the children had been living in the UK since their early childhood and were fluent in both languages but were English-dominant. All of the parents had good command of English and positive attitudes towards their children's bilingualism but preferred their children to use Arabic at home. Analyses of the children's code switches revealed advanced levels of linguistic and communicative competence. This was exhibited through the children's ability to alternate between the two codes without violating their syntactic or morphological constraints; it also showed in the way the children capitalized on their combined repertoire to index particular social and/or pragmatic motivations during their interactions with their interlocutors, enhancing their communicative strategies. The study makes an original contribution to the grammatical study of code switching, presenting results from two languages rarely looked at in combination; it also adds to existing research demonstrating the positive contribution of CS to bilingual discourse strategies.

## DECLARATION

I hereby declare that this thesis together with work contained herein was produced entirely by myself and contains no materials that have been accepted for the award of any other degree or diploma in any university. To the best of my knowledge and belief, this thesis contains no material previously published or written by another person except where due acknowledgment to others has been made.

Signature: .....

Gada I B Mahmud

## **DEDICATION**

To my late father, who always wished to see me  
the person who I am today.

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## LIST OF ABBREVIATIONS

AN	Antonyms
APV	Arabic Picture Vocabulary
BP	broken plural
BFLA	bilingual first language acquisition
CASL	comprehensive assessment of spoken language
CLA	child language acquisition
CP	projection of complementizer
CS	code switching
EC	equivalence constraint
EL	embedded language
ELT	expressive language test
FEM:	feminine
FPL:	feminine plural
FMC	free morpheme constraint
GM	grammatical morpheme
LA	Libyan Arabic
LAD	language acquisition device
MAS:	masculine
ML	matrix language
MLF	matrix language frame model
MM	markedness model
MPL:	masculine plural
MSA	modern standard Arabic
MUL	mostly used language
NEG:	negative marker
NL	nonliteral language
NP	noun phrase
PC	paragraph comprehension
POS:	possessive
RO	rights and obligations
RP	regular plural
SC	syntax construction
SCT	sentence comprehension test
SEP	sound feminine plural
SLI	specific language impairment
SR	sentence repetition
SING	singular
1PL:	1 <sup>st</sup> person plural inflection
1SG:	1 <sup>st</sup> person singular inflection
2PL:	2 <sup>nd</sup> person plural inflection
2SG:	2 <sup>nd</sup> person singular inflection
3PL:	3 <sup>rd</sup> person plural inflection
3SG:	3 <sup>rd</sup> person singular inflection
4-M	4-morpheme

## Chapter 1. Introduction

### 1.1 Contextual Overview:

One of the main areas that have attracted a lot of research on bilingualism is the phenomenon of code switching (hereafter CS), which is generally defined as speakers' alternation between their two languages in bilingual interactions. For a long time, CS used to be seen as a demonstration of poor linguistic competence in one or both of the bilinguals' languages (Al-Khatib 2003, Albrecht, 2004). Linguistic competence in general refers to speakers' knowledge of their language and its rules, which enables them to understand and produce well-formed utterances and to recognise grammatical errors (Crystal 1980). However, research over the last decades has brought to notice that CS is grammatically structured and systematic and may also be considered as an additional communicative resource to achieve certain conversational goals. Therefore, in the research literature, CS can no longer be regarded as deficient language behaviour.

In addition, it has been argued in the sociolinguistic literature that speakers' communicative competence is manifested through their compliance with the societal and cultural norms that regulate the speech situation in order to make an effective communication (Hymes, 1972; Crystal 1980). Communicative competence is a term coined by the linguist Dell Hymes in 1972 to refer to speakers' knowledge of a language and the ability to use it appropriately and effectively according to relevant characteristics of the speech situation in terms of interlocutors, topic of conversation, etc. In light of this definition, it could also be said that speakers' non-compliance with the dictates of the speech situation with respect to the appropriate language use during their social interactions with others may underlie speakers' defiance of the expected norms of the macro-social<sup>1</sup> context of the conversation (Al-Khatib, 2003b). In doing this, speakers may wish to communicate new/specific communicative messages, which carry a social meaning of changing/enhancing the relationship between themselves and their interlocutors (*ibid*).

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<sup>1</sup> In sociolinguistics, we can distinguish between macro level approaches which explore a language use pattern at a community level, taking into account the social and situational factors; and micro level approaches in which a language use is explored at the interactional level and locate the speakers themselves as the impetus for the linguistic variety and patterns of use.

In looking at this area in relation to the interest of this study, CS performance will be viewed as a reflection of bilinguals' communicative competence as it occurs in two cases: first, when it occurs in situations where the use of CS is typical and expected, and it performs specific social functions which convey social meaning; second, if the choice of a particular code is motivated by speakers' aim to communicate particular messages that have certain indexicality<sup>2</sup> in the micro-context of the immediate speech situation. In both cases, speakers should manifest linguistic competence by skilfully alternating between their two languages without violating their syntactic or morphological constraints. From a sociolinguistic standpoint, CS in this manner will be evaluated from a positive dimension since it reflects speakers' communicative and linguistic competences. In this study, linguistic and communicative competences are, therefore, two key concepts and have been defined in relation to bilingualism in Chapters 2 (section 2.5.2) and 3 (section 3.7) as follows:

- Linguistic competence refers to speakers' ability to produce well-formed bilingual utterances where the linguistic rules of both languages involved are not violated.
- Communicative competence refers to speakers' ability not only to use their knowledge of a language in a specific conversation, but also to use the language which is appropriate to the situation of their utterances and/or to their social motivation of indexing certain messages in the micro-situation of the utterance.

From this perspective, the current study aims at reflecting on the communicative and linguistic competences in Libyan school-aged bilingual children. The focus will be on the children's CS patterns during their bilingual interactions with their friends in the Libyan Arabic school domain in Newcastle, and with members of their families in the home domain. In looking at this area, this study will add to other studies on CS literature which also see CS as an active communicative device that reflects either linguistic or communicative competences in bilinguals. Those studies (e.g., Genesee et. al. 1996, Reyes, 2001), however, adopted either linguistic or sociolinguistic approaches but did not tackle both aspects together in a systematic way. Therefore, the current study is

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<sup>2</sup> In the current study, this expression refers to the inferential meaning of speakers' utterance/s which reveals their aim to increase or decrease the social relations with their hearers within the micro-social context.

unique in that it uses both linguistic and sociolinguistic approaches to study CS patterns by focusing on the following steps:

Firstly, the participants' linguistic competence will be examined in terms of their adherence or non-adherence to the grammatical rules of CS as they code switch. In this regard, the participants' CS will be considered as a demonstration of their linguistic competence if it conforms to the syntactic/morphological constraints of a CS variant. On the other hand, instances of CS which violate this linguistic perspective may be judged as ill-formed and, consequently, they may be viewed as a reflection of limited linguistic ability in one or the two languages.

Secondly, the study will evaluate speakers' communicative competence by looking at the social context of the immediate situation which may enable us to categorise instances of CS according to their strategic and non-strategic functions in different bilingual interactions. Non-strategic functions of CS are generally characterized by being natural communicative functions, which do not go beyond their own meanings and do not convey extra-linguistic messages. An example of this case is the referential function of CS which is associated with topicalized language borrowings that relate to lexis and phrases used in the context of the other language. Strategic functions, on the other hand, are purposive speech behaviour and serve the participants' social motivation of changing/enhancing the social relation with their interlocutors within the micro-social context of the immediate situation. Strategic functions of CS usually coincide with negative or positive connotations which come as an indication of speakers' tactic in increasing or decreasing the social relation with their interlocutors. In this case, CS is seen as a signifying message that carries an extra-linguistic meaning.

Analysing CS from the above dimension will allow for exploring feature of the bilinguals' linguistic competence in terms of the ability to produce well-formed bilingual utterances. It will also allow for investigating why the bilinguals code switch and how they use CS as a communicative tool in their conversations which reflects their communicative competence.

In this vein, this study will be mainly interested in the bilingual behaviour of older bilingual children, who have developed a high enough level of proficiency in their two languages to enable them to use CS for different sociolinguistic purposes amongst other



aims. Thirty children from similar sociolinguistic backgrounds, between the ages of 8 to 11 were recruited for the study and were observed and audio recorded in different bilingual settings in two social domains: the weekend Libyan Arabic school in Newcastle and home. All of them had been living in the UK since their early childhood and were fluent speakers of English and Arabic; but English was their dominant language. Their linguistic skills in both languages were measured using standardised language tests in order to gauge the degree to which CS might be being used as a means to fill gaps in knowledge of one of the languages. In addition, copies of sociolinguistic questionnaires were distributed to all of the children's parents in order to obtain background information about them and the children. According to the answers provided, all of the parents had good command of English and positive attitudes towards their children's bilingualism; the parents did not view CS in a negative way or discourage the children from using it, but Arabic was definitely the parents' preferred language in the home context.

For analysing the data, Myers-Scotton's Matrix Language Frame (MLF) and 4 Morphemes (4-M) model (1993, 2002), which seems to work well for explaining the Arabic/English CS patterns, will be adopted in an attempt to analyse the participants' intrasentential CS<sup>3</sup>. In this analysis I will explore the children's ability to conform to the grammatical rules of a CS variety which would signal their abstract level of linguistic competence. The matrix language of the children's utterances as they used CS will be, then, considered with the influences of the social situations by applying Myers-Scotton's Markedness Model (MM) (1993, 1998a, 2002, Myers-Scotton and Bolonyai, 2001). The MM was chosen for the sociolinguistic analysis because it explains a lot of aspects of communicative competence shown in bilingual performance, which is a main topic in this study.

The central premise of the MM is that speakers have a markedness evaluator as a cognitive device which enables them to assess what code is more or less unmarked (expected in the macro-social speech situation) or marked (unexpected in the macro-social speech situation). That is, speakers have the knowledge to evaluate their bilingual performance in terms of markedness as a part of their communicative competence. Consequently, they choose a specific code to achieve the social ends which they wish

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<sup>3</sup> The integration of the two languages in the same utterance/word.

to have in place. Making unmarked choices, according to the principles of the MM, implies that speakers affirm the norms and behavioural rules of the speech situation and their interlocutors' 'rights and obligations'. Making marked code choices, on the other hand, underlies the speakers' defiance of the expected norms of the speech situation in the immediate utterance. Hence, a marked code choice carries a social meaning of speakers' intention to change the relationship with their interlocutors for positive or negative reasons (either to increase or decrease their social relation) by expressing feelings ranging from anger to affection and for indicating the speaker's authority, superiority, passion, and ethnic identity (Myers-Scotton, 1995b). Such use of CS can reveal a sociolinguistic competence because it is marked for strategic functions which are intended to achieve a specific goal. For the purpose of sociolinguistic analysis in this study, and following the principles of the MM, the data will be examined by addressing the following questions:

- 1- Does the children's CS performance follow the norms of social situation?
- 2- What communicative function(s) does the children's CS serve in the speech situation?
- 3- Does the children's CS serve communicative purposes that have certain indexicality within the micro-situational context?

### ***1.2 Rational and Objectives of the Study:***

Despite the large number of studies which have been carried out on bilingualism and CS from many disciplines, much is yet to be learnt about these two phenomena. A review of the literature of children's CS worldwide suggests that among the most widely researched topics of CS from linguistic and sociolinguistic perspectives (McClure and McClure, 1988, Zentella, 1997, Reyes, 2004, Gamal, 2007, Chernobilsky, 2009) have been the examination of how bilingual children develop their CS linguistic skills, and the investigation of the influences of the social factors of setting, interlocutors, topic, etc., on bilingual behaviour of typically developing children from different age groups. A further review on the literature shows a paucity of research which uses both the linguistic and sociolinguistic approaches to study CS behaviour, especially in older bilingual children. This study, therefore, will contribute uniquely to the existing research of CS by considering both the linguistic and

sociolinguistic approaches in an attempt to provide a comprehensive analysis in studying older bilingual children's CS patterns from more than one perspective.

It is widely agreed in the literature that bilinguals' CS is not always restricted and determined by the changes in the social situations in terms of different social variables (i.e., setting, interlocutors, topic of conversation, etc.), since CS can also occur in stable speech situations. Therefore, it is argued that CS which is not triggered by the situational changes is motivated by factors internal to speakers themselves; these are their language preference and/or their competence in both languages (Auer, 1999). In addition to these factors, there are certain situations where speakers switch codes to fulfil strategic or non-strategic functions (see the discussion above on page 3) when conversing with other bilinguals. In these situations, a speaker may also demonstrate linguistic competence by switching at specific points so that CS does not violate the syntactic and grammatical rules of both languages.

By looking at the patterns, functions, and social motivations of the participants' CS, this study adds to existing evidence which views that CS can demonstrate bilinguals' linguistic and communicative competence (Genesee et. al 1996, Al-khatib 2003). This investigation will contribute to the growing knowledge that CS is not a random linguistic phenomenon but is an important part of bilingual conversations and can serve important communicative functions (Myers-Scotton 1992, Heller 1992, Ariffin and Rafik-Galea 2009) and fulfil social motivations. This is not only going to be important for researchers working on this area of CS, but also for raising awareness among families of bilinguals of the importance of encouraging and maintaining bilingualism.

In addition, while it is true that the overwhelming majority of more recent research has been championing CS, this does not mean that negative views on CS are completely out, especially in non-academic circles. For example, some educators who are worried about children's language development still advise parents to speak only one language with their children, and parents themselves may feel they should only use the majority language. Thus, there is still a case for demonstrating that CS does not index deficiency in bilinguals' linguistic knowledge, especially in under-studied bilingual contexts such as the Arabic-English community in the UK.

Lastly, as Gardner-Chloros (2009) noticed, most of the studies of bilingual children's CS conducted in the past concerned children whose languages were relatively closely related. Therefore, adding new data from Arabic and English CS to research is valuable because of the linguistic distance between the two languages as well as the cultural differences between the Arabic and English societies.

### ***1.3 Research Question:***

The following main research question will guide the analysis:

- How and to what extent are bilingual Libyan children's linguistic and communicative competences manifested in their CS performance when interacting with family and friends?

For addressing the issue raised above, the different CS instances will be analysed using the structural and sociolinguistic approaches selected for the analysis (i.e., the MLF and 4-M model and the MM). The participants' communicative and linguistic competences will be evaluated by exploring the reason of their CS and their ability to code switch without violating the syntactic and grammatical rules of either language.

### ***1.4 Research Hypotheses:***

The hypotheses which will be looked at in the analysis will include the following:

- In the participants' intrasentential switched utterances there is a matrix language which provides the syntactic structure and an embedded language which supplies individual lexical elements.
- Code switched utterances will be constrained by grammatical rules, consistent with the MLF and 4-M model.
- The participants are able to use their two languages appropriately according to the characteristics of the speech situation in terms of settings, topic of conversation, etc.
- The participants' CS behaviour may serve pragmatic and interpersonal functions which the participants aim to fulfil.

### ***1.5 Overview of the Thesis Chapters:***

The thesis is divided into eight chapters. Chapter 2 introduces the reader to a review of existing literature in the fields of bilingualism and CS. The chapter also presents an overview on different topics including the developmental stages of acquiring Arabic, language alternation and language dominance in bilingual development, and the linguistic approach to CS with a focus on the MLF and the 4-M model which will be applied on the data. Chapter 3 presents the sociolinguistic approach to CS and provides an overview of theories and concepts relevant to the field of CS. In the same chapter, an extensive review of the MM of CS is provided. Chapter 4 describes the research design of the study, the methodology of collecting the data including background information on the participants as obtained from sociolinguistic questionnaires, and the method of analysis used. Chapter 5 provides an analysis of the participants' Arabic-only utterances, considering that Arabic was their non-dominant language. Chapter 6 and 7 are the core of this thesis. In chapter 6, I report the study's quantitative results which prove to be useful within the linguistic and sociolinguistic analysis. Following that, I present the analysis of the data in terms of the linguistic and sociolinguistic aspects of the participants' CS, focusing on the unmarked and marked CS as suggested in the MM. Lastly, Chapter 8 is the final and general conclusion and discussion of the entire study. It also discusses the implications and limitation of the study and makes recommendations for future research.

## **Chapter 2. Bilingual Performance from a Linguistic Perspective**

### **2.1 Introduction:**

As a background to the grammatical analysis of CS data from a competence-based perspective, which is a main part in this study, some basic and general knowledge of bilingualism is useful. Therefore, this chapter will start with presenting a brief summary into the field, including different definitions of bilingualism, its degrees, and main types. The next section will provide a discussion on the developmental stages of Arabic acquisition as suggested by the literature, in order to determine the participants' level of Arabic development according to their ages, given that Arabic was their least used language in comparison to English. Then, the phenomenon of language alternation will be discussed in relation to language dominance in bilinguals' development. Following that will be a review of general approaches to bilingual performance from a linguistic competence-based perspective. The next section will present a summary about early and contemporary studies on childhood bilingualism which studied CS performance from a linguistic competence-based perspective. This will be followed by a section that reviews different studies on language separation and differentiation in bilingual children which provide background information about how children maintain language separation and differentiation when CS between languages is very frequent. Then, the main part of the theoretical background in this chapter will discuss the linguistic approach to CS, including the MLF and 4-M model, the Equivalence Constraint framework, the Government Constraint, and the Minimalist Approach. In the linguistic approach, frameworks and categorizations are applied to assess bilinguals' linguistic competence by looking at the grammatical compatibility between specific syntactic and morphological interfaces of the combined linguistic systems. This compatibility in the bilingual performance reflects speakers' ability to control and manipulate their languages in a way that serves their communicative purposes as well as reflecting the underlying cognitive process related to language production. Following the sections on the linguistic approach, the distinction between CS and borrowing will be discussed in order to understand the characteristics of both phenomena and avoid confusion between them. A general background about Arabic and Libyan Arabic will be presented in the next section in order to familiarize the non-Arabic speakers with different aspects of Arabic as spoken by the participants. The last section will be the summary and conclusion of the chapter.

## **2.2 An Overview of Bilingualism:**

### **2.2.1 Bilingualism**

Bilingualism is a phenomenon found in all parts of the world, and it is estimated that half of the world's population is bilingual (Grosjean, 2010). From the early 19th to the middle of the 20th century, a great number of linguists believed that bilingualism and multilingualism had a negative impact on speakers' intellectual and spiritual development (Wei, 2000). This unfavourable attitude towards bilingualism appeared to be confirmed by early research on bilingualism and cognition, which found that monolinguals scored higher than bilinguals in intelligence tests (*ibid*). For example, in Saer's (1923) study, a group of 1400 Welsh-English bilinguals and English monolinguals aged between 7 to 14 and living in five rural and two urban areas in Wales were examined using IQ test. The researcher found a 10 points difference between the two groups which made him concluded that the bilingual children were mentally confused and significantly inferior to the monolinguals. However, scholars later found severe methodological flaws in Saer's research in both his sampling procedure and types of intelligence measurements he used. First, the researcher used a translated version of the standard test which is considered unreliable practice in producing accurate results. Secondly, it seems that the correlation between the lower IQ results and bilingualism appeared only in children of rural areas, whereas the results in the urban areas were similar. Scholars attributed this finding to the fact that children in the urban areas had more contact with English than did children in rural areas (*ibid*). This means that the IQ test tested rural bilingual children through the medium of their weaker language.

Thus, Saer's and other studies with similar conclusions were later refuted in the scholarly literature because of their adopted methodologies. After making adjustments to the methodological problems and carrying out investigations based on modern methodological principles, researchers have brought about new insights towards bilingualism and found a positive relationship between bilingualism and the speakers' cognition (Butler and Hakuta, 2004). In addition, research has indicated that there is no evidence that being exposed to more than one language as a child leads to a delay or disorder in the process of language acquisition (Smith, 1935, De Houwer, 1999, Döpke, 1992, Genesee, 2002). Nowadays, it is commonly believed that being bilingual is

advantageous since it encompasses cognitive, educational, cultural and social benefits (Wei, 2000, Marian and Shook 2012).

Bilingualism has been studied and defined by many scholars of various disciplines. As a result, there is no precise agreed definition of bilingualism because scholars have diverse opinions and define it according to their own use and fields of studies. Originally, the word bilingualism comes from the Latin words *bi* meaning “two” and *lingua*, which means “tongue” or “speech”. Hence, bilingualism refers to the phenomenon of being able to speak two languages. Maximalists like Bloomfield (1933, p. 56) consider bilingualism as “native-like control of two languages”. On the other hand, minimalists like Macnamara (1967) broadened this view and suggest that a bilingual is anyone who shows a minimal competence in the use of any skill of a second language. In a similar vein to Macnamara, Haugen (1969) considers that the ability to produce complete, meaningful utterances in the second language is sufficient to regard a speaker as bilingual.

The narrow nature of Bloomfield’s definition is seen as problematic for many scholars and has been challenged in many studies, since it is no doubt hard to find people with native command of both languages. Myers-Scotton (2005) argues that the ability of speaking a second language proficiently cannot be considered as a criterion for deciding whether or not a person is bilingual. This difficulty arises from the fact that languages consist of several systems such as phonology, morphology, syntax and the lexicon; consequently, a comprehensive measuring of language proficiency is a complex issue and cannot be done easily (*ibid*). If we compare between first language speakers of nearly equal competence in their language, they exhibit the same ability in the phonology, morphology and the syntax of that language, even if the number of their words may vary (*ibid*). By contrast, bilinguals may have a greater ability in one of the above systems than the others. For example, some bilinguals, especially late bilinguals who learned their second language after childhood, may speak their second language fluently, but do not completely master its sound system (*ibid*). Thus, researchers have concluded that it is rare to find bilinguals with native-like mastery of both languages (Grosjean, 1985).



### 2.2.2 Degree of bilingualism:

After defining bilingualism, this chapter will now consider the individual's degree of bilingualism and classifying bilinguals into different groups accordingly (in the next section). The degree of bilingualism means the level of proficiency a speaker should have in both languages before they can be considered as a bilingual. The categorization of bilinguals according to the proficiency in both languages has led to a more appropriate description for bilingualism and has attracted more attention to the issue of how bilinguals' proficiency can be tested. Mackey (2000, p. 27) states that "[B]ilingualism is a behavioural pattern of mutually modifying linguistic practices varying in degree, function, alternation, and interference". Therefore, he proposed a complex schema to measure the speakers' ability in both languages. According to him, in order to determine how bilingual a speaker is, it is necessary to test his/her expressive as well as receptive language skills (i.e., speaking, writing, listening and reading) and place them in relation to the phonological/graphic, grammatical, lexical, semantic, and stylistic levels for both languages which he labels as A and B (see figure 1).

Degree											
Levels											
Phonological-Graphic		Grammatical		Lexical		Semantic		Stylistic			
A B		A B		A B		A B		A B			
Skills											
A		B		A		B		A		B	
Listening											
Reading											
Speaking											
Writing											

Figure 1: Degree of Bilingualism (Mackey 2000)

Using standardized tests, the above framework can be filled in to show the speakers' proficiency in each level. A bilingual speaker may not have an equal proficiency in all the four skills in both languages - s/he may be able to write in both languages perfectly, but s/he may be unable to speak both languages with equal fluency. Moreover, the speaker's competence in one skill may vary in each linguistic level; namely, s/he may have perfect grammar but poor pronunciation.

Determining speakers' degree of bilingualism is important if we discuss the issue of language interference and the extent to which speakers manage to separate their two languages in a given situation (Romaine, 1995). In addition, as mentioned above, bilinguals are classified into different types according to their degree of bilingualism; so, assessing a speaker's degree of bilingualism is a crucial step in order to describe their bilinguality more appropriately.

### **2.2.3 *Types of bilinguals:***

Bilinguals have been categorised according to their bilingualism degree into several types. They are 'ambilinguals' when they have perfect command of both languages and 'equilinguals' which means having the same proficiency in the two languages, but not necessarily the native proficiency (Halliday et al., 1968). In addition, bilinguals are 'active' (also referred to as productive) if they are capable of understanding, reading, speaking and sometimes writing in more than one language, whereas they are 'passive' (or receptive) if they understand the second language, whether in written or in spoken forms, but cannot speak or write it (Wei, 2000). Moreover, bilinguals are 'balanced' if they have an equal proficiency in both languages, and 'dominant' (or unbalanced) if they have greater competence in one language and use it more often than the other (Peal and Lambert, 1962). Although it is possible to come across bilinguals who have perfect control of both languages, most researchers (e.g., Grosjean, 1982, Beardsmore, 1986, Myers-Scotton, 2002) argue that balanced bilingualism is very hard to achieve and therefore it is very rare.

Another categorization has been made for bilingualism according to its beneficial effect on speakers' cognition and intelligence. In this regard, Lambert (1977) has distinguished between 'additive' and 'subtractive' forms of bilingualism. Additive bilingualism refers to the situation in which the addition of a new language enriches their linguistic repertoire and has a positive influence on their cognitive ability. This type of bilingualism occurs when both of the languages have the same social value in the social environment, which supports and values their acquisition. Subtractive bilingualism, on the other hand, occurs when speakers' acquisition of the second language is detrimental to the existence of the first language (De Groot, 2011). That is, children are introduced to a second language before they have a critical mass of skills

in the first language, and then not supporting the first language. In addition, the relative prestige of one language in a society may also play a part in subtractive bilingualism. According to Albrecht (2004), the high status of one language and its widely use in the environment play a major role in enhancing speakers' competence in that language. If both languages have equal values in the environment, speakers will be motivated to switch between and communicate in both languages (*ibid*); and this, in turn, results in enriching speakers' competence in both languages.

Since the participants of this study acquired their two languages under varying circumstances (i.e., some of them were exposed to both languages from birth and others became exposed to L2 later), it seems appropriate to provide an overview over the types of bilingualism in terms of the nature of acquisition as a background to the study. These types are:

- ***Simultaneous and sequential bilingualism:***

Bilinguals are known to vary according to the nature of acquisition of their languages. With respect to the language acquisition mode, bilinguals can be classified according to their ages of the second language acquisition into early or late bilinguals. Early bilingualism occurs when both languages are acquired in early childhood as a result of family bilingualism, while late bilingualism refers to the acquisition of the second language later in adulthood, usually as a result of education ([Haugen, 1956](#), [McLaughlin, 2013](#)). Early bilingualism can be further defined according to the order or sequence of the second language acquisition by referring to the terms 'simultaneous' and 'sequential' (also called successive) bilingualism. A simultaneous bilingual acquires both of his/her languages at least before the age of three, and it is also known as bilingual first language acquisition because both languages develop simultaneously as first languages ([Meisel, 2001](#)). A sequential bilingual, in contrast, learns his/her second language after his first language is well established ([McLaughlin, 2013](#)). For the purpose of this study, we are concerned with early bilingual older children who are supposed to have developed a higher level of proficiency in both of their languages and a greater knowledge of their grammatical systems which are necessary for CS. From this perspective, it is expected that children's competency in both of their languages (though at different levels) plays a major influence on how they interact with others and

how they choose from their linguistic repertoire in a suitable dynamic way. Therefore, selecting children who fall under this category becomes particularly interesting for examining how they manipulate and utilize the two languages as social and linguistic resources for achieving specific communicative functions as will be seen in the successive chapters.

Given that the participants in this study were English-dominant (as established by their proficiency and language use), it is important to review studies on Arabic language acquisition which provide a reference for the developmental stages and rates of acquisition of different Arabic grammatical features and structures. This would help in exploring whether the participants have had a proficient level of grammar which would be expected of monolingual children their age. In addition, this would help in establishing that the children's Arabic was not in a state of attrition, which could lead to then exhibiting more CS into English in their speech. That is, by establishing that the children had good Arabic competence, we could ensure that CS findings were not the result of compensating for poor knowledge of one of the languages.

The next section provides an overview of Arabic language acquisition from the handful of studies available in this area.

### ***2.3 The developmental Stages of the Acquisition of Arabic as the First Language by Children:***

A survey on the literature shows that there is not much research has been done on the developmental acquisition of Arabic (Khamis-Dakwar, 2011), especially in older children. Most of the available studies (e.g., Ravid and Farah, 1999, Elgibali, 2003, Ravid and Hayek, 2003) have focused on examining the development of specific phonological or morphosyntactic features in some colloquial Arabic dialects. In addition, due to the linguistic differences between the Arabic dialects, a study of one particular dialect might not be representative of all other dialects or Arabic as a mother tongue. However, in this section I will rely on the available studies which are more relevant to my study and use them as major comparative references for my observation of the participants' Arabic production, since these studies have answered many significant questions.

Among the early studies on this field is that of Omar (1967) who carried out a cross-sectional comprehensive study to investigate the developmental stages of acquiring the lexicon, phonology, syntax, and phonology in thirty-seven Egyptian children aged between six months to fifteen years. In this study, the researcher recorded the children's spontaneous speech and tested their language development through tests of imitation, comprehension, and production. She compared the children's speech with that of adults from the same community and also compared the patterns of acquisition of Arabic in these children with patterns of other studied languages. Based on the researcher's observations and studies of language universals theory, she established universal patterns of L1 acquisition and shed light on the effects of environmental, social, and psychological factors on language development. Among the results which Omar reported are that the negative and affirmative forms of the verbs as well as their inflections and agreements are acquired early in the child's life. However, there are some complex grammatical inflections which are only mastered by the age of six to seven; and common errors were detected in the use of quantified nouns as late as the age of fifteen. In addition, the study revealed that the regular plural (RP) inflection was acquired at the age of 3, whereas dual inflection and most broken plurals (BP) appeared at the age of 5.

A second important and more recent cross-sectional study, though limited to the development of interrogation and negation in children native speakers of Qatari dialect, was conducted by Al-Buainain (2002). The subjects were her four children whose ages ranged from 1:6 to 9 years. Their speech samples were collected in a day-by-day routine by means of written notes. According to the researcher's observation, there were three stages of acquiring negation: the first stage was the early acquisition of the particle 'la:' (no), which represented the simplest form of negation; in the second stage the children started using 'ma:' and 'mub'<sup>4</sup> at later ages but they were not able to use them with the correct tense of the verb; lastly stage three, at around the age of 5:6 the children were able to produce the correct structure of complex negation using negative particles that involve the addition of affixes to the negated word and may also require morphophonemic changes to the word. Regarding interrogation, the researcher found that at a very early age, the children produced questions using a rising intonation,

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<sup>4</sup> This negative particle is exclusive to Qatari and some other Arabic dialects.

whereas interrogatives with some question words were acquired later at the age of 2;4. At around the age of 5, the children showed a mastery of using the interrogative words of questions.

In a longitudinal study, Aljenaie (2001) followed the development of verb inflections in the speech of four Kuwaiti children aged between 2 to 2;6. Focusing on tense and agreement, the researcher found that both the perfective (past) and imperfective (present) appeared very early on in the children's speech. She also asserted that the children were more confident in using first and third person pronouns than with second person.

Using a cross-sectional methodology, Basaffar & Safi (2012) investigated the acquisition of four aspects of verb inflections (number, gender, person and tense) in the speech of thirty-two Hijazi Arabic-speaking children, aged between 2 to 4 years old. The participants were divided into four age groups of six months intervals. The researchers found that the results were consistent among the four groups with little variation; and confirmed that verb inflections appeared in children as young as two years old with only few errors.

Ravid and Hayek (2003), examined the acquisition of sound feminine plural (SFP), dual, and collective nouns in elicited picture naming of fifty-eight Palestinian Arabic native speakers. The participants aged between 3;6 to 8;0 and were divided into four age groups. The results indicated that the SFP was completely acquired by the age of 3, whereas there was a clear developmental pattern in the acquisition of the dual forms which appeared between around 3 and 8 years of age. The production of collective nouns in the four age groups was found to be equivalent to each other.

Another experimental study was reported in Aljenaie et al. (2011), testing the acquisition of dual and plural nominal marking in forty-four Kuwaiti Arabic speaking children, aged between 4 to 9 years old. The analysis showed that the children used the dual form with higher accuracy than with the plural forms. In addition, SFP appeared to be learned earlier and was used more frequently than the masculine sound plural and broken plural. SFP was also noticed to be the unmarked form of pluralization used by younger children before mastering the target form.

Moreover, Saiegh-Haddad et al. (2012), examined the development of SFP and broken plural (BP) among thirty-six native speakers of Palestinian Arabic, who were divided into three age groups: 3- 4, 5- 6, and 7- 8. The study's results showed that there was a substantial learning of the plural system occurred between these age groups with varying degrees. However, the oldest age group has not yet reached a complete development of the plural system, especially on the BP. The analysis demonstrated that, by the age of seven, the children achieved 90% success on the production task of SFP, whereas they reached 70% criterion on the production of BP which suggested that the children's learning is still underway. A similar finding regarding the late mastery of BP was reported in Siddiki's study (2002) in which she found that her Hijazi Arabic speaking participants aged 11;0 had not completely mastered the BP.

Moawad (2006) investigated the comprehension and production of Arabic gender and number in the performance of ninety-eight Saudi children, aged between 6 and 12 years. According to the study's results, the children showed a mastery of these grammatical forms between the ages of 8 and 10, while errors in using the plural form still appeared at the age of 12; this could be attributed to the complexity of the plural system in Arabic, as the author assumes. Based on the findings, the study suggests that an adult level of comprehension and production of noun genders, singular and dual forms is reached between the ages of 8 to 10, whereas the plural form is mastered around the age of 12. This study is highly relevant to the current research given the age groups which we are looking at.

With regard to the acquisition of the Arabic syntactic orders; namely, VSO and SVO, Khamis-Dakwar (2011) found that in her fifteen Palestinian Arabic speaking subjects, whose ages ranged between 1;7 – 3;0, the VSO order is acquired earlier and preferred more than the other order which is more frequent structure in the dialect. She suggests that children master verb movement before NP movement; therefore, they perform better with VSO structures which contains verb movement than with SVO structures which involve NP movements. These children begin to produce more of the latter structure at the age of 2;6 – 3;0.

The different structures which were discussed above, when they are acquired, and the studies were carried out on them are summarised in Table 1 below:

Grammatical structure	Approx. age of acquisition	The study
Regular plural	3+	Omar (1967)
Sound feminine plural	3+, 7+	Ravid & Hayek (2003), Saiegh-Haddad et al. (2012)
Broken plural	5+, 7+	Omar (1967), Saiegh-Haddad et al. (2012)
Dual inflection	5+, 3-8	Omar (1967), Ravid and Hayek (2003)
Interrogation	2:4	Al-Buainain (2002)
Interrogative question words	5	Al-Buainain (2002), Basaffar & Safi (2012)
Negation	5:6	Al-Buainain (2002)
Verb inflections	2	Aljenaie (2001), Basaffar & Safi (2012)
Gender, singular, and dual	8-10	Moawad (2006)
Syntactic orders	2:6-3	Khamis-Dakwar (2011)

Table 1: The approx. age of acquisition of different Arabic grammatical structures.

The next section will discuss the phenomenon of language dominance in relation to CS.

#### ***2.4 Language Alternation and Language Dominance in Bilingual Development:***

As already mentioned, the terms balanced and dominant (or unbalanced) bilinguals focus on the relationship between proficiencies of the two languages which bilinguals speak. Bilinguals are balanced when their proficiency of both languages is similar, whereas dominant (or unbalanced) bilinguals are those who have greater mastery in one language and use it more than the other. Language dominance, therefore, can be defined as the language with which bilinguals have a greater proficiency and use it more than the other.

Several studies (e.g., Grosjean, 1982, Döpke, 1992) have investigated the factors which lead to the occurrence of language dominance. Researchers found that the conditions of exposure to both languages have substantial effects on the nature of children's language acquisition. In other words, the quality and quantity of one particular language input influence the level of proficiency and active use of that language and this, in turn,



makes it more dominant than the other. Grosjean (1982, p. 189) states that, “the main reason for dominance in one language is that the child has had greater exposure to it and needs it more to communicate with people in the immediate environment”.

In the literature on bilingual first language acquisition (BFLA), a number of studies have shown that language dominance in young children plays a role in their language alternation patterns (Genesee et al., 2005, Genesee et al., 1996, Gawlitzek-Maiwald and Tracy, 1996, Nicoladis and Genesee, 1997, Nicoladis and Secco, 2000, Deuchar and Quay, 2001, Lanvers, 2001, Bernardini and Schlyter, 2004, Lanza, 2004). In Genesee et al.’s (1995) study, for example, the authors examined early language performance in five French-English bilingual children aged between 1;10 to 2;2. The participants were children of English mothers and French fathers, and they were observed in different language contexts (i.e., French, English and bilingual). The data analysis indicated that the children’s CS pattern could not be explained in terms of mixed parental input; rather, there was an evidence that the children’s bilingual performance was related to language dominance.

(T)he children tended to mix more when using their non-dominant language than when using their dominant language... the dominance effects we noted suggest that, like monolingual children, bilingual children make do with whatever linguistic resources they have available to express themselves (Genesee et al., 1995, pp. 628-629).

Another example of early CS which is related to the issue of language dominance comes from Paradis and Nicoladis’ (2007) study. The researchers in this study examined the language performance of eight French-English preschool bilingual children, four of whom were French-dominant and the other four were English-dominant bilinguals. Those children participated in two free-play contexts in English and French. The main aim of the study was to investigate whether or not the children’s language dominance played a role in their language choice and CS patterns; another aim was to investigate whether the children were able to show more absolute discourse separation of their two languages than had been achieved by younger children studied in prior research. The children under observation were aged between 3;6 and 4;11 because the researchers considered that their advanced linguistic development might decrease the potential effect of dominance in their language use. In addition, the children were living in the English dominant English-French region of Canada, where people were more likely to

speak only English with English speakers, and with some mixing with French-speaking interlocutors. Hence, the researchers also took into consideration the possible effects of the minority French context on the children's language dominance and language choice. The study's results showed that the French-dominant children tended to separate their two languages in both English and French situations, whereas most of the English-dominant children used English exclusively in the English context and a lower proportion of French in the French context. In addition, the data analysis revealed little mixing in the English context in contrast to the high proportion of mixing in the French context exhibited by the English-dominant children. Based on these findings, the researchers suggest that the children's English dominance in the greater sociolinguistic context contributes to the degree of language separation in both contexts.

The next section will look at general approaches to linguistic competence and performance which laid the foundation of the competence-based models that are applied to assess the linguistic competence and performance of bilingual speakers.

## ***2.5 General Approaches to Linguistic Competence/Performance and Code Switching:***

### ***2.5.1 Linguistic competence and performance:***

Chomsky (1965) drew a fundamental distinction between *linguistic competence*, which is the speakers-hearers' abstract system of unconscious knowledge about the linguistic rules of their language; and *linguistic performance*, which means how the linguistic knowledge is used. From this point of view, linguistic competence is seen as a part of the human general psychological capacity, which is a major requirement for the process of linguistic performance. In other words, language performance is preconditioned by speakers' linguistic competence. Chomsky (1965, p. 10) emphasized that "... investigation of performance will proceed only so far as understanding of underlying competence permits".

Speakers sometimes make mistakes in their everyday speech, perhaps due to factors such as slips of the tongue, tiredness, boredom, etc. Such mistakes, which Chomsky describes as *performance errors*, are believed to be an imperfect reflection of the speakers' actual competence of a language. For that reason, Chomsky (1965) famously argued that rather than the explanation of individuals' linguistic performance,

theoretical linguistics should focus on the mental realities underlying that performance, namely linguistic competence. Hence, the major focus of language research adopting Chomsky's generative theory, in general, can be summed up as follows:

[...] generative theory seeks to provide a formal account of at least the following: (a) native speakers' judgement about sentence structure and well-formedness, interpreted as a reflection of their underlying grammatical competence; (b) the "creativity" of language, defined as a speaker's ability to produce and understand an infinite number of formally distinct sentences (Contini-Morava and Goldberg, 1995, p. 3).

Following this approach, a theory of linguistic knowledge which describes individuals' linguistic competence is, then, concerned with studying their abstract knowledge of linguistic rules that is separated from the actual use of language in real situations. Such a study requires the focus on the underlying principles and process that govern sentences/utterances structural formation.

But how about a theory of linguistic performance? Wales and Marshall (1966: 30) state that "it is a theory of how, given a certain linguistic competence, we actually put it to use - realize it, express it. It is also a theory of the limitations of the mechanisms, which enable us to express our own linguistic competence." (A discussion on linguistic performance in bilinguals will follow in the next chapter).

Chomsky's distinction between linguistic competence and linguistic performance has been highly influential in the study of language as it allowed linguists to study languages and their use separately, and to focus on different features of languages. In addition, this theory enabled linguists to examine the language in real life interactions as well as studying it through the examination of its abstract system of linguistic rules.

Although Chomsky's theory dealt only with the situation of ideal speakers-hearers in a homogeneous speech community, his approach has been adopted in many studies involving the assessment of bilingual's CS performance in diverse bilingual communities (e.g., Kachru, 1978, Bentahila and Davies, 1983, Pfaff, 1979, Di Sciullo et al., 1986, Belazi et al., 1994, Nishimura, 1997, Myers-Scotton, 1997). The main issue addressed in these studies has been whether bilinguals' linguistic competence allows them to follow functional and grammatical principles when they code switch during the communicative process. In so doing, these studies support the existence of particular grammatical constraints which regulate the use of CS within a sentence; hence, predict

where in a sentence a CS may occur (this topic will be discussed further in the subsequent sections).

### ***2.5.2 Code switching and linguistic competence:***

CS has been defined by many linguists and sociolinguists according to their fields of study. In general, CS as defined by Gumperz (1982, p. 59) is “the juxtaposition within the same speech exchange or passages of speech belonging to two different grammatical systems or subsystems”. In this study, the term CS is used synonymously with language alternation which refers to cases of language mixing between sentences/clauses or within a single sentence, clause or constituent.

With regards to speakers’ linguistic competence, a review of the literature shows that the definition of linguistic competence is relatively unproblematic. For example, Legaretta (1979: 523) states that “linguistic competence is the mastery of the sound system, semantics and basic structural patterns of a language”. Similarly, Marmaridou (2000: 25) defines linguistic competence as “an individual’s knowledge of the grammar of her language that enables her to acquire and use it”. In relation to bilingualism and CS, it is widely agreed among linguists in modern research that CS performance is considered a reflection of a speaker’s linguistic competence if it occurs at specific points in an utterance, where the syntactic and morphological constraints of the two involved languages are not violated. In other words, bilinguals’ linguistic competence is manifested through their control of the two languages when they code switch which involves the adherence to the set of linguistic rules governing the use of both languages. Therefore, instances of CS which do not conform to the competence-based framework would be judged as ill-formed; consequently, they may be a reflection of limited linguistic ability in one or the two languages. For the interest of this study and based on the literature’s definitions and descriptions of speakers’ linguistic competence, it can be said that bilinguals’ linguistic competence refers to their application of the set of rules that govern each language to various structural combinations when they code switch. In other words, bilinguals’ linguistic competence is the capacity that enables them to produce well-formed bilingual sentences/utterances in specific bilingual interactions.

## ***2.6 Approaching Code Switching from a Linguistic Competence-Based Perspective in Early and Contemporary Studies on Childhood Bilingualism:***

The phenomenon of CS has been recognized by researchers since the first half of the twentieth century (Fatemi and Barani, 2014). However, it received only little attention for a long time as it was considered as a random phenomenon that results from poor linguistic ability in one of the bilingual's languages (Albrecht, 2004). Among the widely cited early longitudinal studies, which described CS in very young children, are those undertaken by Ronjat (1913) and Leopold (1939-1949) (Hoffmann, 2014). Those linguists were mainly concerned with the issue of language differentiation and separation in bilinguals. That is, bilinguals' ability or inability to differentiate and separate between their two languages in different situations. Ronjat presented a detailed record of his son Louis' linguistic development from birth until the age of 4;10. Louis' mother was a native speaker of German, while his father was a native speaker of French. The study reported no negative effect for the boy's cognitive and linguistic development, but rather a certain level of bilingual competence described in terms of his ability to differentiate and separate his two languages according to interlocutors and speech contexts.

The findings of Ronjat's study are similar to Leopold's. Leopold systematically observed and recorded the speech of his daughter, Hildegard, in German and English from birth until the age of 15. He reported that Hildegard began to distinguish the two separate linguistic systems and use them according to the language of her interlocutor soon after her second birthday. Before that age, Hildegard went through a stage of mixing her two languages which made Leopold argue that:

She combined two models into one speech form ... a hybrid system. The very fact that she mixed lexical items proves that there was no real bilingualism as yet. Words from the two languages did not belong to two different speech systems, but to one, which was bilingual only in the sense that the morphemes came objectively from two languages ... Two linguistic systems must be mastered, and to keep them separate means a struggle. The natural thing for both children and adults seems to be to operate with one language system (cited in Hatch, 1978, pp. 23-32).

It is evident that in earlier studies, bilingual linguistic competence was evaluated in terms of speakers' ability or inability to differentiate and separate the grammatical

systems of their two languages in different speech situations. Therefore, CS within the same speech situation, according to such a view, was seen as an indication of poor linguistic competence and was treated as a “grammarless language mixture of gibberish by semilingual speakers” (Grosjean, 1982, p. 157). For that reason, CS at that time was studied only by few experts usually in combination with other topics. Haugen (1953) and Weinreich (1953) are considered the first researchers dealing with CS after Ronjat and Leopold, but they concentrated more on other language contact phenomena such as interference and borrowing (Milroy and Muysken, 1995). Haugen and Weinreich’s conceptualizations of CS have inspired many subsequent studies and proved to be very influential in ongoing research on CS. Haugen brought to notice that the phenomenon of CS can be an alternation between the two languages not a mixing of them. He states that:

They [the speakers] may switch rapidly from one [language] to the other, but at any given moment they are speaking only one, even when they resort to the other for assistance. The introduction of elements from one language into the other means merely an alternation of the second language, not a mixture of the two. (1950, p. 211)

The term ‘alternation’ was also used by Weinreich (1953) in reference to the same language behaviour in his work *Languages in Contact*, which described the bilingual situation in Switzerland. Weinreich (1979, p. 73) considers the ideal bilingual as someone who “switches from one language to the other according to appropriate changes in the speech situation (interlocutor, topics, etc.), but not in an unchanged speech situation and certainly not within a single sentence”. Weinreich’s perception in this statement supposes the existence of the imperfect bilingual (Boztepe, 2005); consequently, CS within a sentence was seen as a part of the imperfect bilinguals’ linguistic behaviour. In addition, his reference to the changes in the speech situation as the triggers of CS made researchers in the field of sociolinguistics and pragmatics (e.g., Gumperz, 1982, Sánchez, 1983, Al-Khatib, 2003a) investigate this view. In this regard, a large number of studies have shown that all bilinguals code switch even in ordinary conversations (Muysken, 2000).

In 1960s, CS started to gradually attract the interest of more people including linguists (e.g., Gumperz, 1962, Diebold, 1963, Lehtinen, 1966, Clyne, 1967) when they began to view it as playing an important part in bilingual conversations. Since that time, it has

received more attention from researchers from diverse fields of studies, including linguistics, sociolinguistics, psycholinguistics, etc. The first studies concentrating on CS *per se* tried to show that CS is not a random linguistic phenomenon but can be a grammatical speech behaviour that requires a high degree of linguistic competence (Edel, 2007). In this regard, much effort has been put in many linguistic studies to find universal grammatical principles that explain the use of CS in all bilingual alternations. In some studies in the 1970s, however, it was believed that there is no evidence for any syntactic regulations in CS. Labov (1971, p. 457), for example, argued that CS is an “irregular mixture of two distinct systems”. Only later, on the basis of data from several studies, a number of linguists, identified specific rules which predict and govern the use of CS within a sentence. Consequently, various models have been proposed in the literature by many researchers to explain CS behaviour from a grammatical perspective, such as Myers-Scotton’s Matrix Language Frame and 4 Morpheme model which will be adopted in this study (a full discussion on this topic comes in the subsequent sections).

In most of the earlier research (e.g., Clyne, 1967, Gumperz, 1967, Poplack, 1980), CS was explored in adults’ interactions. The study of children's bilingualism and then CS, only started in the late 1970s (Hatch, 1978). Namely, about thirty years after Leopold’s appeal in 1945 in which he urged linguists to follow his example and study the phenomenon of childhood bilingualism:

I appeal to the few who are capable of carrying out such an investigation to add sorely needed case histories of infant bilingualism and infant language to the available material, as indispensable spadework for the higher purposes of linguistics (Leopold, 1948, p. 11).

## ***2.7 Studies on Language Separation and Differentiation in Bilingual Children:***

In the literature of the bilingual acquisition field, early CS in simultaneous bilingual children is widely attested. This phenomenon has led researchers in the last decades to devote a considerable effort to investigate whether or not simultaneous bilingual children acquire their languages as two separate grammatical systems. Nowadays, many researchers (e.g., Meisel, 1989, Meisel, 1994, Lanza, 1992, De Houwer, 1995, Köppe, 1996, Köppe, 1997, Genesee et al., 1995, Gawlitzek-Maiwald and Tracy, 1996, Bosch and Sebastián-Gallés, 2001, Lanvers, 2001) agree that children do have a

separate linguistic system for each language; and they can differentiate their two languages from an early age. The terms language separation and language differentiation here refer to different linguistic behaviours. According to Cantone (2007), the former means bilinguals' ability of using each language in separate interactions according to the relevant interlocutor and communicative situation; hence, it relates to their pragmatic competence. The latter expression is used to describe speakers' differentiation of the grammatical systems of both languages during the performance of CS. However, this term can also be used in the literature to describe speakers' ability to choose a language according to the demands of the speech situation (Genesee et al., 1995).

Those researchers who support the above view (e.g., Volterra and Taeschner, 1978, Redlinger and Park, 1980, McLaughlin, 1984, Arnberg, 1987, Leopold, 1948) criticized earlier assumptions, which postulate that the frequency of early CS in children is an evidence of their inability to differentiate and separate the two languages and therefore bilinguals start out with only one linguistic system, which develops gradually with time into two systems.

Researchers who argue for the one linguistic system, which came to be known as the 'unitary-system hypothesis', have focused on investigating separate linguistic aspects in their studies, such as lexicon, phonology, and morpho-syntax. Redlinger and Park (1980), for example, defend this hypothesis on the basis of the lexicon. They followed the language alternation patterns in the bilingual discourse of four one to two-year-old children over a period of several months. Data analysis shows that in the early developmental stages of language acquisition, the children use words from both of their languages in one construction. Overall, the mixing rates in the children's initial phase of language production decreased after a certain period during the data collection. The researchers argue that the children's high mixing rates measured during the earliest period reflect their inability to differentiate the two languages; while the lower mixing rates registered at a later stage imply that the children are in a gradual process of language differentiation.

Volterra & Taeschner (1978) examined the syntax and syntactic rules used by two Italian-German bilingual sisters, Lisa and Giulia, between the ages of 1; 5 to 3; 6 and 1; 2 to 2; 6 respectively. Based on the study's results, the researchers assume that the



subjects went through mainly three stages to acquire their languages: At the first stage, a child possesses one lexical system, which contains words from both languages. In the second stage, the child distinguishes the two separate lexical systems, but applies one syntactic rule with both systems. Lastly, at the third stage the process of bilingual learning finishes and the child can entirely separate his/her two linguistic codes.

The claims made in the studies mentioned above as well as other studies concerning the existence of the unitary system, were later found incorrect and ill-founded. A number of researchers, including Genesee (1989); De Houwer (1990); Paradise & Genesee (1997); and Meisel (2000), highlighted some methodological problems regarding the data collection in these studies, and pointed out that the evidence provided by the researchers was not convincing to support this hypothesis. Genesee (1989), for example, claims that most case studies which show a high amount of mixed utterances in children's speech did not establish the appropriate situation that accurately measured the children's ability or inability to separate their two languages. That is, most case studies seem to analyse children's speech in bilingual contexts which facilitate language mixing. Consequently, the high rate of the children's languages mixing in these studies might be due to the bilingual situation itself, therefore, cannot be taken as an evidence for the unitary system. Based on this observation, Genesee suggests that in order to confirm the unitary system hypothesis, it would be important to observe children in monolingual interactions of both languages as well as examine their speech during and without interaction.

The idea of establishing the proper context for collecting bilingual children's data has been the basis of Goodz (1989) and Lanza's (1992) studies, in which they observed children's use of their languages with each parent. The child observed by Lanza was aged 2:0 during the first observational session; while those who were examined by Goodz ranged in age from 1:2 to 2:4 at the start of data collection. In both studies, the researchers reported similar findings in terms of the very low rates of intra-utterance mixing with each parent and also the children's ability to use each language with the appropriate interlocutor.

With regard to the issue of when bilinguals are able to differentiate their two linguistic systems, several case studies in addition to Goodz (1989) and Lanza's (1992) (e.g., Vihman, 1985, Hoffmann, 2014) found evidence showing how children as young as

two years old are aware of the fact that they are surrounded by two different languages; and how they use the appropriate language with different people. This early manifestation of language awareness is also supported by Genesee (1989), Genesee et al. (1995) and Meisel (1989), who argue that children are able to differentiate their two languages from early on. In Genesee's et al. (1995) study, for example, the researchers examined the bilingual performance of five children from French-English bilingual families aged between 1;10 to 2;2. The researchers observed the children's bilingual behaviour when interacting with each parent separately and parents together in order to check whether the children were able to determine the appropriate language to use with the relevant interlocutor. The study's findings show that the children could differentiate their two languages when talking with their parents even when both parents were present. That is, even when the children were talking to the parents together, they used more of the mother's language (English) with their mothers and spoke more of the father's language (French) with their fathers. These results suggest that the very young bilingual children in the study were able to use their languages appropriately with each interlocutor, which, in turn, supports the 'dual language system hypothesis' in infant bilingualism (Genesee, 1989).

The findings of Genesee et al.'s (1995) study concerning the children's ability to adjust their language use according to the interlocutor's language are not the only example in the literature. Other studies conducted by other researchers, such as Vihman (1985), DeHouwer, (1990), Lanza (1992), Genesee et al. (1996), Nicoladis (1998), and Nicoladis & Secco (2000), show similar results.

Based on her data of a 2-year-old child, Vihman (1985) claims that early language differentiation in young children can be attributed to their developing pragmatic competence which organizes the child's speech at the very beginning. This claim, however, contrasts with Meisel's (1989) view that children can work out the syntactic differences between the two languages and the grammatical tasks from the very beginning, and even before the semantic and pragmatic strategies.

As for the early mixed lexicons found in studies that support the one system hypothesis, Quay's (1993) study revealed that lexical gaps in the child's vocabulary development are a main reason behind mixing lexicons before the age of 2. The researcher (1995: 370) explains that

Studies which interpret 'mixing' as showing a lack of language differentiation do not take into account the fact that bilingual children may lack the appropriate vocabulary and NOT have a choice in their language use.

Evidence from the studies of Genesee, Nicoladis, and Paradis (1995), Lanvers (2001), and Lanza (2004) support the above claim. In Genesee et al's. (1995) study cited above, the researchers found that the children tend to mix more when they use their less proficient than their more proficient language. This indicates that early CS can be the outcome of vocabulary gaps in the children's less developed language, so they switch to their other language in order to fill in these gaps with the required equivalent elements.

Meisel (2000) confirms that rather than a lack of differentiation between the two linguistic systems, factors such as the child's preference for one of the languages, the dominance of one language over the other, the existence of mixed utterances in the child's input, or a deficit in the child's pragmatic competence may be responsible for the occurrence of early CS in children. Therefore, it is necessary for a researcher to consider these issues when embarking on bilingual research. Meisel's claims were based on the findings of his study in which he examined word order and subject-verb agreement in the language performance of two French-German children from the ages 1;0 to 4;0. Data analysis revealed that the children under observation were able to use different word orders in both languages as soon as they began to produce multi-word utterances. Furthermore, they used verb inflection to encode grammatical person, number, and tense; which means that the two children develop the subject-verb agreement rules in the two languages from very early on. This, consequently, led to the eventual accurate differentiation between the two languages, which gives a strong support for the early differentiation hypothesis (Meisel, 2001). Meisel (1994, p. 414) further argues that the term mixing should be used "to refer to all instances where features of two languages are juxtaposed, within a clause or cross clause boundaries". If the mixing is "traced back to a failure in separating the two grammars" (i.e., the inability to use the appropriate language in the speech situation), Meisel suggests calling it fusion, and this should be distinguished from CS which he defines "as a specific skill of the bilingual's pragmatic competence".

Similar results to Meisel's were found in Dopke's (1998) study, in which she followed the word order in the language alternation in three bilingual German-English children,

aged between 2;0 and 5;0. She found that the children underwent a stage of overlap in structures in the two languages before they eventually differentiate and separate between them. The researcher suggested that “the partially overlapping structures in the input from German and English create structural saliencies for the child before they are functionally accessible. Functional identification eventually leads to structural separation” (1998:555). This means that the children under observation were capable of differentiating and separating between the two languages in the earliest stage of language acquisition through the salience of their linguistic features, i.e., the structural organization and the grammatical rules of each language. The children’s early acquisition of the grammatical rules, and then their use of them in language performance are a manifestation of underlying cognitive process employed by the children to differentiate and separate the two systems. This operation, in turn, reflects the children’s competence and reaffirms the relation between performance, competence, and cognitive development.

## ***2.8 Code Switching as a Rule-Governed Bilingual Behaviour: Attempts to Find Grammatical Rules for Code Switching:***

In the last few decades, several studies on adults’ CS have shown that CS is a controlled and systematic linguistic behaviour that occurs at specific boundaries in a sentence, something that requires a high level of linguistic competence. In the literature on CS, most researchers and linguists define CS as one of the following types (the examples provided in this section come from the data of the current study):

- Intersentential CS, where the integration of the two languages takes place between clauses or sentences such in (here and throughout, the switched elements are written in bold):

what’s the password? **ati-ha li**<sup>5</sup>.

give-it to me<sup>6</sup>

*what’s the password? give it to me*

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<sup>5</sup> Refer to section 4.5 for information about the transcription method used in this study.

<sup>6</sup> Here and throughout, an English translation is provided for all Arabic words in the examples taken from the current data, followed by a broad translation to portray the overall meaning of the utterance.

- Intrasentential CS, where the integration occurs in the same utterance or word, such as:
  - you always **turgd-y badry**  
                   sleep-you early  
*you always sleep early*
  - **il-game-a:t**  
   the-game-s  
*the games*
- Extrasentential (tag) switching, which involves the insertion of a tag (whether sentence-initial or sentence-final tags) in one language in an utterance that is completely in the other language, such as:
  - you are the only person who knows that ?! **min jidd-ik!?**  
   from serious-yours  
*you are the only person who knows that?! seriously?!*
  - oh no! **xarrabt-y kul ha:ja:**  
                   ruined-you everything!  
*oh no! you ruined everything!*

Because the grammatical dimension of CS primarily describes the linguistic relations below the sentence/clause level, intrasentential CS has been the main focus in the research on grammatical aspects of CS. Therefore, from the linguistic approach to CS, the issue of bilingual performance that is related to speakers' linguistic competence has been investigated in terms of speakers' ability to code switch in ways that retain the grammatical rules of both languages in the same utterance. In light of this, the search for syntactic and morphosyntactic constraints predicting the points in a sentence/utterance at which switches may and may not occur has occupied research for a long time. Various models of constraints to uncover the regularities underlying the production of CS have been proposed in many studies (e.g., Pfaff, 1979, Poplack 1979, Bentahila and Davies, 1983, Belazi et al., 1994, Di Sciullo et al., 1986, Myers-Scotton, 1997, Nishimura, 1997). Although researchers in this field of CS research seek to develop universal rules that account for all instances of CS in any language pairs, none of the theories have so far achieved this aim since counter examples are encountered in various language pairs, as will be seen in this section.

According to Muysken (2000: 3) the dominant models and approaches that have been proposed and formulated are based on three overlapping processes in intrasentential CS which are as follows (a brief overview of the models and approaches will be presented after discussing the processes):

- **Insertion** (associated with Myers-Scotton 1993b, 2002) of materials (lexical or entire constituents). Here the process of CS is seen as the insertion of lexical elements or phrasal categories from one language into a structure from the other language (the base or matrix language). Thus, the phrase structure and type of inserted constituents are determined by the matrix language. Consider the following example taken from the current study:

- That's why it's **ša'ba** to complete  
hard  
*That's why it is hard to complete.*

- **Alternation** (associated with Poplack 1980) between structures from languages. This approach is concerned with constituent-sized (phrases, clauses, etc.) switches that occur at points where there is compatibility or equivalence between the two grammars. The following example is found in the current data:

- la:ken hu:wa da:r-ha: **by accident**  
but he did-it  
*but he did it by accident.*

- **Congruent lexicalization** which refers to situations where the two languages share a grammatical structure (either fully or partially to a high degree) that can be filled with vocabulary from either language. Consequently, it should be found in studies of typologically similar languages. Consider the following example, involving English and Dutch languages, which basically share similar grammatical structures:

- Weet jij [waar] Jenny is?  
*Do you know where Jenny is?*  
(Crama and van Gelderen, 1984, cited in Muysken, 2000: 5)

Muysken states that the word *where* is close to Dutch *waar* when pronounced by bilinguals, and the name *Jenny* is shared by the two languages. Consequently, the structure *where Jenny is* could be both English and Dutch.

Generally speaking, the linguistic models driving these constraints suggested in the literature of CS can be characterised as descriptive or theoretical (MacSwan 2004). The

descriptive models (Timm 1975, Pfaff 1979) focus on surface-level description of CS in terms of observing the sites where CS could occur, in addition to highlighting well-formed and ill-formed bilingual constructions. The descriptive models are, therefore, primarily concerned with showing that CS is rule-governed and predictable; consequently, they laid the foundation for linguistic analysis to look for constraints on CS (Macswan 2004). The theoretical models, on the other hand, attempt to explain CS structure in terms of linguistic theory which capture rules underlying its production (*ibid*).

The following section will present a brief overview of the most prevalent models in the study of the structural dimension of CS including a discussion about their limitations and criticism.

- ***Linguistic models of CS:***

CS linguistic structure is generally studied from three major viewpoints: variationist, generativist, and production approaches (Gardner-Chloros 2009). The variationist approach (e.g., Pfaff 1979, Poplack 1980, and Sankoff and Poplack 1981) is based on the frequency of different structures of CS contained in a sample of spontaneous speech. The variationist approach does not propose a theory of CS grammar, but it presents descriptive statements about the kinds of switching permitted in an utterance. For example, a switch is not expected between bound morphemes and lexical forms (the free morpheme constraints). The generativist approach attempts to examine constraints in terms of the syntactic theory of Government, which proposes that a switch cannot occur between a governor and governed constituents (e.g., Di Sciullo et al. 1986) or in terms of the Minimalist approach, which argues for a constraint-free program for analyzing CS (e.g., MacSwan 1999, 2000). Finally, the production approach (Myers-Scotton 1993, 2002) is based on sentence production theory as represented in the work of Levelt (1989) and others.

In the next sections, the following models that come under the above-mentioned approaches are chronologically presented, with reference to the criticism of each model:

- The constraints models:

- Descriptive constraint: Functional constraints, Structural constraints, Semantic constraints, Discourse constraints, Structural triggers, Mixing and language change (Pfaff 1979).
- Linguistic constraints: Equivalence constraint and Free morpheme constraints (Poplack (1978, 1980, 1988, 2001, Poplack and Sankoff, 1984), Government relation (Di Sciullo et al. 1986).
- Constraints-free models: the Minimalist approach (MacSwan 1999, 2000)
- Grammatical frame/insertion model: MLF and 4-M model (Myers-Scotton (1993, 1997, 1998a, 2002, Myers-Scotton and Jake, 2001).

➤ **Pfaff's model (variationist descriptive approach):**

Pfaff (1979) did not develop a theoretical model for CS, but she did specify certain constraints based on her data, in addition to possible social motivations to explain CS. Pfaff noted that most researchers who previously suggested syntactic constraints based their conclusion on very limited data. She (1979) addressed this concern by carrying out an analysis of CS produced by 200 Spanish-English speakers of different ages and social backgrounds. The participants were found to be competent in the syntactic rules of both languages, and their switches were deemed socially motivated. She rejected the need for a third grammar to account for the switched utterances, instead finding that intrasentential switched utterances abode by one of the following constraints:

1- Functional constraints:

This constraint concerns tense/aspect obligations of elements in the grammar of one language when they are not functional in the other. Examples are verb inflections and noun gender/number agreement. This constraint gives rise to two types of verb switches: morphologically adapted English verbs and unadapted English verbs. The former category usually occurs as simple inflected finite forms such as the following example taken from Pfaff's (1979) study:

- 1- Los hombres me trustearon  
*The men trusted me*

The latter category “occur after Spanish auxiliaries or complement-taking verbs which are inflected for tense, moods and subject agreement” (Pfaff 1979: 300). They occur as



participles (1) or infinitive complement (2) such as the following examples found in Pfaff's (1979) data:

(1) Estaba training para pelear (Spanish auxiliary + English participle)

*He was training to fight*

(2) No van a bring it up in the meeting (Spanish verb + English infinitive complement)

*They're not going to bring it up in the meeting*

In addition, gender/number agreement of adjectives with preceding nouns are not maintained in switches to English adjectives whereas they are maintained in switches to Spanish.

#### 2- Structural constraints:

CS is more likely to occur in sites where both languages share common surface structures. This is similar to Poplack's 'Equivalent Constraint' (see Poplack's model below).

#### 3- Semantic constraints:

This constraint addresses intrasentential switches that occur at a clause boundary, e.g., "We have it planned for October twenty-ninth **a las seis en el** Methodist Student Centre" (Pfaff 1979: 311). The constraint states that switches tend to happen before main verbs, nouns, or adjectives.

#### 4- Discourse constraints:

Switches which violate the above constraint are associated with discourse and social factors. Pfaff (*ibid*) gives the following example, which includes a switch of a NP including determiner and a noun when first mentioned:

"Va a hablar el de writing style and technique **y los que están interesados en **this workshop****"

*You will talk about writing style and technique and those who are interested in this workshop*

Structurally, the Spanish *están interesados + en* was produced as a calque *be interested in* rather than the standard Spanish reflexive *interesarse en*. She explains the violation of the Spanish structure in the light of the social setting which requires the use of Spanish while the formal and semi-formal discussion demands English.

#### 5- Structural triggers:

Some longer switches tend to occur where there is structural conflict between the two languages. This results in switches initiated in advance of the head lexical element or continue past the head element.

#### 6- Mixing and language change:

Language contact and mixing can result in language change. Pfaff found that CS in her data differs from linguistically changed forms when the mixing leads to only the loss of gender and number inflections. She concludes that no new separate grammatical system is created in her data since structural conflict between the two languages were avoided by the speakers, with the only exception of non-causative *hacer* + infinitive (to do + stem English verb) construction that represents extension of grammar. Therefore, she argues that CS does not represent language change since the speakers are competent in both languages and that “only in the case of verb + particle structures ...may ... prove to be the starting point for more significant convergence” (1979: 315).

Pfaff does not provide any explanatory model for these constraints in terms of linguistic theory. Consequently, her constraints are language specific. For example, the structural constraint predicts that CS would not occur at sites of word order clash. However, a number of early and recent studies (e.g., Al-Khatib 2003, Alhazmi 2015) have demonstrated that CS is possible at various syntactic positions despite the typological differences between the two languages. Nevertheless, it can be said that Pfaff’s model may only be generalised if found to apply to lots of other different language combinations.

#### ➤ **Poplack’s model (variationist theoretical approach): Equivalence constraint and Free morpheme constraint:**

Poplack (1978, 1980, 1988, 2001, Poplack and Sankoff, 1984) argued that CS is a representation of bilingual linguistic competence if certain conditions related to the sites where a switching takes place are met. Poplack (1980) examined a large number of switchings found in her data collected from English-Spanish bilinguals and found that CS mostly occurs when there is an equivalence in the word order of the constituents in both languages.

In an attempt to frame CS from a linguistic competence perspective, Poplack (1980) proposes a syntax theory that includes universal rules for producing code switched utterances. Using data from her research on Spanish and English bilinguals from Puerto-Rican communities in the United States, she formulated two syntactic constraints for possible switchings, which she defended as being universally applicable. These constraints are as follows:

- (a) the *Equivalence Constraint* (EC): this is based on the linear word order of the two languages. It requires that the juxtaposition of the constituents of the two languages does not violate the syntactic rule of either language, i.e., CS must occur only where the surface structures of the two languages are parallel and map onto each other.

The EC, therefore, predicts that CS is only possible when the structures of the two languages are equivalent and the switch does not violate the syntactic rule of either language, otherwise no switching is allowed. Consider the following examples from Gringas 1974 (cited in Poplack 1980: 587):

- 1- **El man que came ayer** wants John **comprar** a car **nuevo**  
*The man who came yesterday wants John to buy a car new*
- 2- Tell Larry **que se calle la boca**  
*Tell Larry that himself to shut his mouth*

According to Poplack, both examples violate the EC. In the first example, although the first constituent was generated by rules that are shared by both languages, the second was not because it applies an English infinitive complementizer rule to the verb complement which is not possible in Spanish, hence, ungrammatical by Spanish standards. The same is true for the first example, whose verb requires an infinitive complementizer to the verb phrase complement.

In addition, English and Spanish have non-equivalent rules for adjective positions. In English, attributive adjectives are always pre-nominal, while in Spanish they either follow or precede the noun. So, the noun phrase construction in the first example is unacceptable according to the EC.

- (b) The *Free Morpheme Constraint* (FMC): a switch may occur at any point except between a bound morpheme and a lexical form, and if it does take place, a

phonological integration of the two morphemes is required to admit a permissible switch.

Poplack (1980: 586) presents the following example where the Spanish bound morpheme *-iendo* (-ing) is affixed to the English root *eat* which she considered as ill-formed:

- Juan esta **eatiendo**  
*John is eating*

Despite the important role which Poplack's framework has in studying CS, there is still no agreement among researchers regarding its universality. Many researchers have presented counterexamples against both constraints and some studies supported one constraint but not the other refuting the validity and universality of Poplack's model (e.g., Bentahila and Davies, 1983, Myers-Scotton, 1993, Nishimura, 1997, Jake et al., 2002, Chan, 2003, Macswan, 2004, Redouane, 2005). For example, Redouane (2005), in her study on French-Arabic CS, found a considerable number of switches that occurred where the surface structure of both languages is not equivalent. In addition, the researcher reported a number of examples where the FMC was violated.

Poplack's framework, seems to be adequately applied in interpreting CS between typologically similar languages such as Spanish and English (Halmari 1997). In the case of the alternation within typologically distinct languages such as English and Arabic, its principles need to be modified or re-evaluated to account for the grammatical differences between the two languages, for example, the differences between the definite articles which are free morphemes in English but a bound morpheme in Arabic. Several examples from the current data were found to violate the FMC such as the following:

- **il-game-a:t**  
the game-s  
*the games*

In the example above, the switch occurred between the Arabic bound morphemes (Il-, -at) and the English word (game).

The Phonological integratability, as suggested by Poplack as a prerequisite for the permissibility of CS between a stem and an affix was not a decisive factor in the current

study, since this was less likely to happen given that Arabic and English are phonologically distinct. However, it would be possible to integrate within a word by applying either Arabic or English phonology across the word, but in the case of the current data this integration did not happen. In addition, in terms of word order, Arabic can be primarily classified as a VSO language and sometimes allows for SVO, English, on the other hand, is labelled as an SVO language. This, however, would lead to a recurrent violation to the EC. Note also the following counter-examples from the current data:

1- il house il jadi:d  
 the the new  
*the new house*

2- but GTA **fi:ha:** violence **o** bad stuff **halba**  
 in it and lots of  
*but there are lots of violence and bad stuff in GTA (a name of a video game)*

The utterances in both examples follow the Arabic syntactic word order. Example (1) reflects the grammatical rules of Arabic adjectives, which are always postnominal, so it conflicts with the rules of English. In example (2), the Arabic lexical insertions came at sites that obey the Arabic syntactic structure but affect the English one. The EC predicts that there could be no switch in these two cases, hence, makes the wrong prediction for Arabic-English code-switched speech.

➤ **Di Sciullo et al's Government relation theory (generativist theoretical model):**

Based on data from CS between Hindi/English, French/English, and Spanish/English, Di Sciullo et al. (1986) proposed this theory in which they suggest that the unit of analysis is the structural *dependency* rather than equivalence. In their study, they found that CS is possible between verbs and subjects but not between verbs and objects, because a verb governs the object. On light of this, they postulate that “switching is possible only between elements not related to government (for example V governs O and P governs the NP in a PP) (Clyne 2003: 85). They argue that switching should not occur within a maximal projection such as a verb phrase or a noun phrase. The researchers also point out that the Government constraint is not the only constraint that restricts CS, since there are other additional language-specific constraints, but it is the only universally applicable one.

The Government Constraint is more flexible than Poplack's EC, because it depends on the hierarchical structure rather than the linear structure; and it therefore can account for CS within a wider range of languages. However, this model still has its limitations since counter-examples appeared in several studies which means that it cannot be applied universally. Romaine (1989: 130), for example, provides the following example from Punjabi-English, showing a switch within the prepositional phrase which is not allowed according to the government theory.

- Family **de nal**  
*In the family*

Clyne (2000: 276) also presents counter-examples from German-English CS focusing on the prepositional phrases roles:

- Sie nehmen Geld für **the missions**  
*The take money for the missions*

The following example is from the current data which again provides a counter argument against the Government Constraint:

- I played this **li`ba**  
                                  game  
*I played this game*

In this example, there is a switch within the noun phrase - between the noun and the demonstrative pronoun, which should be in the same language according to the Government Constraint principle.

Another example from the current data which is an instance of an Arabic governing verb followed by an English object:

- ja:b-u: il **stuff** kullah  
          brought-they the all  
*They brought all the stuff*

All the numerous examples found in different language combination corpuses that contradict the predictions of the Government constraint cast doubt about the claimed universal applicability of this constraint. Consequently, this constraint was not considered when analysing the current data.

➤ **MacSwan’s Minimalist model approach:**

According to Chomsky (1995: 167), “The theory of a particular language is its *grammar*. The theory of languages and the expressions they generate is Universal Grammar (UG)”. In Chomsky’s UG theory, all languages are subjected to one set of fixed principles. Based on this idea, MacSwan (1999, 2004) proposed the Minimalist Approach which views that an assumed third grammar which is made of rules that constrain CS is not necessary, and that CS should have as minimal a set of rules as possible. MacSwan (2004: 298) argues that just like any monolingual grammar, “... all the facts of code switching may be explained just in terms of principles and requirements of the specific grammars used in each utterance”. In light of this, MacSwan rejects the need for any rules suggested specifically for CS on the grounds that they are complex and only explain one type of speech behaviour (CS). He (1999: 146) also argues that “Nothing constrains code switching apart from the requirements of the mixed grammars”. This means that code switched utterances are acceptable only if they meet the conditions of the two grammars involved. However, since a speaker must abide by both grammars, what would happen when the two languages involved have contrasting requirements? MacSwan (1999) illustrates that in the classical view of the Government theory, stating that CS should not be possible given the parametric differences between languages, thus, “it is very difficult to know how a *conflict in language-specific requirements* should be understood (2014: 147)”. In order to explain this issue and the possibility of CS, MacSwan supposes that the parametric variations are part of the lexicon which the *Computational System* utilizes to construct larger structures. Given that CS is a mix between two languages, then it is assumed that two lexicons will interact with the same invariant *Computational System*. Each one of the lexical items introduces language-specific features into derivation and these features must be checked there. When the features mismatch, or if the uninterpretable features cannot be checked, the derivation will crash. MacSwan (2014: 148) concludes that “in the minimalist program, a *conflict in language-specific requirements* is just a conflict involving lexical features”. Thus, within this model, the *select* operation<sup>7</sup> becomes

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<sup>7</sup> According to MacSwan (2014: 67), the *Select* operation “picks lexical items from the lexicon and introduces them into the numeration, an assembled subset of the lexicon used to construct a derivation”

important in CS; and the successful use of this operation is responsible for the well-formed switched utterances.

MacSwan further argues that phonological systems cannot be mixed because phonetic forms rules vary cross-linguistically and have different orders /rankings with respect to one another, and these orders also vary cross-linguistically. For this reason, CS at phonetic forms produces “unpronounceable” elements which violate full interpretation. Myers-Scotton (2002) states that this argument disallows any intra-word switches.

Pinker and Jackendoff (2005) were among the proponents of the Minimalist approach. However, they pointed out that Chomsky himself admits that many language phenomena appear to refute it. They list eight main linguistic areas which the Minimalist program ignores, including phonology, derivational morphology, inflectional morphology, phrase and word order, concluding that “...Minimalist syntax is far from minimalist (2005: 221)”.

MacSwan also admits that the Minimalist theory still requires much work to be used as a powerful explanatory tool for CS. He (2004: 308) points out that

rather than continuing to propose broad and sweeping constraints on code switching, the field should embark upon a program of research which evaluates precisely formulated proposals and hypotheses in terms of well-known categories and independently motivated principles of linguistic theory.

Jake and Myers-Scotton (2005) also criticised this approach suggesting that in any given bilingual string, one of the participating languages (the matrix language) will always provide the structural frame (this is discussed in more detail in the section below), and this is refuted in the Minimalist Program in preference for a non-constraints approach. In addition, Myers-Scotton (2002) points out that this approach is based largely on phrasal switches and rules out singly occurring lexemes. She (2002: 159) states that:

Like most minimalist approaches, his (MacSwan) rules out singly occurring lexemes as code switching (from the Embedded Language under the MLF model). He does this in



two ways. First, any Embedded Language form that is inflected with Matrix language morphemes is simply considered a borrowing. Second, any Embedded language form without Matrix Language inflections is a borrowing if its grammatical features ... differ from those of the monolingual frame of the other language.

This then would explain why singly occurring and intro-morphemic switches cannot be fully explained under the Minimalist Program. Thus, this approach does not account for the wealth of the current data which contains many examples of singly occurring forms as well as English affixes to Libyan Arabic stems and vice versa.

➤ **Myers-Scotton's Framework: Matrix Language Frame (MLF) and the 4-M Model (production-based approach):**

Myers-Scotton's Matrix Language Frame (MLF) and the 4-M Model is one of the most influential works which account for intrasentential CS; and on close analysis, this model largely covers most data irrespective of language typology. Myers-Scotton's ([1993](#), [1997](#), [1998a](#), [2002](#), [Myers-Scotton and Jake, 2001](#)) investigated a large corpus of Swahili/English recorded conversations in Nairobi and proposed the Matrix Language Frame model (MLF). Myers-Scotton's model is an attempt to analyse intrasentential CS in terms of speakers' compliance with the grammatical rules of both languages which reflects their abstract level of competence. Myers-Scotton based her model on psycholinguistic theories of language production, primarily on Levelt's model of speech production (1989), which describes the surface structure of an utterance and its underlying mental process. A brief explanation of language production theory becomes necessary to illustrate what it entails and how it relates to the MLF and 4-M model and CS.

In language production theory, each words' declarative knowledge is stored in speakers' mental lexicon. The mental lexicon contains the lemma information for each word, that is the knowledge about a word's meaning, syntax and morphology information which are necessary to construct the word and its syntactic position in an utterance/sentence. A lemma is defined as an abstract conceptual entry in speakers' mental lexicon which underlies surface structure of language production. For example, the lemma for the word *she* demands the use for a female and that any present-tense

main verb must be attached with the suffix -s, etc. Levelt (1989: 162) mentions that “It is in the lemmas of the mental lexicon that conceptual information is linked to grammatical function”. Thus, lemma activation of words in the mental lexicon plays a crucial role in language production since it mediates between conceptualization and speech formulation.

Although there is some disagreement about the nature of lemma in the bilingual mental lexicon, it is generally assumed that lemmas are language-specific for the lexicalization pattern which differ across languages. Therefore, according to this assumption, language-specific lemmas of the bilingual mental lexicon activate a language-specific process for speech production including CS, which may result from the unequal activation of language-specific lemmas.

Myers-Scotton grounded the MLF model based on the model of lemma activation in speech production. She argues that, in any interaction involving CS, there is always one language in the bilingual’s repertoire that has the dominant role in the production of the switched utterance. This language is termed as the Matrix Language (ML) from which the basic syntactic frame for specific units of discourse is provided. The other language involved in CS is the Embedded Language (EL), which has the secondary role of inserting linguistic elements in the ML template. Myers-Scotton ([2006, p. 243](#)) points out that the ML and EL differ in the level of activation during bilingual production “... both languages are always “on” when a speaker engages in code switching, although the Matrix Language is always more activated”. Consequently, the ML and EL do not participate equally in the switched utterance. According to Myers-Scotton (2002), in the MLF the unit of analysis should be the bilingual in/dependent clause and not the sentence, as a sentence may contain more than one clause. Myers-Scotton (2002) agrees with other researchers (e.g., Beardsmore, 1981, Grosjean, 1982, Stern, 1983) who argue that no bilingual has an equal proficiency in the two languages which s/he speaks. Therefore, she classified CS into two types according to speakers’ proficiency. She calls it *classic* CS if a speaker is fully proficient in at least one of the participating languages in order to make it the only source of the morphosyntactic structure of the bilingual utterance. Namely, if speakers make only one of the participating languages function as the ML of the mixed constituent. Thus, this type of CS links to speakers’ linguistic competence. On the other hand, when the two languages (or more) participate in

forming the morphosyntactic frame, it is called *composite* CS. Myers-Scotton (2002) provided an example to such type of CS in which a bilingual Spanish-English child from Colombia living in the USA used the English pattern *apple juice* instead of the Spanish pattern *juice of apple*:

Mami, yo quiero manzana jugo  
“Mommy, I want apple juice.”

Another important distinction is made in this framework between two types of morphemes: *content morphemes*, which assign or receive thematic roles, such as verbs, adjectives, nouns, and most prepositions; and *system morphemes*, which do not perform any of these functions and include most function words and inflections (e.g., determiners, conjunctions, quantifiers). The MLF model uses the term morpheme to refer to the “abstract entries in the mental lexicon that underlies surface realizations and to the surface realizations themselves” (Myers-Scotton & Jake, 2009: 341).

Following the distinction between the two types of morphemes, Myers-Scotton (2002) further modified the MLF model by dividing the system morphemes into two subcategories, hence, there are four morpheme types in this model (4-M) (i.e., content morphemes, system morphemes and the two subcategories below):

- Early morphemes, which depend on the head of the content morpheme for information about their forms (e.g. determiners, plurals-s)
- Late morphemes, which are categorised as two: bridges or outsiders.
  - Bridges, which link content morphemes to form larger well-formed utterances such as the possessive *of* and *-s*. So, for information about their grammatical forms, they depend on information from their maximal projection.
  - Outsiders in which the grammatical information is embedded. So, the form of these morphemes depends on information from outside their immediate environment (e.g. subject-verb agreement, where the subject provides the information about the form of the verbal affix) as opposed to the bridges.

All the above morphemes, including the content morphemes, are basically classified according to, firstly, their status in terms of conceptual activations and, secondly, with

respect to how they participate in producing larger constituents. The term ‘conceptually activated’ here means that these morphemes are “activated in the interface between pre-linguistic ideas or concepts and language-specific lemmas of the mental lexicon”(Myers-Scotton, 2005, p. 20). Figure 2 below shows the classification of morphemes according to this model.

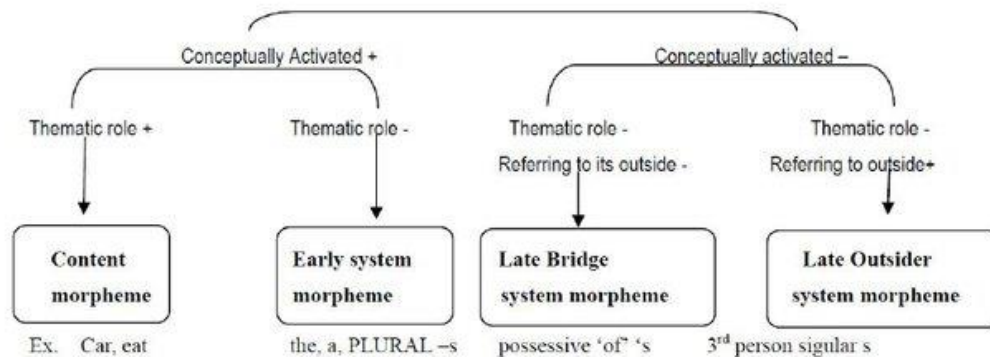


Figure 2: Morpheme Classification (Myers-Scotton 2002:73)

According to the MLF model, content and early system morphemes are conceptually activated, but differ in the thematic role assignment features. On the other hand, bridges and outsider system morphemes are not conceptually activated because in the process of producing mixed constituents, their forms are selected later at the functional level rather than the lemma level as it is the case with the content and early morphemes (Amuzu and Singler, 2014). In addition, neither of them has thematic roles; and for information about their forms, the former morphemes (bridges) do not refer to material outside the phrase while the latter does.

Table 2 below shows the classification and definitions of the system morphemes as laid out by Myers-Scotton and Jake, and how they are defined in Arabic according to the 4-M model (Bassiouny 2009) :

Morpheme category	Myers-Scotton and Jake's definition	Examples of system morphemes in MSA (Bassiouney 2009)	Examples from the current data
Early system morphemes	“depend on content morphemes for their form and cannot appear on their own.” (2009: 213). Ex. plural <i>-s</i> , determiners and some prepositions,	1- gender markers. 2- dual and plural markers. 3- determiner. 4- demonstrative pronouns. Refer to section (2.11) for information about these categories.	1- ‘-ha:’ in fi: <b>ha:</b> ( <i>in it</i> (female)) 2- ‘mda ʒma:h- <b>em</b> ( <i>it has two wings</i> ) 3- <b>il</b> game ( <i>the game</i> ). 4- il li’ba <b>ha:thy</b> ( <i>this game</i> ).
Late system morphemes (bridges)	are “elements that make up larger constituents ... For information about their form ... bridges depend on information within their maximal projection” (2009 345). Ex. possessive markers <i>of -s</i> .	1- possession. 2- relative pronouns	1- imta’ 1- illi (which, who)
Late system morphemes (outsiders)	“depend on grammatical information outside of their own maximal projection.” (2000: 100). Ex. 2rd person singular <i>-s</i> .	all affixes that are attached to the root of verbs which display number and gender.  Refer to section (2.11) for information about these categories	1- ‘-an’ in ‘yiherb- <b>an</b> ’ (they (female) run away)

Table 2: Classification and definitions of different types of morphemes according to the MLF and 4-M model, as well as examples from MSA and the current data.

For the analysis of CS in terms of speakers’ linguistic competence, the MLF and 4-M model presents the following fundamental principles:

- 1- *The morpheme word order.* This principle prescribes that in mixed Matrix and Embedded constituents the morphosyntactic frame comes from the ML.
- 2- *The system morpheme.* Given the distinction that MLF and 4-M makes between content morphemes and system morphemes, this principle requires that only the ML should provide the late system morphemes, while the other morphemes may come from the EL.

The EL morphemes can be inserted in the ML as different types. One type can be singly occurring word insertions, whose presence in an ML constituent forms a mixed constituent of ML and EL, as in the example below, in which the English verb *comment* is used in a Sawahili verbal frame and is attached with the Swahili system morphemes *si-ku*.

Hata            si-ku –            **comment**  
 Even        I. NEG- NEG.PST-**comment**  
*I didn't even comment* (Myers-Scotton, 2002: 89)

The other types of EL morphemes insertions can be as a form of either *EL islands* or *bare forms*. The *EL islands* are well-formed phrases of EL that occur within the larger ML framed bilingual clauses. These islands show structural dependency relationships, i.e., although they follow the EL word order and have their own system and content morphemes, they basically follow the ML placement rules within the large bilingual clause. In the example below, the English phrase “cute puppy” acts as the EL island in a French ML:

dans ma chamber il y a un petit **cute puppy**.  
 In my room there is a little cute puppy.  
*in my room there is a little cute puppy* (Abugharsa, 2013, p. 233).

On the other hand, *bare forms* are content morphemes belonging to the EL but they are not attached to the ML morphemes, i.e., they do not receive any inflections or function words from the ML; therefore, they are considered ill-formed constituents. In the following example, which came from a Ukrainian-English bilingual speaker, the EL English morpheme complement *friend of mav* is a bare form since it was used without the ML (Ukrainian) plural inflection, which would make it well formed:

...vin ne mav **friend**  
 ... he not had friend  
*He didn't have any friends* (Budzhak-John & Poplack 1997, p.233)

Myers-Scotton’s MLF model constitutes an important step forward in CS research, which deals with CS from an insertional approach rather than a linear word order one such as the case with Poplack’s framework. This characteristic makes the model more applicable for analysing CS data within a wide variety of typologically different language pairs such as Arabic and English. However, in spite of its influential role in analysing CS, this model has been challenged by a number of authors (e.g., Callahan,

2002, Gardner-Chloros and Edwards, 2004, MacSwan, 2005, Zabrodskaia, 2009), who provided counterexamples from their data. For example, Zabrodskaia (2009) found that the ML in her Russian-Estonian CS data cannot be determined by only analysing the morphosyntactic level of the switched utterances. Therefore, she suggested that the phonological integration degree of the switched utterances should also be considered in the analysis.

Nevertheless, since Myers-Scotton's model implies the idea that the ML and EL opposition as well as the content and system morphemes are universal aspects underlying language production, it can account for a wider range of data including those which are generated from typologically different languages. Therefore, Myers-Scotton's model is seen as the most relevant framework for analysing the data of the current study.

Another important contribution which Myers-Scotton (1993) added to the ongoing research on CS is her Markedness Model (MM) (1993, 1998a, 2002, Myers-Scotton and Bolonyai, 2001). This model attempts to account for the "arbitrariness" of CS by relating it to the sociopragmatic and discourse-related domains which are said to be the main motivations behind its use. This fact is supported by Gafaranga (2005, p. 282), who stated that the social structure is often invoked in research "[i]n order to account for the orderliness of language alternation, i.e., its structure... Language choice acts are said to 'index', to reflect, aspects of the social structure such as ethnicity, rights and obligations". (a full discussion of the MM will follow in the section 3.11)

As an important step towards the application of MLF and 4-M model on the current data, the main differences between lexical borrowing and CS will be discussed below, since these two linguistic phenomena result from language contact and have linguistic similarities in some ways. Such distinction will assist in clarifying the rationale for treating both phenomena in the same manner under the MLF and 4-M in the analysis.

## **2.9 General Distinction Between Code Switching and Borrowing:**

The distinction between lexical borrowing and CS for single words has been a controversial subject in the literature of bilingualism<sup>8</sup>. Lexical borrowing as defined by

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<sup>8</sup> See, for example, Romaine (1989:131-147) or Myers-Scotton (1990)

Milroy and Muysken (1995, p. 263) is “taking a word or short expression from the other language and (usually phonologically or morphologically) adapting it to the base-language”. Poplack and her associates (2001) have claimed that CS and borrowing differ in two key ways. Firstly, established loanwords are morphologically, syntactically, and usually phonologically integratable into the recipient language. Secondly, they tend to be recurrent and widespread across the community and they usually become established in the recipient language system hence available to monolingual speakers as well. Loanwords, as described above, have been distinguished from what Poplack et al. (1988) and others have called “nonce borrowings”, after Weinreich (1953). According to Poplack (2001), although “nonce borrowings” are fully integratable into the recipient language, they do not necessarily have the loanwords’ characteristics of recurrence and diffusion in the speech community. In addition, they require a certain level of proficiency in both languages. The distinction between what constitutes a single-word CS and a nonce borrowing, however, is still a field of debate. Poplack (2001, p. 2063) admits that

distinguishing nonce borrowings from single-word CS (code switching) is conceptually easy but methodologically difficult, especially when they surface bare, giving no apparent indication of language membership.

Myers-Scotton (2006) argues against the phonological integration criterion, which Poplack and her associates (Sankoff et al., 1990, Budzhak-Jones and Poplack, 1997, Budzhak-Jones, 1998, Eze, 1998) have proposed, claiming that there are many loan words that are partially integrated and others do not show any integration at all. She explained that some users of loan words may try to sound like they speak the donor language by approximating the pronunciation of that language. This, according to Myers-Scotton, links to the prestigious and attractive character of the donor language which leads some speakers to say the loan word with its original pronunciation. For example, in the Arab world we may find some speakers who know some English succeed in using the English pronunciation for the word *doughnut*, while others adapt the word to the Arabic sound system and pronounce it as /dʊnʌt/. Consequently, Myers-Scotton did not look at the structural characteristics and, instead, she proposed frequency as the defining criterion to distinguish borrowing from CS. Borrowed forms, therefore, should be distinguishable by their individual frequencies. Myers-Scotton (1990, p. 103) suggests that:



The frequency of borrowed lexical items, for example, will be greater than that of switched items because borrowed items belong to a specifiable set from the embedded language, which speakers know in some abstract sense as part of matrix language competence. Therefore, borrowings are available to many (or all) speakers in a way switches are not.

Myers-Scotton ([1993](#)) points out that CS and borrowing undergo similar morphosyntactic procedures during speech production, hence, both borrowed and CS words behave the same way in the ML morphosyntactic frame (i.e., both follow the ML word order and receive its inflections and function words). Thus, Myers-Scotton argues that there is no need to distinguish between the two linguistic phenomena within the MLF and 4-M model and they should be treated in the same manner. Nevertheless, even though she does not distinguish the two processes, she admits that the forms may have different entries in the speaker's mental lexicon.

Borrowing forms and CS forms differ in their status in relation to the ML mental lexicon, Borrowing forms are entered in this lexicon, but code-switching forms are not. Support for this hypothesis comes from the empirical evidence that there is a difference in the frequency of embedded language origin material in CS utterances. In this effect, this hypothesis is another way of stating borrowing forms have a new status as matrix language forms ([1993, p. 206](#)).

Before concluding this chapter and since data on Arabic and English language alternation in bilinguals' performance is the main concern of this study, it will be useful to familiarize the non-Arabic readers with some feature of the Arabic language. The following sections, therefore, discuss some of the main general linguistic aspects of Arabic.

### ***2.10 A General Background about Arabic and the Libyan Arabic Variety (LA):***

Arabic is a Semitic language which is a branch of a group of family languages known as Afro-Asiatic (Ryding, 2005, Aoun et al., 2009). Today, Arabic is the native language of over 200 million people in twenty Middle-Eastern and African countries, and the religious language of over a billion Muslims around the world (Ryding, 2005). Arabic has distinct varieties that differ in terms of functional and linguistic aspects: a formal variety which is found in Classical and Modern Standard Arabic (MSA), and informal

variety which signifies all the Arabic spoken dialects that are used in everyday speech and informal communication. The Classical Arabic is the variety that was spoken by Arabs in the pre-Islamic era which is defined as the time of Jahilliyah in the period of 450 – 610 A.D (AL-Hashem et al. 1992 cited in Al-Khatib, 2003a). In addition, it is the variety that is used in the holy Qur'an and, therefore, shared by all Muslims all over the world. Standard Arabic, on the other hand, is a simplified and modern version of Classic Arabic. In the Arab countries, the Classic and Standard Arabic are considered to be very prestigious and high in status as opposed to informal varieties which are treated as having a low status. Therefore, at the functional level, the former varieties are used in formal written and spoken occasions and situations such as in political speeches, news bulletins, and education with the only difference that Classic Arabic is more limited to specific educational subjects such as classical literature and religious studies. The latter varieties (the dialects), on the other hand, are used informally in everyday communication.

Like many languages, the Arabic dialects are considered the mother tongue of their speakers because dialect is the first language that is acquired by individuals at home through exposure from parents or other people living with them. Although all the Arabic dialects come from the same roots as MSA and share a wide range of linguistic features, they show significant dissimilarities in a number of ways, especially in vocabulary and phonology. Mitchell and El-Hassan (1994, p. 2) observed that “[r]egional differences are lexical (and phonological) before they are grammatical.” Likewise, Libyan Arabic (LA) exhibits several features in phonology and lexicons, which set it apart from MSA and other Arabic dialects. In addition, within Libya, there are three major dialects spoken in three different regions which divide the country geographically into three main parts. These regions and dialects are as follows:

- Tripolitania, which includes the capital city of Libya, Tripoli, in the northwest of the country and uses Tripoli dialect.
- Fezzan, which occupies the south western area of the country and uses Fezzan dialect.
- Cyrenaica, which represents the north east and south east of Libya and uses Benghazi dialect.

Tripoli and Fezzan dialects belong to Maghribi groups hence they are more akin to each other than to Benghazi dialect, which resembles that of Egyptian Arabic (Mazraani,

2013). Because of this linguistic diversity in the Libyan dialects, there is no wonder that they differ considerably in some lexicon and phonology. As an example of the phonological variation is the sound /ð/ (equivalent to the English sound /ð /) which is realised as /ð/ in Benghazi dialect and /d/ in Tripoli and Fezzan dialects. However, despite the clear variation between the Libyan dialects, they are mutually intelligible all over the country. Here, it should be mentioned that the above three regions and dialects did not affect the selection of the participants in the current study; nor did the question of whether the mother or father came from different locations and speak different dialects at home with the children. The participants were chosen randomly from different regions in Libya hence, each participant spoke one of the above dialects as his/her mother tongue and understood other dialects spoken around him/her.

The next section provides relevant background information on the main grammatical features of LA which are expected to be found in the participants' Arabic utterances, based on the developmental stages and rates of acquisition of Arabic that were found in the literature. (see section 2.3).

### ***2.11 Main Grammatical Features in LA:***

For the purpose of examining the participants' linguistic competence in Arabic, key grammatical structures representing successful language acquisition are described below.

#### ***2.11.1 Grammatical Gender:***

Similar to MSA, LA has a two-gender system for all its nouns, they are either masculine or feminine depending on natural gender and whether they refer to animate or inanimate. For animate nouns, the grammatical genders coincide with their natural genders whereas all inanimate plural nouns are grammatically treated as feminine. For inanimate objects, it is not difficult to distinguish between masculine and feminine nouns since there are specific grammatical markers which denote each gender. That is, apart from some exceptions, all nouns that end with the suffix 'a' (/a/) for singular (e.g., saija:ra (car) and faʒara (tree)) and 't' for plural (e.g., naba:ta:t (plants) and tʔa:wila:t (tables)) are feminine nouns; whereas most nouns which lack these grammatical markers are masculine. It is also noteworthy that masculinity in Arabic is considered

the default form of animate nouns from which feminine words are derived. That is, most masculine words can be changed into their feminine forms by adding the feminine markers.

LA demonstratives, verbs, and adjectives agree with genders and numbers. However, the dual form of all these categories is not usually used as is the case in MSA and is normally expressed by the plural markers. Table 3 below shows some illustrative examples:

Categories	LA	English translation
demonstratives	il-bentein <u>haḏein</u>	those two girls
verbs	il- ra3lein <u>ga:lu:</u>	the two men said
adjectives	al-ḥu3ratein was'a:t	the two rooms are spacious

Table 3: Examples for LA demonstratives, verbs, and adjectives' agreement with number and gender.

Moreover, in LA there are 10 forms of personal pronouns which have separate masculine and feminine forms, apart from the 1st person pronouns. These pronouns agree with nouns in singular and plural. Table 4 below shows these pronouns<sup>9</sup>:

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<sup>9</sup> Eastern LA pronunciation is used in this Table.

Personal pronoun		Singular	Plural
1st		ana:	neḥna:
2nd	masculine	enta:	entu:
	feminine	enti	entan
3rd	masculine	hu:wa:	hum
	feminine	hi:ja:	hen/henna

Table 4: LA personal pronouns.

According to Moawad (2006), the acquisition of grammatical gender is expected between the ages of 8 to 10 (see section 2.3).

### 2.11.2 Numbers in Arabic nouns:

All nouns in LA can be singular, dual, or plural. Children are expected to acquire the dual form between the ages of 8-10 (Moawad 2006), whereas the acquisition of the plural form would be as earlier as 3 years of age (Omar 1967, Saiegh-Haddad et al. (2012) (see section 2.3). The dual version of masculine nouns is formed by adding the suffix ‘ein’, whereas in dual feminine words, the final ‘ta marbu:tah’ (closed ta (ة)), which is a feminine grammatical marker that appears only at the end of nouns and adjectives and has an /a/ sound, is usually converted into the ‘ta maftu:hah’ (open ta (ت)) that has a /t/ sound before adding the above suffix. For example, the word وردة /warda/ (a flower) in LA becomes وردتين /wardtein/. As for plurals in LA, they are divided into three main categories:

- intact masculine plurals (zam' al-muḍakkār assa:lim), which are formed by adding ‘i:n’ to the singular word, such as the word ‘mudarras’ (a male teacher), which becomes ‘mudarresi:n’.

- intact feminine plurals (ʒam' al-mu'annaθ assa:lm), which are formed by replacing the final 'ta marbu:ta' (ة) with 'a:t', such as 'mudarresah' (a female teacher), which becomes 'mudarresa:t'.
- broken plural: (ʒam' al-taksi:r), which requires changing the singular form in a fundamental way, such as 'beit' (a house) which becomes 'buju:t'.

### 2.11.3 Demonstrative pronouns:

LA has a demonstrative pronoun system for proximal and distal referents with inflections for genders and numbers. In addition, the demonstrative pronouns in LA can be used before or after a noun. The following Table lists these pronouns as used in LA (eastern LA pronunciation) and their equivalents in English:

Number & Gender	This/ these	That/ those
	LA	LA
Masculine Singular	haða	haða:k
Masculine Dual	haðəum	haðəuk
Masculine Plural	hðəum	haðəuk
Feminine Singular	haði	haði:k
Feminine Dual	haðein	haðeiŋk
Feminine Plural	haðein	haðeiŋk

Table 5: LA demonstrative pronouns.

### 2.11.4 Inflection:

Words in LA consist of a sequence of consonant letters called roots. The roots are basically the stem of the verb from which all forms of verbs, nouns, and adjectives are derived. Most of the roots have three consonant letters while a few of them can have up to five consonants (Al-khatib 2003). Each set of LA roots can lead to a number of nouns and verbs when they are attached with specific vowels, prefixes and suffixes. The following example shows LA words that are formed by the three root consonants k, t, b; and how their meaning and grammatical categories differ according to the different affixes and vowels used with it<sup>10</sup>.

<sup>10</sup> Eastern Libyan pronunciation is used in all Tables in this chapter.

No.	LA word	Eng. Trans.	No.	LA word	Eng. Trans
1	ketab	he wrote	10	maktab	office
2	yekteb	he writes	11	maka:teb	offices
3	iktebat	she wrote	12	kutta:b	male wipers
4	tekteb	she writes	13	ka:tıba:t	female writers
5	ıketebäu	they wrote	14	kuteijəb	booklet
6	yeketbu:	they write	15	maktu:b	was written
7	ıkteb	write (imperative)	16	makteba	library
8	ıkta:b	book	17	ka:teb	writer
9	ıktaba:t	books	18	keti:ba	the act of writing

Table 6: The use of different suffixes with the root k, t, b.

### 2.11.5 Verbs:

Verbs in LA occur in two paradigms: perfective (i.e., past) and imperfective (i.e., progressive and habitual present, and future) which differ in their grammatical aspects by which they are realized on the verb. According to Basaffar & Safi's study, verb inflections appeared in children as young as two years old (see section 2.3). In most of the cases, the tense of any LA sentence can be recognized from the context in which it is said. This is contrary to tense in English which is determined from the structure of the sentence (Alesawe, 2015). For example, the Arabic sentence 'hu:wa: jagra' (he reads / he is reading) can be present simple or present continues, but the English sentence 'he is reading' and 'he reads' can only be interpreted as present continuous and present simple respectively.

In LA, verb tenses are formed in accordance with specific patterns including the addition of certain affixes which agree with the subjects' genders and numbers, apart from the dual form. The past tense is expressed with the roots of the verb with no added

tense marker, plus a suffix displaying the subject's number and gender. Table 7 below illustrates the use of these suffixes on the root 'ktb' (he wrote):

Person	Number (S/P)	Gender (M/F)	Affix	Verb+affix
First	S	F/M	-t	ketabt
	P	M/F	-na:	ketabna:
Second	S	M	-t	ketabt
	S	F	-tɪ	ketabtɪ
	P	F	-an	ketabtan
	P	M	-tu:	ketabtu:
Third	S	M	-	ketab
	S	F	-t	iktebat
	P	M	-u:	iktebəu
	P	F	-an	ikteban

Table 7: The use of suffixes with the root 'ktb'.

The progressive past tense in LA is formed with the verb ka:n (was) and ga'ad (stayed – this expression has no equivalent meaning in English past progressive), which change according to the number and gender of the subject, followed by the main verb in the present tense form attached with one of the suffixes in the Table above. So, in LA, speakers say kent nal'ab/ ga'dt nal'ab (I was playing), ka:nat tal'ab/ ga'adat tal'ab (she was playing), ka:nu: jal'abu:/ ga'ɪdu: jal'abu: (they (males) were playing) etc. It is noteworthy that the verb 'ka:n' is sometimes used to talk about habitual past, in this case it is considered to be a synonym of the English expression 'used to'.

In the habitual present tense in LA, the prefixes n, t, and y, which indicate the subjects' number and gender, are attached to the root of the verb. In the case of plural, there are additional suffixes added to the verb. Below is an example showing the use of these affixes according to different subjects and genders:



Person	Number (S/P)	Gender (M/F)	Affix	Verb+affix
First	S	F/M	n-	nekteb
	P	M/F	n- -u:	nektbu:
Second	S	M	t-	tekteb
	S	F	t-i	teketbɪ
	P	F	t-u:	teketbu:
	P	M	t-n	teketban
Third	S	M	j-	jekteb
	S	F	t-	tekteb
	P	M	j-u:	jeketbu:
	P	F	j-ən	jeketban

Table 8: The use of affixes in LA habitual present tense.

As for the progressive aspect of present verbs in LA, this tense is usually realized by the above present tense affixes plus the morpheme ‘ga:'id’ (stay) which again changes according to the number and gender of the subject. For example: ga:'id na:kel (I'm eating), ga:'da ta:kel (she is eating), ga:'id ja:kel (he is eating) ga:'di:n ja:klu: (they (males) are eating), and ga:'da:t ja:kla:n (they (female) are eating).

With regard to the future tense in LA, it is generally expressed through the use of the following future markers: firstly, the word ‘tauwa:’<sup>11</sup> meaning ‘now’ or ‘immediately’ and the prefix sa - (in eastern LA) or ha -, which is attached to the verb in its present tense. These two future markers are equivalent to the English auxiliary ‘will’ which denotes a near future as in example (1) below which is found in the data. Secondly, the verb ‘jibbi:’<sup>12</sup> (in eastern LA) meaning ‘want’ followed by the semantically main verb in the present tense and inflected for number and gender; and the prefix ɪb- (in western LA) which is attached to the present tense conjugation. The use of these future markers is equivalent to the use of ‘going to’ in English which expresses an intentional and further future action as in example (2):

<sup>11</sup> Depending on the context of the discourse, the word ‘tawwa’ can be used as either an adverb of time or an expression for futurity.

<sup>12</sup> The use of this verb for expressing intentional future should not be confused with its use for talking about wishes and needs. Linguistically, there are no markers that can distinguish between the two uses; however, they can be normally recognised from the context in which the verb occurs.

- 1- Tauwa: ɪ-ngu:l ɪ-ba:ba: je-ʃri:li: weħda zai-ha:  
now I-say to-dad he-buy-me one like-it,FEM<sup>13</sup>  
*I will tell dad to buy me one like it.*
- 2- mɪbb-u: ɪndi:r-u: ɪl-ħafla li-sbu:' ɪl-ja:i  
want-we we-make-we the-party the-week the-next  
*we are going to make the party next week*

### 2.11.6 Word Order:

LA has the basic word order variation of VSO or SVO. In addition, LA Arabic is a pro-drop language variety where its subjects are normally dropped in declarative sentences when they are pragmatically and grammatically easy to identify. Also, there are many cases where clauses and present tense sentences lack a copular verb. Hence, there are two types of sentences/clauses in LA: verbal and non-verbal. In the latter case, the subject is followed by either a noun, a verb, an adjective, an adverbial phrase, or a prepositional phrase as its predicate. All these uses are illustrated by the current data in examples (1) - (5) respectively:

- 1- ... 'ʃa:n neħna: li:bi:ji:n  
... because we Libyans  
*...because we (are) Libyans*
- 2- senn-i: tauza'  
tooth-my hurts  
*my tooth is hurting*
- 3- ... l-kta:b kebi:r  
...the-book big  
*...the book (is) big*
- 4- la:ken hi:ja: tauwa: wa:gf-a: gudda:m ɪl-ba:b  
but she now standing-3SNG,FEM front the-door  
*but she (is) now standing in front of the door*

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<sup>13</sup>Where necessary, the following abbreviations will be used throughout the study:

1SG: 1<sup>st</sup> person singular inflection

1PL: 1<sup>st</sup> person plural inflection

2SG: 2<sup>nd</sup> person singular inflection

2PL: 2<sup>nd</sup> person plural inflection

3SG: 3<sup>rd</sup> person singular inflection

3PL: 3<sup>rd</sup> person plural inflection

FEM: feminine

FPL: feminine plural

MAS: masculine

MPL: masculine plural

NEG: negative marker

POS: possessive

- 5- hu:wa: fi: il-da:r  
 he in the-room  
*he (is) in the room*

In terms of the sentences structures in LA, there are two main types: simple sentences, which are composed by a predicate (al-musnad) and the subject (al-musnad ilayh); and compound or complex sentences which contain a main clause and one or more subordinate or relative clauses. These clauses are related to each other by means of coordinating conjunctions, such as o (and); illi (that, which, who); la:ken (but); inna (that, which is sometimes suffixed by a noun or a pronoun); 'fa:n (in order to), kulma: (whenever,) etc. (Ryding 2005). To illustrate these two types of the sentence structures, consider the following examples which were found in the data:

- 1- fa'r-ek twi:l  
 your-hair is long  
*your hair is long*  
 2- hu:wa: ga:l-li: innah jibbi: jimfi: ghudwa:  
 he told-me that he goes tomorrow  
*he told me that he is going tomorrow*

### 2.11.7 Negation:

According to Al-Buainain (2002), children are able to use complex structure of negation form around the age of 5:6 (see section 2.3). Negation in LA is expressed by different negative markers. Generally, it is realised by the particle la: (no), which is used in yes/no questions. It is also formed by the proclitic ma: and the enclitic -f which are most commonly attached to the main lexical verb; expletive fi:h (there); or an auxiliary, such as in examples (1), (2), and (3) below:

- 1- ma: n-ibbi:f ne-mf-i  
 NEG-1SING-want-NEG 1SNG-go-1SNG  
*I don't want to go*  
 2- ma: fi:f internet  
 NEG-there internet  
*there is no internet*  
 3- ma: kanf j-e'ref i-t'i:r  
 NEG-was-NEG 3SNG,MAS-know 3SNG-fly  
*(it) couldn't fly*

In the cases of nominal sentences or future tense, negation is expressed by the negative morpheme mf, which is a combination of ma:- and -f. In certain nominal sentences, a pronoun is affixed by the negative markers ma:- and -f making it perform the role of a

copula (Borsley & Krer 2012) such as in example (2) below. In the case of future tense, the morpheme *mɪʃ* is usually used before the main verb in its present tense that is prefixed by the future marker *ħa-*. An example for each of the above situations is found in the following utterances:

- 1- *mɪʃ ʒai'a:n*  
not hungry-1SNG.  
*not hungry*
- 2- *ma:-ni:ʃ                    mɪtʔkd-a*  
NEG-1SNG-NEG sure-1SNG,FEM  
*I'm not sure*
- 3- *mɪʃ ħa:-nemʃɪ*  
NEG will-1SNG-go-1SNG  
*I will not go*

In some situations, speakers may opt to use *ma:-* without *-ʃ* and it would still be grammatical, such as in the example below:

- *ma:- m-ħɪb                    nɪ-g'id ʒauwa:*  
NEG-1SNG-like 1SNG-stay inside  
*I don't like staying inside*

In addition, a negative clause in LA may contain an *n*-word such as *ħad* (nobody) or *ʃei* (nothing), or negative polarity item such as *ħatta wa:ħad* (anyone). In such cases, the marker *ma:-* is used without *-ʃ* (*ibid*).

- 1- *ma:- xað-eit                    ʃei*  
NEG-took-1SNG nothing  
*I took nothing*
- 2- *ma:-                    ja: ħatta wa:ħad                    ɪ-sa:'ed-nɪ*  
NEG- came anyone                    3SNG-help-me  
*nobody came to help me*

According to Robert and Krer (2012) the combination of *ma:-* and *-ʃ* is considered a strong negative marker while *ma:-* without *-ʃ* is seen as a weak negation. They assume that speakers may use the latter pattern to avoid too much negation.

### **2.11.8 Interrogation:**

Al-Buainain (2002) found that, the children in his sample showed a mastery of using the interrogative words of questions at around the age of 5. Interrogation in LA is

expressed by different pronouns and particles which are illustrated in the following Table, including some examples for each category and English translation:

Pronoun & particle	English meaning	Example from LA	English translation
manu:	who?	manu: ha:ða?	who is his?
ʃinu:	what?	ʃinu: s'a:r?	what happened?
ʃin	what?	ʃin illi thıbbah?	what do you like?
amta	when?	amta ʒi:t?	when did you come?
wein	where?	wein tıskin?	where do you live?
kam	how many?	kam ıkta:b 'ındak	how many books do you have?
ıbkam	how much	ıbkam haða?	how much is this?
aijen	which?	aijen ıkta:b taqra?	which book do you read?
leif	why?	leif ma: tırgıd?	why you don't sleep?
leif	why?	leif ma: tımʃi ım'a:na:?	why you don't go with us?
ıلمان	whose?	ıلمان ılkıta:b haða?	whose book is this?
keif	how?	keif halak?	how are you?

Table 9: Interrogative pronouns and particles in LA.

In addition, declarative sentences in LA can be changed into yes/no questions by uttering them in a rising intonation, such as in the following example:

- (1) n-mʃi ım'a:-k ba'dem?  
 1SNG-go with-you later?  
*(can) I go with you later?*

As mentioned earlier, the focus of the sections above is to familiarize the readers with the basic Arabic grammatical features which are expected to be found in the participants' utterances. This allows for exploring the ways in which the participants structured their utterances to find out whether they exhibit forms of linguistic patterns that can be related to their linguistic competence.

## 2.12 The Chapter Conclusion:

To sum up this part of the literature review, which discussed different topics, including the bilingual performance within a linguistic competence-based approach, we can conclude that the various theories of linguistic constraints and models proposed by researchers in the grammatical approach play an influential role in analysing the

linguistic aspects of CS. They allow for predicting well-formed utterances in bilinguals' speech and explaining the types of CS structures that are permitted in the switched utterances. Although these theories seek to find universally applicable rules for analysing intrasentential CS, none of them has reached its goal (Gardner-Chloros and Edwards, 2004), as there have always been a number of counterexamples to each proposed constraint and model found by researchers in diverse language pairs.

Thus, it became evident in the literature that many proposed constraints and models are only applicable to the specific data sets from which they have been formulated, and they can be used to account for CS within other typologically similar languages. Therefore, the debate regarding which model and constraint can account for all instances of CS in all language pairs is still going on. Nevertheless, all theories involved in describing CS patterns provide evidence that CS is not grammatically arbitrary (Gardner-Chloros, 2009), but it seems to be systematic speech behaviour that is governed by specific structural constraints.

In conclusion, the importance of a grammatical approach in studying CS from a competence-based perspective has been emphasized throughout the history of the field. Schmidt (2014, p.39) mentioned that “[G]rammatical analysis of code-switched sentences plays an important role and is therefore one main part of code-switching research”. Therefore, the grammatical approach cannot be ignored or neglected when studying CS. However, one significant problem with the grammatical approach is that it does not consider the social context in accounting for the emerging speech patterns including CS. In other words, this approach did not provide researchers the tool needed to answer the question of why and when bilinguals code switch. Theoretical models that are based solely on the relationship between the linguistic competence and performance do not give a complete description for CS patterns emerging in a specific speech situation. Consequently, researchers have concluded that in order to be able to fully account for CS data from real life contexts, the influence of the social context, which may contribute to the occurrence, forms, and outcomes of CS, must be taken into consideration. From this perspective, researchers introduced alternative proposals from the field of sociolinguistics to provide different views for the interpretations of CS patterns. Studying CS from a sociolinguistic angle provides a complementary approach to the linguistic theory and contributes to the study of CS by showing that in addition

to the linguistic and cognitive factors which determine the use of CS, there are also sociological factors reflected in the speakers' linguistic behaviour. This will be discussed in the next chapter.

## **Chapter 3. Bilingual Performance from a Sociolinguistic Perspective**

### ***3.1 Introduction:***

Sociolinguistics is a vast field of study which studies the relationship between language and society, including how a language shapes social interactions and vice versa. An overall and detailed discussion on the field would be impossible due to the limitation of this thesis. However, in order to provide background information regarding the study of CS from a sociolinguistic perspective, this chapter will present a brief outline to the field and identify the relevant approaches to the study. Specifically, the chapter will give an insight into different sociolinguistic theories which contribute significantly in understanding the social and functional nature of language as well as the social factors behind speakers' CS performance. Following that, a review of Myers-Scotton's Markedness Model (MM) is provided, as it will be the main sociolinguistic framework used in the analysis in this study.

### ***3.2 Language Performance and Sociolinguistics:***

In general, the study of language performance from a sociolinguistic approach started during the early 1960s (Al-Khatib, 2003a) when researchers, including linguists and sociolinguists, shifted the focus of interest by looking for the social rather than linguistic factors that correlate with using one language variety over the other in various social contexts. Language variation in this regard may be regional, social, or stylistic which occurs at different levels; namely, lexicon, phonology, and/or grammar (syntax and morphology). That is, speakers may use the above range of linguistic varieties according to the social context in which they find themselves (e.g., formal and informal situations). In addition, speakers can use a specific language code or variety to convey an attitude towards their social relationship with their listeners. They can modify and maintain their relationship or can reinforce the social boundaries between themselves by means of selecting the appropriate language choice which fulfils this aim.

Moreover, according to the results of different studies, people from different social backgrounds speak differently. Trudgill's (1974 as cited in Wardhaugh and Fuller, 2014) pioneering study of Norwich English speech serves as an appropriate example for the purpose of language variations which are determined by speakers' social



backgrounds. Focusing on the [ŋ], [t], and [h] phonological variants, Trudgill related the speakers' pronunciation of these variants to external social variables; namely, the speakers' social class, age, and gender. Trudgill's contribution to sociolinguistics is that his detailed analysis revealed a clear correlation between the level of formality of the language and speakers' social positions. That is, in many occasions, his data showed that speakers from higher socioeconomic backgrounds used the standard variants in words like singing, butter, and hammer; whereas speakers of lower working class tended to use the corresponding variants [n], [ʔ], and [Ø] in such words respectively. Moreover, as far as the realisation of the sound(s) spelled as 'ng' in English orthography is concerned, his analysis demonstrated that, regardless of the speakers' social-class category, females showed a higher frequency of using the standard variant [ŋ] than males did, which suggested that women might be more conscious of language status than men were.

The relation between language and society, then, is what the field of sociolinguistics focuses on. From this perspective, studies over the last decades have shown that language performance is not an abstract behaviour, but it is socially motivated and constructed by individuals through their interactions with each other. The social context is a part of the outside world and speakers produce their utterances in accordance with the social characteristics of that context. The sociolinguistic approach to language studies, therefore, has helped to advance knowledge to study speakers' actual performance of their languages in various social contexts. Language performance has become a reflection of not only speakers' linguistic competence, but also the influence of the social and cultural factors that determine their speech patterns (Al-Khatib, 2003a).

### ***3.3 The Notion of Language Functions in Sociolinguistics:***

Functionalism is another trend in sociolinguistics which looks at language performance from a different perspective. This trend challenged the simplistic notion which views language as just a reflection of the social context and introduced the idea of the social functions of language and the way they are used to create social meanings. The overall assumptions of Functionalism as described by Allen (2007, p. 254) is that "linguistic structures can only be understood and explained with reference to the semantic and communicative functions of language, whose primary function is to be a vehicle for

social interaction among human beings.” Functionalism, therefore, is related to the linguistic approaches which look at the functions that language accomplishes in a given context and how they shape its structure. With regard to the aim of the current study, functionalism provides a method to account for the participants’ CS taking into account influences from their physical and social environment. It emphasises the importance of observing their language use through following the flow of their conversations in a given speech situation.

Many models of functional linguistics can be traced back to earlier works of the anthropologist Malinowski (1884-1942) and the British linguist, Firth (1890-1961) and his colleagues. Malinowski (1914-1918) in his detailed studies of the culture and social life of the population of the Trobriand Islands, realized that the natives believed in the power of their language and they used it to fulfil specific functions and reach certain aims related to their rituals and beliefs. He (as cited in Hudson, 1996, p. 109) concluded that “in its primitive uses, language functions as a link in concerted human activity, as a piece of human behaviour. It is a mode of action and not an instrument of reflection”. Another important contribution made by Malinowski in the field of language studies is his concept of “context of situation” in which he stresses the importance of considering the social context to fully understand the meaning of an utterance. The utterance, according to him, “only becomes intelligible when it is placed within its context of situation” (as cited in Melrose, 1996, p. 57).

Firth (1890-1961) was very influenced by Malinowski’s views, He elaborated his concept of “context of situation” and introduced the idea of incorporating it in the analysis of language and the interpretation of meaning. Firth further rejected the dominant Bloomfieldian approach at that time, which marginalized the study of meaning in linguistics, and argued for considering the functions of language and what language contributes to the social system in linguistic studies. Language, according to him, is an instrument used by individuals to manipulate their behaviour and help them successfully function in the society. He stated that:

As language is a way of dealing with people and things, a way of behaving and making others behave, we could add many types of functions- wishing, blessing, cursing, boasting, the language of challenge and appeal, or with intent to cold-shoulder, to belittle, to annoy or hurt, even to declaration of enmity (as cited in Eddy, 2007, p. 8).

In relating the trend of functionalism to bilingual performance and CS, a number of researchers proposed different models and theories that highlight the active role of CS in bilingual performance, focusing on different dimensions. Among the most influential theories in the field of linguistics which adopted this perspective are Gumperz's situational and metaphorical CS (1972) and Myers-Scotton's Markedness Model (1993, 2006). These theories will be discussed in the subsequent sections.

### ***3.4 Sociolinguistic Perspective on Bilingual Performance:***

The sociolinguistic approach gave rise to different powerful perspectives in bilingual performance which offer a variety of possible answers to the questions of why bilinguals engage in CS and how the contextual constraints regulate their bilingual performance. In the field of childhood bilingualism, much research adopting a sociolinguistic perspective has emphasized the influence of social factors, including the settings, the participants, and the topic of conversation on the children's bilingual performance. In this regard, several studies (e.g., Fantini, 1985; Vihman, 1985; Lanza, 1997; Deuchar and Quay, 1999, Gamal, 2007) have been conducted on bilingual children to examine the role of social contexts in their language development and language choice. The results of these studies demonstrated developmental aspects of the children's language and their language performance in terms of the influence of the macro-social<sup>14</sup> situational varieties on their language behaviour. In addition, the studies' findings highlighted two important factors related to bilingual children and their choice of language in different situations:

First, they showed that bilingual children as young as 3 years or so were able to adapt their linguistic behaviour to suit the demand of the speech situation. For example, in Lanza's (1997) sociolinguistic study, which involved the investigation of bilingual performance of two two-year-old children who were exposed to English and Norwegian from an early age, the researcher concluded that "bilingual children as young as two years of age can and do use their language in contextually sensitive ways" (1997, p.

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<sup>14</sup> In sociolinguistics, we can distinguish between macro level approaches which explore a language use pattern at a community level, taking into account the social and situational factors; and micro level approaches in which a language use is explored at the interactional level and locate the speakers themselves as the impetus for the linguistic variety and patterns of use.

319). Similarly, Gamal (2007) followed the development of Egyptian Arabic and English in her daughter, Sara, from an early age to four years old focusing on the influence of different social contexts on her language development and choice. Gamal observed that from the age of 3:11, the child managed to use her two languages separately or code switch according to her interlocutor's linguistic abilities. These findings correspond with the results of other earlier longitudinal studies such as Vihman (1985) and Fantini (Fantini, 1985). Fantini's investigation of his own son Mario's bilingual acquisition of English and Spanish in his first ten years of life demonstrated similar findings to Gamal's in terms of the child's bilingual performance sensitivity to the interlocutor's language and the role of the macro-social settings in directing the language choice from an early age.

Second, the children's CS performance in the different social settings reflected the underlying social norms of language use in these environments and established the children's ability to make appropriate language choices which complied with these norms. This ability, in turn, demonstrated what Hymes (1971) refers to as the speaker's 'communicative competence', which will be explained further in the subsequent sections.

Sociolinguistic perspectives on bilingual performance allow researchers to examine how speakers' patterns of language alternation are correlated with the situational context of interaction in order to examine whether or not they are able to adapt their language choice in a way that reflects the macro-social influences. In doing so, sociolinguistic approaches have provided a useful framework for a more complex investigation of the social motivations behind selecting one particular code over the other which represents a primary goal in the current study.

### ***3.5 Giles' Speech Accommodation Paradigm:***

The Accommodation Paradigm is a model developed by Giles in the 1970s in an attempt to provide an explanation of the social motivations for speakers' language choice. He suggests that speakers, as social communicators, alter or shift their speech to accommodate to each other, and to become similar to one another in terms of verbal and nonverbal features. Hence, speech accommodation can be seen as an attempt by a speaker to "modify or disguise his persona in order to make it more acceptable to the

person addressed” (Giles and Powesland, 1997, p. 233). This behaviour is called ‘speech convergence’. In some other cases, however, speakers may wish to increase the social distance between themselves and their listeners and signify the differences between them through their choice of particular codes. Giles refers to this kind of speech behaviour as ‘speech divergence’. What concerns us with regard to the aim of this study is that bilingual speakers may use CS as a means of convergence or divergence in order to redefine their social relations with their interlocutors within the micro-social context of the speech situation. In such cases, CS carries social significance with regard to speakers’ attempt to achieve a specific goal. The two extracts below, which were found in the current data, present examples for the speech convergence and divergence respectively:

Example (1):

Noor had sworn at her younger brother, Suhail. Suhail threatened to tell their father as soon as he came home. It seemed that Noor panicked and over time, she tried to get Suhail to forget it happened. Noor used CS as a means of convergence in order to decrease the social distance with Suhail within the micro-situation, and to restructure their interpersonal relationship:

(Suhail is drawing a boat in his drawing book)

- 1- **Noor:** I like your boat!  
(Suhail is busy colouring the drawing)
- 2- **Noor:** *inta ahsan rassa:m* in the whole wide world.  
*you (are) the best painter in the whole wide world*

Example (2):

Asma was watching a movie on TV. Her younger brother, Muhab, came in and sat beside her which apparently annoyed her. CS here showed Asma’s attempt to increase the social distance with her sibling within the immediate situation in order to get rid of him and watch TV without his company.

- 1- **Asma:** go away!
- 2- **Muhab:** no, I don’t have my TV.
- 3- **Asma:** GO AWAY!
- 4- **Asma:** *wa-Allah-i lu: ka:n ma: te-msh-y i-ngu:l-ha: li asHa:b-ak o na`ti:k kaf`aly wajak !*  
*I swear by Allah if you don’t go, I’ll tell your friends and slap you on your face!*

(Further examples for the concepts of ‘divergence and convergence will be provided when discussing ‘marked CS’ within the ‘Markedness Model’ in and sections 3.11 and 7.5)

Giles’ model, therefore, connects language choice to the context of its use and provides an insight on the fact that language use is socially conditioned and can be manipulated according to speakers’ own purposes. Speaker's knowledge of how to use different speech expressions in different social contexts constitutes a major part of what Hymes (1971) refers to as speakers’ “communicative competence” (Liu, 2013). In other words, the different speech acts, which speakers perform, and the effects which speakers intend to cause by using these speech acts reflect the speakers’ implicit social knowledge about how to use language in different speech situations which is part of their communicative competence.

### **3.6 *Communicative Competence:***

Hymes (1972) introduced the term of communicative competence as a response to Chomsky’s idealized notion “linguistic competence” in which he marginalized the form of “performance” from the focus of linguistic inquiry. Hymes argues that Chomsky has missed the fact that a speaker does not only know the grammatical rules of a language, but also how and when and to whom to speak. Hymes explains:

Chomsky’s redefinition of linguistic goals appears ... a half-way house. The term “competence” promises more than it in fact contains. It is restricted to knowledge, and within knowledge, to knowledge of grammar. Thus, it leaves other aspects of speakers’ tacit knowledge and ability in confusion, thrown together under a largely unexamined concept of “performance”. In effect, “performance” confuses two separate aims. The first is to stress that competence is something underlying behaviour (“mere performance”, “actual performance”). The second is to allow for aspects of linguistic ability, which are not grammatical: psychological constraints on memory, choice of alternative rules, stylistic choices and devices in word order, etc. the intended negative connotation of the first sense of “performance” tends to attach to the second sense; factors of performance – and the theory must place all social factors here – are generally seen as things that limit the realization of grammatical possibilities, rather than constitutive or enabling. In fact, of course, choice among the alternatives that can be generated from a single base structure depends as much upon a tacit knowledge as does grammar and can be studied as much in terms of underlying rules as can grammar. Such things equally underlie actual behaviour as facets of knowledge and would be aspects of competence in the normal sense of the word. On its own terms, linguistic theory

must extend the notion of competence to include more than the grammatical. (2013, pp. 92-93)

The term communicative competence, then, can be defined as speakers' ability not only to use their knowledge of a language in a specific conversation, but also to apply the societal and cultural norms that regulate the speech situation in order to make an appropriate communication. This includes, for example, how to choose the suitable conversational topics in different communicative situations, how to initiate and end a specific conversation, and which language to use.

In making his argument, Hymes stresses the idea that in any study of language use, a researcher should consider the social and cultural aspects of the speech situation. Adopting Hymes' approach, therefore, entails the application of new parameters for analyzing and describing language use in social contexts. Hymes (1989) introduces the following framework in which he presents a taxonomy of the social and cultural influences that need to be referred to in any investigation involving language alternations. Hymes organizes this taxonomy in an S.P.E.A.K.I.N.G mnemonic as follows:

- Setting and scene, which refer to the physical circumstances and the psychological setting of the conversation
- Participants: can take different roles in the conversation, including speaker, addressee, and hearer.
- Ends, which mean the purpose, the goal, and the outcome of the communication.
- Acts, these can be specified as the message form and order in the speech event.
- Keys, mean the "spirit" of the speech situation or the manner expressed in the interaction, i.e., serious, joyful, anger, etc.
- Instrumentalities, which deal with the instruments of transmitting the speech, i.e., oral or written, and form, which includes dialects and register.
- Norms, which refer to the knowledge of the social and cultural rules that govern the speech event as well as the participants' interpretation and reaction in the discussion.
- Genre, which refers to the style of the speech message, i.e., proverbs, poem, narration, etc.

The above categorization serves as a qualitative approach that links language performance to society in such a way that allows for the interpretation of how speakers' linguistic performance changes and varies according to the people to whom they talk and the situation in which they find themselves. Identifying the social and cultural influences on individuals' language behaviour can explain the extent to which language use is regulated and pre-determined by the societal norms and expectations. Such an explanation can lead to hypothesizing on universal aspects of language use from a sociolinguistic perspective.

### ***3.7 Communicative Competence in Bilingual Interactions:***

Hymes's (1972) views on the relationship between language and contextual influences in the speech situation and his notion of communicative competence have been influential in the fields of sociolinguistics, linguistic anthropology, and the sociology of language. Many researchers have adopted and developed his ideas to provide theories that analyse language use in terms of its congruence with the socio-cultural and situational constraints. In this tradition, a bilingual language performance became investigated by looking at the context of its production. Consequently, different theories and models have been developed in the literature to account for various aspects of language alternation by relating it to the social conditions under which it is likely to occur (see the Allocation Paradigm in following section).

As regards the aim of this study, bilinguals' communicative competence is defined as their ability to use each language appropriately according to the relevant characteristics of the speech situation and to the communicative meanings which the speakers wish to convey through the use of CS. The participants' communicative competence will be explored through correlating the features of the immediate speech situation of their utterances with the types of the language exchange. In doing so, the speakers' communicative competence will be revealed through the sensitivity of their utterances to the situational context and the demands of the immediate speech situation. This will include the adherence to the interlocutors' language preference and the dictates of the social settings of the utterances, the speakers' utilization of discourse functions that are accomplished through CS, and the choice of words/utterances that index precisely what they intend to signal in their conversation in order to achieve the intended effect.



### **3.8 Fishman's Domain Theory (the Allocation Paradigm):**

The linguist Joshua Fishman is among the early scholars who developed theories that view individual bilingual performance as being derived from and regulated by the social norms of the speech community. His (1965) frequently cited question “who speaks what language to whom and when?”, which represents the starting point for sociolinguistic studies (Wei, 2000), has inspired much of the subsequent discussions in the study of the social aspects of CS. According to Fishman (1965), the habitual language choice in a multilingual society is far from being random. He emphasizes that even if a variety of languages could be possibly used in a given situation, usually only one language will be selected by specific participants in specific contexts to discuss specific topics. This, according to Fishman, means that the choice of a particular language in a particular speech situation is dependent on three related contextual components, that is, the topic of a conversation, the occasion including the place where the conversation takes place, and the interlocutors. Fishman's claims are based on a study conducted by him and his colleagues, in which they examined the speech of the Puerto Rican community in New York City. In this study, Fishman et al. (1971) observed a connection between the speakers' code choice and specific types of social situations or spheres of activities, which they called domains. To support their argument, Fishman (Fishman, 1971) cited an example found in the data, which showed a correlation between a boss and his secretary's use of Spanish in their informal chats, and between their choice of English when dealing with more formal issues related to business activities. From this point, Fishman introduced his “domain theory” in which he “equates language alternation in bilingual performance with categories of distinguished social domains defined on the basis of physical setting and specified interlocutors” (Al-Khatib, 2003a, p. 37).

According to Fishman (1991), the major institutions of society such as family, employment, friendship, education, religion, etc. are all referred to as domains or contexts of language production. The concept of domain in this model, according to Fishman, is defined as “a cluster of characteristic situations around a prototypical theme which structures both speakers' perception of the situation and their social behavior, including language choice” (Wei, 2000, p. 60). Domains, therefore, do not only describe particular settings or social situations, they also symbolize congruent social and behavioral patterns, including language choice, established by the participants in

the social situation. The notion of congruence here is a key factor in the concept of domain, as a domain can only be created when there is a congruence among its components. For example, the domain of education will be constructed when teachers and students (participants) talk about educational affairs (topic) at school (setting) using a particular language or variety, which is commonly associated with that domain.

The domain theory, then, is meant to be a theoretical framework that enables researchers to predict speakers' language choices on the basis of the domain in which they occur. What can be concluded from the principles of such an approach in relation to the current study is that in any bilingual society each stable speech activity is linked to a particular language that speakers must adhere to. CS within these unchanged speech contexts will be, therefore, seen as an inadmissible linguistic behavior that demonstrates a certain level of the speakers' communicative incompetence. This strict view is compatible with Weinreich's (1979) perception of the imperfect bilingual, in which he states that the ideal bilingual is someone who "switches from one language to the other according to appropriate changes in the speech situation (interlocutor, topics, etc.), but not in an unchanged speech situation and certainly not within a single sentence" (1979:73). Weinreich's views have been later proved to be inaccurate since a large number of studies have shown that all bilinguals code switch even in ordinary conversations (Muysken, 2000). Consequently, Fishman's framework will not provide a reliable explanation for speakers' communicative competence if they code switch in unchanged domains that tend to be usually associated with a particular language. In addition, his suggested framework is not strong enough to predict language choices in different speech situations - CS can be considered as a variety in itself and speakers may switch to the domain of 'CS variety' and then stay within it until the domain changes. Thus, in the current study, the participants' language choice will not be seen as just a reflection of specific static criteria which would determine their communicative competence; it can function as a variable that is independent of linguistic and situational influences.

Thus, scholars in sociolinguistics became concerned with explaining CS which is not linked to stable speech situations. Linguists, such as Blom and Gumperz (1972) and Myers-Scotton (1993), have downplayed the social norms' impact in determining speakers' code choices and adopted another approach which combine both micro- and

macro- level factors in accounting for linguistic choices made by speakers. Thus, the societal norms in their approaches are no longer seen as the only impetus behind speakers' code choice, since there are other stances of code choices that can be motivated by speakers' own intentional purposes. This issue will be discussed in the following section.

### ***3.9 Motivations and Discourse Functions of Code Switching:***

In Blom and Gumperz's (1972) study of the linguistic behaviour in Hemnesberget - a small town in northern Norway with a population of about 1300 - they examined the speakers' CS between two separate Norwegian varieties spoken in that town, with a focus on the relationship between the use of each code and the social motivations behind each use. From their analysis, Blom and Gumperz distinguished between two different types of CS found in their data: situational CS and metaphorical CS (sometimes called conversational or stylistic switching).

In the first type, the researchers observed that the speakers' selection of each code was regulated by the change in the situational characteristics, which are described in terms of conversational topic, setting and participants. That is, CS in general occurred as a result of "a shift in topic and in other extralinguistic context markers that characterize the situation" (Gumperz, 1982, p. 98). Situational CS, therefore, involves the redefinition of the participants' rights and obligations (Boztepe, 2005), so each participant will need to adopt a certain code that is more suitable in the changed speech event. This means that any use of the other code would violate the other participants' expectations in the speech event, which may lead to the termination of the conversation or other undesired consequences (Blom and Gumperz, 2000a).

Situational CS, therefore, shows a similarity in comparison to Fishman's domain theory, since both approaches suggest that language performance which does not adhere to the changes in the speech situation is dismissed as problematic because it signals speakers' inability to follow the dictates of the social context. It can also be deduced that these approaches view CS within unchanged speech situations as an unacceptable performance which signals a communication deficit. However, rather than interpreting this sort of linguistic behaviour in a negative light, Gumperz's proposal of metaphorical CS provides another explanation in which language performance is viewed as being not

entirely regulated by the social constraints, but it can be shaped according to individuals' intentions to achieve specific communicative purposes. In this regard, individuals themselves play a key role in CS within different speech situations.

In metaphorical CS, therefore, both languages are used within the same speech situations and among the same individuals, but the speakers switch from one code to the other in order to achieve a special communicative effect. For example, the speakers may code switch as they “redefine the situation - formal to informal, official to personal, serious to humorous, and politeness to solidarity” (Wardhaugh, 2011, p. 102). Consequently, the speakers' language choice cannot be predictable as is the case with situational CS, since they code switch according to their own intentions to accomplish specific purposes and not in response to the situational influences. In light of this, Gumperz correlates instances of linguistic performance, which were considered to reflect negatively on communicative competence, with speakers' personal intentions to impart extralinguistic messages. Based on the description of metaphorical CS, Gumperz introduced the idea that CS is a “contextualization cue” which is used by speakers to mark specific contextual presuppositions in the ongoing conversation. Contextualization cues, according to Gumperz (1982) are both verbal and non-verbal metalinguistic signals, such as prosody, gestures, phonological variations, etc., which help listeners to interpret the meaning of the speakers' utterances. CS, as a contextualisation cue, therefore, provides contextual information in the same way in which monolinguals use prosodic contours or other syntactic strategies to contextualise what they mean. This view is also confirmed by Zentella (1997, p. 96), who argues that “what monolinguals accomplish by repeating louder and/or slower, or with a change of wording, bilinguals can accomplish by switching languages”

The major contribution of Blom and Gumperz's approach to bilingual language performance research, including the current study, is to maintain that speakers' communicative competence is not always determined in terms of their adherence with the changes in the social variables. Speakers may intentionally violate the expected social norms in a speech situation to express specific social meanings and perform a range of communicative functions. Thus, instances of CS which do not fit in the proposed framework in which language performance reflects the dictates of the speech situations, are worthy of new insights in the analysis. Gumperz (1982, p. 34) argues that

“the use of one variety where another is expected is not simply an instance of inappropriate usage but can have communicative functions”.

From this perspective, Gumperz (1982: 75-84) went further and suggested a number of discourse functions of CS, which can be summarised as follows:

- 1- Quotation: where CS is used when the speaker wants to identify direct and reported speech.
- 2- Addressee specification: where the speaker directs his/her messages to one of several possible addressees. This function can also be used in order to exclude specific person(s) by switching to a language which they do not understand.
- 3- Interjections: where CS is used to make an interjection or to serve as sentence fillers.
- 4- Reiteration: this type of switching occurs when a message in one code is repeated in the other code. This repetition may have the function of clarifying what has been just said and also amplifying or emphasizing the message.
- 5- Message qualification: in which the switch is used to qualify a previous message that has been said in a different code.
- 6- Marking personalization versus objectivization: this function of CS relates to things such as the distinction between different types of talk (e.g., talk about actions and talk as actions), and the degree of speaker’s involvement in, or distance from, a message.

Gumperz’ above classification of CS functions is certainly not exhaustive. A review of the literature revealed that a number of linguists have identified other possible purposes people typically switch for. Romaine (1995), for example, claims that, in addition to Gumperz’s list, CS can serve the following functions:

- 1- To shift to a new topic
- 2- To mark the type of discourse
- 3- To specify a social arena, where speakers code switch according to their own and their listener’s identity or power (i.e., powerful speakers versus weak speakers, or superior versus inferior).

Timm (1975, p. 475) also found other purposes of CS performed by his Mexican-American subjects, who switched from Spanish to English to signal “such personal feelings as affection, loyalty, commitment, respect, pride, challenge, sympathy, or religious devotion”. He also observed that Spanish was the code used for discussing topics related to the culture and life in Mexico and in the barrios, while English was mostly associated with topics that were considered Anglo-American and was used for expressing “feeling of detachment, objectivity, alienation, displeasure, dislike, conflict of interest, aggression, fear, or pain” (*ibid*). Thus, it could be argued that CS functions can be associated with the social and cultural conventions which differ from one community to another, and therefore, they will vary according to these conventions and traditions.

### ***3.10 Gumperz’ Dichotomy of the “we” and “they” Codes:***

Gumperz (1982) proposed the dichotomy of the “we-code” and the “they-code” as an explanatory tool in an attempt to uncover speakers’ personal attitudes and underlying motivations for CS. The “we-code” refers to in-group code or the minority language which is used among family members and/or peers; therefore, it is usually associated with values such as intimacy, solidarity, and closeness. The “they-code”, on the other hand, indicates the out-group code or the majority language which is used by outsiders, hence, it usually has connotations of power, authority, and distance. Gumperz (1982) argues that the direction of CS from a ‘we code’ to a ‘they code’ or the contrary, may signify specific illocutionary force, which speakers intend to convey. For example, oppositions such as “warning/personal appeal; casual remark/personal feeling; decision based on convenience/decision based on annoyance; personal opinion/generally known fact” (1982: 93) can be seen as metaphoric extensions signified through the use of ‘we’ and ‘they’ codes. To make this clearer, Gumperz, in his work on Spanish-English bilinguals, manipulated an utterance found in his data containing a mother’s call to children, by changing the direction of CS from ‘we-code’ into ‘they-code’:

- 1- Come here. Come here (EN). Ven acá (come here SP)
- 2- Ven acá. Ven acá (come here). Come here, you (EN).

According to Gumperz, the switch to ‘we code’ in (1) was deemed to signify a personal appeal, which can be paraphrased as “won’t you please”, while the switch to ‘they code’

in (2) was seen as a warning or threat. Gumperz, however, acknowledged that the determination of the ‘we’ and ‘they’ codes is by no means easy; hence, it may depend on the socio-economic position and the subjectivity of those who do the identification (i.e., the listeners).

To sum up, Gumperz’ theory and analysis of CS is not an attempt from his side to set up a tailored linguistic model which might predict or provide a reliable account for all CS incidents. Gumperz’ main aim is to emphasize that CS is not always controlled by pre-existing conditions in the speech situation, but individuals themselves play a major and creative role in CS because they can manipulate their language use in order to transmit their intended communicative effect of their speech. He (1982: 61) argues that

Rather than claiming that speakers use language in response to a fixed, predetermined set of prescriptions, it seems more reasonable to assume that they build their own and their audience’s abstract understanding of situational norms, to communicate metaphoric information about how they intend their words to be understood.

However, it seems that Gumperz’ approach does not provide a clear idea that can speculate what goes on when speakers choose one particular linguistic code that violates the contextual constraints of language use, or in other words, what this linguistic violation signals to in the speaker’s utterance. This means that Gumperz’ approach does not account for all incidents of CS in the same context, especially those which seem to have no social motivations. As an example of this type of CS is found in Labov’s study (as cited in Bassiouney, 2009, p. 65) which displays a switch between Standard English and Black English Vernacular made by an African American boy when describing a New York street game of skelly. Labov states that “the speaker switches between both systems at least sixteen times without an apparent motivation in the same stretch of discourse”.

For this reason, Myers-Scotton’s MM (1993, 1998a, Myers-Scotton and Bolonyai, 2001, Myers-Scotton, 2002) was proposed in an attempt to account for the arbitrariness of CS and to look at it as a universal systematic and rule-governed speech behaviour.

### 3.11 *The Markedness Model (MM):*

In this section, the MM ([1993](#), [1998a](#), [Myers-Scotton and Bolonyai, 2001](#), [Myers-Scotton, 2002](#)) is introduced as the theoretical framework of this study. This model attempts to account for the “arbitrariness” of CS by relating it to the sociopragmatic and discourse-related domains which are said to be the main motivations behind its use. This fact is supported by Gafaranga ([2005, p. 282](#)), who stated that the social structure is often invoked in research “[i]n order to account for the orderliness of language alternation, i.e., its structure... Language choice acts are said to ‘index’, to reflect, aspects of the social structure such as ethnicity, rights and obligations”. Following, is a detailed introduction of the essential part of the MM.

Building on Gumperz’s (1972) concepts of situational vs. metaphorical CS, Myers-Scotton proposed the MM as an alternative framework, aiming to provide a better explanation for the social and psychological motivations of CS. Myers-Scotton claims that this model is based on a variety of disciplines such as sociology of language (language choice), pragmatics (implicatures and intentional meanings), social anthropology (negotiation), and linguistic anthropology (communicative competence). She argues that CS performance does not always imply social motivations or carry specific communicative effects which bilinguals wish to convey. CS, according to her, is either ‘unmarked’ when its use is normal and has no social motivation in the speaker’s mind, hence, can be predictable in the speech situation; or ‘marked’ when it has specific social motivations in the speaker’s mind, therefore, unpredictable in the speech situation. Consider the following examples (taken from the current data) for unmarked and marked switches respectively:

- 1) **Alya:** go to this one. **imsh-y hana.**  
go here

In this example the speaker switched to Arabic to repeat what she has just said in order to emphasize a point. CS in this case does not seem to convey any extralinguistic message.

- 2) **Adnan:** leave, leave it! GET OUT! GET OUT!  
**Yaseen:** BE QUIET. I can’t concentrate!  
(Yaseen lost the game)  
**Yaseen:** **shuft tawwa?** it is you fault! **ghabi:!**  
Did you see now?! *stupid!*



The switch in example (2) represents a marked CS because it coincides with the use of a swear word (*ghabi*), which expresses Yaseen's annoyance and accusation that his interlocutor caused the loss of the game. CS here can be interpreted as an attempt from Yaseen to distance himself from his interlocutor in the micro-social context of the speech situation.

In this sense, the unmarked choice in bilingual interactions is considered as the matrix or the mostly used language in bilingual contexts because it is natural and represents the expected code. Myers-Scotton (2002: 206) also argues that "frequency counts can establish the variety to be labelled the unmarked choice in any corpus".

Generally speaking, the MM distinguishes between marked and unmarked language choices in all communicative interactions and uses this opposition as a theoretical construct to interpret the speakers' social and psychological motivations for using a specific linguistic choice over the other (Rose, 2006). Markedness has been defined as when "A phenomenon A in some language is more marked than B if the presence of A in a language implies the presence of B; but the presence of B does not imply the presence of A" (Eckman, 1977, p. 320). In other words, in any conversation, language choices A are 'marked' if they are unexpected in the context of their use, while they are 'unmarked' if their use satisfies the expectations of the interlocutors in the speech situation. The following sections presents the MM's premises and discuss the marked and unmarked code choices in more details.

### ***3.11.1 The markedness evaluator***

Myers-Scotton (1998: 198) assumes that each person is born with *a markedness evaluator* which is a "part of the innate cognitive faculty of all humans. It enables speakers to assess all code choices as more or less marked or unmarked for the exchange type in which they occur". The markedness evaluator is, therefore, a part of speakers' communicative competence because it underlies the speakers' ability to act as rational agents who engage in CS in order to achieve specific social goals. This ability, according to Myers-Scotton (2001), requires experience of conversational language use in order to assess which codes are relatively more or less marked in a given speech situation. Based on the above, Myers-Scotton & Bolonyai (2001:9) assume that the

markedness evaluator is a “deductive device” which does not offer a set of universal rules, but rather “a process evaluating potential options”.

### **3.11.2 *The rights and obligation (RO)***

Central to the MM is the assumption that in any society there are specific norms and constraints to determine appropriate social and linguistic behaviours of speakers, consequently, expected patterns of interactions between the interlocutors are established. These patterns are referred to as rights and obligations (RO) which exist for each speech situation and for each speaker, and they can differ from one community to another.

Speakers acquire the RO sets through their socialization into the community in which they live. Therefore, they know what language choice indexes the appropriate RO set within a given conversational event. Accordingly, selecting a particular code reflects the bilinguals’ knowledge and understanding of the demands of the social context, so bilinguals seek the suitable RO set in order to “negotiate interpersonal relationships” (Myers-Scotton, 1993: 478). Myers-Scotton (*ibid*) refers to this process as the “negotiation principle” (discussed in the following section).

Myers-Scotton (1993) argues that any linguistic code that speakers choose is related to their perceptions of their own persona and relations with their interlocutors. Thus, any linguistic choice speakers make indexes the required RO set between the participants for the current situation. Utterances that are produced in a specific code in order to express the speakers’ intentions are expected to be decoded by the listeners with whom a mutual understanding of using that code is shared. This means that both speakers and listeners recognize the social meaning (intentionality) attached with the code chosen which is meant to match the needs of the current situation. For example, the use of some linguistic forms in specific communities (e.g., the plural/singular forms in Arabic) in addressing someone depends largely on parameters such as the status and power of that person. That is, in Arabic, for example, the singular pronoun *anta* (you) is usually used with family and friends, while the plural *antum* is used more formally for addressing someone of higher status and power. In other words, *anta* is considered an unmarked choice in informal interactions and *antum* is unmarked in more formal ones and vice versa.

Although the RO set depends on the cultural norms and social meanings in the current situation, it is dynamic and can change according to the interaction type, and if it does change, the markedness of the current speech situation changes accordingly. Myers-Scotton & Bolonyai (2001) offered an example to clarify this point. When the interviewer and the interviewee discover they are both from the same small town, their speaking tone would change from relatively formal to informal.

### ***3.11.3 The negotiation principle***

The negotiation principle is a key principle in the MM as it explains all the phenomenon of CS. Myers-Scotton (2002: 206) argues that “[s]peakers almost always have multiple identities. A linguistic choice reflects the presentation of one identity rather than another, possibly an identity that is not established, but whose realization is being negotiated by the code choice”. This means that CS is socially motivated and can be used by bilinguals to index their perceptions of themselves and the RO between themselves and the other participants. Myers-Scotton also argues that speakers may code switch to negotiate interpersonal relationships, including the signaling of in-group or out-group membership. This aspect of CS was discussed earlier under the headings of the “we” and “they” codes as introduced by Blom and Gumperz (1982) (refer to discussion in section 3.10). In light of this, bilinguals distinguish between marked and unmarked code choices by comparing them to the norms of their speech community based on their understanding of the required RO in the interaction. From this perspective, Myers-Scotton (1998a: 26) proposes the following five maxims within the MM which govern the social negotiations in conversations:

- 1- *The Unmarked Choice Maxim:* Make your code choice the unmarked index of the unmarked RO set in talk exchanges when you wish to establish or affirm the RO set. Unmarked code choices are therefore indexical of the RO set which participants expect based on experience of community norms.
- 2- *The Marked Choice Maxim:* Make a marked choice which is not the unmarked index of the unmarked RO set in an interaction when you wish to establish a new RO set as unmarked for the current exchange.
- 3- *The exploratory choice maxim:* When an unmarked choice is not clear, use switching between speech varieties to make alternate exploratory choices as

(alternate) candidates for the unmarked choice and thereby as an index of a rights and obligations set which you favour.

- 4- *Deference Maxim*: Switch to a code which expresses deference to others when special respect is called for by the circumstances.
- 5- *Virtuosity Maxim*: Switch to whatever code is necessary in order to carry on the conversation / accommodate the participation of all speakers present.

When speakers follow either the unmarked or marked choice maxims, they are directly negotiating the existing RO set in order to achieve specific social goals. The other maxims, however, do have advantages to speakers but they are less beneficial. For example, when a speaker wants something from an addressee, s/he follows the deference maxim because of the expected payoff s/he would get. Following the virtuosity maxim allows speakers to show themselves as enablers in making a conversation to take place, so they present themselves as good individuals.

In this study, we will focus only on unmarked and marked choices, since they are the most relevant types to the aim of the study.

#### **3.11.4 Making “rational choices”**

The rational choice is another key concept in the MM. Myers-Scotton (2000) argues that speakers’ ability to choose a specific code rationally is governed by three filtering devices: external, internal, and rationality. The external constraints include all macro-situational factors, such as individuals’ socioeconomic status, age, gender, and ethnicity, which produce what Elster (1989) call ‘an opportunity set’. In linguistic term, Myers-Scotton (2002) interprets the ‘opportunity set’ as speaker’s linguistic repertoire, discourse strategies (e.g., turn-taking, overlaps, etc), and cultural-specific views of appropriate types of interactions. The internal constraints, on the other hand, includes the “markedness evaluator” which “enables speakers to sense the degree to which alternative linguistic choices are unmarked or marked for a given interaction type” (Myers-Scotton 2000: 1261). Finally, the rationality in which “speakers take account of what they *want* to do and what they think they *can* do” (Myers-Scotton, 2002, p. 208) and act accordingly.

In general, the MM according to Myers-Scotton is rational in the sense that speakers' choice of a particular code depends largely on their assessment of the 'cost and rewards' of selecting that code because they want to "enhance rewards and minimize costs" (Myers-Scotton 1998b: 29). Accordingly, bilingual speakers choose a specific code to achieve the social ends which they wish to have in place, therefore, they know the consequences of making marked or unmarked choices in each interaction. Making unmarked choices implies the idea that speakers affirm the norms and behavioural rules of the speech community because they wish to establish or enhance the unmarked RO set. Thus, it is usually the safest choice a speaker would make in a particular exchange because it is considered natural and predicted and does not convey extra social meaning. For example, speakers may use unmarked code choices to fulfil specific meta-linguistic functions such as in quotations or in topical borrowings (Al-Khatib, 2003a). That is, speakers may use it, when they want to identify direct and reported speech that has been said or written in the other language; or they may code switch by borrowing a lexical item(s) in its original form to refer to keywords when discussing a particular topic that have been spoken about or taken place in the context of the other language. Other situations may involve functions such as reiteration in which the switching occurs when a message in one code is repeated in the other code. This repetition may have different functions such as clarifying what has been just said and also amplifying or emphasizing the message (Gumperz 1982).

On the other hand, a marked code choice underlies the defiance of expected norms of the conversation (RO), because it carries a social meaning of the intention to change the micro-social context of the immediate utterance by expressing feelings ranging from anger to affection and for indicating the speaker's authority, superiority, passion, and ethnic identity (Myers-Scotton 1993). Thus, by choosing marked codes, speakers either increase or decrease the social distance between themselves and their interlocutors. In other words, speakers choose either divergence or convergence strategies to construct a new micro-social situation concerning their social relation with the interlocutors.

To sum up this section, speakers' use of unmarked CS in different social settings reflects the underlying social norms of language use in these environments and establishes the speakers' ability to make an appropriate language choice, which complies with these norms and with the listeners' expectations. This ability, in turn,

demonstrates the speaker's 'communicative competence' which is discussed in section 3.6. However, even though speakers' marked CS expresses their defiance of the expectations of the current speech situation or the listeners' RO, their conversation is still meaningful and can signal a sociolinguistic competence. Marked CS, as indicated before, underlies speakers' intentions to communicate new/particular messages concerning the repositioning of their interlocutors within the micro-social context of their interaction. Therefore, the speakers' divergence from the social prescriptivism may not indicate problematic incompetence. Rather, it may signify the speakers' sufficient knowledge of using a specific linguistic code in a way that displays particular intended effects during their interactions with others. My argument, therefore, is that CS in such a case cannot be attributed to a deficit in the speakers' sociolinguistic competence since the speakers themselves may determine to defy the expected linguistic behavioural norms in these contexts.

### ***3.12 Conclusion:***

In order to describe the sociolinguistic context of this study, the previous chapter has introduced different topics related to the sociolinguistic dimension of studying CS. This dimension is mainly concerned with exploring the reasons of why bilinguals code switch in different speech situations, and what functions their CS serves in these contexts. From what has preceded, we have seen that both individuals and society contribute significantly in the emergence of CS. With regards to society, extensive empirical research has shown that CS may occur as a response to a change in the characteristics of the speech situation (i.e., change in topic of conversation, interlocutors, setting, etc.). In terms of speakers, CS may be employed as a means to fulfil specific communicative functions for a conversation or to express certain attitudes of speakers towards their interlocutors and the social relationship with them.

The suggested sociolinguistic theories and models discussed in this chapter have largely contributed to understanding the active role of language within a social context, and provided insights into the fact that language use, including CS, is not neutral. Language use and CS are subjected to the social factors of the speech situation and to speakers' own interpersonal attitudes and purposes. The social factors of the speech situation in which language is produced have a significant role in the way speakers select their

verbal expressions and codes during their language alternations. Through the selections of specific expressions and code, speakers can fulfil several social functions in their interactions with others and convey particular meanings. Moreover, it can be deduced that CS and language use in general play an important active role in constructing the nature of the speech situation. For example, speakers can use them to “redefine the situation - formal to informal, official to personal, serious to humorous, and politeness to solidarity” (Wardhaugh, 2011, p. 102). This fact is also supported by Halliday (Halliday, 2007, p. 251) who states that “...the relation of language to the social system is not simply one of expression, but a more complex natural dialectic, in which language actively symbolizes the social system, thus creating as well as being created by it”.

As we have seen, in early studies of bilingualism and CS, it was proposed that language alternations within unchanged speech situations reflects speakers’ sociolinguistic incompetence. CS in this case was viewed as displaying speakers’ inability to conform to the dictates of the macro-social situation. A large number of studies have refuted this view and have shown that CS can occur in all stable speech situations, and yet speakers still demonstrate an ideal sociolinguistic competence.

In looking at theories which emphasise the role of the language functions in CS performance, Gumperz’ approach has contributed significantly in drawing the researchers’ attention to the fact that bilinguals’ CS is not always restricted and determined by the social factors of the speech situation. Bilinguals may have communicative functions which are conveyed through their CS. Gumperz’ approach was later complemented by Myers-Scotton’s MM because the former did not consider the situations in which speakers code switch without apparent social motivations or discourse functions. It also did not take into account psychological factors within speakers which drive them to defy the expected norms of the linguistic behaviour. Nevertheless, both sociolinguistic approaches have deepened the understanding of CS in terms of its relationship with the dynamics of the social situations and the relationship with the participants in an interaction.

The following chapter provides a discussion on the current study’s methodology. The way of analysing the data will be discussed in the successive chapters where we will be looking at markedness as well as grammatical features of CS in the data.

## **Chapter 4. Methodology and analytical framework**

### ***4.1 Introduction:***

In an effort to address the research questions of the current study, several tools were used for collecting and analysing the data. Before the planned fieldwork, an ethical approval from the Ethics Committee of Newcastle University was obtained in order to collect the data from real life contexts. The fieldwork was conducted in two different bilingual domains - home and the Libyan Arabic weekend school in Newcastle. The collected data were then quantitatively and qualitatively analysed based on the approaches selected for the study. This chapter provides the basics of this study and contains six main sections and a conclusion. The first section represents the introduction. Section two clarifies the criteria of selecting the participants and includes subsections about data collection tools. Section three describes the fieldwork that was carried out in the two bilingual contexts including the fieldwork ethics and how the issue of ‘observer’s paradox’ was dealt with. Section four gives background information on the data and presents a brief discussion on the Arabic language and Libyan dialects as spoken by the participants. Section five provides the transcription method employed in the study. Section six discusses the analytical frameworks used in the study. Section seven clarifies how to decide on utterances and switches for the analysis.

### ***4.2 Selecting the Participants:***

According to evidence provided from different studies on childhood bilingualism (e.g., McClure, 1981, Zentella, 1997, Reyes, 2004), older children are expected to use CS at a higher rate and for more varied sociolinguistic functions than younger children do. That is because older bilingual children would have developed a higher level of proficiency in their two languages and a greater knowledge for the grammatical systems of those languages which are necessary for CS (Poplack, 1980). In addition, older bilingual children would have been exposed to more varied social experiences than younger children, and these experiences would increase their social knowledge and ability to use CS for different sociolinguistic purposes (Reyes 2004) which is important for the aim of this study. Therefore, selecting older bilingual children to participate in the current study became an essential criterion.



The selected participants were 30 Libyan Arabic and English bilingual children, aged between 8 and 11, and divided into three age groups: 8-9; 9-10; and 10-11 (this division was used for organizational purposes for conducting the Arabic and English languages assessment tests which will be discussed in the subsequent sections). The gender of the children was roughly balanced. The main variables which remain constant with respect to those children were their age range and their Arabic-English active bilingualism (i.e., their capability of understanding, reading, and speaking both languages). All of the children's parents had a university level education with good command of English and had spent a long period of their lives living in the UK or studying there. All the children at the time of data collection were living in Newcastle and went to mainstream English schools and also attended the Libyan Arabic school in Newcastle every Saturday during term time. The participants were therefore well acquainted with one another. Prior to the final selection of the children to participate in the current study, two different sociolinguistic questionnaires were distributed to the target participants and their parents in order to provide background information about them to form the basis for the study (copies of the questionnaires are supplied in appendices A, B, and C). In addition, two language proficiency assessment tests were conducted with all target children in order to evaluate their linguistic skills in both languages and to test that their CS patterns were not a result of general lack of proficiency in either language. This is because evidence from the literature (e.g., Hughes et al., 2006, Genesee, 2008, Silva-Corvalán, 2014) showed that bilinguals may switch between their two languages due to their lack of knowledge in their languages (the assessment test will also be supported by the evaluation of the children's Arabic language skills in the following chapter). The sociolinguistic questionnaires and the language assessment tests are illustrated further in the following subsections.

#### ***4.2.1 Parents' information questionnaires***

It is well known that the languages spoken at home as well as parents' language choice and attitudes towards their children's bilingualism and CS do have an impact on the children's bilingual behaviour (Comeau et al., 2003, Yu, 2014). Thus, it was important to gather as much information as possible regarding the language background and linguistic behaviour of the children and their families as well as the parental attitudes towards their children's bilingualism and CS.

Two personal information questionnaires were distributed to all parents of the target participants: one was designed for gathering information about the parents' language background and bilingual attitudes in different social domains, and the other was constructed in order to yield useful information about their children's languages and social background (i.e., age, number of bilingual siblings and friends at the Libyan school, etc.) (see appendices A and B).

With regard to the information about the parents, the questions included their first and second language (if applicable), their proficiency level in the second language, their nationality, their preferred language in different settings, the approximate time they usually spend interacting with their children in either language on a weekly basis, their attitudes towards their children's CS, and whether or not the parents were code switching at home. All this information was important for the aim of this study since research has shown that parents and their attitudes towards the second language play a significant role in influencing their children's bilingual development and language use (Hudelson, 1994, Dagenais, 2003, Dagenais et al., 2006, Ramos, 2007, Dagenais and Moore, 2008). Yu (2014), for example, monitored, for 28 months, the effect of parental language choice of English and Chinese on that of their children. He found that the parental use of English increased the use of English by the children, and if the parents responded in English to the children's CS, there was a little chance of the children to switch back to Chinese.

As for the children, the questions included the children's languages exposure, their proficiency in both languages, the age at which they learned English, the language(s) that they mainly use at home and with friends, and the children's attitudes towards using each language in different social domains. This information was also important in order to have a general idea about the children's linguistic proficiency in both languages as well as their language use before the final selection of the participants (some of this information are provided in Table 10 below).

The parents' answers in the questionnaires regarding their languages and social backgrounds were very similar in many respects. All of them have had a university level education with good command of English. The parents were a group of elite bilinguals who came to the UK to study or to live and work in different fields. In

addition, all the parents had positive attitudes towards their children's bilingualism and, at the same time, were keen to maintain the children's heritage language by encouraging them to speak Arabic at home. Moreover, all the parents usually code switched with their children, and did not generally prevent them from CS or using English, albeit Arabic, according to their answers, was their preferred language in the home context. The similarity of all the above characteristics of the parental socioeconomic status, linguistic behaviour and attitudes towards the children's bilingualism and CS was useful. This is because it ensured the limitation of the variables in the sample with respect to the participants' bilingual behaviour, hence, it guaranteed that the outcome of the analysis would be consistent and applicable to all other children from similar social backgrounds.

With regard to the children's language use in the home domain, according to the parents' answers, all the children spoke both languages in conversations with their parents and siblings. However, the parents indicated that their children mostly used Arabic when interacting with them and English when speaking with their siblings.

By using the information in the above two questionnaires the researcher was able to select the most suitable participants for the study. That is, the questionnaires helped the researcher to try to control as much as possible for external factors. For example, if one or both of the children's parents prevented their children from speaking English in the home domain or from CS (probably due to their fear of first language attrition), this might affect the children's bilingual behaviour and language choice, consequently, CS might not occur in sufficient frequency to result in ample data. Furthermore, the parents' answers in the questionnaires regarding their children's languages proficiency were useful at the preparatory level of the children's language assessment tests, which were conducted before the final selection of the participants. Namely, only the children who were evaluated by their parents to have good command of both languages were selected for the assessments. These two assessments will be illustrated in the subsequent sections.

#### ***4.2.2 Children's information questionnaires***

In addition to the parents' questionnaires, copies of child-friendly sociolinguistic questionnaires (see appendix C) were given to the children during the Arabic school

break time in order to elicit as much information as possible regarding their bilingual behaviour in different social settings. The questionnaire was meant to give the researcher first-hand information about the children's attitude towards the two languages, CS, and their language choice of conversation.

Two versions of the children's questionnaire were made, one in English and the other in Arabic, and the children were asked to choose between the two. As expected, all the children picked the English one since English, as observed by the researcher, was the mostly used language by the children in the Arabic school domain. The researcher asked the children to answer all the questions and to ask for clarifying any ambiguity which they might encounter. The questions were generally about their preferred language(s) in different settings and with different addressees, their use of CS in the home context with their parents and siblings, and their language choice and CS in the school domain with their friends. CS was described to the children as the use of a mixture of English and Arabic in the same conversation.

The aim of the questionnaire was to help better understand the link between the children's social background and their linguistic behaviour in certain contexts. For example, they may switch between the two languages "as a signal of group membership and shared ethnicity" (Holmes, 2013, p. 35), or to show power over the less powerful (Al-Khatib, 2003a), etc. All questions were simplified with clear short answers as options.

With regard to the children's language preference in the home domain, their responses showed a consistency with their parents' answers in terms of their tendency to use each language with different interlocutors. That is, all the parents indicated that their children used both languages in the home domain, but they tended to use more English with their siblings and more Arabic with parents. Similarly, the children stated that very often, they communicated with their parents in Arabic and siblings in English. As for the school domain, all children's responses denoted that both languages were used in conversations with their bilingual peers, but they preferred English and used it more of the time. Here, it should be noticed that Modern Standard Arabic (MSA) (see section 2.10) was the language used for instruction in the Libyan school, where the children went every Saturday and spent approximately 6-7 hours learning the Libyan Arabic curriculum. Therefore, it is likely that the children used more Arabic than English in

the school domain when going through Arabic lessons and subjects with their teachers and classmates. Thus, as can be deduced from all the information provided, the children's general pattern of language use was English with friends and siblings; and Arabic with parents, teachers, and classmates in specific situations.

Table 10 below, presents the general characteristics of the participants, and their English and Arabic proficiency levels based on the overall scores which the participants obtained in the languages' assessment tests (refer to the next sub/sections). For the purpose of brevity and privacy, pseudonyms were used for the participants throughout the study.

Coding keys: COB (country of birth), Ex. to E (exposure to English), SB (since birth), English Pro. score (English proficiency standard score), Arabic pro. score (Arabic proficiency standard score). (The next sub/sections discuss how these scores were calculated).

Name	Age group	COB	Ex. to E /year	Residency in UK/ year	English prof. score	Arabic prof. score
Hammam	8-9	UK	SB	8	87	83
Nader	8-9	Libya	3	5	96	82.8
Nihal	8-9	Libya	3	5	86	77.5
Sulima	8-9	Libya	SB	9	97	82
Rania	8-9	Libya	2	5	87	80.25
Nisreen	8-9	Libya	3	6	88	81.7
Tasneem	8-9	Libya	2	6	98	81
Leena	8-9	Libya	2	7	88	80.8
Abdo	8-9	Libya	2	6	97	81.8
Suhaib	8-9	Egypt	1	7	94	79.8
Khaled	9-10	UK	SB	8	87	84.8
Jamal	9-10	Libya	2	6	99	82.25
Mohamed	9-10	Libya	SB	9	84	83.5
Aseel	9-10	UK	3	6	99	85
Zainab	9-10	France	2	8	89	83.8
Noor	9-10	Libya	4	7	97	82
Marwan	9-10	Libya	3	8	99	80.25
Tammer	9-10	Libya	4	7	96	80.5
Adnan	9-10	Libya	3	7	88	81.25
Yaseen	9-10	Libya	3	7	89	82.8
Alya	10-11	Libya	SB	10	94	82.5
Rana	10-11	Libya	5	6	101	83.5
Mus`ab	10-11	UK	SB	10	96	83
Kamal	10-11	Libya	2	8	92	84.5
Asma	10-11	Libya	4	9	103	85
Zahra	10-11	Turkey	2	9	105	84
Munira	10-11	Libya	3	7	105	85.5
Hana	10-11	Libya	2	8	103	86.25
Taiba	10-11	Libya	3	7	99	86.75
Farah	10-11	UK	4	6	104	86.75

Table 10: Characteristics of participant children in the current study.

#### 4.2.3 Assessing the participants' language proficiency

As indicated previously, the target children's linguistic abilities in Arabic and English were assessed in order to ensure that they have sufficiently high levels in both languages to be able to switch effectively (without violating the grammatical rules of either

language). Here, it should be clear that having a perfect balanced bilingualism was not a main criterion for selecting the participants for this study, given the fact that it is hard to achieve, and consequently it is very rare (Beardsmore, 1981, Grosjean, 1982, Stern, 1983, Myers-Scotton, 2002). However, having high (but not necessarily balanced) levels of proficiency in both languages was an essential requirement. Thus, in order to ensure that all participants met this criterion, two language assessment tests were conducted on the target children, and only those who scored within the normal ranges in each assessment were selected to participate in the main study. The following sections illustrate these assessment tests and show how the mean score of each test for each age group was calculated.

#### ***4.2.4 English and Arabic proficiency tests***

The parents' answers in the questionnaires regarding their children's linguistic abilities in Arabic and English could give useful information about the levels on which both languages are spoken. However, this information might not be very reliable as a means for assessing the children's linguistic skills in both languages. Therefore, two different language proficiency tests were conducted on the children for an extra check.

With regard to Arabic language, the children's proficiency was measured using a test battery consisting of the following four sub-tests: Sentence Comprehension test (SCT), Expressive Language test (ELT), Sentence Repetition test (SR), and the Arabic Picture Vocabulary Test (APV) (Shalan, 2010). As for English, CASL test (comprehensive Assessment of Spoken Language) (Carrow-Woolfolk, 1999) was used to measure the children's expressive, receptive, and retrieval skills in oral language. Data collection for all of the above tests took place during the researcher's visits to the participants' homes. In some cases, the researcher had to make two visits to complete all the tests if the child showed signs of fatigue or lack of interest. The following subsections provide an illustration for each test with their scoring methods and the results obtained by each age group.

- ***Arabic language skills assessment:***

Since the target population in this study consisted of children between the ages 8 to 11, the first challenge faced the researcher in assessing their Arabic language proficiency

was the lack of standardised Arabic tests designed for the 8 to 11 age range. Shaalan (2010) reported similar difficulty in his study, which investigated language skills in Gulf-Arabic speaking children with specific language impairment (SLI) compared with typically developing children. Because of the paucity of the standardised Arabic proficiency tests, Shaalan developed various language assessment tests in his study, in order to identify the Arabic linguistic abilities in 88 typically developing children and 26 children with SLI, aged between 4;6 and 9;4. These assessment tests included the Sentence Comprehension test (SCT), Expressive Language test (ELT), Sentence Repetition test (SR), and Arabic Picture Vocabulary test (APV). According to the findings of Shaalan's study, the tests revealed appropriate levels of reliability and validity which supported their usefulness to diagnose children with SLI based on the comparison between their language performance patterns and that of typically developed children. In addition, Shaalan found that the standard scores obtained by his subjects in each test were consistent with results reported in other languages.

In looking at the age groups used in Shaalan's research (4;6 -9;4 years old) and to his findings regarding the tests' good levels of reliability and validity in evaluating Arabic proficiency in children, the above test battery was considered a suitable tool to be used with the participants of the current study. Although the initial aim was to find standardised tests that could be administered with children belonging to all age groups selected for this study (between 8 and 11 years old), it was not possible due to the lack of such tests for the participants aged between 10 to 11 (the following chapter will be devoted to analysing the participants' Arabic-only utterances found in the data to add support to the tests' results). Nevertheless, the material used in Shaalan's tests and their assessment criteria show that they possess good measuring properties and could be satisfactory for evaluating the Arabic skills in all the participants of this study.

Before conducting the Arabic assessment, all the tests' materials were converted to the Libyan dialect in order to render them more relevant to the participants. In addition, a pilot test of the Libyan Arabic assessment version was conducted with two participants, aged 8 and 11 (given that they represented the youngest and oldest age-groups in the study) to ensure its relevance and to make any necessary adjustments to the questions. The pilot results revealed the suitability of the assessment to the children's ages, since



they did not experience any difficulty in understanding the assessment content, nor did they reach ceiling level in their responses; hence, no further adjustment was required.

With regard to the main language assessment, all of the children were assessed during the researcher's visits to their homes. The time it took to complete all the test battery (i.e., SC, EL, SR, and APV) ranged between 50 to 60 minutes, depending on different factors, such as the children's ages and time for a break if the child asked for this (some examples of each task is found in appendix H).

For analysing the data, the children were firstly divided into three age groups following Shaalan's test procedure (this division was for organisational purposes). This was because older children were expected to score higher than the younger children, since older children generally have more developed language skills than younger ones. In doing so, the assessment started by conducting the full battery of tests with the children to identify the norms for each test and for each age groups in yearly bands. Cut off scores of standard deviations below which the child would be excluded were calculated for each test. The following subsections provide an explanation of all the above subtests and their scoring methods.

- **Sentence Comprehension test (SCT):**

The first test conducted on the participants was the Sentence Comprehension (SCT) test, which examined their comprehension of various syntactic, morphological, and morphosyntactic structures for a total of 40 linguistic items. In this test, the child was asked to listen to a sentence produced by the researcher and then choose the correct picture among four different pictures, which corresponded with what s/he heard. During the testing, the children were given a chance for self-correction and the second trial was considered the final score. The scores for this test were 0 for the incorrect answers and 1 for the correct ones, and the highest possible calculated score was 40/40.

- **Expressive Language test (ELT):**

The second Arabic test was the Expressive Language (EL) test, which was conducted to examine the children's production of different morphosyntactic structures of 68 items with varying degrees of complexity. In this test, the child was required to look at some pictures and complete what the researcher had said about them. For example, in case of

irregular plural structure in Arabic, the researcher (showing the child a picture of a book) said (in Arabic) “here we have a picture of a book, and here (pointing to another picture of three books) we have three ...” (the child was expected to answer books in Arabic). The children had to answer all items in this test. The scores were recorded in the testing booklet by circling number 1 for the correct answers, 0 for the incorrect ones and NR for no response.

- **Sentence Repetition (SR) test:**

This test consisted of 41 sentences arranged according to their length and level of difficulty, from the least to the most difficult orders. The children were asked to listen to some sentences pronounced by the researcher and then repeat them exactly the way the researcher said them. The scoring method for this test was as follows: the children got 3 points if they repeated the whole sentence without errors, 2 points if there was one error, 1 point for two-three errors, and 0 for no response or if there were more than 3 errors.

- **Arabic Picture Vocabulary (APV) test:**

The last test was the Arabic Picture Vocabulary (APV) test, which consisted of 132 items ordered in a booklet according to their difficulty and divided into 11 groups with 12 items in each group. The booklet contained 132 pages and each page depicted 4 different pictures. The children in this test were asked to point to the correct picture that corresponded with the word the researcher had said. The scores for this test were recorded on a score sheet where the children received 1 for the correct answers and 0 for the no response or incorrect answers. The total raw score for each child was calculated by subtracting the number of errors s/he made from the number of the items in the test. For example, a child who had a total number of 20 errors would have a raw score of 112.

• **Discussing the tests’ results:**

The above subtests measured the children’s production of various Arabic linguistic skills and the results of each test were calculated separately. In order to meet the criteria for passing the Arabic assessment, each child had to achieve within the average score

and the cut-off point of all the tests. Among 43 children who underwent this test battery, 13 children could not achieve the required scores in one or all tests; hence, were excluded from the participation in the main study. Thus, the total number of the children who passed all the tests in each age group was 30, distributed within each age group as follows: group 8-9 = 12; group 9-10 = 8; group 10-11= 10.

With regard to the results of each subtest, Table 11 below summarises the mean average scores with the standard deviation of each test and the scores achieved by each age group excluding the children who did not pass the assessment ( individual scores can be found in appendix I).

Coding keys: MA=mean average, STD= standard deviation

Highest possible scores	SC	EL	SR	APV
	40	68	123	132
Age group 8-9				
Test	SC	EL	SR	APV
Score	32-37	60-66	111-116	107-113
MA	31.44	53.25	95.75	94.13
STD	1.6	1.83	1.53	1.73
Age group 9-10				
Test	SC	EL	SR	APV
Score	35-40	62-66	110-115	114-119
MA	33.36	56	88.86	99.71
STD	1.56	0.62	1.81	1.84
Age group 10-11				
Test	SC	EL	SR	APV
Score	37-40	53-68	115-120	114-119
MA	36.23	60.23	102.69	105
STD	0.88	1.73	1.77	1.9

Table 11: Average scores with the standard deviation of each Test.

The results in Table 11 show that generally the children did not seem to have significant difficulties with the Arabic skills compared with the rest of the population who scored behind the standard scores. Therefore, the selected participants were considered proficient in Arabic.

- *English language skills assessment (CASL test):*

As stated before, the children's English language skills were measured using CASL test (Comprehensive Assessment of Spoken Language) (Carrow-Woolfolk 1999). This test is used for a variety of experiments, including the measurement of language abilities in English learners. The test is a norm-referenced and research-based oral language assessment battery which targets individuals aged between 3 and 21 years old. According to the author, the CASL test aims at (1) identifying language disorders, (2) diagnosing spoken language, (3) monitoring the growth in language skills and knowledge, and (4) conducting research on oral language skills. Given the support in literature for the validity of using this test in assessing language skills across different domains of oral language (i.e., expressive, receptive, and retrieval skills) and because this test covers all the age range selected for the current study, it was considered sufficiently reliable for evaluating the participants' English competence. Based on the criteria of selecting the participants for the main study, only the children who passed the Arabic assessment test underwent this assessment.

Overall, CASL test contains 15 subtests that evaluate four categories of spoken language: lexical/semantic, syntactic, supralinguistic, and pragmatic. These subtests are classified according to the age of the examinee as core, supplementary (optional but provides additional information that may be helpful), or not required. Thus, individuals are not required to take all the subtests because they are determined at a developmentally basis. In addition, each of the subtests is used independently and yields a raw score which can be converted into a standard score (mean of 100 and standard deviation of 15) using the norm booklet to determine the examinees' equivalent age range and the percentile rank based on their performance levels. Both core and supplementary tests have the same basal and ceiling rules. The basal rule is the rule that if the examinees received incorrect answer for the first three questions, they would progress into the previous age range until they get three correct questions in a row, so they would obtain a score of 1. The ceiling rule is when the examinees answered five consecutive questions incorrectly, they would get a score of 0 which would be the end of the section.

Based on my participants' age groups, they had to take the following core and supplementary tests as determined by CASL classification system:

- **Antonyms (AN):**

This subtest contained 55 items and required the examinee to provide words that expressed the opposite meaning of those given by the researcher. So, this test measured the children's ability in word retrieval and knowledge of opposites.

- **Syntax construction (SC):**

In this 56-item subtest, the researcher pointed to a picture and read a stimulus about it. For example: the researcher (pointing to a standing boy) said 'here the boy is standing', and then (pointing to the setting boy) the researcher said, 'here the boy is \_\_\_'. The child had to respond by using words, phrases, and sentences which were grammatically and semantically appropriate. The aim of this test, therefore, was to assess the children's use of morphosyntactic rules in constructing sentences.

- **Paragraph comprehension (PC):**

This subtest consisted of eight paragraphs and a number of accompanying questions. The researcher read the stimulus paragraph and each question; and the child had to select one of four pictures which answered the question correctly. This subtest, therefore, aimed at measuring the children's comprehension of syntactic structures.

- **Grammatical morphemes (GM):**

This subtest measured the children's knowledge of the grammatical analogy and comprises of 60 items. The researcher read one pair of words or phrases that showed an analogy, then read the first word or phrase of another pair. The child had to provide the correct analogy of the second pair of words or phrases given by the researcher.

- **Nonliteral language (NL):**

This subtest aimed at assessing the children's understanding of the nonliteral language. It contained 50 items and questions related to them. The researcher read

each item and question and the child was required to explain the nonliteral meaning of each item.

- **Discussing the tests' results:**

Like the Arabic test battery, the mean average and cut-off scores for CASL test were calculated for each subtest according to each age group. By using the test manual, the appropriate standard score for each subtest was determined based on the raw scores each participant had obtained. All standard scores from all subtests were added to calculate the composite score for each participant. Next, the sum of the composite score was located in the appropriate table in the test manual to finally determine the corresponding standard score that shows each participants' proficiency level. Standard scores between 85 and 115 were considered average performance for each subtest. The results indicated that all the children met the requirement of passing the CASL test, therefore, were selected to participate in the main study. Table 12 below shows the standard scores achieved by each age group in each subtest (individual scores can be found in appendix J):

Subtests	Antonyms (AN)	Syntax construction (SC)	Paragraph comprehension (PC)	Grammatical morphemes (GM)	Nonliteral language (NL)
Age group 8-9					
Standard score	86 - 95	89 - 95	87 - 94	85 - 95	86 - 95
Age group 9-10					
Standard Score	87 - 99	87 - 94	90 - 100	86 - 98	93 - 96
Age group 10-11					
Standard Score	92 - 96	89 - 94	90 - 95	85 - 98	94 - 101

Table 12: The results of the participants' English assessment test.

The children achievement in this test was anticipated, considering that all of them had been exposed to English since their early childhood and spent most of their life in the UK, where they went to main-stream schools. Consequently, they would have developed a high degree of English proficiency.

When comparing the English and Arabic tests, it is clear that they did not assess the same levels of competence. The Arabic assessment (which, to the best of the researcher's knowledge, was the only available Arabic test that was relevant for the participants' age range) had fewer comprehensive subtests than the English one. Therefore, the Arabic assessment measures might not have utilized all of the crucial aspects of Arabic necessary to capture the participants' proficiency level. In addition, the Arabic assessment was developed in another dialect, so it was not particular to the Libyan Arabic. These limitations suggest that to ensure a better understanding of Libyan school-aged bilingual children's level of language knowledge in Arabic, there is a need to develop language assessment measures that include more complex language skills in the Libyan dialect and a broader range of language abilities. Nevertheless, the findings of the current study revealed comparable results in terms of the children's level of the assessment scores in both languages, which systematically rated them as competent. Therefore, it seems unlikely that the differences between the two tests will attenuate the validity of the children's Arabic skills assessment. The analysis of the children's spontaneous utterances in Arabic in chapter 5 further supported this view.

The adaptation of the Arabic tests to the Libyan dialect that was carried out in this study provides a useful contribution to the field of Arabic language assessment, especially since there is a lack of standardized Arabic proficiency tests for school-aged children in Libyan dialect. And since this is the first attempt at developing such test, all these assessment tools warrant further revisions and should be administered with a larger number of participants.

### ***4.3 Fieldwork and Main Data Collection:***

Before conducting all the fieldwork (including the language assessment administration) in the two social domains – Libyan weekend school and home, the ethical approval from the Ethics Committee of Newcastle University was obtained. After securing this approval, a consent form was signed by the parents of each child as well as the principal of the Libyan school in Newcastle in order to give the researcher the permission to visit the children's families and to enter the school for recording and observing the children at the times agreed upon. The fieldwork at the two social domains was conducted during the same weeks, from October 2015 to January 2016. The aim of this fieldwork was to

collect the required data by observing and recording the natural bilingual speech of the children while they were interacting with members of their families at the home context and with their bilingual peers at the Libyan school context. The purpose was to be able to analyse their CS patterns, keeping in mind the research questions of the study.

As could be noticed from the collected data, the general pattern of the children's language use with regard to the different social settings was Arabic language for the home context with parents, and English with siblings and friends in the school context. The use of English, therefore, featured in much of the data. Since the main focus of this research was on instances of CS performance, only the data which consisted of the children's language alternations was used in the analysis. The following subsections give more details on the data collection procedures in each context.

#### ***4.3.1 Fieldwork in the school context***

The Libyan school in Newcastle was one of the 21 Libyan schools across the UK which were run by the Libyan Ministry of Education and managed by the Libyan Cultural Affair in London. These schools have been established to offer Libyan Arabic curriculum on Saturdays every week during term time for all Libyan children living in the UK. For Libyan children, it was a part of the Libyan education system to attend the Libyan schools abroad and to study its curriculum. It could be said that the Libyan school in Newcastle was a homogenous school for the following reasons: all the children came from families from similar backgrounds, the children spoke only the Libyan dialect in addition to English, and all the children were either children of students or children of immigrants.

The language of instruction used in Libyan schools is Standard Arabic, a formal Arabic variety that is based on Classical Arabic (see section 2.10). However, in all Libyan schools (whether in Libya or abroad) Standard Arabic is usually modified to a simpler form that can be relevant to the everyday language which individuals speak in order to facilitate learning.

In the Libyan school domain, the data of the current study were collected on school days (Saturdays) during a number of informal and unstructured play sessions in the break time, which usually lasted between 30 to 35 minutes. The speech samples were



elicited from naturally occurring conversations between the participants who were divided into self-selected dyads to play with iPad games relevant to their ages. These games included a selection of Arabic and English video games from which the children had to choose what they were more interested in. In all the recording sessions, 2 out of 15 dyads chose Arabic games while the rest preferred the English ones. However, the children who chose the Arabic games did not spend much time playing the same game as they converted to the English games within the first ten minutes of starting the recording.

Selecting the Arabic and English games in the school context seemed to establish the participants' language use patterns. That is, in the case of playing English games, the theme or topics of the conversations were mostly in English with the use of some words and sentences in Arabic. Hence, English was the mostly used language of the conversations while Arabic featured as the embedded language. The same pattern was noticed in the children who chose the Arabic games where they tended to use mostly Arabic in their interactions before they changed to play the English games. This finding gives an indication that the topic of conversation could be an important factor that influences the speech behaviour of the participants in the school context.

Table 13 below shows the language use patterns of the children who played the Arabic games within the first 10 minutes of the recording compared with their language use in the rest of the session. It is noteworthy that a lot less was said in the first 10 minutes in both cases, even though the duration of the second part is double or more. This may suggest that the children were not very comfortable using Arabic as the main language.

Participants & age group	utterances within the first 10 mins of the recording		utterances within the rest of the recording (from 20 -25 mins)	
	Arabic	English	Arabic	English
<b>Abdo 8-9</b>	41	13	12	157
<b>Suhaib 8-9</b>	37	9	10	133
<b>Asma 9-10</b>	19	10	8	185
<b>Zahra 9-10</b>	25	9	13	189

Table 13: Language use patterns of the children who played Arabic and English games.

In each audio recording session, the participant children were taken to a separate room and each two dyads played in the same room in different areas in order to avoid any overlap between the conversations. To do the recording task, the researcher used two digital recorders to record the two conversations. Throughout the play sessions, the researcher was always present in order to monitor the recording process and to take notes about the general contextual information which might be important in the analysis. Here, the problem of the “observers’ paradox” (Labov, 1972) which is influencing the subjects’ bilingual behaviour through the researcher’s observation and the clear explanation of her interest had to be taken into consideration.

According to the terms and conditions of any fieldwork ethics, it is the researchers’ responsibility towards their informants to explicitly explain their goals and procedures in the study in order to avoid gathering information through deceptive practices while misleading the informants. However, given that the main interest of this study was to obtain authentic data that were not affected by any changes in the participants’ behaviour resulting from being aware of the research carried out, the researcher took a balanced position that was acceptable to the ethical dimension and could minimize the effect on the normal behaviour of the participants as possible. In this regard, the researcher provided general information to the participants about the purpose of the activities at hand by informing them of her interest in the general patterns of communication between bilinguals. Nevertheless, in all cases, the issue of the “observers’ paradox” did not constitute a difficult problem since in all recording sessions the children soon got involved in the play and forgot that they were being observed and recorded and, hence, acted naturally within the first few minutes of starting the recording.

#### ***4.3.2 Fieldwork in the home context***

In the family domain, the children were observed and audio recorded while interacting spontaneously in their home environment with members of their families. The participants’ speech samples in this domain were collected during the researcher’s visit to their homes, and each recording lasted between 30 to 40 minutes.

A small digital voice recorder was placed in the places where the participants usually had activities such as watching TV, playing video games, or having a discussion with

a parent or/and sibling on any issues. Some children were recorded with their mothers in the kitchen where they had conversations about any events while eating their meals. Other children were recorded in their bedrooms where they played and interacted with their siblings in situations where no parent was present. As it was the case with the school domain, the researcher had to reduce the “observer’s paradox” effect on the children’s speech as possible. So, she sometimes left the room where the recording was being taken place.

As it was expected based on the answers provided in the questionnaire regarding the children’s tendency of using each language with different addressees, it was observed that the children who were recorded with their bilingual siblings when no parent was present used mostly English in their conversations. On the other hand, those who were recorded with a parent tended to use more Arabic utterances than English, despite the fact that all parents in this study spoke both languages. This characteristic of the children’s bilingual behaviour may reflect the fact that the children were aware of their interlocutors’ preferred language in the home context. This hypothesis can be supported by the answers provided in the questionnaires, which showed the parents’ preference and encouragement to their children to use Arabic in the home domain, and secondly, the children’s preference of using English in their interactions with siblings. Thus, this bilingual characteristic of the participants suggested that their adherence to the interlocutors’ preference was an important factor that governed their selection of the mostly used language of the conversation. Consequently, it can be deduced that the interlocutor category featured as an influential social category related to the participants’ code choice in the home context.

#### ***4.4 The Main Data Used in the Study:***

As discussed earlier, this study aims at evaluating the participants’ communicative and linguistic competences, focusing on the structural and social aspects of their CS behaviour. Following this purpose, the study will focus on instances of unmarked and marked CS and observe the linguistic constraints in these alternations.

I will firstly look at the syntactic structures of CS data in terms of intersentential, intrasentential, and extrasentential variations, which distinguish the different patterns of CS used by the participants. The ML of these patterns will be then considered with

the influences of the social context of the participants' conversations (with respect to setting, interlocutors, expected language of interaction, etc.) in order to highlight the aspects of marked or unmarked CS, where unmarked CS refers to the expected code in the current speech situation and marked CS refers to the unexpected code.

The defining features of unmarked category are usually associated with the referential and discourse functions of CS, whereas the marked category relates to the speakers' intentions of divergence or convergence with their interlocutors (refer to the discussion on Speech Accommodation Paradigm section 3.5). Thus, where the participants' patterns of CS are relevant to the aim of this study in terms of the above linguistic and communicative characteristics, the competence-based approaches selected in this study (the linguistic and sociolinguistic approaches) will be employed and the functions of CS will be explored in order to understand the social meanings which are attached to the participants' bilingual behaviour.

#### ***4.5 Transcription Method:***

After the recording sessions in the home and school contexts, all the utterances in the recordings were transcribed by the researcher by means of a transcription program called CLAN (an example of the transcription is provided in appendix D). It should be noted that the transcription included not only the main participants' utterances but also their interlocutors' utterances in the bilingual conversations of interest in order to be able to determine the social situation for the sociolinguistic analysis. Before starting the process of the data transcription, it was important to decide which convention and format was more suitable for the interest of this study. Therefore, standard English orthography for English utterances was considered a good choice for my purpose since the representation of accurate phonetic or phonemic details are not my main concern. As for Arabic utterances, they were represented through the Arabic transcription convention in SemTalk.

Because of the complexity in the Arabic morphology, the use of the grammatical markers in the intrasentential switched utterances will be useful in the transcription in order to enable the reader to know exactly which item(s) is being code switched or not. So, in transcribing the Arabic utterances, some stages will be followed: Firstly, each utterance will be transcribed according to the conventions chosen in this study.

Secondly, the utterances will be translated word by word into English using the grammatical markers where important. Finally, English translation will be produced in italics style to give the overall meaning of the utterance.

Following a transcription convention adopted by Al-Khatib (2003), bold fonts will be used in all English and Arabic transcripts for clarifying the switched items. Each transcribed utterance will be written separately and numbered to facilitate referencing for the reader, accompanied by non-verbal features where necessary. Finally, general contextual information describing the context of the speech situation will be presented at the beginning of each dialogue.

In addition to the verbatim transcriptions for both English and Arabic utterances, the use of writing conventions which indicate the features of speech such as punctuations and other additional elements, which may contribute to the utterances' meaning such as length of pauses, discourse markers, etc., will also be included in the transcription. All data will be represented in the lower case, except in the cases of mentioning proper names (when they are important), the word 'I', and the words that were said loudly, which will be transcribed in capital letters. Information regarding conventions used in representing the above conversational details are provided in Table 14 below as adopted from Bloomer et al. (2005: 43-48).

<b>Abbreviation and conventions</b>	<b>Meaning</b>
(2.0)	length of pauses in seconds
(.)	Micro-pause
[	overlapping
X	Names mentioned in the conversation
(( ))	Extra information provided by the
(...)	Omitted sections
( )	Unintelligible talk
?	question
!	Exclamation mark
(laugh)	laugh
CAPITALS	loud

Table 14: A list of conventions and abbreviations.

#### ***4.6 The Analytical Framework:***

The framework of analysis used in the current study takes the view that CS is not linguistically arbitrary and can perform communicative functions, as the starting point of its inquiry. It starts from the view that speakers' CS performance can reflect their linguistic competence if it meets certain linguistic conditions, and also from the fact that their CS can be marked or unmarked according to the needs of the immediate utterance in the speech situation.

As discussed earlier in the Literature Review Chapter, the phenomenon of CS has been studied by many researchers from different dimensions according to the researchers' area of interest. Among the main perspectives used to interpret CS data are the structural and sociolinguistic approaches which will be employed in this study since they best answer the research questions.

Incorporating the structural and sociolinguistic approaches in studying CS in this research can provide a complementary approach that seems to be able to probe beneath the surface structures of speakers' conversations and consider the minute details in their bilingual interactions. Thus, the application of both perspectives in the current study, focusing mainly on the linguistic characteristics, functions and motivations of CS, will reveal the speakers' aspects of linguistic and communicative competences.

##### ***4.6.1 The structural analysis of the data***

Following the purpose of this study regarding the evaluation of the participants' grammatical competence through their use of different patterns of CS, the baseline of deciding whether or not the participants demonstrate this competence draws on their ability to code switch in a manner that retains the grammatical constraints of both languages. In other words, the main criterion used to decide the participants' linguistic competence will be their unconscious knowledge of the grammatical constraints of CS which can be demonstrated through their ability to produce well-formed utterances. Therefore, the categorisation of CS types will be based on the MLF and 4-M model, which also shares the same categorisation as Poplack's model. Then the grammatical stipulations suggested by the MLF and 4-M model will be applied to reflect on the participants' linguistic competence.

Based on the principles of the grammatical approach adopted for this study, the grammatical characteristics of the children's utterances will be analysed following the next process (all the examples mentioned here were taken from the current data):

- 1- Firstly, a distinction will be made in terms of intrasentential, intersentential, extrasentential switches, based on the following criteria of categorising CS types:
  - Intersentential CS where the integration of the two languages takes place between clauses or sentences such in: what's the password? **'atihali** (What is the password? *give it to me*)
  - Intrasentential CS where the integration occurs in the same utterance or word, such as: you always **turgdy badry** *.(you always sleep early)*; and, il **game-a:t** *(the games)* respectively.
  - Extrasentential (tag) CS which involves the insertion of a tag in one language in an utterance that is completely in the other language such in: I'll take it later, **tama:m?** *(I'll take it later, Ok?)*

Extrasentential switches in this study include all types of tag switching patterns that are inserted at the start or the end of the sentence or phrase. Thus, there are two types of patterns evident in this form of CS: sentence-initial and sentence-final tags. In addition, the insertion of these tags may be in the form of one-word switches or as a combination of some morphemes. It should also be noted that tag switches involve the use of some expressions that express the speakers' perception or attitude toward something said in the conversation. As an example for this category can be found in the utterances: you are the only person who knows that ?! **min jiddik?!** *(you are the only person who knows that?! seriously?!)*; and, **oh no!** xarrabty kul h:aj:a *(Oh no! you ruined everything)*.

For intrasentential CSs, an identification of the ML will be made per clause according to the principles of the MLF and 4-M model. Each clause will be identified as having either Arabic or English as the ML.

- 2- The identification of the ML under the MLF and 4-M model will involve, firstly, the analysis of the morpheme word order of the switched constituents which has to follow that of the ML. In cases where the identification of the ML is not possible by using this principle (because of the length of the switched constituent or because the morpheme word order is the same in both languages), then the

system morpheme principle within the 4-M model will be applied. The 4-M model is used alongside the MLF model to provide a more precise description of the morpheme types in terms of their syntactic functions, and in terms of how they are activated and accessed in the course of language production ([Myers-Scotton and Jake, 2009](#)). The first morpheme types in this model are the content morphemes, which assign or receive thematic roles, such as verbs, adjectives, nouns, and most prepositions. The second types are the system morphemes, which do not perform any of these functions, and they include most function words and inflections (e.g., determiners, conjunctions, quantifiers). According to Myers-Scotton ([2006, p. 245](#)) “[P]rototypical system morphemes are all affixes (bound morphemes) and some function words that stand alone”. The system morphemes are divided into two subcategories which are:

- Early morphemes which depend on the head of the content morpheme for information about their form (e.g. determiners, plurals-s).
- Late morphemes, which are categorised as two: bridges or outsiders.
  - Bridges, which link content morphemes to form larger well-formed utterances such as the possessive *of* and -s. So, for information about their grammatical forms, they depend on information from their maximal projection.
  - Outsiders in which the grammatical information is embedded. So, the form of these morphemes depends on information from outside their immediate environment (e.g. subject-verb agreement, where the subject provides the information about the form of the verbal affix) as opposed to the bridges.

The system morpheme principle within the 4-M framework requires that only the late system morphemes should come from the ML, while the other morphemes may be provided by the EL.

- 3- The next step involves the identification of the EL morpheme types that are inserted in the ML. The EL morphemes can be produced in different forms: firstly, as singly occurring word insertions, such as the example below in which the Arabic verb *nal'ab* (I play) is attached to the English system morpheme *ing*:

I was nal'bing  
 I was 1SING-**play-ing**  
*I was playing*



The other types of EL morphemes insertions can be as a form of EL islands. These forms are well-formed phrases of EL that occur within the larger ML framed bilingual clauses and show structural dependency relationships with the ML. That is, although they follow the EL word order and have their own system and content morphemes, they basically follow the ML placement rules within the larger bilingual clause. In the example below, the English phrase *stomachache* acts as the EL island in the Arabic ML:

‘sh:an huwwa ams k:an ‘indah **stomachache**  
because he yesterday had **stomachache**  
*because he had a stomachache yesterday*

In the analysis, categorising CS types as intrasentential, intersentential, and extrasentential alternations will be used to evaluate the participants’ aspects of linguistic competence in the two different bilingual contexts. In addition, the ML of the participants’ utterance will be correlated with the social situational aspects in order to reflect on their communicative competence. Lastly, in using the MLF and 4-M model, the analysis will allow us to critically approach some of the model’s assumptions in order to reveal whether or not they are applicable to Arabic-English CS data.

#### ***4.6.2 The sociolinguistic analysis of the data***

The sociolinguistic approach to CS provides another theoretical framework of language use which considers the influences of the social context on bilinguals’ language choice and seeks to answer the question of why bilinguals code switch in different bilingual situations. In the course of CS research, it has been recognised that bilinguals engage in CS as a reaction to several social factors related to either situational changes, in terms of participants, settings, topic of conversations, etc., or to the speakers themselves. Concerning the speakers, CS can be used in order to achieve specific communicative purposes within changed or unchanged speech situations. In this case, individuals themselves play the key role in CS behaviour. From this perspective, treating CS as an important and meaningful linguistic tool in bilinguals’ conversations, and as a social phenomenon that is not always determined by the situational changes can refute the negative assumption that CS within a stable speech situation reflects the speakers’ lack of communicative competence.

For the aim of this research, Myers-Scotton's (1995a, 1998b, 2006) MM's differentiation between marked and unmarked code choices will be applied on the data and examined with the ML of the participants' utterances in each conversational setting. The MM, as discussed earlier, is based on the premise that each conversational setting has its own rights and obligations (RO) and speakers have a cognitive markedness evaluator which enables them to identify and differentiate between the marked and unmarked codes according to norms of the speech situation. Making unmarked CS is very frequent and common in every bilingual society. It implies the idea that speakers affirm the norms and behavioural rules of the speech community and act according to their own obligations and their interlocutors' rights and expectations. Therefore, this kind of CS is generally natural and expected and does not convey any extra messages or indicate a change in the relationship between interlocutors. Making marked code choices, on the other hand, underlies speakers' defiance of the expected norms of the conversation and listeners' rights and expectations; hence, carries a social meaning of negotiating a change in the social relationship between the interlocutors within the micro-social context of the switched utterance. Thus, marked switching can be explained in terms of the interlocutors' relationship and not only the societal behavioural rules, since it is motivated by speakers' own intention of convergence or divergence with their interlocutor.

From what has been said, the distinction between marked and unmarked code choices within the social interaction can generally be based on the criterion of whether CS is used for strategic or non-strategic purposes. Unmarked CS is the type of CS that is employed to fulfil specific meta-linguistic functions such as in quotations or in topical borrowings (Al-Khatib, 2003b). That is, speakers may use this category when they want to identify direct and reported speech that has been said or written in the other language; or they may code switch by borrowing a lexical item(s) in its original form to refer to keywords when discussing a particular topic that has been spoken about or taken place in context of the other language (*ibid*). Other situations may involve functions such as reiteration in which the switching occurs when a message in one code is repeated in the other code. This repetition may have different functions such as clarifying what has been just said and also amplifying or emphasizing a message (Gumperz, 1982).

Marked CS, on the other hand, is characterised by being not reflective of the expected norms of language choice within the specific moment of its occurrence. In addition, it does not carry referential content or repetition but stands on its own to serve a strategic purpose of negotiating the social distance between interlocutors, either to increase or decrease it.

What needs to be pointed out in this study before starting the data analysis is that the idea that the social contexts where the current study's fieldwork was carried out were going to determine the language choice did not work. That is, despite the fact that the fieldwork was carried out in the Arabic school where the participants mostly used English in interactions with their peers, and at home where the participants used more Arabic with their parents and English with their siblings; the contexts of each communicative event were not a main determiner of which language was going to be the default. This is because all the participants throughout the recording sessions used both languages in each context. Therefore, the marked and unmarked use of CS was not a matter of flouting the English or the Arabic in the macro-contexts because of the expectations in these contexts.

For that reason, I departed from the method of correlating a specific language with each context and resorted to more micro-level of analysis, where I focused on individuals as units of analysis and looked at their language alternation patterns to determine which language is the default in the micro-context of the speech situation. Therefore, the sociolinguistic analysis in this study will focus on individual utterances in the sequential flow of conversation in order to interpret the utterances with reference to what has preceded them and to the ongoing interaction of particular events. This method will provide greater insight into the ways in which the participants get their communicative goals achieved interactionally and will reflect on their communicative competence. In this reflection, the participants would be seen as creative interactants who would be able to construct meanings through the use of marked and unmarked CS.

Thus, for the sociolinguistic analysis in this study, and following the discussion of the principles of MM and the relevant arguments in the Literature Review Chapter, the data will be initially examined in terms of the following aspects:

- 1- What are the communicative functions of the participants' CS?



researcher in an attempt to answer the research questions. The following chapter will present an analysis of the participants' Arabic utterances in the data in order to reveal their level of Arabic and to add more support to the results of the Arabic proficiency test.

## **Chapter 5. The Grammatical Dimension of the Participants' Arabic-Only Utterances**

### ***5.1 Introduction:***

The aim of this chapter is to reveal the participants' level of Arabic linguistic competence based on the Arabic grammatical structures which appeared in their Arabic utterances in the recordings. Given that the participants' dominant language was English and that the available Arabic assessment test which had been carried out on the participants before the data collection (see section 4.2.4 ) did not cover all the age range selected in this study as indicated previously, it was important to evaluate their Arabic linguistic competence further in order to add support to the test's results. The further evaluation of the participants' Arabic proficiency will also be important to strengthen the analyses and interpretation of the linguistic competence shown in their CS patterns, (as will be seen in the following chapters) in order to support the argument that the participants in the current study were proficient in both languages and that their CS was not the result of poor competence in one of the two languages. Thus, this chapter will investigate the morphosyntactic constructions of the participants' Arabic-only utterances which appeared in the data to look for evidence of advanced levels of proficiency in Arabic and to reflect on their linguistic competence. For this purpose, this chapter will contain the following main sections: the next section will provide the analysis of the Arabic structures which were found in the participants' utterances; section three will be the general discussion of the findings followed by section four which concludes this chapter.

### ***5.2 The Analysis of the Participants' Arabic Utterances in the Data:***

Before presenting the analysis, it should be relevant to remind the readers of the grammatical features that are expected to be found in the participants' utterances based on the developmental stages and rates of acquisition of Arabic grammatical features and structures as shown in the literature of Arabic acquisition (refer to section 2.3 and 2.11 which discusses the Arabic grammatical features and structures). It is noteworthy that authors of the studies found in the literature used different data sets in terms of participants, data collection method, etc. which could influence the findings. However,

since there was a lack of studies on Arabic acquisition, I used the available studies as a reference to establish the age of Arabic acquisition (see Table 15 below).

Grammatical structure	Approx. age of acquisition	How the data was collected
Regular plural	3+ (Omar 1967)	tests of imitation, comprehension, and production.
Sound feminine plural	1) 3+, 7+ (Ravid & Hayek <a href="#">2003</a> ), 2) 3+, 7+ (Saiegh-Haddad et al. <a href="#">2012</a> )	1) picture naming. 2) a repetition task, a structured production task, and a seminatural production task.
Broken plural	1) 5+, 7+ (Omar 1967), 2) 5+, 7+ (Saiegh-Haddad et al. <a href="#">2012</a> )	1) tests of imitation, comprehension, and production. 2) a repetition task, a structured production task, and a seminatural production task.
Dual inflection	1) 5+, 8 (Omar 1967), 2) 5+, 8 (Ravid and Hayek <a href="#">2003</a> )	1) tests of imitation, comprehension, and production. 2) picture naming.
Interrogation	2:4 Al-(Buainain <a href="#">2002</a> )	written notes of day-by-day routine.
Interrogative question words	1) 5 (Al-Buainain 2002), 2) 5 (Basaffar & Safi <a href="#">2012</a> )	1) written notes of day-by-day routine, 2) using a video-clip description task and a story re-tell task.
Negation	5:6 (Al-Buainain <a href="#">2002</a> )	written notes of day-by-day routine.
Verb inflections	1) 2 (Aljenaie <a href="#">2001</a> ), 2) 2 (Basaffar & Safi <a href="#">2012</a> )	1) spontaneous speech recording, 2) using a video-clip description task and a story re-tell task.
Gender, singular, and dual	8-10 (Moawad <a href="#">2006</a> )	a picture selection test and an elicited production test.
Syntactic orders	2:6-3 (Khamis-Dakwar <a href="#">2011</a> )	a repetition task.

Table 15: The grammatical structures that are expected to be found in the participants' utterances.

Wolfson (1981:9) argues that researchers' direct observation and participation in a different variety of naturally occurring speech are required during data collection. Nevertheless, Cohen (1996) identified some problems with naturally occurring data, including that the data may not yield enough or indeed any examples of the targeted items. For instance, in his study of the developmental stages of Arabic acquisition by English learners, Oulhaj (2015) acknowledged the risk of not producing enough data of the targeted grammatical structures, which included subject-verb agreement and inflectional features such as gender and number. He thus designed specific tasks which take in consideration the elicitation of the grammatical structures under investigation.

Because the current study looks at naturalistic interactions, it may not be possible to find all the grammatical features mentioned in the table above. This is because they may just not have occurred in the conversational contexts in which the children participated. In fact, it is recognised by professionals who regularly assess children's language that a combination of language sampling and testing to elicit specific structures is required to get a full picture of any individual child's linguistic ability. Despite such a limitation, the produced forms provided enough impression that the children had good Arabic standard, which provided useful information for evaluating the participants' competence in Arabic.

This section examines the correct use of the available grammatical structures and looks at the degree of complexity of the participants' utterances. This will be done by checking whether the absolute last linguistic features and structures to develop (as suggested by the literature) in the participants' ages stage were used by them. These features and structures are illustrated in Table 16 bellow.

Before providing descriptive statistic on the available linguistic constructions, it is useful to remind the readers of some information about the participants and the purpose of looking at their Arabic-only utterances. The participants were 30 Libyan Arabic and English bilingual children, aged between 8 and 11 and divided into three age groups. Their linguistic skills in Arabic and English were initially measured using standardized language assessment tests in order to ensure that the CS they were doing was not to fill weaknesses in one or the other language. And given that the participants were English dominant, it was important to examine further whether they were using Arabic in a native-like way.



The following Table presents an overview of the various features of Arabic grammar as used by the participants in the whole data, the frequency of using each category, the approximate age at which children master them (according to the available studies), and the number of errors the children have made in producing these categories with examples from the data for each category (all the Arabic utterances produced by the participants are provided in appendix E):

Syntactic features	approx. age of mastery (according to literature)	no. of participants who used it	frequency of using each category	no. of errors
Personal pronouns	2	30	1595	0
<p>Examples:</p> <ol style="list-style-type: none"> <li>1- <b>hum</b> ka:nu: ag<sup>h</sup> bija (they were stupid)</li> <li>2- <b>hu:wa:</b> xarreba (he ruined it)</li> <li>3- <b>ana:</b> ams naḏ<sup>h</sup>mta (I tidied it yesterday)</li> <li>4- <b>hi:ja</b> ta'ref (she knows)</li> </ol>				
Gender markers	approx. age of mastery	no. of participants	frequency	errors
	8-10	30	1102	0
<p>Example:</p> <ol style="list-style-type: none"> <li>1- ʒibta-<b>h</b> lik (I brought it (singular masculine) to you)</li> <li>2- ha:ti-<b>ha:</b> hana (bring it (singular feminine) her)</li> <li>3- ba:ba: ga:llı xuḏi:-<b>hen</b> (dad told me to take them (plural feminine))</li> <li>4- il awla:d r:di:r-<b>u:</b> fi: maʒa:kıl (the boys make (agrees with plural masculine) troubles)</li> </ol>				
Dual nouns	approx. age of mastery	no. of participants	frequency	errors
	8	11	17	0
<p>Example:</p> <ol style="list-style-type: none"> <li>1- 'inda ʒma:ḥ-<b>em</b> (it has two wings (dual masculine))</li> </ol>				

<p>2- 'indr ma'zu:n-<b>em</b> (I've got two toothpastes (dual masculine))</p> <p>3- niktib raqm wa:ḥad marra-<b>tem</b> (I write number one two times (dual feminine))</p> <p>4- nıbbı masak-<b>tein</b> (I want two hair clips (dual feminine))</p>				
Intact masculine plural	approx. age of mastery	no. of participants	frequency	errors
	3 +	12	32	0
<p>Example:</p> <p>1- il mudarres-<b>i:n</b> il wa:'r-<b>i:n</b> (the tough teachers (plural masculine noun and adj))</p> <p>2- i:ku:n-u: `dwanyy-<b>i:n</b> (become aggressive)</p> <p>3- nıḥna: lıbrı-<b>i:n</b> (we are Libyans)</p> <p>4- ja'tu: hada:ja: lıl ṭalaba il na:ḡḥ-<b>i:n</b> (they give presents to the successful students)</p>				
Intact feminine plural	approx. age of mastery	no. of participants	frequency	errors
	3	12	38	0
<p>Examples:</p> <p>1- ana ılı mnaḏḥım <b>ha:ḡa:ta</b> (singular:- ha:ḡa:t) (I'm the one who tidy up his stuff)</p> <p>2- ma:za:l sıt <b>a:bja:t</b> (singular:- a:ja:) (there are still six verses remain)</p> <p>3- fi:ha: t<sup>h</sup> la:t<sup>h</sup> <b>barḡa:t</b> (singular:- barḡa ) (it has three eggs)</p> <p>4- il ṭarja:ra: fi:ha: '<b>aḡala:t</b> (singular:- 'aḡala) (an aeroplane has wheels)</p>				
Broken masculine plural	approx. age of mastery	no. of participants	frequency	errors
	12	9	19	0
<p>Example:</p> <p>1- ḥ-ju:şıl ba'd arba' <b>ajja:m</b> (singular:- jaum) (it'll arrive in four days)</p>				

<p>2- ḥatta: fi: il-<b>adra:3</b> dawwarit (singular:- dur3) (I even searched in the drawers)</p> <p>3- titkawwan min xams <b>ḥuru:f</b> (singular:- ḥarf) (it consists of five letters)</p> <p>4- zaj <b>zira:nna:</b> (singular:- za:rna:) (like our neighbours)</p>				
Broken feminine plural	approx. age of mastery	no. of participants	frequency	errors
	12	4	25	0
<p>Example:</p> <p>1- il awla:d r:di:r-u: fi: <b>maja:kil</b> (singular:- muʃkila) (the boys make troubles)</p> <p>2- 'afr <b>diga:jig</b> ma:zal-lik (singular:- dīgi:ga:) (you still have ten minutes)</p> <p>3- 'mdha: <b>al'a:b</b> halba: (singular:- lu'ba) (she's got lots of toys)</p> <p>4- il <b>masa:`il</b> ma: jubu:ʃ ig<sup>h</sup>airu:hm (singular:- mas`ala) (they don't want to change the equations)</p>				
Demonstrative pronouns	approx. age of mastery	no. of participants	frequency	errors
	-	16	87	0
<p>Example:</p> <p>1- ʃin ra:jak fi: <b>ha:ða:</b> (singular masculine) (what do you think of this)</p> <p>2- nal'abu: il li'ba <b>haðr?</b> (singular feminine) (shall we play this game?)</p> <p>3- ʃinu: <b>haðein?</b> (singular/dual feminine) (what are these?)</p> <p>4- ʃu:fi il ʃu:war <b>haðeiŋk</b> (plural feminine) (look at these pictures)</p>				
Future	approx. age of mastery	no. of participants	frequency	errors
	-	25	74	0
<p>Example:</p> <p>1- <b>tawwa:</b> ta:xða (you'll take it)</p> <p>2- tama:m, <b>tawwa</b> mʃu:f (ok, I'll see)</p> <p>3- <b>ḥa</b>-ju:ʃil ba'd arba' ajja:m (it'll arrive in four days)</p>				

4- <b>ib-nabda</b> g <sup>h</sup> udwa (I'm gonna start tomorrow)				
Past	approx. age of mastery	no. of participants	frequency	errors
		2	25	275
Example:				
<p>1- <b>zibt-ah</b> lik (I brought it to you)</p> <p>2- <b>jirat</b> ha:za:t o <b>zat</b> ibru:hha: (she bought stuff and came back home by herself)</p> <p>3- illi <b>'ta:hm</b> li:ja: ba:ba: (the ones which dad gave me)</p> <p>4- ba:ba: ga:lli xu:ði:hm (dad told me to take them)</p>				
Progressive past	approx. age of mastery	no. of participants	frequency	errors
	-	6	35	0
Example:				
<p>1- <b>ga'adt nıbki o nıbki</b> (I was crying and crying)</p> <p>2- <b>kunna nal'abu:</b> (we were playing)</p> <p>3- <b>ka:nat tm̄ter</b> (it was raining)</p> <p>4- <b>ga'ad jıktıb</b> (he was writing)</p>				
Present	approx. age of mastery	no. of participants	frequency	errors
	2	25	409	0
Example:				
<p>1- ba:ba: di:ma: <b>ızi:</b> fi: il-leil (dad always comes at night)</p> <p>2- <b>n'rıf mdi:rha:</b> (I know how to do it)</p> <p>3- <b>nıbbi:</b> wa:h̄ad ısg<sup>h</sup>ejir (I want a small one)</p> <p>4- di:ma: <b>r'at̄ıl</b> fi:l h̄amma:m (he always takes long in the toilet)</p>				
Present progressive	approx. age of mastery	no. of participants	frequency	errors
	-	7	8	0

Example:				
1- <b>ga:'da: tɪzri:</b> (she is running)				
2- <b>ga:'id nekteb</b> (I'm writing)				
3- <b>feɪf ga:'di:n ɪdi:ru:?</b> (what are they doing?)				
4- <b>ga:'id iħammɪl tawwa:</b> (it is downloading now)				
Complex sentences	approx. age of mastery	no. of participants	frequency	errors
	-	20	39	0
Example:				
1- hu:wa: ga:llɪ la: ' <b>ʃa:n</b> jɪbbi: jɪmʃi: ma'a ba:ta:h (he said no because he's going with his dad)				
2- qaʃdɪ lɪflu:s <b>ɪllɪ</b> 'ta:hen li:ja: ba:ba: (I mean the money, which dad gave me)				
3- hi:ja: t'rɛfah ' <b>ʃa:n</b> ma:ʃja: fi:h mɪn qabl (she knows the place because she's been there before)				
4- ɪl blu:za:t <b>ɪllɪ</b> 'ɪndɪ mɪʃ ɧɪlwa:t (the blouses, which I got aren't nice)				
Negation	approx. age of mastery	no. of participants	frequency	errors
	6	27	319	0
Example:				
1- <b>la: la: mɪʃ</b> hɪkkɪ (no no, it's not like that)				
2- <b>ma: ka:nʃ j'rɪf</b> ɪti:r (it couldn't fly)				
3- <b>ma: nɪbbi:ʃ</b> ɪl ɪpad:d (I don't want the iPad)				
4- <b>ma: mħebbʃ</b> nɪg'ɪd ma'a:ha: (I don't like to stay with her)				

Table 16: The participants' use of different grammatical structure.

### 5.3 Discussion:

As the Table shows, all the children mainly used the correct form of all the morphosyntactic constructions which I looked at in their utterances. The correct use of

the range of structures used by each child reveals their knowledge of Arabic rules that enables them to produce and understand infinite number of Arabic utterances/sentences which reflects their Arabic linguistic competence. In addition, the successful use of these structures indicates that the children generally have acquired these forms and their syntactic functions which are typical in children in their ages. This result seems to agree with the results of some studies cited in section 2.3 regarding morphosyntactic constructions that are acquired before the age of eight. However, the Table revealed significant differences in the participants' use of the different grammatical elements and structures. That is, although there are some grammatical features which were used by all or the majority of the children, other structures (i.e., broken masculine plural, broken feminine plural, progressive past, present progressive) were utilized by only a small number of them.

With regard to the approximate number of the syntactic features produced by the children in the three age groups, Table 17 below summarizes this information:

Syntactic features	Age group		
	8-9	9-10	10-11
Personal pronouns	10	10	10
Gender markers	10	10	10
Dual nouns	5	2	4
Intact masculine plural	6	0	3
Intact feminine plural	5	3	4
Broken masculine plural	4	3	5
Broken feminine plural	2	1	1
Demonstrative pronouns	6	3	7
Future	5	4	6
Past	8	10	7
Past progressive	3	1	2
Present	10	8	7
Present progressive	2	2	2
Complex sentences	6	8	6
Negation	9	9	9

Table 17: The frequency of using the different grammatical structures by the three age groups.

Because of the variations in the use of Arabic structures, it is not possible to comprehensively judge the Arabic production of all the children. This variation could be due to two possible reasons: the topic of conversations which might not have yielded the chance of using specific structures; or because in some contexts (especially those which involved a sibling interlocutors) some children produced a small number of Arabic utterances, so they might not have actually the opportunity to use all the structures and categories listed in the Table above. Hence, it does not necessarily mean that the children could not do it.

With regard to the complex grammatical features which were used by only a handful of the children (i.e., broken masculine plural, broken feminine plural, progressive past, present progressive), the data show that these categories were used by the three age groups with different frequencies, according to the speech situations the children were in (where they produced a small or large number of Arabic utterances) and the

opportunity available to practice them (the situations where these structures were needed in the conversation). This suggests that these grammatical elements were acquired at around the age of the youngest participants (8) given that they appeared in the speech of the three age groups regardless of their frequencies across the participants.

In relation to the discussion above, the data show that in all recorded conversations in the two domains (home and school), there were 6 cases where the switches from Arabic to English coincided with using the complex Arabic structures. These cases are illustrated in Table 18 below:



Child and age group	Utterances	Grammatical feature	Arabic equivalent
Sulaima (8-9)	qaşdı ıl <b>strings</b> ıllı launhın aswad ( <i>I mean the strings which are coloured black</i> )	Broken masculine plural	Xaiṭ (singular) Xuju:t (plural)
Kamal (10-11)	galu:lna: inzi:bu: ıl <b>rulers</b> im'a:na: ( <i>they told us to bring rulers with us</i> )	Broken feminine plural	Maṣṭara: (singular) Maṣa:ter (plural)
mus'ab (10-11)	hi:ja 'umrha: <b>four years</b> ( <i>she is four years old</i> )	Broken feminine plural	Sanah (singular) Sanawa:t (plural)
Hammam (8-9)	ju:f! it is <b>downloading!</b> (look! It is downloading!)	Present progressive	ga:'ıd iḥammıl
Rania (8-9)	ıl na:s kulhum <b>were sleeping</b> (all people were sleeping)	Past progressive	Ka:nu: ra:gdi:n
Marwan (9-10)	hi:ja: <b>was watching</b> ıl rusu:m m'a:i ( <i>she was watching cartoon with me</i> )	Past progressive	Ka:nat tıtfarraḡ

Table 18: The cases of switching to English where complex Arabic structures came up in the conversations.

These switches cannot be established for sure that they were related to a lack of competence in Arabic since the number of these cases is not significant. In other words, it cannot be proved that the children were avoiding the complex structures in Arabic based on this low frequency. In addition, a close examination of the overall switches from Arabic to English in the whole data revealed that there is no significant difference between switching when simple structures were needed and switching when complex

ones. Therefore, these cases of unclear switches cannot be explained by avoidance technique which is common in dominant bilinguals.

In taking each area in terms of the syntax the children used, we can see that all age groups correctly utilized various types of sentences, ranging between simple to complex sentences, which included relative and subordinate clauses. Using correct complex sentences indicates that the children have successfully achieved the acquisition of simple structures; and have reached an advanced stage of language development.

Generally, this chapter is short and focuses only on the participants' Arabic utterances, providing insights into their linguistic competence in Arabic. The detailed examination of the correct use of the different grammatical structures and features investigated in the participants' utterances revealed their knowledge of the Arabic system of rules which enabled them to carry out linguistic interactions in Arabic.

#### **5.4 Conclusion:**

Given that English was the dominant language of the participants, the goal of this chapter was to examine the morphosyntactic constructions of their Arabic-only utterances in order to further check that the CS they produced in their bilingual interactions was not a result of lack in proficiency in one or both of the languages. The children's Arabic utterances were analysed to address this issue, and it was found that they produced the different grammatical structures with varying frequencies from each other. Here, it should be noted that the lower use of some grammatical structures was not a significant predictor of the children's level in Arabic, since it is possible to say that if the children had the chance to produce more Arabic utterances, more structures might have emerged. Another possible reason behind the low use of some grammatical features could be the topic of conversation which could have yielded little opportunity to the use of some morphosyntactic structures (e.g., past and present progressives). I would also suggest that these structures are just low in frequency generally in the language, so chances of anyone producing them would have been small.

Notably, it seems that the children's English dominance did not influence their use of the Arabic morphosyntactic structures that are typical to their ages. This observation is based on the findings in this chapter which reflect the children's linguistic competence

in Arabic and suggest that the children have developed the Arabic proficiency which is expected for monolingual Arabic-speaking children at their ages. This analysis, therefore, is useful because it supports the previous language assessment results and provides a high level of validity to our argument that the children were equally proficient in both languages.

## **Chapter 6. Analysis of the Code switching data**

### **6.1 Introduction:**

This chapter presents the first part of data analysis which shows the descriptive statistics of the data and, then in the next chapter, I will carry out the qualitative analysis of the switched utterances. The following section will describe the CS data which will be used in the analysis. The next section will provide a rationale for the use of the quantitative approach in the current study and provide an overall statistical summary, including the total number of the participants' utterances in the whole data, the number of switches that occurred in those utterances, and the frequency of using each type of CS in the data. Section four will recap on the qualitative approaches used in the analysis, including the application of the linguistic and sociolinguistic frameworks on the current data. Lastly, section five will be the chapter's summary.

### **6.2 Code Switching Data Used in the Analysis:**

The data in this study contain 45<sup>15</sup> informal interactions of about 30-40 minutes in two social domains (home and school), where CS featured in all bilingual conversations. In all conversations, the influential social variables of the speech situations; namely, the interlocutors and social settings, remained unchanged throughout the conversations.

Complete transcriptions of all the recorded conversations in the analysis is a cumbersome manner and unattractive way of presenting the grammatical and sociolinguistic characteristics of CS in the data. Therefore, from examining all the 45 bilingual conversations that contained marked and unmarked code choices, specific extracts from both social contexts displaying levels of linguistic competence were selected for the analysis.

### **6.3 The Quantitative Approach:**

Although the qualitative analysis is the fundamental approach to analysing the data of the current study, using the quantitative approach that relate to the research aims lays down the foundations of the structural and sociolinguistic interpretations of the

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<sup>15</sup> The 30 primary participants were recorded together in the school context, so there were 15 interactions plus 30 conversations with the secondary interlocutors in the home context, which brought the total number of the recorded conversations to 45

participants' natural speech activities. A comprehensive counting of the Arabic and English utterances produced by the main participants was undertaken in order to work out the number and percentage of switches in relation to the total number of the participants' utterances. A detailed quantitative analysis followed in order to specify the frequency of specific grammatical features and styles of CS found in the data, such as the classic and composite CS; which, according to the MLF model, relate to bilinguals' linguistic competence level. Next, the frequency of using Arabic and English as the mostly used language (hereafter MUL) in all conversations was identified in order to establish a baseline regarding the patterns of the language use in this study. As shown in the Literature Review Chapter, the patterns of language use are influenced by several sociolinguistic factors including the characteristics of social contexts, such as the topic of conversation, the interlocutors, etc. Consequently, in the discussions, remarks on the frequency of the MUL of all conversations was based on the sociolinguistic analysis as well as statistical counting. Finally, in cases where the identification of the MUL in the participants' conversations was difficult, counting the Arabic and English utterances used by each participant facilitated the recognition of which language was the mostly used and which was not; since the MUL is expected to be more active in a given conversation.

### ***6.3.1 Descriptive Statistics of the Data:***

In looking at the data in terms of the total number of Arabic/English utterances and the switches that occurred in both domains, it was found that the participants produced 8316 utterances in the whole corpus, with 601 occurrences of CS. This means that the switching practices of the participants represented about 7.22% of the entire speech corpus (92.78%). This relatively small number of language alternations is comparable with CS frequencies in other studies, which used spontaneous speech between main participants and their interlocutors, such as these conducted by Al-Khatib (2003a) and Nel & Huddlestone (2012). In the former study, the researcher collected 25 interactions of around 10-30 minutes, where 112 instances of CS were identified. Her three participants had natural bilingual conversations with siblings and their mother, and sometimes with a friend or a relative. In the latter study, the number of CS found in the data was 422 produced by three participants aged eight years old. These participants

were recorded together during four informal and unstructured play sessions, each of which lasted about 60 minutes.,

Regarding the current study, in distributing the total number of CS between the participants in both domains, taking into consideration the interlocutor variable, it was found that all the participants in the recordings made use of CS with varying frequency, irrespective of total numbers of their utterances. Tables 19 and 20 below provide an overview of the participants' language use in both contexts with different interlocutors.

Coding keys: (P.T.S proficiency test score, A: Arabic, E: English, Utter: utterances, Inter: interlocutor, HC: home context, SC: school context, S: sibling, P: parent, F: friend, No. of CS: numbers of switches).

Participant & age groups	P.T.S		Home Context				School Context			
	E	A	E Utter.	A Utter.	Inter.	No. of CS	E Utter.	A Utter.	Inter.	No. of CS
<b>8-9</b>										
<b>Hammam</b>	87	83	20	98	P	20	128	11	F	9
<b>Nader</b>	96	82.8	16	99	P	17	120	9	F	6
<b>Nihal</b>	86	77.5	145	10	S	12	117	6	F	8
<b>Sulaima</b>	97	82	10	101	p	12	107	12	F	11
<b>Rania</b>	87	80.2	107	10	S	10	118	4	F	4
<b>Nisreen</b>	88	81.7	20	199	P	21	120	3	F	3
<b>Tasneem</b>	98	81	16	100	P	15	115	5	F	6
<b>Leena</b>	88	80.8	116	10	S	10	106	10	F	12
<b>Abdo</b>	97	81.8	15	108	P	12	170	53	F	29
<b>Suhaib</b>	94	79.8	102	15	S	15	142	47	F	42
<b>Khaled</b>	87	84.8	117	12	S	11	118	6	F	5
<b>9 - 10</b>										
<b>Jamal</b>	99	82.2	117	7	S	7	128	3	F	2
<b>Mohamed</b>	84	83.5	117	6	S	5	116	3	F	4
<b>Aseel</b>	99	85	22	107	P	27	114	6	F	4
<b>Zainab</b>	89	83.8	118	6	S	9	105	6	F	4
<b>Noor</b>	97	82	109	13	S	11	114	9	F	6
<b>Marwan</b>	99	80.2	110	15	S	13	98	10	F	7
<b>Tammer</b>	96	80.5	18	103	P	17	117	5	F	5
<b>Adnan</b>	88	81.2	106	19	P	15	225	5	F	4
<b>Yaseen</b>	89	82.8	147	6	S	5	188	4	F	4
<b>10 - 11</b>										
<b>Alya</b>	94	82.5	116	8	S	5	142	10	F	8
<b>Rana</b>	101	83.5	19	121	P	17	147	5	F	6
<b>Mus'ab</b>	96	83	136	8	S	7	183	6	F	6
<b>Kamal</b>	92	84.5	12	86	P	9	162	8	F	7
<b>Asma</b>	103	85	86	4	S	3	195	27	F	12
<b>Zahra</b>	105	84	23	171	P	22	198	38	F	10
<b>Mnira</b>	105	85.5	129	11	S	10	119	3	F	2
<b>Hana</b>	103	86.2	105	15	S	13	118	1	F	1
<b>Taiba</b>	99	86.7	114	5	S	5	147	6	F	5
<b>Farah</b>	104	86.7	108	9	S	9	134	6	F	5
<b>TOTAL</b>			2396	1482		364	4111	327		237

Table 19: The participants' language use in both contexts with different interlocutors

<b>Total number of utterances in the dataset</b>		8316	
<b>Total number of utterances in the HC</b>	3878 (46.63% of the whole utter. in the data)	<b>Total number of utterances in the SC</b>	4438 (52.98% of the whole utter. in the data)
<b>Total number of English utterances in the dataset</b>	6507 (78.25% of the whole utter. in the data)	<b>Total number of Arabic utterances in the dataset</b>	1809 (21.75% of the whole utter. in the data)
<b>Total number of CS in the dataset</b>		601 (7.22%)	
<b>Percentage of CS use in the HC</b>	60.57% (of the total number of CS)	<b>Percentage of CS use in the SC</b>	39.43% (of the total number of CS)

Table 20: The total number and percentages of E/A utterances and switches in the whole data (refer to the coding keys in the previous Table).

By carefully examining the data in the Table above, it can be noticed that the use of English featured much of the data (78.25% vs. 21.75% Arabic utterances). In addition, in the school context, we can find that the children produced more utterances than they did in the home context (53.37% vs. 46.63% respectively); but with far less number of switches in the school context (39.43% vs. 60.57% in the home context). The reason behind the production of the larger number of utterances in the school context may be due to the fact that the children tended to spend longer time in talking and interacting with friends than they did with siblings and parents. As for the smaller proportion of CS, this was expected given that the context of the conversations was English dominant, and this could have contributed in reducing the occurrence of language alternations in the participants' speech.

With regard to the home context, it was observed that there were differences in the amount of using English and Arabic by the children. That is, in 14 out of the 30 conversations in the home context the child's interlocutor was a parent while in the others that was a sibling. In all sibling cases, more English utterances were produced than Arabic ones (92.9% vs. 7.1% respectively). On the other hand, in 11 out of the 14 parents' cases, more Arabic utterances were produced than English ones (87.12% vs. 12.9% respectively). Thus, it can be deduced that the interlocutor category featured as an influential social category related to the participants' code choice in most of the conversations.



### 6.3.2 *The distribution of code switching types*

The examination of the frequency of CS types within the 601 switched utterances revealed that intrasentential and intersentential CSs occurred 402 and 189 times respectively. Extrasentential CS forms, on the other hand, were produced 10 times, making up only 1.7% of the total CS forms. Intrasentential CS type, therefore, prevailed significantly in the data in comparison with the other two categories, while intersentential switches appeared with the second greatest frequency. Table 21 below shows a comparison between the three types of CS in terms of the numbers of occurrence and the percentages in relation with the total number of CS produced in the corpus as a whole:

Types of CS	Number of occurrences	Percentage of total CS
Intrasentential CS	402	66.9%
Intersentential CS	189	31.4%
Extrasentential CS	10	1.7%
Total	601	100%

Table 21: The number and percentages of CS styles in the data.

In addition to Table 21 above, the graph in figure 3 below provides a visual illustration for the percentages with which each type of CS occurred in both social domains (home and school).

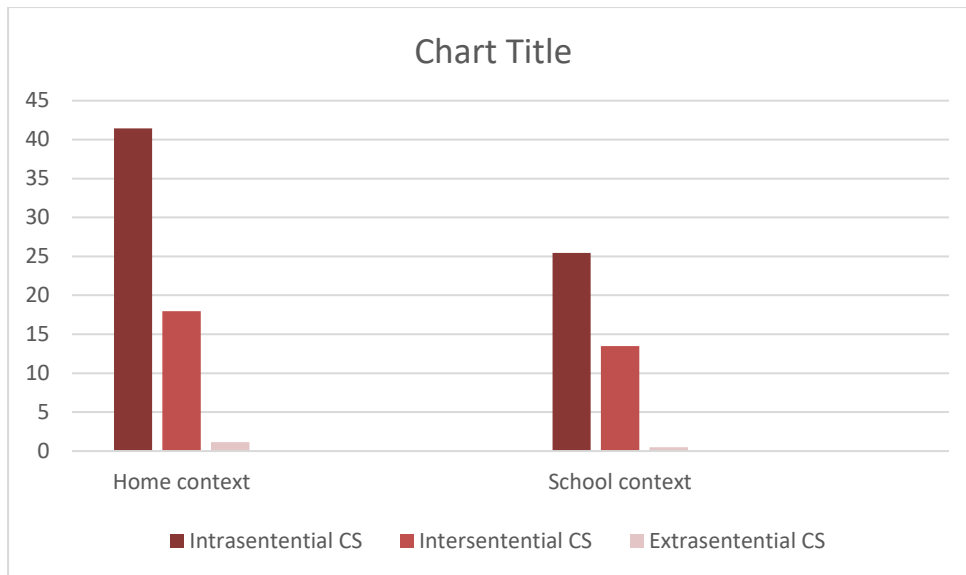


Figure 3: The percentages with which each type of CS occurred in both domains relative to the total number of CS forms.

Although intersentential and extrasentential CS contribute to the types of CS that occurred in the data, they cannot be analysed qualitatively using the MLF and 4-M model since they do not combine the grammatical structures of both languages, as is the case with intrasentential CS. The occurrences of these two types will therefore be analysed in terms of sociolinguistics from a markedness point of view.

It is clear from the graph that the use of the different CS types occurred in similar patterns in both domains. The children's remarkable use of more intrasentential CS may relate to their level of proficiency in both languages, since intrasentential CS requires effective alternation between the two grammatical systems and this characteristic usually appears in proficient bilinguals. This argument corresponds to Poplack's (1980) findings in which she declared that her participants who were competent in both languages tended to use intrasentential CS in their language alternations more than the other two types; whereas those who were reported as being dominant in one language favoured the use of intersentential and tag switches.

Further evidence of the participants' underlying linguistic competence which reflected a deep level of their syntactic knowledge is provided in section 6.4.3 below. This evidence is related to the percentage of the participants' use of composite CS vs. classic CS.

#### **6.4 *The Qualitative Approach:***

##### **6.4.1 *The identification of the matrix language (ML) and mostly used language (MUL) in the data***

The starting point in identifying the ML from the grammatical perspective is that the ML is responsible for the morpheme word order and the syntactic and morphological structure in any bilingual utterance, whereas the EL only contributes the inserted linguistic elements in the ML frame. This means that the identification of the ML in any mixed utterance depends not only on the quantification of the system and content morphemes that make up the constituent, but also on the qualitative analysis of the utterance's grammatical structure.

From the sociolinguistic point of view, the MUL is characterised as being more active than the other language. This, however, does not mean that the syntactic structure of all mixed utterances is attributed to the grammar of the MUL on the basis of the above sociolinguistic criteria without investigating their grammatical structures, since either language can provide the morphosyntactic frame for any mixed utterance.

##### **6.4.2 *The criteria of applying the MLF and 4-M model***

Intersentential and extrasentential CSs contribute to the identification of the ML of the switched utterances, but they cannot be analysed using the MLF and 4-M model, since they do not affect the grammatical systems of the participating languages. Therefore, the MLF and 4-M model applies to only intrasentential CS, which will be the main focus of the structural analysis in this study.

As discussed in the previous chapters, Myers-Scotton model consists of the Abstract Level Model (MLF) and the 4-M model. In analysing CS data, the Abstract Level Model focuses on the morpheme word order of switched utterances and how the system morphemes are used in these utterances. The 4-M model, on the other hand, is used to give a more precise description of the morpheme types in terms of their syntactic functions in an utterance. Note that it is not the system morphemes themselves that identify the ML, but it is their distribution and role in making up the bilingual utterance.

In the application of the MLF and 4-M model on CS data, the following criteria were postulated (Myers-Scotton, 1993, 1997, 2002):

- 1- The unit of analysis is bilingual CP (projection of complementizer) rather than sentences.
- 2- The morpheme word order of the switched utterance is sourced from the ML.
- 3- In cases where the identification of the ML is not possible by using the morpheme word order principle (because of the length of the switched constituent or because the morpheme word order is the same in both languages), then the system morpheme principle within the 4-M model should be applied.
- 4- In a bilingual CP, different types of constituents may be found: **Mixed constituents**, which consist of morphemes from the ML and EL; **EL islands**, which are well-formed phrases of EL that occur within the larger ML framed bilingual clause and follow its placement rules; **ML islands**, which consist of ML morphemes and follow its grammatical rules; and lastly **bare forms** which are content morphemes belonging to the EL but they are not attached to the ML morphemes, i.e., they do not receive any inflections or function words from the ML, and therefore, they are considered ill-formed constituents.
- 5- Regarding the mixed constituents, Myers-Scotton argues that the orderliness of language alternation is achieved when the syntactic frame of the switched utterance comes from one language (ML) and the other language (EL) provides linguistic elements which are inserted in that frame. This pattern of CS is what Myers-Scotton refers to as “classic CS” which differs from “composite CS” where the two linguistic systems participate in providing the grammatical structure of a switched utterance. Classic CS is, therefore, used to describe the cases of CS where a speaker is fully proficient in at least one of the participating languages in order to make it the only source of the morphosyntactic structure of his/her bilingual utterance. On the other hand, composite CS, according to Myer-Scotton, links to speakers’ limited linguistic competence in one of their languages. The MLF and 4-M model is mainly devised to explain classic CS.

#### **6.4.3 Classic and Composite CS in the Data**

In order to discuss the above linguistic criteria more clearly and apply them on the current data, we firstly need to identify the frequency of composite CS as opposed to

classic CS found in the data. Classic CS, as discussed in the Literature Review Chapter, occurs when a speaker is fully proficient in at least one of the participating languages in order to make it function as the ML of the mixed constituent. Composite CS, on the other hand, appears when the two languages (or more) participate in forming the morphosyntactic frame.

The number of occurrences and percentages of composite and classic CS categories in the whole data are presented in Table 22 below:

CS patterns	number	percentage
Composite CS	3	0.5%
Classic CS	399	99.5%

Table 22: Numbers of occurrence and percentages of composite and classic switches.

As the Table shows, the number/percentage of classic CS was far larger than that of composite CS. This finding was rather predictable taking into consideration the fact that all the children in this study have had sufficient proficiency in both languages, and hence could use either language as the ML in their bilingual CPs. Thus, this finding supports Myers-Scotton's (2005, p. 242) claim that classic CS is "a type of CS that is made by speakers who must be proficient enough in the language structuring the clause so as to follow the well-formedness constraints of that language and may also be proficient in the other language although a high degree of proficiency is not very critical". Regarding composite CS, the sentence below was found in the data:

- **hi:ya** said thirteen and fourteen out of twenty good **darajah-s fi:-l** exam.  
she mark-s in-the  
*she said thirteen and fourteen out of twenty (are) good marks in the exam.*

Although English in this sentence seems to dominate in supplying the morphosyntactic structure which would make it the ML, this sentence is not completely well-formed in English. This is because some of the abstract structure underlying the sentence's frame came from both Arabic and English grammars. Firstly, while a subject and a verb play a major role in the English syntax, where any of them cannot be omitted from a sentence, in Arabic there are certain conditions in which the Arabic copulative verb is absent. For example, the sentence *aljawu: jami:lun* (the weather is nice) contains a noun (*aljawu:*) and an adjective (*jami:lun*) but not a verb, yet the sentence is still meaningful

and grammatically correct. This case can be found in the above sentence where the copula verb between the noun phrase (thirteen and fourteen out of twenty) and its predicate (good daraja-s) was omitted.

Secondly, the English plural marker ‘-s’ which suffixed the Arabic noun ‘darajah’ is an outsider system morpheme whose selection depends on information outside the noun in which it occurred (i.e., it depends on the nouns *thirteen* and *fourteen* in the noun phrase). This structural dependency between these elements represented the influence of the English morphological and syntactic systems in structuring the sentence. Therefore, both Arabic and English grammars appear to be involved in forming the syntactic frame of the utterance which makes it a composite form of CS.

In addition to the above sentence, the same case of composite CS can be seen in the utterance below where both languages participated in forming its grammatical structure:

- **dawri:-ha:** in the **du:la:b-s imta:ʻ il** kitchen ...  
look for-it,FEM cupboard-s of the  
*look for it in the cupboards of the kitchen...*

In this sentence, the English plural marker –s was attached to the Libyan Arabic content morpheme **du:la:b** to satisfy the requirements of the grammatical structure of its plural form. At the same time, the Arabic bridge system morpheme **imta:ʻ** connected the nouns (content morphemes) to form a larger and well-formed constituent within the noun phrase **the du:lab-s imta:ʻ il kitchen**. Thus, both English and Arabic formed the syntactic structure of this bilingual utterance which made it a composite CS.

The same case applies to the switch in the following sentence in which the plural signifier ‘s’ was attached to the dual noun ‘**waraqatain-s**’<sup>16</sup> (two papers):

- I wrote it in two **waraqatain-s**
- *I wrote it in two papers*

Although it is argued in the literature that composite CS is related to insufficient linguistic skills in the languages involved, the children’s use of composite CS in the utterances above may not be attributed to a lack of linguistic knowledge since all the

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<sup>16</sup> A discussion about the dual form in Arabic nouns is found in section 2.11.2.

participants in this study appeared to have good mastery of their languages. And even if these utterances were ill-formed, they only constituted 0.5% of the data. However, I would suggest that the composite CS in these cases may be considered as a continuation of using Arabic by which the children started their utterances. That is, in these speech situations the children were apparently aware of their interlocutor's (who were the mothers in both cases) preferred language which was Arabic. As a result, they produced English morphemes but showed a tendency of using Arabic syntax to accommodate to their interlocutors' preference.

#### ***6.4.4 Steps towards the Application of the MLF and 4-M Model on the Current Data<sup>17</sup>***

Following the aims of this research, a qualitative analysis based on the principles of the MLF and 4-M model was done in order to identify the ML of the participants' utterances. In doing so, the first step involved the analysis of the morpheme word order of the switched constituents, which had to follow that of the ML. In cases where the morpheme word order principle was not applicable on the data, the system morpheme principle within the 4-M model was applied. The following examples display instances of CS where the morphemes word order of the switched segments allows for the identification of the ML:

Example 1: A- **and when they** hauwil-au fi: il **house** il jadi:d,  
 and when they moved-3PL into the house the new,  
*and when they moved into the new house,*

B- ja:b-u: il **stuff** kull-ah **with them**  
 brought-3PL the all-it-MAS  
*they brought all the stuff with them*

In this example, Arabic is obviously the ML in both clauses. The phrase '**il house il jadi:d**' in A follows the Arabic word order where an adjective comes after a noun. The same is true for the phrase '**il stuff kullah**' in B in which the quantifier **kullah** occurred after the noun following the Arabic syntactical replacement rules for quantifiers, which may occur before or after the noun they modify. This, therefore, violated the grammatical structure of English where quantifiers only precede nouns.

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<sup>17</sup> The actual application of the model on the data will follow in the next chapter.

In example 2 below, the elements of the sentence were arranged in the word order VS, which is particularly common in Arabic, and this indicates that Arabic is the ML in this constituent:

Example 2: O ba`dha: inkab il **tea** kullah **on the floor**  
and after that spilled the tea all on the floor  
*and after that all the tea spilled on the floor*

In example 3, the ML is English since the adjective (heavy) preceded the noun which reflects the English word order:

Example 3: `a:dy, leave il heavy **shanta hana** before you go **barra**.  
it is okay, leave the heavy bag here before you go outside  
*it is okay, leave the heavy bag here before you go outside*

In example 4 below, we can determine that the ML is Arabic given that the English noun *car* was attached by the Arabic personal possessive pronouns **-na** and **-hum**, which normally take the form of suffixes.

Example 4: **but car-na** ihny wa:s`a: mish zay **car-hum** humma  
but car-our we spacious not like car-their they  
*but our car is spacious not like their car*

The second step applied in determining the ML was the characterization of the morphemes using the system morpheme principle, which predicts that the ML supplies all system morphemes. That is, one language (ML) is predicted to supply the syntactic structure of the switched utterances, whereas the EL provides word insertions (content morphemes) in the ML frame. Example 4 above represents the application of this principle given that Arabic supplied all system morphemes in the utterance.

The syntactic and morphological positions at which CSs occur are highly important for assessing the grammatical appropriateness of combining the two grammatical systems in one bilingual utterance. They are also significant in understanding the extent at which the participants can manipulate their two linguistic systems in a way that maintains cohesive structure in their utterances, which reflects deep level of syntactic knowledge related to the bilinguals' linguistic competence. In the current data the grammatical incongruence between the two languages allows for displaying the bilinguals' linguistic knowledge and competence through the grammatical structures which they use.



#### **6.4.5 Social Categorisation of Code Switching (specifying marked and unmarked CS)**

As discussed in the previous chapters, according to Myers-Scotton's MM, unmarked CS refers to the non-strategic use of language alternation, which follows the conversational norms of the macro-social context of the speech situation. Hence, it is natural and expected in the conversation and does not convey any extra-linguistic messages in the speech situation. This type of CS is usually associated with referential purposes which facilitate communication in the case of lacking a specific lexical item(s) in one of the languages; or when a certain topic is better explained and talked about in one language than the other (Al-Khatib, 2003a). The unmarked CS category is also related to bilinguals' automatic borrowings of lexis which are linked to certain activities performed in the context of the other language (*ibid*). Furthermore, unmarked choices are sometimes used for discoursal functions (e.g., emphasising a point, floor holding, keeping the flow of the conversation) and quotational purposes when a speaker wants to quote specific speech or writing; or for retelling a story of an accident occurred in the context of the other language. In analysing this type of CS from the perspective of communicative competence in the current study, the focus will be on two related aspects: the description of the switching's functions, and the correlation between the participants' bilingual performance and the social norms of the speech situations.

On the other hand, marked CS does not seem to follow the dictates of the speech situation in the immediate utterance. It is usually employed to convey specific meanings during social interactions between participants, and to create new micro-social contexts in which speakers themselves, rather than situational factors, are the impetus for CS. Thus, in analysing this type of CS, the focus will fall on the interpretation of the participants' intended meaning and how they display conversational competence in terms of conveying extra-linguistic messages and achieving their communicative goals.

In analysing CS found in the data, the above social aspects will be related to the linguistic aspects underlying the participants' CS performance. That is, the participants' marked and unmarked switches will be looked at along with the participants' ability or inability in complying with the grammatical rules respecting the syntactic location of the switched segments.

With regard to the relevant level of analysis at which the marked and unmarked CSs can be identified, the sociolinguistic analysis will be carried out on the discourse level since CS patterns can be influenced by different psycholinguistic and sociolinguistic factors during the conversation. This is consistent with Myers- Scotton’s statement regarding the identification of the MUL in bilingual conversations: “the ML (MUL) can only be identified in sentences containing CS material if such sentences are considered as part of a larger corpus. How large is ‘large enough’ is an unresolved issue; but certainly a *discourse sample* must mean *more than one sentence* (original italics)” (1997, p. 68).

#### 6.4.6 The frequency of marked and unmarked CS in the data

Based on the sociolinguistic criteria postulated in the MM, marked and unmarked switches occurred in the data with the following numbers, as shown in the figure 4 below:

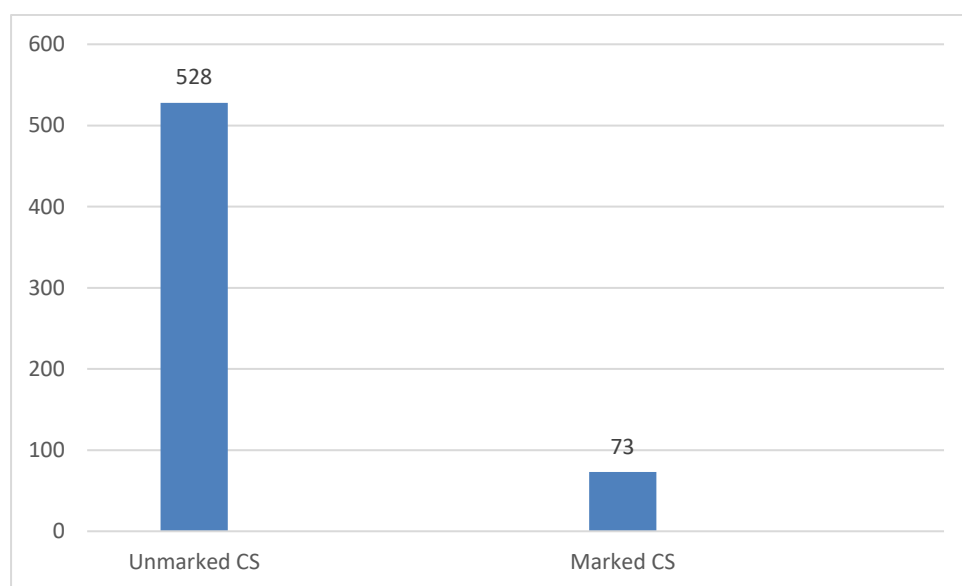


Figure 4: The participants’ use of marked and unmarked CS in the whole corpus.

As it can be seen from the graph, the majority of the switches made by the main participants were unmarked, while a small percentage of them, about 12.1%, were characterized as being marked. The fact that unmarked switches represented almost 87.9% of the total language alternations in the data indicates that the participants mostly used CS as a way to enhance meanings and to enrich and/or keep the flow of their conversations. For example, they used topicalized switches in cases of words that may

have no translation equivalents in the other language; or may be when they felt that one language was more meaningful and semantically appropriate than the other in speaking about a given concept. As an example of these switches can be found in the following utterances where the participants switched to the words iPad and trampoline, which do not have Arabic equivalents:

- 1- **Khalid:** haiya: 'ati:-ni: il **iPad**.  
come on, give-me the iPad  
*come on, give me the iPad*
- 2- **Tammer:** hu:wa ka:n jal'b 'a-l **trampoline**  
he was play on-the trampoline  
*he was playing on the trampoline*

Another example is found in the conversation between Aseel and his mother where the MUL was Arabic but Aseel switched to the word 'Christmas', which is more semantically appropriate with English culture than its Arabic equivalent:

- 3- **Aseel:** emtiha:n erria:di:ja:t we-l ta:ri:kh il esbu:' ba'd el **Christmas**  
exam maths and-the history the week after  
*the maths and history exams are the week after Christmas.*

## **6.5 The Chapter's Summary:**

The previous chapter represented the first part of the main data analysis which presented descriptive statistics on the data and summarized the qualitative approach followed in the data analysis. This included a recap on the criteria of using the frameworks in the study and classifying the data under two main categories (i.e., classic and composite CS). The following chapter consists of a qualitative analysis of the structural and sociolinguistic aspects of CS in the participants' utterance.

## Chapter 7. The Qualitative Analysis of the Data

### 7.1 Introduction:

The focus of this chapter is on the qualitative analysis of the data to answer the research questions by investigating 1) the extent to which the participants' communicative and linguistic competences are reflected in their bilingual performance; and 2) the social motivations and communicative functions which the participants' CS serve in their bilingual interactions with others. In order to conduct a structural analysis of the CS patterns found in the data, it was necessary to consider a model that is able to provide a clause-based analysis for the switched sentences; since a sentence may have more than one clause. The MLF and 4-M model proposed by Myers-Scotton's ([1993](#), [2002](#)) satisfies this criterion because the unit of analysis in this model should be the bilingual in/dependent clause and not the sentence. This feature allows for covering more of the CS patterns found in the data. Therefore, the linguistic analysis will be conducted on the basis of this model which provides structural configuration of intrasentential CS, where the integration of both languages occurs within the same utterance or word. The participants' linguistic competence will be evaluated according to the degree to which they abide by the syntactic rules of both languages while switching between them. The ML of the participants' utterances will be considered in relation to the influences of the social situations applying Myers-Scotton's MM's differentiation between marked and unmarked code choices, to reflect on the participants' communicative competence. In the case of unmarked switches, the participants' communicative competence will be evaluated through their selection of particular codes which are typical and expected in the speech situation, and also through the choice of specific CS functions which convey communicative meanings. In the case of marked switches, on the other hand, the communicative competence will be demonstrated in terms of the strategic way in which the participants signal their motivation of changing the social relation with their interlocutors within the micro-social context of the speech situation - either to decrease or increase it (i.e, convergence and divergence). In this sense, within the communicative competence, there are subsets which will need to be examined in this study: one is a sociolinguistic aspect which involves CS communicative functions, and the other is the social motivation of convergence and divergence that drive the participants to violate the expectations of the immediate speech situation in terms of using one code or the other. Thus, in analysing CS patterns using the above structural and sociolinguistic

approaches, the participants' communicative and linguistic competences will be generally investigated in terms of their ability to convey their messages through their adoption of marked and unmarked codes without violating the syntactic rules of either language.

## 7.2 Code Switching Data in the School and Home Contexts:

In the school context, the recorded data contained 15<sup>18</sup> bilingual interactions, where 237 instances of CS featured in the conversations. Similarly, in the home context, 30 bilingual conversations consisting of 364 instances of CS were recorded. In the analysis of CS data selected for the study, six different grammatical features and styles of CS were found. The distribution of these types and styles in terms of numbers and percentages of occurrences is indicated in Table 23 below:

CS grammatical features and styles	Total number of occurrences	Percentage of occurrences
Unmarked intrasentential CS	507	84.4%
Marked intrasentential CS	44	7.3%
Unmarked intersentential CS	12	2%
Marked intersentential CS	28	4.7%
Unmarked extrasentential CS	9	1.5%
Marked extrasentential CS	1	0.1%

Table 23: Code switching grammatical features and styles.

For the intrasentential type of CS, both the MLF and 4-M model and the MM will be applied to examine the children's bilingual performance in terms of their non/adherence to the structural constraints of the MLF and 4-M model, and to the expectations of the social context in terms of selecting the appropriate code for each communicative interaction. For the inter- and extra-sentential types of CS, only the MM will be used since the structural framework is not relevant to these types of CS.

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<sup>18</sup> Each two of the 30 participants were recorded together, which brought the number of the recorded conversations to 15.

The following sub/sections will present the qualitative analysis starting with the extracts that had unmarked code choices which were natural and expected in the speech situation. Then, the analysis will move to the next sub/sections which focus on excerpts that displayed instances of marked switches which served indexical strategic functions in the context of the switched utterances. The analysis will also involve the examination of the structural features of CS and correlate them with the styles of alternations, whether marked or unmarked, to reflect on the levels of the participants' linguistic and communicative competences.

Therefore, for the selected extracts in this chapter where the six different forms of CS in Table 23 above were found, I will firstly look at the sociolinguistic aspects of the switched utterances in each extract by applying the MM. Then, in the following paragraph/s within the analysis of the same extract, the MLF and 4-M model will be applied to examine the linguistic characteristics of CS.

### ***7.3 Unmarked CS in the School and Home Contexts:***

Because it was not possible to include all unmarked switches found in the data due to their large number, it was important to choose specific extracts that show examples of CS functions that represent this category (the rest of the unmarked CSs can be found in Appendix F). In this section, thirteen extracts were selected where the following linguistic and sociolinguistic characteristics can be found in the participants' bilingual performance:

- 1) The switches were usually used for fulfilling referential and discourse functions.
- 2) The intrasentential switches occurred above and below word-levels (i.e. sentence and intramorphemic respectively).
- 3) In intrasentential switches all system morphemes were usually provided by the ML.
- 4) The EL insertions followed the syntactic frame of the ML.

Given that the sociolinguistic analysis of the selected extracts is based on a qualitative research method, which is usually criticized as being subjective and therefore affecting the generalizability of its findings (Al-Khatib 2003), it was important to increase the accuracy and validity of the speech interpretations as possible. This required, firstly, the researcher's observations of the context of each speech situation in order to understand the speech patterns in relation to the normative demands of the situational

contexts; secondly, it required following the next principle which guided the analysis (for unmarked switches):

- Unmarked CS is typical and expected and serves communicative function/s which do not go beyond their own meanings and do not convey extra-linguistic messages; for example, the word ‘digi:ga’ in extract (1) below which was used to grab the interlocutor’s attention; and the phrase ‘dodo bird’ in extract (2) which was used to refer to a topic that was discussed in the context of the other language:

- 1) - Kamal: give me the light bulb.  
 - Mus`ab: digi:ga! (2.0) you shouldn’t get in front of this guy.  
*wait a minute! you shouldn’t get in front of this guy.*
- 2) - Nader: ta-`raf-I il dodo bird?  
*do you know the dodo bird?*  
 - mother: shin hwwa: il dodo bird.  
*what (is) the dodo bird?*  
 - Nader: il yawm xathai-na `alai-h dars fi: il English school.  
*today we had a lesson about it in the English school.*

***Extract one (school context):***

In this extract, Aseel and Muhamed were playing a videogame during the school break-time. The extract displays the use of intrasentential CS for fulfilling a discourse function which did not imply any extra-linguistic meaning:

- 1- **Muhamed:** what’s the car that went inside here?
- 2- **Aseel:** let’s see
- 3- **Aseel:** why there are no zombies?
- 4- **Muhamed:** there aren’t any zombies `sha:n hana ma fi:-sh dark  
 because here no in-NEG  
*there aren’t any zombies because it isn’t dark here*
- 5- **Aseel:** I want stones
- 6- **Muhamed:** Aseel, how do you craft things?
- 7- **Aseel:** when you do crafting,
- 8- **Aseel: il** small animals **yimkin yiherb-an** and disappear.  
 the might run away-3PL, FEM  
*the small animals might run away and disappear.*

The conversation between the two children in this extract was mostly in English (despite the fact that it was an Arabic school). CS occurred in lines 4 and 8 while the children were talking about specific features in the game which they were playing. As

it can be seen, the use of Arabic utterances here was not because the English language lacks these words. Nor did it appear to construct a new extralinguistic meaning within the micro-situational context of the speech exchange. Rather, the possible reason behind these switches might be to give more emphasis to what the speakers were saying regarding the features of the game. That is, in line 4, Muhamed's answer to Aseel's question started in English, then he switched to Arabic using a double negation mark (ma-, -sh) as if the use of this grammatical structure would add more weight to what he was saying. This is because negations in LA Arabic is usually expressed by the particles ma- and -sh which are attached to the main verb. In some cases, speakers may omit the -sh and the negation would still be grammatical. However, unlike the latter pattern, the use of the combination of ma- and -sh in Arabic negation is considered a strong negative marker ([Borsley and Krer, 2012](#)). The non-construction of a new extralinguistic meaning also applies to Aseel's switching in 8, where he attempted to underline the importance of what he was saying in order to avoid unfavourable action in the game. Thus, the switches here did not appear to carry any extra-linguistic messages, other than emphasis, within the micro-context of the switched utterances; consequently, can be categorized as unmarked.

The intrasentential CS occurred at intervals where the syntactic rules of both languages were not violated which reflects the children's linguistic competence. In line 4, CS occurred at a point that separated the main clause from the subordinate clause. The switched items came after the Libyan Arabic subordinating conjunction `sha:n (because), which was analyzed as a system morpheme that joined the two clauses together. This coordinating conjunction was not only provided from Arabic, but also triggered an Arabic-word-order subordinate clause. In other words, it transferred the English word order in the main clause into the Arabic one in the subordinate clause. This indicates that the ML alternated between Arabic and English in this sentence. In addition, this switch supported Gumperz' ([1977](#)) claim that when a switch occurs between two conjoined clauses, the switched coordinator must be in the same language of the second clause.

In line 8, CS consisted of an EL island **small animals** that came from English, and three function morphemes (**il**, **yimken**, and **-an**) which were provided from Arabic. Arabic, therefore, seemed to be the ML in this bilingual utterance too. The use of the



grammatical structure in this utterance and the smooth alternation between the two codes reflected the speaker's implicit knowledge of the linguistic rules of both languages which linked to his level of linguistic proficiency. This was evident through the use of, firstly, the adjective-noun structure in the EL island **small animals** which followed the English word order; and secondly, the attached Arabic system morpheme **-an** in **yiherb-an** (they run away), which displayed number and gender agreement to the English plural noun **animals**, that is inflected in Arabic as feminine. The assignment of the feminine gender to the word **animals** depended on the ML (Arabic) grammatical system of gender classification of nouns. That is, apart from some exceptions, all Arabic nouns that end with the suffixes **-a** and **-t** are grammatically feminine; whereas nouns that lack these feminine markers are associated with masculine gender. The speaker in this case, related the word **animals** with its Arabic synonym **hayawa:na:-t** and used the feminine gender marker accordingly.

***Extract two (school context):***

In this episode, Adnan and Yaseen were speaking about a specific videogame. The conversation here represented an example of using intrasentential and intersentential CS for referential and discursal functions.

- 1- **Adnan:** do you have minecraft pocket edition?
- 2- **Yaseen:** yeah.
- 3- **Yaseen:** **ga:`d-a:            fi: il xbox imta:`y.**  
                  found-FEM    in the Xbox    of me  
                  *it is in my Xbox*
- 4- **Adnan:** baba wa`ad-ny iji:b-ly **xbox with minecraft** fi: `i:dmi:lad-y  
                  dad promised-1SG 3SG-bring-1SG                    in birthday-1SG  
                  *dad promised to bring me (an) Xbox with Minecraft in my birthday*
- 5- **Yaseen:** I got mine on my birthday too.
- 6- **Yaseen:** **fi tla:ta: o `shreen mares.**  
                  on three and twenty March  
                  *on the twenty third of March*
- 7- **Adnan:** my birthday is on the third of December.
- 8- **Yaseen:** that means you'll get the xbox next month.
- 9- **Adnan:** yup!

Adnan started the conversation by addressing a question in English to Yaseen. Yaseen answered with 'yeah', then code switched to Arabic as he seemed to emphasise his answer and add more information to make it clearer. The same point can be noticed in his switching in line 6 where he expanded his utterance for more clarification.

In line 4, Adnan accommodated his friend's Arabic code choice and then switched back to English. The switched items in Adnan's utterance (xbox, minecraft) belonged to the content word category and referred to topicalized nouns used in the English context. Thus, this switching and all other alternations in this extract did not seem to convey any extra-linguistic message which would construct new RO within the micro-social context of the switched utterances. This means that all the alternations here can be categorised as unmarked use of CS.

From the grammatical point of view, the intersentential switches in 3 and 6 occurred at boundaries where the two linguistic systems did not interfere with each other. In line 4, the English EL island **xbox with minecraft** was smoothly inserted into the ML (Arabic) frame, obeying its morpheme word order constraint. In addition, the speaker's omission of the expected indefinite article *an* before **xbox** indicates that he used the EL island in accordance with the Arabic grammar since indefinite nouns in Arabic are not usually preceded by articles as is the case in English. It is also noteworthy here that the words **xbox** and **minecraft** can be classified as established loanwords, which are distinguished from CS in being recurrent and morphologically, syntactically, and usually phonologically integratable into the recipient language (refer to the discussion in subsection 2.9 in the Literature Review Chapter). However, according to Myers-Scotton (1993), both borrowed and code switched words follow the ML word order and receive its inflections and function words. Consequently, they should be treated in the same manner in the linguistic analysis when applying the MLF and 4-M model.

***Extract Three (school context):***

The following extract shows an example of unmarked extrasentential CS, which served a discourse function of grabbing the interlocutor attention. The conversation here was between Mus'ab and his friend Kamal who were talking together while playing a video game.

- 1- **Mus`ab:** this one, it has loads of games.
- 2- **Kamal:** I'm gonna try gta (a name of a videogame).
- 3- **Mus`ab:** okay
- 4- **Kamal:** give me the light bulb.
- 5- **Mus`ab:** **dig:ga**, (2.0) you shouldn't get in front of this guy (in the game).  
a minute  
*wait a minute*

In this extract, the two children were mainly using English in their conversation. However, in line 5, Mus`ab code switched using the word **digi:ga:** which is equivalent to the English expression *wait a minute* that is usually used to ask to pause what is being done. In this case, the speaker used this expression as if he wanted to grab his interlocutor's attention in order to prevent him from performing a certain action in the game. CS here, therefore, did not seem to gear towards making specific communicative effect that would change the participants' RO within the micro-social context of their utterances; hence, can be classified as unmarked.

In applying the grammatical criteria of the MLF and 4-M model, the alternated morpheme belonged to the content word class and can be classified as an extra-sentential CS, which occurs outside the grammatical structure of a sentence or a phrase. Hence, this switch did not affect morphosyntactic features of any utterance which represent a linguistic competence. The use of CS here suggested that the speaker's first concern was his lexical choice which would serve his purpose of grabbing the attention of his interlocutor.

***Extract four (school context):***

In the following conversation, Nihal and Sulaima were discussing some issues regarding a specific videogame while they were playing in the school context. The conversation shows the use of intrasentential CS that was used for quotational purposes.

- 1- **Sulaima:** no, I don't like gta.
- 2- **Nihal:** I always play gta with my brother Ahmed.
- 3- **Sulaima:** but gta **fi:-ha:** violence **o** bad stuff **halba**, you know.  
   in-it,FEM           and           a lot  
   *but there are lots of violence and bad stuff in gta., you know.*
- 4- **Nihal:** true.
- 5- **Sulaima:** at home mum doesn't let me play it.
- 6- **Nihal:** why? because of the violence?
- 7- **Sulaima:** yeah.
  
- 8- **Sulaima:** she said **il-li`ba illi fi:-ha:** violence **it-xally           il**  
   the-game which in-it,FEM           3SG,FEM-makes the  
   kids **i:ku:n-u: `dwanyyi:n** and stuff like that.  
   be-3PL   aggressive.  
   *she told me that the game which contains violence makes kids aggressive and  
   stuff like that.*
- 9- **Nihal:** what's **`dwanyyi:n**?

aggressive  
*what is the meaning of `dwanyyi:n?*  
**10- Sulaima:** it means aggressive.

The MUL in this conversation appeared to be English, which was the mostly used language. CS involved word insertions in several places; namely, in 3, 8, and 9. In 8, the switched words were clearly associated with a quotational function of CS which was marked through the use of the verb “said” which indicated that a quotation would take place. The switches in line 3, can be also explained from this perspective because the speaker apparently quoted what she had heard about the game. So, CS in those utterances performed the function of quoting specific words in their original form from one language and inserting them in the language of the conversation. CS here, therefore, did not seem to index a change in the micro-social situation of the utterances; hence, can be categorised as unmarked. The same point can be said about the switch in line 9, where Nihal quoted the expression **`dwanyyi:n** for the sake of meaning clarification.

Regarding the grammatical structures of CS; in line 3, although the majority of morphemes were supplied from English, Arabic was the ML because the utterance followed the Arabic syntactic word order. In addition, the switch involved the Arabic preposition content morpheme **fi:**, which incorporated the third person singular feminine suffix **-ha:**, referring to the word **game**, which is inflected in Arabic as a feminine noun. The agreement phenomenon between the English content morpheme (game) and the Arabic system morpheme (-ha:) in terms of number and gender marked the Arabic grammatical rules of number and gender inflections; hence, reflected the dominance of the ML (Arabic) structure in this utterance. This analysis is in accordance with the system morpheme principle which postulates the inference of the embedded grammatical information about the forms of switched morphemes from outside their immediate environment (e.g., subject-verb agreement) in order to identify the ML (refer to the discussion on *outsider system morphemes* principle in the MLF and 4-M model). In addition, this example emphasises the fact that the determination of the ML in any bilingual utterance is based on its function in structuring the switched constituents rather than the number of its morphemes.

In line 8, CS occurred five times in the same sentence in parallel sites that did not affect the syntactic structures of both languages. The EL insertions in this sentence came from English and belonged to the categories of verbs, nouns, and adjectives, which fall under

the content morpheme class. On the other hand, the system morphemes that formulated the sentence's syntactic structure were provided from Arabic. Arabic, therefore, was the ML in line 8. The ease with which the speakers can move between the two linguistic systems in line 8 and in all other lines in the above extract may be attributed to the speakers' proficiency in the two languages which allowed for parallel lexical activations during language production.

***Extract five (school context):***

Asma and Zahra had chosen an Arabic video game on the iPad. In this extract, they had a discussion about the game before they started playing it. Most of the switches here were intrasentential topicalized borrowings that served a referential function of CS.

- 1- **Asma:** I played this **li`ba** with my sister yesterday  
game  
*I played this game with my sister yesterday.*
- 2- **Zahra:** shinu: hi:ya?  
what it,FEM?  
*what is it?*
- 3- **Asma:** it is called **il harf il na:qis**  
the letter the missing  
*it is called the missing letter*
- 4- **Zahra:** ta`arf-i il **rules** imta:`-ha:?  
you-know-2SG,FEM the of-it,FEM  
*do you know the rules of it?*
- 5- **Asma:** eay, sa:hl-a:.  
yeah easy-FEM  
*yeah, it is easy*
- 6- **Asma:** you need to find **il harf il na:qis**  
the letter the missing  
*you need to find the missing letter*
- 7- **Asma:** `sha:n ta`raf-i shinu: il haja illi fi: il **black picture**  
to know-2SG,FEM what the thing which in the  
*to know what the thing in the black picture is.*
- 8- **Zahra:** o ba`adha:?  
and after that ?  
*and after that?*
- 9- **Asma:** xalas, hatha hu:wa:  
enough, that it,MAS  
*enough, that is it*
- 10- **Asma:** **let's try it.**
- 11- **Zahra:** ana awwalan  
me first  
*me first*

- 12- **Asma:** shu:f-i: il **pictures** illi maoju:d-a-t geddam-ik  
 look-2SG,FEM the picture-s which found-FEM-PL in front of- you  
*look at the pictures which are in front of you.*
- 13- **Asma:** o ba`ad-ain: **try to guess** il ija:ba: il sahi:h-a:  
 and after-that the answer the correct-FEM  
*and after that try to guess the correct answer.*

As it can be seen in this excerpt, both languages were used in the conversation, but Arabic seems to be the MUL. All the switched utterances and words were either associated with the context in which they were normally used; or with the techniques of playing the game. That is, in lines 3 and 6, the alternations occurred from English to Arabic and involved the noun phrase **il harf il na:qis**, which referred to the name of a game in the Arabic context. Consequently, these switches are considered topicalized insertions serving a referential function of CS. On the other hand, in lines 4, 7, 12, and 13 the EL insertions referred to specific keywords and strategies in playing the game. None of these switches appeared to affect the micro-social context of their utterances. They can be, however, attributed to the fact that the participants were English dominant, and they might have found it easier to mention the game's technique in English. All the above switches, therefore, can be classified as unmarked; since they did not index a change in the micro-social context of the speakers' immediate utterances.

In addition, the above extract provided an interesting example of the influence of the topic of conversation on the participants' language choice patterns. As discussed before, the observed pattern of the participants' language use with regard to the different social settings in this study was mostly Arabic language for the home context with parents, and English with siblings and friends in the school context. This means that in all conversations in the school context, the participants tended to use mostly English while Arabic featured as the EL. Asma and Zahra's language choice in this excerpt appeared to be influenced by their selection of the Arabic game which triggered Arabic topics of conversation. To illustrate it further, within the first ten minutes of recording their whole conversation, the two children chose to play the Arabic game before they changed to play an English one in the rest of the recording session. During playing the Arabic game, the children tended to use mostly Arabic with the use of some English utterances. This situation changed when they chose the English game, which normally involved English themes and topics of conversations. Accordingly, English became the MUL in the rest of their conversation. These language use patterns exhibited the

participants' bilingual performance accommodation with the new topic of their conversation, which reflected their sensitivity to the changed variables in the speech situation. The following Table shows the number of Arabic and English utterances in the whole conversation.

Participants & age group	number of utterances within the first 10 minutes of the recording		number of utterances within the rest of the recording (20-30 minutes)	
	Arabic	English	Arabic	English
Asma 9-10	19	10	8	185
Zahra 9-10	25	9	13	189

Table 24: Asma & Zahra's language use patterns according to the topic of conversation.

With regard to the grammatical analysis of CS patterns, we can find that intrasentential CS occurred in several positions, all of which involved smooth insertions of the EL content morphemes into the ML frame. Most of the content morphemes here belonged to the word category of nouns, pronouns, prepositions and verbs. A systematic investigation of the word order approach revealed that some of the switched utterances in the conversation above involved word order that was the same for Arabic and English which made it difficult to establish the ML using this approach.

By applying the system morpheme principle, we can find that the ML for all the switched utterances was Arabic, except for the utterances in lines 1, 3, and 6 which was English, while Arabic provided the word insertions to the ML frame. In line 1, the Arabic noun **li`ba** (game) was inserted into the English frame. The internal structure of the noun phrase **this li`ba** reflected the dominance of the English structure, since it lacked the use of the definite article between the demonstrative and the noun which is obligatory in the Arabic grammar. In line 3 and 6 all function words and inflections came from English. In both utterances, the switch involved the same noun phrase **il harf il na:qis**, which took the role of direct object and verb complement for the English transitive verbs **find** and **called** respectively.

A detailed examination of the grammatical features of the switched utterances in the examples above revealed levels of bilingual linguistic competence in terms of retaining the grammatical and syntactic constraints of both languages while alternating between them. For example, the speaker's omission of the definite article after the demonstrative

**this** and before the noun **li`ba** in line 1, reflected her sensitivity and linguistic awareness of the grammatical rules of English, which was the ML in the utterance. In addition, the presence of the definite article before the noun and its attributive adjective (which does not normally occur in the English syntax) in **il harf il na:qis** (the missing letter) in 3 and 6, and in **il ija:ba: il sahi:ha:** (the correct answer) in line 13; and, then, its absence in **il black picture** in line 7, suggested that the speaker have had an advanced level of linguistic competence in terms of distinguishing between the permissible and the unacceptable use of the definite articles in the two grammatical systems.

*Extract six (home context):*

The following extract contains a conversation between Hammam and his mother about Hammam's school lunch in the English school. The extract presented an example of unmarked switches which were associated with topical borrowings from the context of the other language. These switches also represented Hammam's high level of linguistic competence in terms of retaining the grammatical rules of both languages while he was code switching.

- 1- **Hammam:** il yawm ta-ghadda-ina: **fish fingers.**  
the day 1PL-had for lunch-we  
*today we had fish fingers for lunch*
- 2- **Hammam:** wait, **mish** fish fingers, fish.  
not  
*wait, not fish fingers, fish*
- 3- **Mother:** sahha!  
*enjoy with health!*
- 4- **Hammam: on fridays** di:ma **fish** walla **fish fingers** wa im`a:-hum **beans**  
always or and with-them  
o **other vegetables.**  
and  
*on Fridays (we) always (have) fish or fish fingers and beans and other vegetables.*
- 5- **Mother:** o fi: il aija:m il oxra: shin t-a:kl-u:?  
*and on the other days, what do you eat?*
- 6- **Hammam: on monday** y-a`tu:-na: **chicken fajita** o marra:t  
3PL-give-they-us and sometimes  
**chicken wraps and, um, margherita pasta.**  
*on Monday, (they) give us chicken fajita and sometimes chicken wraps and, um, margherita pasta.*
- 7- **Mother:** umhmm.
- 8- **Hammam:** um, o kul yawm na:xth-u: pizza.  
and every day 1PL-take-we pizza



- um, and every day we get pizza.*
- 9- **Hammam:** o fi:h ice-cream, **even in the cold weather**<sup>19</sup>  
and in-MAS  
*and there ( is) ice-cream, even in the cold weather*

In this extract, the discussion was initiated in Arabic, which appeared to be the MUL in this conversation. The choice of Arabic as the MUL here reflected the child's adherence with the expectations of the micro-social context in terms of language choice in a conversation involving a parent, who preferred the use of Arabic in the home domain. However, it seems that the child was unable to fully accommodate to his mother's language preference, since the switch to English occurred in almost every line of his speech. This CS performance involved word insertions from English, most of which belonged to the category of nouns, which fall under the content word class. The EL insertions in Hammam's speech, such as the noun phrases: **fish fingers, chicken fajita, chicken wraps**, etc., are associated with the English school context where they were usually used in reference to specific meals offered in the school lunch. Arabic has suitable equivalents for these items, but the speaker perhaps found it easier to just use the English ones. It could also be the case that, the use of Arabic equivalents here would be less semantically appropriate or less culturally tied with the English school context which was associated with these meals. Thus, it can be said that the switches in this case served a referential function which involved the use of the right words as usually used in the context of the other language.

In line 2, the switch to the Arabic negation mark **mish** (not) served as a self-repair mechanism because it emerged while Hammam was searching for the correct word to explain what he exactly had eaten at school. This function of CS is also evident through the use of the word **wait**, which can express the speaker's hesitation during the momentary search for the correct word that would repair the error in his utterance.

Finally, in line 9, the speaker used the intersentential CS probably because he wanted to put emphasis on his previous statement regarding the offer of ice-cream in the school

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<sup>19</sup> The words 'pizza' in line 8 and 'ice-cream' in line 9 are considered as establish loan words in Arabic language; hence, they were not typical instances of CS in this conversation.

lunch. This hypothesis is based on the speaker's initiation of the switch with the adverb **even**, which is sometimes used in conversations to add emphasis to what has been just said.

Based on the discussion above regarding the social aspects of CS in this extract, it can be concluded that the speaker's use of CS here was generally for performing referential, self-repair, and statement enhancement functions which did not seem to convey any extralinguistic meaning within the micro-situation of the switched utterances. Hence, all the above instances of CS can be classified under the unmarked category of language alternation.

From a grammatical perspective, all the EL content morphemes were smoothly and effortlessly inserted into the ML (Arabic) template following its syntactic word order. In line 1, the switch contained the noun phrase **fish fingers** serving as a direct object for the Arabic verbal phrase **ta-ghadda-ina**: (we had for lunch) which incorporated the verb stem **ghadda** (to lunch) and the first person plural affixes **ta-** and **-ina** that referred to the latent subject **we**. The same can be said about the switches in line 6 which determined the direct objects of the Arabic compound verb **y-a`tu:-na**: (they give us).

In lines 4 and 9, the lack of the copular verbs between the switched items in **o fi:h ice-cream** (and there (is) ice-cream) and **on fridays di:ma fish** (on Friday (there is) always fish) reflected the dominance of the Arabic syntax in these bilingual utterances. Note here, the child in these utterances used his proficiency in Arabic to use the adverb of time **di:ma** (always) in 4, and the preposition **fi:h** (which means 'there is' in this extract) in 9, to perform the role of the missing copular verbs.

***Extract seven (school context):***

In this extract, Marwan and Tammer were having a discussion about a particular video game. The excerpt presents examples of extrasentential and intersentential switches, which performed discoursal functions within the conversation.

- 1- **Marwan**: oh just pick a game already.
- 2- **Tammer**: okay! how about this one, flappy bird?
- 3- **Marwan**: seriously?!
- 4- **Marwan**: **it-saddiq?** someone committed suicide from playing it.  
2SG-believe  
(do) you believe it? Someone committed suicide from playing it.

- 5- **Tammer:** really?
- 6- **Marwan:** yeah.
- 7- **Tammer:** why did he or she do it?
- 8- **Marwan:** because he kept loosing.
- 9- **Marwan:** **ma: `araf-ish ya-l`ab-ha kwaiyis.**  
 not 3SG-know 3SG-play-it-FEM properly  
*he didn't know (how) to play it properly*
- 10- **Tammer:** come on, why wouldn't he?
- 11- **Marwan:** flappy bird is the most annoying game. you know.
- 12- **Tammer:** yeah. I just think it is really stupid.
- 13- **Marwan:** if it's stupid why would app store uploaded it?
- 14- **Tammer:** **kan-ha: yadd-ak?**  
 what happened-it-FEM hand-2SG,POS.  
*what happened to your hand?*
- 15- **Mrawn:** it was a tip-ex incident.
- 16- **Tammer:** we're not allowed to use tip-ex in the school.
- 17- **Marwan:** yeah **sa:h**, but this was at home.  
 true  
*yeah true, but this was at home.*
- 18- **Tammer:** anyway, how about smash cops game?
- 19- **Marwan:** let's see.

In this extract, English was the MUL in the conversation. CS took place 4 times in different points in the conversation. However, all the switches did not seem to carry any extralinguistic messages which would create a new micro-social context in the interaction.

In line 4, Marwan code switched to the Arabic expression **it-saddiq** (do you believe it), after his sarcastic response in line 3, which expressed his objection to Tammer's suggestion regarding the selection of a particular video game. Marwan's use of the Arabic expression appears to serve as a device to grab or retain his friend's attention in order to add information about that particular game and to justify his objection regarding playing it.

In line 9, Marwan code switched again to Arabic probably to expand his explanation in the previous line and to ensure that his explanation was clear and understood. In line 14, Tammer's intersentential CS marked a point of transition to another subject of discussion with a question, which may signal a change in his focus of attention within the conversation; or it may indicate his attempt to finish talking about the previous topic. In this case, it is likely that Tammer used this language alternation to help him clarify the fact that he was no longer interested in the topic being discussed;

consequently, avoiding the necessity of saying, for example, ‘let’s stop talking about this subject’.

Finally, in line 17 Marwan showed agreement with what Tammer said about the disallowing of using a Tip-ex at school, and then switched to Arabic using **sa:h** (true) as if he wanted to reiterate his message of agreement with the intention of further emphasising his friend’s statement.

Thus, based on the sociolinguistic analysis above, it can be said that all incidences of CS in this extract did not seem to fulfil any strategic function which would change the unmarked RO in the immediate speech situation. Thus, all the switched here can be considered as unmarked use of language alternation.

In looking at the grammatical structures of the switched utterances we can see that, apart from CS in line 17, all CS incidents were intersentential which occurred at the syntactic boundaries of both languages; consequently, their grammatical systems did not interfere with each other. In line 17, the Arabic word insertion **sa:h** (true) belonged to the content words class which has a clear lexical meaning if it stands alone. CS in this case concerned an independent content word which did not display any syntactic properties given that it was not restricted with grammatical constraints or inflections from either language.

***Extract eight (home context):***

In this excerpt, Nader was talking with his mother about his lesson in the English school. All the switches in the conversations were either intersentential or intrasentential topic-related, which did not construct a new micro-context for the immediate situation.

- 1- **Nader:** ta-`raf-i                      il   **dodo bird?**  
you,FEM-know, FEM the  
*do you know the dodo bird*
- 2- **mother:** shin hwwa: il dodo bird.  
*what (is) the dodo bird?*
- 3- **Nader:** il yawm xathai-na `alai-h dars      fi: il **English school.**  
the day studied-1PL about-it lesson      in the  
*today we had a lesson about it in the English school*
- 4- **Mother:** tama:m ihk-i:-li `alai-h  
*okay tell me about it*

- 5- **Nader:** well, **il** bird **ha:tha** was extinct not too long ago  
the this-MAS  
*well, this bird was extinct not too long ago.*
- 6- **Nader:** o hu:wa: **mostly** ka:n i-live fi: **Madagascar.**  
and he used to 3SG-MAS- in  
*and he mostly used to live in Madagascar*
- 7- **Nader:** o ka:n 'inda-h jinah-ain sgha:r o ma ka:n-sh  
and was has, MAS wing-two small and not was-NEG  
yi-`rif i:-ti:r  
3SG,MAS-know 3SG,MAS- fly  
*and (it) had two small wings and (it) couldn't fly*
- 8- **Mother:** umhum.
- 9- **Nader:** o hu:wa: ka:n **very dumb.**  
and he was  
*and it was very dumb*
- 10- **Mother:** 'alaish?  
why?
- 11- **Nader:** 'sha:n ka:n i-di:r fi: **stupid things.**  
because used to 3SG-mas do in  
*because it used to do stupid things*
- 12- **Mother:** zay shinu:?  
like what?
- 13- **Nader:** umm (2.0), mathalan, `sha:n in-warri:-k kaif ka:n **stupid**  
for example, to 1SG-show-you how was, MAS  
*umm (2.0), for example, to show you how stupid it was*
- 14- **Nader:** lamma i:shu:f **a cliff,**  
when MAS-sees  
*when it sees a cliff*
- 15- **Nader:** it would forget that it can't fly.
- 16- **Nader:** so it would jump right off it;
- 17- **Nader:** o **tab`an i:-mu:t**  
and of course 3SG,MAS-dies  
*and of course (it) would die*

In this extract, Nader used a mixture of Arabic and English in his conversation with his mother about a topic he had learned at the English school. It seems that Nader attempted to adhere with the expectations of the micro-social situation, which demanded the use of Arabic language, given that the interlocutor was a parent who preferred using Arabic. However, Nader was unable to fully adhere with the expected norms of the speech situation, since most of the words and expressions in his speech (e.g., dodo bird, live in Madagascar, a cliff) were associated with an English language context: the English school domain.

In line 1, Nader initiated his speech using Arabic but switched immediately to the English expression **dodo bird** in reference to a specific bird, which he had studied about

in the mainstream school. Another switch occurred in line 3 in which Nader introduced the topic to his mother, clarifying that it was the subject of a lesson he had studied at the school. The switches in lines 6, 9, 11, 13 and 14 appeared to be topicalized language alternations because they related to lexis and phrases used in the English language domain when discussing the topic of the dodo bird. Consequently, all the switches in this extract were used for referential functions that did not indicate a change in the RO of the speakers within the micro-social context of their interaction.

With regard to the grammatical structure of the switched utterances, Nader produced both intrasentential and intersentential CS, with the former being more frequent than the latter. He displayed his linguistic competence through the correct grammatical structures which he used in every switched utterance. His word insertions from the EL, such as those in lines 9; 11; 13 and 14, involved content words which were inserted smoothly in parallel sites between the two languages, so that they did not violate the syntactic rules of either grammatical system in the utterances.

In lines 1, 3, and 5, the switched utterances came after the Arabic definite article **il**, which functioned as the English letter of definition **the**. In 5 the Arabic demonstrative pronoun **ha:tha** was used with the definite article following the EL insertion (bird) and giving a more emphasis to the referent. The demonstrative pronoun here agreed with the gender of the referent, which is inflected in Arabic as masculine.

In line 6, the ML appeared to be Arabic because it governed the syntactic structure of the utterance. The Arabic prefix **i-** in the verb **i-live** is an outsider system morpheme, which indicated a subject-verb agreement and marked the masculine gender of the subject (the dodo bird). The association between the bird and the masculine gender throughout the conversation as well as the use of the above outsider masculine system morpheme accordingly, demonstrated an advanced level in the child's linguistic competence. This competence was evident in terms of two grammatical situations: firstly, selecting the appropriate gender classification; since masculinity is the default grammatical gender for nouns in Arabic, and secondly, the child's sensitivity to the grammatical coherence in his CS patterns. The grammatical coherence appeared through the use of the masculine markers throughout the conversation, such as in lines 6 and 9, where Nader substituted the bird's name with the Arabic 3rd person masculine

pronoun **hu:wa:** which maintained cohesive relevance with the rest of the utterances in the conversation.

***Extract nine (home context):***

In the following excerpt, Nihal (the main participant) is talking with her older sister, Ameera, about their friend, Asma. The conversation consisted of examples of the three types of CS that were used for referential, discoursal, and expressive functions which did not imply a change in the interlocutors' RO in the immediate micro-situation of the utterances.

- 1- **Ameera:** ... and guess what, she (Asma) is going to Libya fi: il saif.  
*... and guess what, she (Asma) is going to Libya this summer*
- 2- **Nihal:** why didn't she tell me?
- 3- **Ameera:** she didn't know she was going at first.
- 4- **Nihal:** **ilhamdu li-Allah** we are going too.  
praise be to Allah  
*praise be to Allah that we are going too.*
- 5- **Nihal:** **ya`ni** she can't show off about it.  
means  
*I mean she can't show off about it.*
- 6- **Ameera:** yeah, I can't wait.
- 7- **Nihal:** you know what, she sometimes acts all ignorant.
- 8- **Ameera:** sa:h, and annoying too.  
*true, and annoying too*
- 9- **Nihal:** so why do you still hang out with her?
- 10- **Nihal:** **il mafru:d ma`ash t-ihky ma`a-ha,**  
it should not 2SG-speak with-her  
*you shouldn't speak with her*
- 11- **Nihal:** m:da:m **she is annoying**  
as long as  
*as long as she is annoying*

The bilingual conversation in this extract was mainly in English as it was expected in a situation involving two bilingual siblings, who preferred using English in their interactions. However, Nihal, the main participant, code switched 4 times; namely, in lines 4, 5, 10, and 11. The Arabic phrase **ilhamdu li-Allah** in line 4 simply means 'thank God', and it is a traditional religious expression that is usually used by Muslims in everyday speech when they are presented with what appears good to them. In this case, Nihal's CS served a referential function because the use of the Arabic expression was deemed more appropriate than its English equivalent.

In line 5, Nihal code switched again to Arabic using the expression **ya`ni** whose literal meaning can serve as a synonym to ‘I mean’ or ‘I intend to say’. The insertion of this expression in a conversation is usually realised in two different ways. The first is in its literal meaning which marks the speakers’ intention to define, explain, or clarify what they have just said; and the second is in its interactional meaning which serves pragmatic functions such as floor holding, self-repair, and word-search ([Mahsain, 2014](#)). Nihal’s use of this word as an extrasentential CS appeared to convey the literal meaning of ‘I mean’ because it was followed by an attempt to define what she meant by saying “**ilhamdu li-Allah we are going too**”.

In line 9, Nihal’s use of the interrogation method expressed her objection and negative feelings towards her sister’s relationship with her friend. This mode was followed by two switches in the subsequent utterances using the noun phrase **il mafru:d** (it should) in line 10, and the sentence **she is annoying** in line 11. The Arabic compound verb **mada:m** which preceded the above sentence indicated the continuation of a specific state (i.e., being annoying). Therefore, the use of the interrogation mode and all the above expressions in the switches seemed to express Nihal’s personal opinion and attempt to call for a specific attitude of her sibling that would distance her from her friend. Note that, Nihal’s CS in this sense was associated with achieving a certain social goal but it cannot be classified as marked. That is because the alternation here did not indicate a change in the participants’ RO within the current micro-social context of the switched utterances. In other words, it did not mean a change in the relationship between the speakers themselves in the immediate communicative situation; but it intended the change in the relation with another individual in a different social context.

From a grammatical point of view, Nihal made use of intrasentential and intersentential forms of CS. In line 5, her switching into English after the Arabic adverb **ya`ni** seems to be applied at a syntactic position that allows for grammatical alternation. In line 11, Although the switch to the Arabic compound verb **mada:m** occurred between utterances, it took the form of intrasentential CS because it was produced as a parenthetical expression that linked two sentences in the same code together. This suggestion is in line with Bader’s ([2003](#)) and Kanakri and Ionescu’s ([2010](#)) claims that speakers may produce an intrasentential CS as a parenthetical clause before they switch back to their original language. The smooth transition between the two codes in this



utterance exhibited Nihal's abstract linguistic competence in selecting the possible syntactic sites at which the switching would retain the grammatical rules of both languages.

*Extract ten (home context):*

In the following episode, Tamer was talking to his mother about his day at the English school. The conversation gave an example of using unmarked intrasentential and intersentential CS for referential and meaning clarification purposes.

- 1- **Tammer:** ... o lamma il **dinner lady** jat  
and when the  
*and when the dinner lady came*
- 2- **Tammer:** Polly ka:nat tal`ab ma`a: Ya`qoop.  
was playing with  
*Polly was playing with Ya`qoop*
- 3- **Tammer:** **Ya`qoop is disabled.**
- 4- **Tammer:** that means **mari:d.**  
ill  
*that means ill*
- 5- **Tammer:** o ba`dain il **dinner lady** ja:bat **his** ghada:’  
and then brought lunch  
*and then the dinner lady brought his lunch*
- 6- **Tamer:** o nehna: tla`na: nal`abu: fi: il **playground**  
and we went out play in the  
*and we went out to play in the playground*
- 7- **Tamer:** la:ken ka:n fi:h matar wa:jed  
but was in rain a lot  
*but there was a lot of rain*

Tammer used Arabic as his main language in this extract in compliance with his mother's language preference, which again reflected the influence of the interlocutor category on his code choice. No alternated items in his speech seemed to indicate a deviation from the expected norms of the speech situation. The expressions **dinner lady, disabled, playground** were clearly associated with the context of the English school, hence, served topicalized borrowing functions.

In line 4, the child switched into the Arabic word **mari:d** (ill) in an attempt to translate the word **disabled** for the purpose of meaning clarification. In this situation, it seemed that the child realised that he had just code switched in line 3 and his interlocutor might not understand his switched utterance. Therefore, he tried to rectify the situation by switching back to Arabic and providing an Arabic synonym for his switched adjective.

However, some psychological factors, such as momentary lack of memory or maybe tiredness or excitement, could have influenced his attempt to find the right Arabic synonym for the word **disabled**.

In applying the MLF and 4-M model on Tammer's intrasentential switches in lines 1, 4, 5, and 6, it can be found that the child used CS at various syntactic boundaries without violating the syntactic rules of either language. These switches were produced in the forms of either single words or short phrases that occurred as EL islands (i.e., dinner lady). In addition, the switch between the English possessive pronoun **his** and the Arabic noun **ghada:**' in line 5 exhibited the child's linguistic competence in terms of dealing with insufficient congruency between the Arabic and English structures. That is, while possessive pronouns in English are independent morphemes, which usually occur in prenominal positions, in Arabic they are always suffixed to the noun of the possessed object. Due to this mismatch and incongruence between this structural characteristic of Arabic and English, the child resorted to a distinct form of possessive construction where he used only the English possessive pronoun **his** while omitted the Arabic masculine possessive suffix-**h** from the noun **ghada:**'.

***Extract eleven (school context):***

The extract below contained a conversation between Alya and Rana while they were playing a videogame. The conversation involved the use of the three types of CS that performed discursal and expressive functions.

- 1- **Alya:** go to this one.
- 2- **Alya:** **imsh-y hana.**  
go-FEM here  
go here
- 3- **Rana:** here it is the villager
- 4- **Rana:** **ilgi:-t il** villager  
found-1SING the  
*I found the villager*
- 5- **Alya:** one villager.
- 6- **Rana:** he was running here.
- 7- **Alya:** you hit him here, hit him. **bisur`a:!**  
quickly!  
*you hit him here, hit him. quickly!*
- 8- **Rana:** oh my god they plant seeds now!
- 9- **Alya:** no no no, don't hit them now because they might em (0.2) they might turn into zombie villagers this time. so don't hit them.

10- **Rana:** nooo, **getal-ni** !  
                  killed-1SING-me  
                  *nooo, (he) killed me!*

In this conversation English was the MUL. Alya started the conversation in English and then code switched to Arabic to repeat what she had said in the previous line. The same pattern of CS is found in line 4, where Rana had modified her previous utterance before she repeated it in the other code. Repeating a message in the other code, whether literally or in a modified form, usually serves to clarify or emphasize a point in order to promote the interlocutor's understanding of what have been just said ([Gumperz, 1982](#)). Another switching used for emphasis can be found at the end of line 7, but this time was without reiterating a message. Alya's use of CS at this site of her utterance probably served as a means of adding more force to her previous statement in order to show the importance and urgency of doing a certain action in the game. This hypothesis is consistent with Gal's ([1988](#)) findings in which she reported several instances of CS at the end of statements serving for emphasizing and adding more force to specific points.

Finally, in line 10, Rana's speech tone and utilization of CS clearly expressed her annoyance for losing the game. Her use of the first-person pronoun suffix instead of the second in **getal-ni** (he killed me) signalled her growing excitement and degree of involvement in the game context. The same observation applies for Alya's utterance in line 2, where she used the second person pronoun in addressing Rana while she was performing a certain action in the game. From what has been discussed above, we can conclude that none of the CS functions in this extract appeared to leave a particular effect on the immediate speech situation. Thus, all the language alternations here are categorised as unmarked use of CS.

In applying the linguistic criteria of the grammatical constraints of CS, we can find the three structural types of CS took place in different sites in the conversation. Intrasentential CS occurred only in line 4, which seemed to be governed by the Arabic syntax from which the system morphemes were provided. The other switches involved the intersentential and extrasentential patterns where the two grammatical systems did not overlap with each other.

**Extract twelve (school context):**

The following extract involved a conversation between Farah and her friend Taiba, who were interacting while playing a game. The extract displayed the way in which the participants used intrasentential CS for discursal purpose, which did not seem to fulfil any strategic functions within the micro-social situation.

- 1- **Farah:** how do you go on first person view?
- 2- **Taiba:** eh, go to the pause button, go to options, um (2.0)
- 3- **Taiba:** **o ba`dain** do something here.  
and then  
*and then do something here*
- 4- **Farah:** do you know the villagers? they can open doors and hold stuff, and when you hit them, see what happens.
- 5- **Taiba:** what will happen next?
- 6- **Farah:** (2.0) look at my skin (the game one).
- 7- **Taiba:** that's their skin.
- 8- **Farah:** **lala**, that's mine.  
no  
*no, that's mine*
- 9- **Farah:** **il skin imta:`-y ana:**  
the of-mine I  
*the skin of me*
- 10- **Taiba:** ok, let's get in here and do mining.
- 11- **Farah:** why it is so **bati:?! (the iPad).**

The two participants used a mixture of Arabic and English, but English was apparently their MUL. Following a query made by Farah, Taiba tried to answer her in lines 2 and 3 with what she should do. While Taiba was trying to give particular information, she made a short pause before continuing her speech and then inserted the Arabic adverb **ba`dain** (then) which referred to what should happen next. CS in this linguistic action did not appear to carry any extra linguistic message that would affect the micro-social situation, but it was possibly just used to resume and manage the progression of the speaker's talk ([Ataş, 2012](#)).

Other CS incidents were made by Farah in lines 8, 9, and 11. In 8 Farah code switched to the Libyan Arabic negation mark, **lala**, as a response to her interlocutor's statement in 7, then, she continued her switch in the next line which added more emphasis to what she had just said. These switches were probably motivated by Farah's attempt to be illustrative and to ensure her interlocutor's understanding of the situation in the game.

Lastly, in line 11, CS came as a part of a rhetoric interrogative sentence, which displayed Farah's annoyance and frustration about the iPad being slow.

Grammatically, the smooth alternation between the two codes was noticeable through the use of the switches in points where they fitted neatly in the ML frame. Apart from line 9, all the switched utterances were governed by the English syntactic rules; hence, English functioned as the ML. In line 9 the ML was Arabic given that the utterance contained the Arabic bridge system morpheme **imta:**` (of) which linked the content morphemes and created a well-formed phrase. CS in this utterance testified the operativeness of the system morphemes constraints within the MLF model, where bridges should come only from the ML.

***Extract thirteen (home context):***

The following conversation contained a discussion between Nisreen and her mother about the 'tooth fairy' topic. Again, the switches here were topicalized insertions that served referential functions of CS.

- 1- **Nisreen:** zema:n kint-u: tgu:l-u: inna in-hit-tu: il **tooth** taht il **pillow**  
ages ago were-2PL say-2PL that 1PL-put-1PL the under the  
*ages ago, you used to say that you put the tooth under the pillow*
- 2- **Nisreen:** `sha:n il **tooth fairy** it-ji:  
because the 3SG,FEM-comes  
*because the tooth fairy comes*
- 3- **Nisreen: and swaps it with coins**
- 4- **Nisreen:** la:ken tawwa xala:s `araf-t inna gusset il **tooth fairy** mish **real**  
but now that's it, knew-1SG that story the not  
*but now that's it, I found out that the story of the tooth fairy isn't real*
- 5- **Nisreen:** aslan, **one tooth fairy** ma: t-gdarsh ti-mshy li  
by no means, not -2SG,FEM-can 2SG,FEM-go to  
**hundred or may be thousand** tiftl fi marra wa:hida:  
child in time one  
*by no means, one tooth fairy can't go to a hundred or maybe thousand child(ren)in one go*
- 6- **Nisreen:** o it-baddel **teeth-hum with money.**  
and 2SG,FEM-swap -their  
*and swap their teeth with money*
- 7- **Mother:** zaman kunty sghaira o itsadgy kul shay  
ages ago you were little kid and you used to believe everything

As it was the case with the previous extracts which involved a parent interlocutor, the child in the conversation above used mostly Arabic in accordance with the

interlocutor's language preference. All the English single-word insertions and switched phrases (teeth, tooth fairy, pillow, swap it with coins) made by the child were mostly associated with an English folklore mythology that is commonly known in English contexts. These switches, therefore, can be classified as topicalized language alternations which come under the referential function of CS. In this case, all the switches here are considered normal and natural, hence, unmarked.

Arabic was the ML in all intrasentential switches in this extract given that it supplied the syntactic frames while English provided the lexical items inserted into these frames. All the English word insertions in the switched utterances belonged to the content word class and came in sites where they did not defy the syntactic order of the ML. This switching pattern reflected the child's linguistic ability to avoid ungrammatical utterances by alternating at equivalent syntactic sites that facilitated a smooth alternation between the two codes.

Another linguistic feature which required sufficient level of linguistic competence appeared in line 5 in the phrase **thousand tifi** (thousand child(ren)). The child in this phrase used the singular form of the word **tifi** instead of the plural after the quantifier **thousand** to express a large group of children. Singlating the word **tifi** here was not a grammatical error, rather, it was in accordance with one area of complexity in the Arabic plural system called *Tamyiz* (specification), where nouns that follow specific numbers (including a thousand) should be used in singular form rather than plural. Moreover, the word **teeth** in line 6 was attached with the Arabic plural possessive pronoun **-hum** (their) instead of the singular **-h** in denoting the word **tifi**, which is actually plural. The agreement features in this utterance as well as the child's correct use of the *Tamyiz* structure demonstrated her ability in determining the appropriate form of nouns and their affixes within a complex grammatical aspect.

#### **7.4 Unmarked Code Switching Discussion:**

The section above presented different extracts displaying features of communicative and linguistic competences in the participants' bilingual behaviour. From a sociolinguistic perspective, the adaptation of Myers-Scotton's MM served to explore the use of CS as unmarked choice of discourse mode, taking into account the nature of the social context of the conversation in terms of setting, interlocutors, topic of

conversation, etc. CS in all these extracts was not used as a response to a change in any of the situational parameters; nor was it used to index the speakers' intention to make a change in the speech situations. None of these language alternations, therefore, can be categorized as a situational CS according to Blom & Gumperz's (2000b) classification nor as marked use of CS. In this sense, the participants used CS for referential and discursual functions, which were characterised as being normal, expected, and conformed to the conventional norms of language use in the social situation.

In addition, language separation and differentiation seem to be present in all the extracts in the section above. The participants' choice of a particular MUL in their conversations served to indicate that the participants followed the contextual cues from the setting concerning the topic of conversations and the interlocutors' language preferences. This shows that the children understood which language code was appropriate to use in a given situation and context, which, in turn, reflected levels of their communicative competence.

From a linguistic perspective, the extracts in the previous section provided instances of CS, where the juxtaposition of lexical items within the same utterance or words featured more than the alternation of the two codes between utterances (see Table 25 below). In addition, the linguistic analysis explained the grammatical aspects of Arabic/English CS, particularly intrasentential style, and how the participants demonstrated their ability of controlling the linguistic rules applying to CS

The application of the MLF and 4-M model provided valuable insights into the participants' ways of switching between the two codes. The EL insertions were mostly associated with content words (i.e., nouns, verbs, adjectives, and particular adverbs) and some functional morphemes (i.e., prepositions and determiners) which were smoothly incorporated into the ML template following the constraints postulated in the MLF and 4-M model.

Moreover, specifying the ML of the alternated segments has contributed to highlighting the linguistic abilities of the speakers and the related sociolinguistic features of the speech situation, which determined the positions of language alternations. That is, the participants' choice of the ML depended firstly on their ability of making one language

dominate the syntactic frame of the switched utterance; and secondly, on the characteristics of the social context of the speech situation, since the use of a particular language as the ML have had specific roles determined by that context.

In extract 1, Mohammed and Aseel used intrasentential CS for the purpose of emphasizing some points regarding specific features in the video game which they were playing. Their switches, therefore, were determined by a contextual factor and did not indicate or construct a new micro-social situation. Consequently, the classification of their intrasentential switches motivation fell under the category of discoursal function, which did not convey any extra-linguistic meaning within the micro-social context of the switched segments.

Another use of CS for discoursal functions that did not influence the micro-social situation appeared in extracts 2, 3, 6, 7, 9, 11, and 12. In extract 2, Yaseen code switched twice into Arabic in an intersentential form in order to add more information for clarifying his speech. Extracts 3 and 7 displayed how the speakers used CS as a means to capture the attention of their interlocutors using an extrasentential type of CS where the two grammatical systems did not overlap. In Extract 6, Hammam switched into the Libyan Arabic negation mark **mish**, which served as a self-repair mechanism to what he had just said. Extract 9 showed how Nihal switched into the Arabic verb **ya'ni** to explain and clarify what she meant by her previous speech. In Extract 11, the two speakers used the same patterns of CS that were meant to emphasize a point in order to promote the interlocutor's understanding; and to add more force to the switched utterance for showing the importance and urgency of doing a certain action in the video game. Extract 12 showed sociolinguistic features of CS where Taiba attempted to manage the progression of her talk by switching into Arabic using the adverb **ba'dain**, which indicated what should happen next in the context of her utterance.

Other use of unmarked CS in the section above involved quotational function marked by the nominal phrase “she said” as in extract 4, where Sulaima used intrasentential CS while quoting her mother's speech. According to Gumperz (1989) a quotational CS function is considered a “contextualization strategy” which provides “a frame of interpretation” (Gumperz and Levinson, 1996, p. 379) for the linguistic content of speakers' utterances.



Moreover, several uses of unmarked CS were characterized as being topical alternations, which served referential functions of CS: using language alternation in borrowing lexical items that were linked to certain activities performed in the context of the other language. This function of CS can be found in extracts 5, 6, 8, 10, and 13. In Extract 5, Asma code switched to Arabic using the noun phrase **il harf il naqis**, which labelled a specific Arabic video game that was usually played by Arabic speakers. In extracts 6, 8, 10, and 13, most of the participants' EL insertions were clearly associated with the context of the other language serving the topicalized borrowing function, which indicated that the speakers did not deviate from the conventional norms of language use in the social situation.

The general pattern of unmarked language use in this chapter suggests that there were no discernible differences across ages concerning the use of the communicative functions of CS. The data also showed that there were no qualitative differences between those who conversed with parents and those with siblings or between CSs found at school and those at home.

From what has been discussed so far, it can be concluded that a common aspect of all CS types occurred in the previous 13 extracts was the fact that the speakers, by their bilingual performance, did not consciously or sub-consciously intend to affect or change the micro-social context of the immediate utterances. Their CS served different communicative functions depending on the characteristics of the social context, and occurred at specific syntactic sites that correlated with the particular point of conversation at which the participants chose to switch. Syntactically, CS throughout the previous conversations was performed at all syntactic levels; namely, between utterances, within utterances (whether intramorphemic or above-word level), and in a form of a tag after or before an utterance. However, the considerable number of switches occurred intrasententially. Table 25 below summarises all these findings.

Coding keys: INTRA (intrasentential CS), INTER (intersentential CS), Extra (extrasentential CS).

Extract number	Forms of CS	Total Number	Functional purpose
1	INTRA	5	emphasizing
2	INTER INTRA	2 2	emphasizing clarification
11	INTER EXTRA INTRA	1 1 2	emphasizing emphasizing expressing annoyance
3	EXTRA	1	grabbing attention
7	EXTRA INTER INTRA	1 2 2	grabbing attention explanation, topic changing showing agreement
4	INTRA	12	referential
5	INTRA INTER	12 1	referential referential
8	INTRA INTER	14 3	referential referential
10	INTRA INTER	8 1	referential referential
13	INTRA INTER	17 1	referential referential
6	INTRA	15	referential, self-repair
9	INTRA INTER	4 1	referential, clarification, objection objection
12	INTRA	6	managing talk progression, illustration, expressing annoyance
Total		114	

Table 25: Unmarked CS grammatical styles, frequencies, and functions in each interaction.

### 7.5 *Marked CS in the School and Home Context:*

This section focuses on utterances that did not conform to the expected norms of the sociolinguistic situation. According to Giles & Powesland (1997), speakers may wish to increase or decrease the social distance between themselves and their listeners

through their linguistic behaviour, either in the form of convergence or divergence. Namely, speakers may select a specific type of speech to accommodate to their listeners or to signify the differences between each other. In light of this, Myers-Scotton (1993) claims that bilinguals use a marked CS as a means of increasing or decreasing the social distance between themselves and their interlocutors. In making CS as a marked choice, bilinguals can express feelings ranging from anger to affection, which leads to outcomes ranging from showing authority and superiority to that of solidarity and group membership (*ibid*). Using marked CS for expressing anger, for example, demonstrates a speaker's intention to increase the social distance with his/her interlocutor. In contrast, a marked CS that is used for showing one's solidarity seeks to decrease the social distance between the participants. In addition, bilinguals may employ a marked CS as a tool for negotiating and constructing their own ethnic and social identity during their interactions with others. All these possible outcomes and uses of marked CS open up discussions on the active role of CS which allows bilinguals to express their intended meaning and achieve their communicative goals.

In this section, therefore, the focus will be on interpreting how the participants' lexical, grammatical, and sociolinguistic knowledge allowed them to produce specific statements that carried certain indexicality within the speech situation. Such cases of CS were motivated by social factors because the switched utterances seemed to be correlated with a clear divergence from the unmarked RO in the social context. This kind of switches indexes a change in the relationship with the participants' interlocutors within the micro-context of immediate utterance. Table 26 below presents an overview of the total numbers of each type of CS as used by the participants in the 20 extracts that contained marked CS:

Extract No.	Intrasentential CS	Intersentential CS	Extrasentential CS	Total no. of CS
1	0	1	0	1
2	11	0	0	11
3	11	4	0	15
4	0	2	0	2
5	3	1	0	4
6	0	0	1	1
7	0	1	0	1
8	3	1	0	4
9	5	0	0	5
10	4	1	0	5
11	0	3	0	3
12	0	1	0	1
13	3	1	0	4
14	0	1	0	1
15	1	0	0	1
16	0	2	0	2
17	0	3	0	3
18	0	1	0	1
19	1	3	0	4
20	2	2	0	4
Total	44	28	1	73

Table 26: The total numbers of the different grammatical styles of marked CS.

As discussed above, the focus of this chapter will be on the utterances that contained marked switches where the speakers signal a change in the micro-social situation concerning the relationship with their interlocutors. As it was the case with analysing unmarked CS, it was important to avoid subjectivity during the analysis as possible. Therefore, the extracts were initially examined according to the following characteristics:

- Marked CS is purposive and intended and does not fulfil topic-related or referential functions, but it is associated with interpersonal concerns where the participants strategically code switched to construct new micro-situations. For example, the extract below can be regarded as a marked CS where the speaker purposively code switched to distance herself from her interlocutor within the micro-social situation:

**1- Munira:** no! because you are **ihma:r o habal o di:ma tibky zay il-baby**  
*No! because you are a donkey and stupid and always cry like a baby.*

Following, then, are the 20 extracts, which contain instances of marked language alternations.

***Extract one (school context):***

The conversation in this extract was between Abdo and his friend Suhaib as they were searching for a video game in the iPad. Abdo employed intersentential marked CS, which signalled his attempt to distance himself from his interlocutor within the micro-context of the interaction, presumably because he did not want to play the game.

- 1- **Abdo:** minecraft is the best game here. (2.0) what are you doing?
- 2- **Suhaib:** I don't want it!
- 3- **Abdo:** this one this one! it's good.
- 4- **Suhaib:** it's my choice!
- 5- **Abdo:** he's<sup>20</sup> playing. it's so cool.
- 6- **Suhaib:** yes! we've got internet!
- 7- **Abdo: kadda:b, ma: fi:-sh internet!**  
liar not in-NEG internet.  
*liar, there is no internet!*
- 8- **Abdo:** I tried the internet password.

The MUL in this conversation was English. However, despite a non-change in the contextual parameters (i.e., interlocutors, topic, etc.), CS occurred in line 7. This CS was unexpected in the sense that it coincided with the use of an intended antagonism (liar) that was an insult, which could mark a point where Abdo wanted to distance himself from his interlocutor within the micro-social context of the immediate situation. Consequently, we can say that Abdo's use of CS indicated a defiance of the unmarked RO of the participants and a change in the social relations between them within the micro-social context, because it seemed purposive and intended. The language alternation here, therefore, is classified as marked.

Linguistically, Abdo's CS manifested the universal characteristics of intersentential CS, in which each language satisfied its lexical and grammatical requirements before the use of the other code. Consequently, this switch allowed for the alternation at a point where the surface structures of both languages were not violated.

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<sup>20</sup> 'he' refers to a figure in the game.



these characteristics from her attitude and to convey an extra-linguistic message like ‘I never do that’. Thus, Leena’s switches can be regarded as purposive; hence, marked.

In looking at the grammatical aspects of the alternations, apart from line 7, all the switched segments were restricted to content words categories (masha:hid, kla:m, `aib, haram), which are classified under the class of names and adjectives. These EL segments were smoothly incorporated within the ML frame without affecting its syntactic constraints. In line 7, however, the switch into Arabic came as a full sentence, functioning as a complement to the auxiliary **is** and consisting of both system and content morphemes. The smooth alternation between the two codes in all the above intrasentential switches signalled the speakers’ ability to alternate between the two codes without restrictions.

***Extract three (school context):***

The following interaction represents an example of how the participants used marked CS for redefining interpersonal relations and for their identity construction:

- 1- **Zainab:** how many coins have we collected so far?
- 2- **Noor:** thirty. wait, no, I mean thirty three.
- 3- **Noor:** **salasa o salasi:n.**  
                   three and thirteen (pronounced the initial th as s)  
                   *thirty three*
- 4- **Noor:** let’s collect five more to join -
- 5- **Zainab:** **thala:tha o thala:thi:n ya: sha:tra:<sup>21</sup> mish sala:sa**  
                   three and thirty (vocative particle) smart not ‘sala:sa:  
                   **o salasi:n**  
                   and sala:si:n’  
                   *you’re smart, it’s thirty three, not ‘sala:sa: o sala:seen’*
- 6- **Noor:** I know ! it just reminded me on how my brother used to say **sala:s:  
                   o sala:seen.**  
                   *I know ! it just reminded me on how my brother used to say ‘sala:sa: o  
                   sala:seen.*
- 7- **Noor:** **te-hsab-ai-ny ma: ne-`ref-sh in-gu:l-ha: sa:h wa ella:**  
                   you-think-you-me not I-know-not I-say-it,Fem correct or  
                   **shinu: ya: sha:tra:?**  
                   what (vocative particle) smart?  
                   *you’re smart, do you think that I don’t know how to say it correctly or what,?*
- 8- **Zainab:** no, I mean, **nehsa:b-ik ghalatt-y o ana sallaht-ha: likky bas**  
                   I-thought-you you made a mistke and I fixed-it for you only  
                   *no, I mean, I thought you made a mistake and I only fixed it for you*
- 9- **Zainab:** I remember my sister used to say **baqa:qa: instead of pata:ta**

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<sup>21</sup> This adjective was used here as an expression of sarcasm and meant the opposite meaning.





marked because they were associated with achieving different goals: redefining the interpersonal relations in lines 5,7, and 8; and establishing cultural identity in lines 10 and 11.

Regarding the grammatical categorization of CS in this extract, the speakers employed both intrasentential and intersentential switches in different positions. The intrasentential type in lines 6, 9, and 10 conformed to the constraints of the MLF and 4-M model in which the insertions from EL came at sites where they did not violate the syntactic rules of the ML.

***Extract four (school context):***

In this conversation, Adnan and his friend Yaseen were playing a video game in an enthusiastic manner. The conversation displayed the use of intersentential CS, which served an interpersonal function regarding the change of the micro-social situation.

- 1- **Adnan:** this way two times on the left, ON THE LEFT!
- 2- **Adnan:** leave, leave it! GET OUT! GET OUT!
- 3- **Yaseen:** BE QUIET. I can't concentrate!  
(Yaseen lost the game)
- 4- **Yaseen:** **shuft tawwa?**  
saw now  
*did you see now?*
- 5- **Yaseen:** it is you fault!
- 6- **Yaseen:** **ghabi:!**  
*stupid!*
- 7- **Adnan:** let me try.
- 8- **Adnan:** do you have to sign in in this game again?

The children here were apparently using mostly English. However, two instances of CS occurred in lines 4 and 6 in the form of intersentential alternations at utterances boundaries, where the two grammatical systems were not affected. Yaseen used these alternations in an angry remark to Adnan, following his (Yaseen) losing of the game. CS with this attitude expressed Yaseen's annoyance and signalled his accusation that his interlocutor caused the loss of the game. In line 6, CS was coupled with the choice of the swear word **ghabi:**, which was clearly intended to reprimand Adnan for his alleged responsibility with respect to the no-win situation in the game. The alternations here, therefore, are considered marked because they could be interpreted as a strategic

and intended language use where Yaseen attempted to distance himself from his interlocutor; hence, influencing the micro-situation of the switched utterances.

***Extract five (school context):***

The following conversation occurred between Mohamed and Aseel while they were playing a particular video game on the iPad. At a specific point in the interaction, Mohamed intentionally violated the expected code to project new RO within the micro-social context of the switched utterances.

- 1- **Mohamed:** ... we've got something here.
- 2- **Aseel:** the birch wood thingy?
- 3- **Mohamed:** do you know how to go to the pumpkin place?
- 4- **Aseel:** I don't know. I don't really like this game. I only play minecraft.
- 5- **Mohamed:** really?! **immala:** `laish `ind-ak youtube channel about it?  
so why have-you  
*really? so why do you have (a) youtube channel about it?*
- 6- **Aseel:** no I don't!
- 7- **Mohamed:** yes you do. **yawmitHa:** **gult-ha:** **li:ya:.**  
that day you said-it to me  
*yes you do. you said it to me that day*
- 8- **Aseel:** it's not just that, it has other games like COC.

The conversation between the two bilingual friends in this extract was mainly in English, which acted as the MUL. CS appeared at points where the participants' interpersonal relations within the micro-situation were challenged. This challenge was marked through Mohamed's alternation to the unexpected code using the interrogative mode in line 5 that was preceded by another interrogative in English that signalled Mohamed's sarcasm and contradiction to Aseel's statement. In line 7, Mohamed initiated his utterance in English to repeat his contradiction to Aseel and then switched back to Arabic to express more challenge to Aseel's statement. The clear departure from the unmarked code of language in this conversation, which was coupled with a manner of contradiction and defiance, was intended and strategic since it was geared towards influencing the micro-situation concerning the interpersonal relations between the participants.

***Extract six (school context):***

The following conversation occurred between Asma and Zahra, who were talking about a specific video game on the iPad. A marked extrasentential CS was used here to change the micro-social context of the immediate situation in the participant's interaction.

- 1- **Asma:** do you know COC? (a short form of a game called Clash of Clans)
- 2- **Zahra:** yeah
- 3- **Asma:** I'm the only person who knows how to play it in the class!
- 4- **Zahra:** you are the only person who knows that?! (0.2) **min jedd-ik?!  
from serious-your  
you are the only person who knows that?! (0.2) seriously?!**

The speakers in this conversation used mostly English. Yet in line 4, Zahra violated the situational constraints and chose to code switch to Arabic in an unchanged social situation. This switching cannot be attributed to a lexical gap, since the child was competent in the two languages. However, the context of the interaction and the speaker's speech tone provided another interpretation. In a surprised and sarcastic manner, Zahra in line 4 repeated what her interlocutor had just said. This attitude continues with her tag switching into the other code, which was intended to display her sarcasm and disagreement. This behaviour, in turn, indicated defiance of the interpersonal relations between the participants within the micro-situational context of the switched utterance because it was marked with achieving a specific communicative goal: the objection to what the interlocutor had said.

***Extract seven (school context):***

The following conversation was between the friends Alya and Rana, who were playing a videogame. Rana attempted to construct a new micro-situation through distancing herself from her interlocutor by means of her marked switch.

- 1- **Rana:** alright, you've played for 15 minutes, I should get my turn.
- 2- **Alya:** no! I've only been on for 10 minutes, not 15!
- 3- **Rana:** i've counted.
- 4- **Alya:** well then wait another 10 minutes.
- 5- **Rana:** no! break would be over by then.
- 6- **Alya:** still, it has to be my turn because the game hasn't finished yet.
- 7- **Rana:** but you have to stop. it's not fair.
- 8- **Alya:** No, no, no! how did it (a zombie in the game) get in here?

**9- Rana:** ha ha! **di:ma: it-si:r!**

always it,FEM-happens

*ha ha! it always happens!*

**10- Rana:** give me the iPad. I guess it's my turn now!

The two bilingual friends used mostly English in this conversation according to the contextual norms of the immediate speech situation. While Rana was negotiating for her turn in playing the game, Alya was unwilling to give up. During this time, Rana demonstrated the conformance to the contextual regulations regarding the expected language choice of interaction. However, this situation changed when Alya lost the game. Rana, then, chose to defy the unmarked RO in the speech situation by using intersentential CS in line 9 in a gloating tone as if she wanted to make a teasing remark to her friend, following her loss of the game. In this alternation, Rana employed the Libyan teenage slang expression **di:ma: itsi:r** meaning 'it always happens' in reference to the game loss. This expression is sometimes used by Libyans in a sarcastic manner in cases where a speaker wants to tease his addressee when s/he encounters a fairly disappointing or unfavourable situation. From this perspective, Rana's bilingual behaviour, including her clear manifestation of gloating and sarcasm became purposive and strategic. In other words, Rana implied her intention to distance herself from her interlocutor within the micro-situation through changing her mode and the dominant code in response to her interlocutor's negative attitude.

From another perspective, Rana's use of the phrase **di:ma itsi:r** can be viewed as intimately connected to her Libyan ethnic identity because, as indicated before, it is particular to the Libyan culture. In addition, this linguistic code was associated with the "we code", which reflected Rana's presupposition that she and her interlocutor belonged to the same minority group in the English society; hence, her interlocutor must have been also familiar with the intended meaning behind saying "**di:ma itsi:r**".

***Extract eight (home context):***

In this extract, Leena and her younger sister (aged 7) were talking about a specific event that had happened when they were in Libya. Leena used a marked CS as a means to encode both, her social status and superior knowledge.

**1- Leena:** how would you know?

**2- Aya:** because I just do.

**3- Leena:** you were little, so you wouldn't know.



- you best drawer  
*you (are) the best drawer in the whole wide world*
- 5- **Suhail:** thanks, it took me some time to draw and I used a lot of shapes.  
 6- **Noor:** I know because all good drawers do that.  
 7- **Noor:** **ana mish** good drawer **zay-ak inta.**  
 I not like-2SG you  
*I (am) not (a) good drawer like you*
- 8- **Noor:** can you teach me how to draw like you?

In this extract, the conversation was mostly conducted in English following the requirements of the immediate situation. Noor started the conversation by paying a compliment in a loving tone to Suhail in an attempt to be very nice to him. Noor's compliment continued to the next lines through the use of English-only utterances and intrasentential CS. In line 2, CS coincided with the use of a positive superlative construction, which gave an indication that Noor was trying to please her addressee, so that he would forget the situation before. The use of Arabic here instead of English may be related to her attempt to gain more attention from Suhail, given that Arabic was the marked language in this interaction. The same applies to her switch into Arabic in line 5, where she tried to make him feel as if he was better than she was.

Noor's utterances in this conversation, including her language alternations, were geared towards creating a favourable atmosphere which guaranteed the change of Suhail's mood; hence, creating a new micro-social context in the conversation concerning the restructuring of the interpersonal relations. In this sense, Noor's CS appeared as a way of decreasing the social distance with her interlocutor within the micro-context; therefore, it can be considered as marked.

From a linguistic point of view, Noor alternated the two codes at syntactic positions where the EL elements were smoothly inserted into the ML frame. This denoted her linguistic ability to code switch without significant restrictions. In line 2, the utterance's grammatical structure whereby the copular verb was absent reflected the dominance of the Arabic syntax. Similarly, the switched utterance in line 5 lacks the copular verb and the indefinite article which indicates that Arabic was its ML.

***Extract ten (home context):***

In the following conversation, Yaseen (the main participant) and his younger sister, Mona, were playing a video game on an iPad. Yaseen code switched to Arabic to

express his anger and to manifest divergence from his interlocutor with respect to their power position.

- 1- **Mona:** what are you doing?!
- 2- **Yaseen:** you can't do any better, stop complaining.
- 3- **Mona:** I bet I can. just pass it (the iPad) to me!
- 4- **Yaseen:** come on, you're so bad at this.
  
- 5- **Mona:** **bas `ati:h li:ya o twwa: itshu:f**  
*just give it to me and you'll see*
- 6- **Yaseen:** fine, have it your way.  
(some minutes passed)
- 7- **Yaseen:** see? harder than you think, eh? this game is made for professionals, why are you playing it?
- 8- **Yaseen:** ugh! your way of playing **xalla:ni nifqid a`sa:b-i !**  
made-me lose temper-my  
*your way of playing made me lose my temper*
- 9- **Mona:** be quiet, it's my first time playing!
- 10- **Yassen:** I don't care. pass, pass it to me!
- 11- **Mona:** let's see if you can finish the game then!
- 12- **Yaseen:** at least I play it **afdal min-nik.**  
better from-you  
*at least I play it better than you*
- 13- **Mona:** okay, I won't distract your professional work!
- 14- **Yaseen:** exactly! **ma`na:ha: `addi min gedda:m wajhy tawwa: !**  
that means go-you- from front face-my now  
*exactly! that means get out of my face now!*

The two bilingual siblings were conventionally using English as expected in such interactions. However, despite a non-change in the situational parameters, Yaseen switched to the other code in an angry manner as a response to his sister's situation and attitude while they were playing the game. In lines 8 and 12, Yaseen's intrasentential switches coincided with his negative evaluation of his sister's way of playing the game. In line 14, the acrimony of Yaseen's imperative mode displayed his annoyance and anger and expressed his defiance and negotiation of the interpersonal relations within the micro-situation. All these switches, therefore, appear to be motivated by psychological factors rather than linguistic which, in turn, had the effect of increasing the social distance between the two siblings within the conversation.

From another point of view, Yaseen's social behaviour and linguistic performance highlighted his social status as the older brother. His power position with respect to his younger sister was displayed through his authoritative manner in which he held the floor and related the situation of playing on the iPad with his own decision of whether

to let her play or not. His CS here was, therefore, more related to interpersonal and social factors than discursal or linguistic ones.

Regarding the grammatical patterns of Yaseen's intrasentential switches in lines 8 and 12, it can be seen that in both utterances the switch occurred between the main clause and the subordinate clause. Consequently, the syntactic and morphological constructions of both languages were not violated given that the switches came at sites which kept the syntactic balance of the utterances.

***Extract eleven (home context):***

In the following extract, Zainab (the main participant) was reprimanding her younger brother, Ahmed, for snatching their youngest brother's (Basim) 'Jack in a Box' toy. Zainab demonstrated her authority as the older sister through a marked CS:

- 1- **Ahmed:** ha ha, I took it before it could come out!  
(Basim started crying)
- 2- **Zainab:** leave him alone!
- 3- **Zinab:** **laish xathait-ah min-nah?!**  
why took-it,MAS from-him  
*why did you take it from him?!*
- 4- **Ahmed:** he didn't even let me touch it.
- 5- **Zainab:** IT IS HIS TOY BOX, he doesn't need to let you touch it!
- 6- **Ahmed:** what is it to you?!  
(Zainab snatched the toy from Ahmed and gave it back to Basim)
- 7- **Zainab:** **ma'ash t-axith-a-h min-nah,** you stupid idiot!  
don't again you-take-you-it,MAS from-him  
*don't take it from him again, you stupid idiot!*

Although the MUL in this conversation was English, Zainab intersententially switched to Arabic in a quarrelling manner in response to her brothers' situation. Zainab's intervention between her two younger brothers reflected her perception of her social status as the older sister who had the authority over the two siblings. The characteristic of Zainab's behaviour in her intervention pointed out her intentions to redefine her power position and social status in the family as the older sister. Such a redefinition was expressed through choosing the interrogative and imperative modes, the high quarrelling speech tone, as well as ignoring her brother's language lead and using the other code. In this way, Zainab's CS was strategic since it signalled her attempt to distance herself from her interlocutor and to construct a new micro-situation with respect to the interpersonal relations.



***Extract twelve (home context):***

This extract shows a conversation in which the main participant, Jamal, signalled his intention of reconstructing the interpersonal relation with his younger bilingual brother through his sarcasm and alternation to the other code within an unchanged context.

- 1- **Ameen:** Jamal, stop changing the google logo. I like the original.
- 2- **Jamal:** I didn't change the logo, google does.
- 3- **Ameen:** you don't run google?
- 4- **Jamal:** **shinu: ha-l-su:'al ghabi:?!  
what this-the-question stupid  
what a stupid question?!**
- 5- **Jamal:** are you being serious?
- 6- **Jamal:** if I did, I would be driving a Ferrari!

The conversation between the two bilingual siblings was conducted mostly in English, which demonstrated the speakers' conformance to the contextual parameters in the immediate situation. The unexpected intersentential language alternation, which appeared in Jamal's speech in line 4, coupled with the rhetorical question containing an unfavourable attribute (ghabi:). This negative word came as an indication of Jamal's intention to signal a different set of RO, which was also expressed by the alternation to the other code. This signalling process was symbolized lexically by using the abusive word, as well as sociolinguistically through the change of the dominant code. CS here is considered marked because it carried the social meaning of creating a different micro-social situation concerning the restructuring of the interpersonal relationship between the speakers.

***Extract thirteen (home context):***

The extract below contains a conversation between Hana, the main participant, and her younger sister, Amina, who was trying to get Hana's permission to use her iPad. This extract represented an example of intrasentential marked CS that was used at a point where Hana redefined the micro-social context concerning her social status and power position.

- 1- **Amina:** after you sleep, can I use your iPad?
- 2- **Hana:** I'm going to stay up all night and you won't be awake till then.
- 3- **Amina:** ok, I will stay up too.

- 4- **Hana:** you **ma:-te-gdr-i:-sh**  
 NEG-FEM-can-NEG  
*you can't*
- 5- **Hana:** '**sha:n** you always **te-regd-i** **badry. duh!**  
 because you-sleep-you, FEM early  
*because you always sleep early. Duh!*
- 6- **Amina:** ok, can I use it now?
- 7- **Hana:** no, I'm using it after I finish my homework.
- 8- **Hana:** go and write your homework too.
- 9- **Amina:** I don't have homework.

The MUL in this conversation was apparently English. Hana's switches in 4 and 5 highlighted specific words and phrases, (i.e., **ma:-te-gdr-i:-sh** (you can't), always **te-regd-i badry** (you always sleep early)), which seemed to be directed towards achieving a social goal: redefining the social status of her younger sister as the one who could not do what she, Hana, could in relation to what was said in line 2. This attitude was emphasized by the use of the Libyan Arabic double negation marks (**ma-**, **-sh**) in the main verb **ma:-te-gdr-i:-sh** which added intensity to the statement. Hana's switches were followed by the post-word sarcasm (**duh!**) in 5 which was clearly employed to create an uncomfortable micro-situation for her younger sister. CS in this manner may be linked to Hana's interpersonal desire to distance herself from her interlocutor within the micro-social situation in order to prevent her younger sister from taking what she wanted. This is consistent to Holmes' (2013, p. 39) suggestion that "(a)language switch ... is often used to express disapproval". In this sense, Hana's utilization of CS was purposive and, therefore, can be categorized as a marked bilingual performance.

From a grammatical perspective, the intrasentential CS in 4 and 5 occurred at syntactic sites where the grammatical rules of both languages were not violated. Although the alternated utterances followed the syntactic word orders of both languages, Arabic was clearly the ML, since it provided all the late system morphemes in the main verbs **te-gdr-i:** and **te-regd-i**. In these compound verbs there were two outsider system morphemes (**te-**, **-i**) that constructed subject-verb agreements. Hana's use of these grammatical structures and her appropriate selection of the gender markers for the interlocutor displayed an advanced level of linguistic competence in Arabic inflections in terms of grammatical agreements and gender markers' classification. In addition, the parallel syntactic sites at which the embedded insertions occurred satisfied the syntactic criteria of the MLF and 4-M model and reflected Hana's competence in dealing with

the two grammatical structures in a way that hardly interrupted the sequence of the switched utterances.

***Extract fourteen (home context):***

In the next situation, Asma was watching a movie on TV in the sitting room. Her younger brother came in and sat beside her. Asma was apparently annoyed because she didn't want him to watch the movie with her. Her marked CS showed how she attempted to increase the social distance with her sibling within the immediate situation.

- 1- **Asma:** go away!
- 2- **Muhab:** no, I don't have my TV
- 3- **Asma:** so you'll watch girly stuff with me, huh?
- 4- **Muhab:** yeah, better than nothing!
- 5- **Asma:** GO AWAY!
- 6- **Asma:** wa-Allah-i lu: ka:n ma: te-msh-y i-ngu:l-ha: li asHa:b-ak  
by Allah if not you-go-you I-say-it to friends-your  
**o na`ti:k kaf`aly wajak !**  
and I-give-you slap on face-your  
*I swear by Allah, if you don't go I'll tell your friends and slap you on your face!*
- 7- **Asma:** you wouldn't dare!

Although the MUL in this conversation was English, Asama switched intersententially to Arabic in line 6. This unexpected switch was marked because it contained threatening elements uttered with a rising tone which indicated Asma's anger and annoyance. Her CS therefore had the effect of negotiating a change in the expected social relation with her sibling within the immediate situation.

***Extract fifteen (home context):***

The following interaction was between Munira (the main participant) and her younger brother, Sami (age 7). The two siblings were quarrelling over a packet of 'Doritos'. Munira snatched the packet and Sami started crying. The conversation presents an instance of marked CS, which influenced the micro-situation concerning the interpersonal relationship between the interlocutors.

- 1- **Sami:** ... you took some in the morning!
- 2- **Munira:** there are two!
- 3- **Sami:** you shouldn't take any because you took some in the morning and I didn't!
- 4- **Munira:** stop crying! oh my God, why are you crying over this like a baby?!

- 5- **Sami:** because you took one in the morning and I took none!  
 6- **Munira:** no! because you are **ihma:r o habal o di:ma tibky zay il-**  
**donkey and stupid and always cry like a**  
**baby!**<sup>22</sup>  
 baby  
*no, because you are a donkey and stupid and always cry like a baby!*

Following the usual pattern of language use in situations involving a bilingual sibling in this study, the two speakers used mostly English. However, Munira in line 6 chose to violate the normal pattern that was expected in the speech situation to express her annoyance with Sami's reaction, which would deprive her from taking what she wanted. Munira's departure from the unmarked code and the clear use of antagonistic expressions that were intended to insult her interlocutor became a means of distancing herself from her interlocutor within the micro-social context. In addition, Munira's utterances in line 4 with the provocative interrogative can be regarded as a strategic use of language (although without alternation) because she used the language as a means to highlight a social conflict and to express differences from her interlocutor. In this context, Munira's linguistic behaviour, including the language alternation was both purposive and intended to achieve social goals: redefining her social status, expressing differences, and constructing a new micro-social situation.

Grammatically, Munira's CS demonstrated the dominance of English language syntax, which supplied the system morphemes for the frame of the switched constituent. The EI insertions involved content words that were inserted at an equivalent site in the ML of the utterance. This language alternation, therefore, did not affect the syntactic word orders of either language and testified the operativeness of the system morpheme principle within the MLF and 4-M model.

***Extract sixteen (home context):***

The following extract contains a conversation between Suhaib (the main participant) and his older brother Siraj while their mother was around. At a specific point in the conversation, Suhaib code switched to create a favourable atmosphere for his mother in an attempt to obtain her permission to let him go to the cinema with his friend.

- 1- Siraj:** you done yet? (homework)

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<sup>22</sup> Munira's shift to the word "baby" in this line comes naturally because the word is usually used in Arabic contexts.

- 2- **Suhaib:** this fast?! of course not.
- 3- **Siraj:** I'm done. I can listen to my own music now.
- 4- **Suhaib:** you sure? just a minute ago you were complaining about the homework you had, where did it all go?
- 5- **Siraj:** all finished except from my maths.
- 6- **Suhaib:** **laken ma:ma: ga:l-et lazim itkaml-u: il wajiba:t kulhun,**  
but mum said-FEM must finish-2PL the homework all  
*but mum said that "we must finish all the homework"*
- 7- **Suhaib:** **o ana illi: it-gu:l-ha: le-nna: ma:ma: indi:r-ha:**  
and I the FEM-say-it,FEM to-us mum do-it,FEM  
*and I do what mum tells us*
- 8- **Siraj:** really (sarcasm)?! I know you're just trying to be good so mum will let you go with Ahmed (to the cinema).
- 9- **Suhaib:** did it take you that long Sherlock (sarcasm)? I'm always like that.

Although the MUL in the conversation above was English, Suhaib code switched to Arabic in line 6. This use of CS can be considered as a mix of two sociolinguistic categories. That is, while the switch clearly involved a quotational function which is usually used in unmarked cases, the contextual information regarding the choice of the specific point of alternation provided another explanation. While the mother was around listening to the children's conversation, Suhaib attempted to grab his mother's attention by switching to Arabic. This switching act appeared to have two intended communicative aims: the first could be related to Suhaib's intention to express his compliance with his mother's language preference in the home context; and the second could be linked to his attempt to please his mother by creating a positive attitude through showing his will of obedience. From this viewpoint, Suhaib's bilingual behaviour was clearly intended to influence the micro-social context of the situation by decreasing the social distance with his mother so his request regarding going to the cinema would have more chance to be accepted. CS here, therefore, can be categorized as both, quotational as well as strategic and purposive.

***Extract seventeen (home context):***

The following extract presents a conversation between Marwan (the main participant) and his older sister, Amal. This conversation demonstrates how Marwan used CS as a tool to create a new micro-situation through the shift of his power-relation with his older sister:

- 1- **Amal:** you always watch this movie
- 2- **Marwan:** yeah because it is awesome
- 3- **Amal:** can we watch something else new?

- 4- **Marwan:** dad said it is my turn all morning!  
(Amal changed the movie)
- 5- **Marwan:** hey! why did you change it?
- 6- **Amal:** I don't want it.
- 7- **Marwan:** **ana ma gult-lik-sh ghair-i:-ha: !**  
I not tell-you,FEM-NEG change-you-it,FEM  
*I didn't tell you to change it !*
- 8- **Amal:** **`a:rfa:,** but we've seen it millions of times and it is getting old now  
*I know*
- 9- **Marwan:** I don't care. **ha:t-i il remu:te !**  
give-FEM the remote control  
*I don't care. give (me) the remote control*

English was the MUL in this conversation, but Marwan produced CS twice - in lines 7 and 9. Such alternations are categorised as intersentential CS where the two linguistic systems do not interfere with one another.

A careful examination of Marwan's bilingual performance from a sociolinguistic perspective revealed that his switches were loaded with social significance expressed through the marked choice of language, the choice of words, and level of speech tone. His departure from the expected linguistic code, including the normal speech tone, was clearly intended to impart a social message: emphasizing his authority within the micro-situation as the person who would make the important decision concerning the change of the TV show (given that it was his turn to watch TV). In addition, the use of the first person pronoun<sup>23</sup> in line 7 and the imperative mode in line 9, starting with the authoritative command **ha:ti** (give me), expressed Marwan's desire to maximise the effect of his message on his interlocutor. This authority signalling process in the alternated utterances indexed both, the shift of the power positions of the interlocutors respecting the social status, and the construction of a new micro-situation. CS here was more associated with achieving a personal goal than with natural unmarked choice.

***Extract eighteen (home context):***

The following extract presents a conversation between Taiba (the main participant) and her older sister, Huda. Before this conversation took place, Huda asked Taiba for

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<sup>23</sup> Personal pronouns in Arabic are usually omitted from a sentence when they are grammatically and pragmatically identifiable. However, in some cases the pronouns are used to give a strong meaning to the sentence/phrase.

permission to use her laptop so she could finish her homework. Taiba didn't want her to take long, therefore she started counting the minutes:

- 1- **Taiba:** you still have ten minutes!
- 2- **Huda:** what?
- 3- **Taiba:** ten minutes!
- 4- **Huda:** what?
- 5- **Taiba:** I know that you're pretending to not hear me.
- 6- **Taiba:** `asher dega:yig mazall-ik bas!  
ten minutes still-you only  
*you still have ten minutes only!*

Although the MUL in this conversation was English, Taiba produced an intersentential CS in line 6. This language alternation appeared to be of two types: while it was associated with reiterating a message that achieved the discourse function of emphasizing a previous utterance, its use in this manner and at this point in the conversation indicated Taiba's intention to demonstrate her authority over the situation (given that it was her own laptop) and to impart the message of reconstructing the power relations with her older sister within the interaction. Taiba chose to double mark her authority through the rising intonation and the use of the adverb **bas** (only) at the end of her switched utterance to maximise the effect on her interlocutor. CS, from this perspective, was used as a mode of social behaviour, which indexed a change in the RO within the micro-social situation with respect to the interlocutor's social position and interpersonal relations. Thus, it can be argued that CS in this conversation achieved both discursual function as well as an interpersonal goal.

***Extract nineteen (home context):***

The following extract presents a conversation between Khalid and his mother. The conversation gives an example of using CS for indicating a defiance and challenge to the role relations between the interlocutors within the micro-situational context:

- 1- **mother:** ... lala, ana gult mafi:sh la`ib ni:n itlem darak  
*... no, I said no playing until you tidy up your room*
- 2- **Khalid:** eih, lammait-ha.  
yeah, I tidied it,FEM  
*yeah, I tidied it*
- 3- **Khalid:** lammait-ha: kul-ha: `addy shufi:-ha: . wein il ipad?  
I tidied-it,FEM all-it,FEM. go see-it,FEM. where the ipad?  
*I tidied it all up. go and look at it. where (is) the iPad?*

- 4- **mother:** shatir, laken shin gulna: `aly il iPad wil video games?  
*good boy, but what did we say about the iPad and the video games?*
- 5- **mother:** mish gulna: iderro `uyu:nak? `ddi al`ab ha:ja: tanya:  
*didn't we say they harm your eyes? play something else.*
- 6- **Khalid:** shinu: ?!  
 what ?!
- 7- **Khalid: no way ! I want the iPad !**
- 8- **Khalid: you said** tawwa: ta:xth-a: !  
 will 2SG-take-it,MAS  
*you said "you will take it".*
- 9- **Khalid: don't break your promise!**
- 10- **mother:** ok, sa:`a: wehda: bas. tama:m?  
*ok, one hour only. ok?*
- 11- **Khalid:** sa:`a: o nus bas.  
 hour and half only  
*an hour and a half only.*

The conversation above was mainly in Arabic following the dictates of the immediate situation, which involved a parent in the home context. The unexpected CS was produced by Khalid in lines 7, 8, and 9 with the use of the strong negative expression **no way** and the phrase **I want**; and lastly the sentence in line 9 which began with the negative command **don't**. All these utterances were pronounced in a higher tone than the normal ones. In addition, his quotation of the mother's speech in line 8 using the original form of her Arabic speech can be categorised as unmarked CS because it served a referential function of CS. However, this quotation can also be seen as a strategic use of language because it implied a social message, which served to remind the mother about what she had promised previously in order to coax her into changing her decision.

Khalid's bilingual performance in this conversation came as an indication of his strong disagreement and dissatisfaction with his mother's response. He violated the expected attitude and linguistic behaviour by using the other code in a manner that negotiated and challenged the interpersonal role relations within the micro-situational context. This attitude marked a point where Khalid attempted to re-create the immediate situation by constructing new RO in the immediate situation where the social elements (i.e., interlocutors, topic, setting) remained unchanged.

In looking at Khalid's CS from a grammatical point of view, we can see that he used both intersentential and intrasentential alternations where the syntactic rules of both languages were not affected. The intrasentential CS in line 8 involved the use of the



Libyan Arabic auxiliary **tawwa:** (will), which denoted a future action, and the masculine system morpheme **-h** which was attached to the verb **ta:xth** (take) in reference to the iPad. This suggested that the morphosyntactic frame of this utterance was sourced from Arabic, which made it function as the ML. In addition, this utterance reflected the speaker's competence in using the appropriate gender suffix for the noun **iPad**, because masculinity in Arabic is the default grammatical gender for words whose gender is not known.

***Extract twenty (home context):***

The following extract contains a conversation between Adnan and his mother in the home domain. The marked CS here displayed the child's attempt to position himself away from his interlocutor within the micro-context in an endeavour to challenge or negotiate the immediate situation in the interaction:

- 1- **Adnan:** nagdar na:xith shu:ku:la:ta: wa:ella: ice-cream<sup>24</sup>? jai`a:n.  
I can take chocolate or ice-cream?  
*can I take chocolate or ice-cream? (I'M) hungry.*
- 2- **mother:** ma: `indna:sh ice-cream.  
*we don't have ice-cream*
- 3- **Adnan:** ba:hi: shu:ku:la:ta:?  
ok, chocolate  
*ok, chocolate?*
- 4- **mother:** tawwa: indi:rlak sa:nda:wi:sh jibna:. il jibna: ahsan min il  
shu:ku:lata wil ice-cream.  
*I will make you a cheese sandwich. cheese is better than chocolate  
and ice-cream*
- 5- **Adnan:** di:ma **cheese cheese cheese! I don't like cheese!**  
always  
*always cheese cheese cheese ! I don't like cheese!*
- 6- **mother:** `sha:n il jebna fi:ha faida akthar min il shukula:ta: wil ice-cream  
*because cheese is healthier than chocolate and ice-cream*
- 7- **Adnan:** **I hate healthy stuff ! I always eat healthy stuff !**
- 8- **mother:** ba:hi: shin ra:ya:k fi: sandawi:sh da:hi: wa:ella cornflakes?  
*ok, how about egg sandwich or cornflakes?*
  
- 9- **Adnan:** tama:m. n-ibb-i choco pops.  
ok, I-want-I.  
*ok, I want choco pops*
- 10- **Adnan:** **don't say it is not healthy**
- 11- **Adnan:** `sha:n fi:h **chocolate, ok?**

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<sup>24</sup> The words *ice-cream* here and *choco pops* in line 9 are not typical instances of CS because they are considered as established loan words in Arabic language.

because in-it  
*because there is chocolate in it, ok?*

**12- mother:** (laughing) lala

*no*

**13- Adnan:** xa:if it-gu:li-li mish mu:fi:d hatta: hu:wa:  
worried you-say-you,FEM,me not healthy even it,MAS  
*(I'm) worried that you would say it is not healthy as well*

Adnan used mainly Arabic accommodating the preference of his parent interlocutor in the home context. The alternation to English, however, came in negotiating situations in lines 5, 7, and 10. In looking carefully at these situations, it was evident that the child was unwilling to accept his mother's offer, which was against his wants. This unwillingness was expressed through the alternation to the other code, which reflected the child's non-cooperation in responding to his mother in the dominant code. The child's behaviour in this case was in line with Giles' (1970s) term of "divergence" which explains speakers' attempt to increase the social distance with their listeners by means of manipulating their linguistic behaviour to fulfil this aim. By refusing to cooperate, the child displayed his attempt in positioning himself from his interlocutor in an endeavour to challenge, negotiate or reconstruct the current situation. CS here, therefore, can be interpreted as an attempt to control the micro-situation through reinforcing the social differences and defying the role relation with the interlocutor.

When structurally analysed through the MLF and 4-M model, the intrasentential switches in lines 5 and 11 were generally in accordance with the principles of the framework. The lack of the copular verb in line 5 reflected the dominance of Arabic grammar. In addition, the switched items in line 5 referred to a lexical noun (cheese), which fell within the content words category; and occurred in a position that retained the grammatical structure of the ML. In line 11, the child attached the single masculine pronoun **-h** to the preposition **fi:** in the second clause in his reference to the **choco pops** which is considered as masculine in the Arabic grammar. This grammatical structure, therefore, suggested that Arabic was the ML that provided the syntactic structure in this clause.

### **7.6 Marked CS Discussion:**

The 20 extracts above represented the use of marked CS where the participants' unmarked set of RO in the micro-social situations were negotiated, challenged or

reconstructed. Out of the total number of the marked switches in this chapter (73), 44 instances were produced in an intrasentential style; namely, where the speaker switched within the sentences/words. Intersentential and extrasentential CS styles, on the other hand, occurred 28 and 1 times respectively.

It is worth noting that with only 16 out of 30 participants who produced marked CS in the whole data and with the smaller percentage of marked switches (12.15%) in comparison to that which related to the unmarked alternations (87.9%), the results in this chapter cannot be generalised to a larger population. However, these results would enrich research in the field of bilingualism and CS and provide a perspective on analysing CS as a mode of social behaviour, which leads to redefining, negotiating, and challenging the existing relationships between speakers within the micro-social context of a speech situation. This, however, does not mean that the unmarked switches do not play an important role in the social behaviour, but they provide insights into speakers' conformance to the social and linguistic parameters which displays their linguistic and communicative competence.

In looking at the participants' intrasentential CS from a grammatical perspective and their linkage to the linguistic competence, the analysis revealed that the children's linguistic performance seems to show a similar pattern to the grammatical principles provided by the MLF and 4-M model, which postulate the existence of underlying grammatical rules governing the use of intrasentential switches and their permissibility within an utterance. The ML, whether it was English or Arabic, provided all the function words, inflections, and the syntactic frame; the EL, on the other hand, supplied the lexical insertions to that frame. In addition, when comparing the intrasentential marked CS characteristics with those of intrasentential unmarked CS, we can find that in both cases the participants displayed their linguistic competence by avoiding ungrammatical utterances through switching at equivalent sites, which guaranteed a smooth alternation between the two grammatical systems.

Sociolinguistically, the participants' switches from the unmarked code to the marked one were characterised by a violation of the expected norms of language use in the micro-context of the immediate utterances, and correlated with the participants' intentions of conveying specific communicative effects on the speech situation. These communicative effects were evident through the use of specific lexical items and

linguistic modes which served the purpose of creating new micro-situations where the interpersonal and role-relations between the interlocutors changed, and the social distance was either decreased or increased.

In this sense, there appear to be three levels of competence in the participants' conversations in this chapter: social, pragmatic, and grammatical. At the social level, the children's competence was exhibited through their initial selection of the language that was appropriate in the speech situation which reflected their conformance to the social influences of the social context. At the pragmatic level, the children manifested their competence through their ability to communicate their intended messages in their switches by the careful selection of words, utterances, moods and linguistic modes. Finally, at the grammatical level, the children's competence was displayed in their skilful managing of the linguistic differences between the two languages in the specific points where they intended to impart their inferential messages in the speech situation.

In analysing the data from the sociolinguistic perspective, the social variables with respect to the setting and the interlocutors' interpersonal relations and power status (e.g., age, gender) as maintained by the macro-social situation were taken into consideration. In looking at these social factors and their linkage to the particular moments where CS took place in several extracts, it was possible to provide a pattern of analysis that correlated the use of CS with the underlying factors, which drove the participants to code switch. These underlying factors were the participants' attempts of negotiating, maintaining, or reconstructing the micro-social situation in order to express the preferred social distance with their interlocutors, either to increase or decrease it.

In many extracts (i.e., 1, 4, 5, 6, 7, 12, 14, 15, 18, 19, and 20) CS at both intrasentential and intersentential levels displayed the participants' careful choice of words, which signalled their intentions of challenging the existing interpersonal relations and establishing new micro-social situations. In such cases, CS carried the social meaning of distancing the speakers from their interlocutors and projecting new sets of RO. In extracts 19 and 20 which involved mothers as interlocutors, the process of constructing new role relations appeared when the children departed from the mothers'-initiated code to signal their rejection towards the mothers' non-preferred attitudes. Wei (1994) found similar findings in his study of the speech of Chinese and English bilinguals and argued that bilinguals may use CS to mark their dispreferred responses.

Examples of identity construction in the speakers' CS were also found in the data. In extract 3 both speakers displayed their cultural and ethnic solidarity through switching to Arabic and speaking about specific Libyan food. Harding-Esch and Riley ([2003, p. 65](#)) argue that "children are also extremely skilful in using switching as a marker of "solidarity" with the person they are talking to, that is, using the change of language to reinforce the "closeness" of the relationship". The same applies to extract 7 in which CS linked to the process of constructing the speaker's Libyan identity because it included an expression **di:ma: it-si:r!** that was exclusive to the Libyan culture. Zentella ([2008, p. 6](#)) mentioned that "bilinguals display their gender, class, racial, ethnic and other identities by following the social and linguistic rules for the ways of speaking that reflect those identities in their homes and primary networks".

In extracts 8, 10, 11, 13 and 17, the marked switches were linked to the speakers' authority and power position within the situation which warranted their attitude towards the interlocutors. According to Al-khatib ([2003a](#)), speakers may use CS as a way of showing power over less powerful interlocutors. Thus, in these extracts, the speakers' intended undermining of their interlocutors' position through CS may reflect their superiority and perception of their social status. Or it may reflect their aim to challenge the status of the interlocutor perceived to be more powerful. In both cases, CS marked their intention of distancing the interlocutor within the micro-situation of the immediate utterance.

Other stances of CS expressed the speakers' aim to achieve particular goals: influencing the micro-social situation with respect to changing the interlocutor's opinion and attitude towards a particular situation. This can be noticed in extracts 2 and 16, in which the speakers' CS seems to be message-oriented because the speakers were keen on changing the current situation into a different one. Nergheh ([2011, p. 17](#)) argues that "code-switching will draw the participant's attention and will enhance their motivation to carefully scrutinize the message presented".

The social motivations of marked intersentential, intrasentential and extrasentential switches in the data were generally specified; hence, CS functions here can be termed as purposive because the participants used them in an intentional way for strategic effects. These switches, therefore, were not reflective of the macro-social influences in terms of setting or interlocutors. The participants used their linguistic and

communicative competences to create new micro-social contexts for challenging/redefining the existing interpersonal and role-relations and/or for enhancing their social status and power. From this perspective, the participants' CS fulfilled creative and constructive functions in order to construct a desired situation and achieve their communicative goals. Al-Khatib ([2003a, p. 421](#)) reached a similar conclusion in her study of the bilingual performance of Arabic/English speakers and argued that:

The bilingual participants used language alternation as a strategy to position themselves within the unfolding speech situation, with respect to their interlocutors; to project, negotiate and even challenge the power relations within the immediate situation. The symbolic force of language alternation and its patterned purposive variation, in relation to the dictates of the macro social situation, serve as an empowering strategy aimed at redefining "given" social realities.

Another interesting finding in this chapter is that the different interlocutors and social domains of the participants' conversations appeared to play a role in the participants' selection of the pragmatic functions of CS. First, in the home context, it was found that in many situations (i.e., extracts 8, 13, 17, 15, 10, 11, and 18), the children's marked switches linked to their perceptions of their familial or situational power positions in terms of their age, gender, and social status, etc. That is, in these situations when the participants interacted with a sibling, they tended to use marked CS as a strategy to emphasize their power positions in the macro or micro-situation in order to distinguish themselves from and redefine their relationship with their interlocutors. In the case of the interaction with a parent (i.e., extracts 19, 20,), the children marked their defiance of their interlocutors and the redefinition of their role-relations and power position by indicating disagreement, refusal, dislike, negation or rejection of what had been previously said in the other language. The negotiation of power position in the above cases corresponds with Gross' ([2000, p. 1284](#)) statement that "individuals negotiate positions of power through their linguistic choices. How they do this is not necessarily a conscious act, but what emerges from such interactions is a social hierarchy that depends on the interaction between the participant's personal status and linguistic skills".

Secondly, in the school context (i.e., extracts 1, 2, 4, 5, 6, and 7) where the participants' power positions were equal, it was found that they tended to use CS to indicate certain feelings and attitudes (i.e., anger, sarcasm, rejection, disagreement, etc.), which marked their intention to increase or decrease the social distance between themselves and their interlocutors. Thus, it can be argued that, the meanings of the participants' purposive CS in this study depended on the larger macro-social context in terms of domain and relationship between the interlocutors.

Another observation of this study is that in most of the extracts (i.e., 4, 6, 13, 14, 16, 2, 19, 17, 15, 10, 11, 18, 12, 20) the participants produced the marked switches with high pitch, which seemed to enhance the participants' strategies of communicating their intended extralinguistic messages during the interaction. This finding supports Myers-Scotton's (1993) argument that a marked CS is often produced with a higher pitch than the other utterances, so it is phonologically flagged.

The following Table summarises the general findings of this chapter and shows the intended functions of the marked switches that correlated with the participants' power positions.

Coding keys: A, B (first and second participants), = (equal power position) + (higher power position), - (lower power position)<sup>25</sup>.

Extract No.	Power relation	Functional purpose	Relational purpose
1	A = B	- insulting	- distancing the interlocutor
4	A = B	- insulting - reprimand	- distancing the interlocutor
5	A = B	- sarcasm - contradiction	- distancing the interlocutor
6	A = B	- disagreement	- distancing the interlocutor

<sup>25</sup> This method was devised after Al-Khatib (2003) in which she correlates her participants' power relations with their style of bilingual performance.

7	A = B	- teasing - identity construction	- distancing the interlocutor
12	A + B -	- abusive - sarcasm	- distancing the interlocutor
15	A + B -	- expressing annoyance & anger	- distancing the interlocutor
8	A + B -	- teasing - superiority	- distancing the interlocutor - emphasizing social status
10	A + B -	- displaying annoyance & authority	- distancing the interlocutor - emphasizing social status
11	A + B -	- displaying authority	- distancing the interlocutor - emphasizing social status
13	A + B -	- teasing	- distancing the interlocutor - emphasizing social status
14	A + B -	- threatening - displaying annoyance & anger	- distancing the interlocutor - emphasizing social status
16	A + B -	- showing will of obedience	- decreasing social distance
9	A + B -	- displaying affection	- decreasing social distance
3	A = B	- sarcasm - expressing annoyance - rectifying situation - identity construction	- decreasing social distance - restructuring social relation
2	A = B	- disagreement - identity construction	- influencing interlocutor's attitude and opinion towards a game
19	A - B +	- disagreement	- challenging role relations
20	A - B +	- disagreement	- challenging role relations
17	A - B+	- emphasizing authority	- shift of power relation
18	A - B +	- emphasizing authority	- shift of power relation

Table 27: The description of the intended functions and purposes of marked CS and the participants' power positions.



## **Chapter 8. Discussion and Conclusions**

### **8.1 Introduction:**

This chapter summarizes the main points of each chapter and discusses the findings. It links the aim of the study and research question with the literature review, methodology, and the main findings. Then, the chapter highlights the limitation of the study and presents recommendations which would benefit future research in the field of CS.

### **8.2 Summary of the Study:**

The main motivation of this study was to add to existing knowledge that CS is phenomenon which demonstrates bilinguals' linguistic and communicative competence. For this purpose, the study aimed at contributing to literature by providing a linguistic and sociolinguistic analysis of CS behaviour of school-aged Libyan Arabic and English bilinguals and its potential connection with linguistic and communicative competence. The focus was on informal bilingual interactions between the participants and their peers in a Libyan Arabic school and with members of their families in the home context.

CS has traditionally been studied from different approaches, namely, linguistic; psycholinguistic; social; and pragmatic. This study is part of research in contemporary sociolinguistics which aims at advancing knowledge by analysing patterns of CS to reflect on school-aged bilingual children's linguistic as well as communicative competence. Traditional studies which investigated these areas in bilinguals' speech adopted either linguistic or sociolinguistic approaches but did not combine the two approaches together in a systematic way. In addition, those studies see CS as a reflection of either linguistic in/competence or bilinguals' in/ability to adhere to the influences of the macro-social situation. This approach, however, did not consider the interpersonal considerations of using one particular code rather than the other in non-changed speech situations, in terms of interlocutors, topic, setting, etc. and how this relates to speakers' communicative competence. Thus, this approach was not able to investigate the type of data which were looked at in this study. In light of this, the main research question which was formulated in this study was as follows:

- How and to what extent are bilingual Libyan children's linguistic and communicative competences manifested in their CS performance when interacting with family and friends?

In the first chapter of the thesis, I presented the main introduction to the study including the rationale and objectives behind it and the main research question and research hypothesis. The main contributions of the study were as follows: (1) the correlation of both, the linguistic and sociolinguistic approaches in an attempt to analyse older bilingual children's CS patterns from more than one perspective; (2) The presentation of original data of CS between two languages that have rarely been looked at in combination before, spoken by a group of school-aged bilinguals who lived in a different country from their country of origin; (3) Given the complexities of CS between Arabic and English, the study showed a high level of competence in dealing with the structural differences between the two languages in a systematic way which supported the tenets of the MLF and 4-M model (which has been used primarily in adults contexts so far); (4) In terms of sociolinguistic, the study demonstrated the important role of CS in bilingual conversations and how its use reflected bilinguals' communicative competence; (5) The development of a major transcribed corpus of Libyan Arabic-English CS in CLAN, which will be of tremendous value as a research tool for the field more broadly; (6) The development of Arabic language assessment test in Libyan dialect; (7) The study presented a test of various models of CS against new Arabic-English data and provided new insights with respect to the weaknesses these models had in dealing with CS between Arabic-English; (8) Providing new evidence for the importance of collecting data from real life contexts that are not experimentally devised in order to report on language production in relation to bilinguals' competence. This method reflects the realities of language contact and use which would constitute a more appropriate starting point for interpretive work approaches that researchers adopt for such field.

Chapters two and three constituted the literature review which started with describing the theoretical background to the study of bilingualism, including its definition, degrees and different types. Following was an overview of the developmental stages of Arabic language. Numerous studies have dealt with the topics of bilingualism and language development in children in the last decades and answers have been proposed to many

questions in the researched areas. These topics were particularly important as a background to the current study since the participants were bilinguals who acquired their two languages under different circumstances. In addition, Arabic was the participants' non-dominant language; therefore, it was important to have a general idea about the stages and rates of acquisition of different Arabic grammatical features and structures in order to help in exploring whether the participants had proficient level of grammar which would be expected of monolingual children.

The introduction to the fields of bilingualism and Arabic language development was followed by a discussion on language alternation and language dominance in bilingual development, then, a presentation of general approaches to linguistic competence and performance and CS which represented a main part of the theoretical background in the current study. A brief overview of the study of CS introduced us to the field and various studies and approaches to the subject were discussed in the subsequent sections in order to put the current study within the frame of CS research. The discussion of the linguistic approach helped to understand the main aspects of CS grammatical patterns and the constraints which govern its production. Within the discussion, it was pointed out that many researchers have offered different grammatical frameworks and models to account for the phenomenon of CS from the grammatical perspective, however, none of them could find universally applicable rules for analysing CS. Thus, it became evident that many proposed models and frameworks are only applicable to CS data from typologically similar languages. Nevertheless, Myers-Scotton's Matrix Language Frame and 4 morpheme model (MLF and 4-M) is considered the most influential framework in the literature of CS. This is because it accounts for the typological differences between languages since it deals with CS from an insertional approach rather than a word order one as it is the case with other frameworks (e, g., Poplack 1980). Thus, it was considered more suitable to be applied on the current data because of the significant differences between English and Arabic languages. Lastly, in order to put the analysis in context and to familiarize non-Arabic readers with some feature of Arabic language, it was useful to present a general background about Arabic and the Libyan variety as spoken by the participants.

Although the linguistic approach provided an important tool that was necessary for the current analysis, it could not provide an answer to the question of why bilinguals code

switch, which was a central aim for the current research. This question was only dealt with within the sociolinguistic approach which helped to identify different communicative functions of CS and the social motivations behind the participants' CS in the recorded conversations. In this part of literature review, different sociolinguistic theories that were relevant to the current study were briefly discussed in order to give insights into the functional nature of language as well as the social motivations behind bilinguals' CS. The next section presented Myers-Scotton's Markedness Model (MM), which was the main sociolinguistic framework used in the analysis. The discussion of the linguistic and sociolinguistic approaches provided the main concepts relevant to the analysis; and their applications have made significant contribution to the purpose of the current study.

Chapter four of the thesis was dedicated to the methodology of the study in order to address the research question. The chapter started with an introduction to the criteria of selecting the participants, including a discussion about the English and Arabic assessment tests which were conducted on the children in order to measure their proficiency in each language. The main criteria for selecting the participants were their age range (8 to 11) and their Arabic-English active bilingualism (i.e., their capability of understanding, reading, and speaking both languages). Two different sociolinguistic questionnaires were initially distributed to the target participants and their parents in order to choose the most suitable participants for the study and to collect background information about them to form the basis of the study. This information included the children's languages exposure, their proficiency in both languages, the age at which they learned English, the language(s) that they mainly use at home and with friends, and the parents' attitudes towards CS. Based on the selection criteria, 30 children were chosen to participate.

The next section was the presentation of the fieldwork and data collection procedure in the Libyan school and home contexts. Audio-recordings, observations and note-taking were all used in collecting the data. In both social contexts, the participants were observed and audio recorded while they were having free conversations with other bilinguals in the school break time and home environment. In total, 15<sup>26</sup> and 30 conversations in the school and home respectively were recorded which brought the

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<sup>26</sup> In the school context, each 2 of the 30 participants were recorded together.

total number of the recorded bilingual interactions to 45, each of which lasted between 30 to 40 minutes. Then, the chapter provided a description of the transcription method used in transcribing all the recorded speech. The following sections in chapter four described the criteria of applying the linguistic and sociolinguistic analytical frameworks selected for the study in order to illustrate the procedure of analysing the data.

The fact that the participants were English dominant and produced more English than Arabic on the whole data as observed in the recordings, led me to evaluate their Arabic competence further in order to reveal the participants' level of Arabic linguistic competence; based on the Arabic grammatical structures which appeared in their Arabic utterances in the recordings. For this aim, the participants' Arabic-only utterances were analysed in detail in chapter five with a focus on the morphosyntactic features, which were expected to be developed by the participants' age as suggested by the literature on language acquisition (see section 2.3). In the analysis, I looked at the children's individual use of specific Arabic structures, taking into account the number of Arabic utterances produced by each child. That is, in specific interactions some participants used few Arabic sentences which yielded no chance for using certain grammatical structures. Therefore, it was concluded that the non-appearance of some morphosyntactic structures did not necessarily indicate the children's incompetence in Arabic, but it might be due to other factors such as the low use of Arabic and/or the topic of conversation.

Chapters six and seven of the thesis represented the data analysis. All the transcribed data were analysed in detail using quantitative and qualitative methods to reach the results. In chapter six, the quantitative method was firstly applied on the data to form the basis of the study. This included a comprehensive count of the Arabic, English, and code switched utterances produced by each child. It also involved the identification of the frequency of CS types (intrasentential, intersentential, and extrasentential). In doing so, it was found that the intrasentential CS (the integration of both languages within the same utterance or word) occurred with the greatest frequency in the data. As discussed in the analysis, the use of this type of CS might relate to the speakers' level of proficiency in both languages because it required effective alternation between the two grammatical systems, which usually characterises proficient bilinguals.

Next, the qualitative analysis was adopted focusing on the linguistic and sociolinguistic aspects of the children's CS behaviour. In applying this approach, the MLF and 4-M model and the MM were used to evaluate aspects of linguistic and communicative competence in the participants' switched utterances.

### **8.3 Discussion and Main Findings:**

The main contribution of this study has been the presentation of new and original data from speakers from an understudied language combination demonstrating: 1) skilful linguistic CS which was fully grammatical and supported the tenets of the MLF and 4-M model, and 2) communicative competence in the way CS was used for various discourse strategies with different interlocutors. Linguistic competence in this study was defined as speakers' ability to produce well-formed bilingual utterances where the linguistic rules of both languages involved were not violated. Communicative competence, on the other hand, was used to refer to speakers' ability not only to use their knowledge of a language in a specific conversation, but also to use the language which was appropriate to the situation of their utterances and/or to their social motivation of indexing certain messages in the micro-situation of the immediate utterance.

The investigation of these two competences in the participants' speech led to a dual focus in the analysis for which I used both quantitative and qualitative methods to arrive at the results. The total number of the utterances produced by the participants was 8316 utterances, 601 of which were identified as CS. In general, the number of produced CS here suggested the fact that CS was a common phenomenon in the home and school settings and that the children have had an awareness that CS was a mode of communication in multilingual communities and a recognised norm in the verbal interactions of bilinguals. From another point of view, the relatively small percentage of CS in this study compared with that of other studies in bilingual communities (e.g., Nel & Huddleston (2012)<sup>27</sup>) gave an indication that CS in this study was more related to competence than a lack in the participants' linguistic knowledge. This assumption will be supported later in this section.

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<sup>27</sup> In this study, three participants, aged eight years old, produced 422 switches during their interactions in four informal and unstructured play sessions, each of which lasted about 60 minutes.

- The main linguistic features in the participants' CS:

A close examination of the grammatical features of the children's CS showed that intrasentential CS, which required good knowledge of the syntactic rules of both languages (Poplack 1981), was more commonly used by all the children followed by intersentential and extrasentential switches respectively. It is worth mentioning that in this study, intrasentential CS was the focus of the linguistic analysis since it involved the integration of two grammatical systems in the same utterance or constituent. The other two types of CS were analysed from a markedness point of view since in both cases, language alternations occurred at sentence, clause, or utterance boundary; where the syntactic patterning of either language was not disturbed, hence eliminating the need for assessing the syntactic compatibility and grammatical appropriateness of the alternated utterance/ constituent.

In general, the linguistic analysis of the data added to the ongoing knowledge that CS at specific syntactic positions is competence-related and not arbitrary. The instances of intrasentential CS, as we have seen in the analysis chapter, were highly regularized. The ease with which the participants alternated between the two codes and the higher frequency of using intrasentential CS in comparison to the other two types suggested that the participants were able to control the two grammatical systems simultaneously, which reflected their linguistic competence. This result seems to be consistent with Poplack's (1980) observation of CS patterns in her study of the speech of New York Puerto Rican bilinguals. Poplack found that intrasentential CS was practiced by only the most balanced bilinguals whereas those who were dominant in one language tended to use the other forms which were less likely to result in grammatical errors. The result also goes in line with Kanakri and Ionescu's (2010) findings that less fluent bilinguals made greater use of extrasentential and intersentential switches, which involved the least grammatical complexity.

It follows from the stipulations of the MLF and 4-M model that in intrasentential CS, insertions from the EL should be syntactically integratable into the ML. In all the extracts selected from the data for the analysis, the participants inserted lexical items in their embedded form into the ML at parallel sites which did not affect the syntactic balance of the utterance/sentence. Following a study of English and Spanish bilinguals,

Poplack and Sankoff (1988) stated that bilinguals used their linguistic competence in their CS to avoid ungrammatical utterances; and that they perform grammatically during language alternation as if they were dealing with one language, irrespective to the syntactic differences between their two languages. The current study's participants' smooth alternation between the two codes also exhibited intricate linguistic detail that conformed with the stipulations of the MLF and 4-M model, where the ML provided all syntactic rules and templates and the EL supplied lexical insertions to bilingual utterances. This testified to the operativeness of complex grammatical process during CS that required the adherence to strict rules of prescriptive grammar and confirmed the participants' linguistic competence in differentiating the rules of the two linguistic systems.

Further evidence of the participants' linguistic competence related to the very low proportion of produced composite CS, which represented only 0.5% of CS data, compared with the larger percentage of classic CS. Composite CS, according to Myers-Scotton, describes the cases where a bilingual does not have sufficient competence in any of the languages in order to produce well-formed bilingual utterances. The analysis revealed that the majority of the switched utterances produced in this study were characterized as being classic CS, which conformed to the MLF and 4-M model's rules and principles of well-formedness of bilingual utterances. This proved that the participants were competent at CS despite the fact that they were English dominant and produced majority English. This result is interesting because it contradicts the results of other researchers (e.g., Bernardini, 2003, Paradis and Navarro, 2003, Argyri and Sorace, 2007, Foroodi-Nejad and Paradis, 2009, Nicoladis, 2012, Vellinga, 2016), who reported crosslinguistic influence<sup>28</sup> from the participants' dominant language to the non-dominant. Bernardini (2003), for example, reported the phenomenon of crosslinguistic influence in the form of syntactic ordering. He studied attributive adjectives in the speech of two Swedish-Italian bilingual children. Attributive adjectives can be both pre- and post-nominal in Italian, but they are only pre-nominal in Swedish. The researcher found that the child with Italian as the dominant language did not misorder the adjectives in Italian, whereas the Swedish dominant did.

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<sup>28</sup> The structural influence from one language on the other.



The linguistic competence which the participants showed in this study and the lack of crosslinguistic effect on their bilingual utterances (despite being English dominant), might be attributed to the amount of exposure to Arabic. This assumption is based on previous research which showed that language input from parents and teachers are crucial to children's overall language development, in terms of grammatical development (e.g., Blom, 2010); vocabulary size (e.g., Bowers & Vasilyeva, 2011); and comprehension skills (Dickinson & Porche, 2011). As illustrated before, all the children went to weekend Arabic school; and despite the fact that standard Arabic was the language of instructions, the children were getting sufficient input in Arabic in general. In addition, the parents' positive attitudes towards bilingualism as well as their use and encouragement of Arabic use could also be supportive of the children's non-dominant language growth.

Thus, based on the previous discussion on the participants' linguistic performance, the linguistic analysis revealed ample evidence of linguistic competence that was reflected at deep levels of syntactic knowledge. This knowledge was displayed through two main aspects: firstly, the ease with which the participants alternated between their two linguistically distance languages as if they were one. Secondly, through the conformance to the stated constraints and principles of the MLF and 4-M model, where all syntactically active system morphemes that form the morphosyntactic frame of the switched constituents come from the ML while all other morphemes are provided by the EL. This linguistic performance indicated that CS was a feature of the participants' speech and gave us an important insight into the regularity of CS among bilinguals, and also the fact that CS is not necessarily as a result of a lack of linguistic competence.

- The sociolinguistic analysis and aspects of communicative competence:

The sociolinguistic approach provided a complementary framework to account for the participants' bilingual performance in order to reflect on their communicative competence. In the literature on bilingualism, much research emphasized the influence of the changes in the situational variables regarding settings, interlocutors, and topics of conversation on the speakers' bilingual performance. The focus of the sociolinguistic analysis in this study, as we have seen, was not on the correlation of such situational influences with the participants' language patterns; since this perspective was not the

main concern in this study. The sociolinguistic analysis examined the data in unchanged speech situations with respect to the variables above to answer the question of why the participants code switched in such situations. Language choices were investigated taking into consideration the functional categorization of CS (strategic and nonstrategic) and the dictates of the social context with respect to the expected language choice in the specific moment in the interaction where CS occurred.

In all switched utterances found in the data, CS was viewed from a positive perspective because it occurred at specific points in an utterance where the grammatical constraints of both languages were not violated. The participants' communicative competence was evaluated in the same utterances by correlating the mostly used language (MUL) in the conversations with the social influences, applying the MM's differentiation between marked and unmarked CS. This model proved to be influential in this study because it did explain a lot of aspects of the children's violation and compliance with the social norms as well as their 'divergence' and 'convergence' strategies which were a core issue in the sociolinguistic analysis.

By using the MM, the analysis commenced from the situational rules, which define and determine the expected linguistic code in the immediate utterances and looked for the conformance or nonconformance to these decrees in the bilingual performance. The data that showed conformity to the stipulated criteria were considered as unmarked. In this case, the speakers complied with the rights and obligations set (RO) in the speech situation because there was no 'strategic' effect concerning the change of the participants' relations with the interlocutors could be specified in their CS. That is, the participants generally code switched for discoursal and pragmatic reasons without any extralinguistic messages, which indicated a change in the interpersonal relation with their interlocutors in the micro-social context of the interaction.

The results of analysing unmarked switches showed a general tendency of using CS for various communicative functions, included emphasizing, grabbing the interlocutor's attention, explanation, showing agreement, objection, quotation, etc. CS in these cases was characterised as being normal and expected because it conformed with the conventional norms of language use in the social context. In looking at the instances of unmarked intrasentential switches from the grammatical perspective, it was found that all word insertions from the EL were smoothly and effortlessly inserted into the ML

frames. The ease with which the participants switched between the two linguistic systems displayed their ability to incorporate their linguistic and communicative competences in their bilingual performance. Al-Khatib (2003a) reported a similar phenomenon in her study of CS patterns in the speech of Lebanese Arabic/English bilinguals and pointed out that her participants manifested discourse competence in their ability to combine both linguistic and social competence in their bilingual interactions.

On the other hand, the data which were outside the conformity of the social expectations framework were characterized as being marked. These data implied the participants' attempt of repositioning their interlocutors within the micro-situation of the utterance, hence, establishing new set of RO. In the recorded conversations, it was found that about 98% of the marked CS were with siblings who used English most of the time in comparison with the parents. With English being the default, switching to Arabic really exhibited the speakers' intention and attempt to create a new micro-social context. The communicative functions of marked CS which the participants' used to convey their extralinguistic messages and meanings included complimenting, insulting, reprimanding, disagreement, teasing, threatening, sarcasm, displaying authority, etc. These functions were embedded in the utterances that carried negative or positive connotations (e.g., *di:ma: da:ira: ru:hek ta`rfy everything (you always make yourself look like you know everything) – inta: ahsan rassa:m (you are the best painter)*) or with utterances that consisted of words and phrases carrying negative meanings (e.g., *kadda:b (liar), ghabi: (stupid)*). In this respect, marked CS became a purposive linguistic behaviour rather than default and a manifestation of the speakers' communicative competence since they opted to not adhere to the RO and the expectations of the interlocutors in order to communicate specific extralinguistic messages. Such findings are closely related to the terms of "convergence" and "divergence" (Giles 1970s; Khattab 2013) which indicate that speakers, as social communicators, alter or shift their speech either to accommodate to each other (convergence) or to signify the differences between each other (divergence).

Thus, based on the argument above, it could be concluded that the data which fell under the marked category could not be considered as a deficit of communicative competence on the ground of the participants' not following the dictates of the speech situation.

Marked CS was motivated primarily by the speakers' views and evaluations of the speech situation and their intention to communicate specific extralinguistic messages. The presence of such type of data, therefore, disproves the claim that speakers' noncompliance with the dictates of the speech situations reflects their communicative incompetence; and provides alternative views for the analysis of such data of CS.

Moreover, the participants' meaning-creating process which was shown in their marked switches in an attempt to influence the immediate micro-social context, advances a view on bilinguals' communicative competence that goes beyond evaluating it as bilinguals' ability to use each language differently and appropriately according to the relevant interlocutors, topic of conversation, setting, etc. A functional perspective on CS focusing on the symbolic force of features like convergence and divergence can explain bilinguals' communicative competence from different viewpoint, that is, what bilinguals can do socially and communicatively through CS.

Whether conforming to the expectations of the speech situation or violating them, the current study showed that CS was subjective, based on the bilinguals' assessment of their situation as well as the lexical choices which manifested this assessment and its intended meaning. Other aspects of communicative competence appeared in the participants' CS are represented in the following subsections:

- Using the appropriate language in different situations and with different interlocutors:

In all interactions, a common feature was the speakers' sensitivity for language differentiation and separation. That is, the number of children who were recorded in the home context with their parents was 12 while the remaining 18 were recorded with siblings. 11 out of these 12 children used majority Arabic utterances whereas all the other 18 children produced more English utterances than Arabic in conversing with their siblings. The same applied to the school context where in all conversations the amount of English usage was higher than that of Arabic. In all cases, the children initiated the conversation using the unmarked code, which was characteristic of the social context and then switched to the other code according to the demands of the speech situation. The choice of the appropriate language of interaction denoted the speakers' knowledge of the required code of language use with respect to the

interlocutors' language preference and the social context. This implied that the children knew the differences in language preferences between the parents, siblings, and peers and what code or language was appropriate in a given situation and context and showed that in their behaviour of using a particular linguistic code in different contexts. These observations which were part of the participants' communicative competence reinforce the theory of language differentiation and separation, once children have acquired the language to a sufficient degree, they become language-sensitive and can predict which language is to be used with a specific person and in a given situation.

- Demonstration of power position:

Another sign of the participants' communicative competence, which was represented in communicating extralinguistic messages, is related to their demonstration of powerful status through the use of marked CS. When looking at the extracts which includes the participants' indication of their power position, it can be observed that the social variables with respect to the context and the interlocutors' familial power status in the home domain appeared to contribute in the participants' selection of marked CS functions. That is, in many conversations which involved interactions with siblings, the switches produced by the older siblings were full of references to their power position and authority over the younger participants. Al-Khatib (2003) also found that CS might be used to show the speakers' power over the less powerful. Similarly, Auer (2013, p. 221) stated that "[c]ode switching carries a hidden prestige which is made explicit by attitudes". Other situations showed that younger participants signalled their intentions of redefining and challenging the existing power relations with the older interlocutors by indicating disagreement, refusal, dislike, negation or rejection of what was previously said in the other language. Al-Khatib (*ibid*) found a similar situation in her data in which the younger participant chose to code switch to challenge the role relation with the older participant.

In the case of the school context in which the participants had an equal power position, the analysis revealed that the children used marked CS to express certain feelings and attitudes (anger, disagreement, sarcasm, etc.) which indicated their intentions of increasing the social distance with the interlocutors within the micro-social context of the speech situation. Thus, it can be concluded that the social domain and the relationship between the participants and their interlocutors in this study played a

significant role in the participants' signalling of their intended messages within the micro-context of the utterance, which in turn related to the participants' communicative competence.

- Identity construction:

Examples of identity constructions were also found in some conversations in the marked CS category. In these situations, the speakers demonstrated their communicative competence by switching to Arabic when using certain expressions that were linked to the Libyan culture. This switch symbolizes the 'we code' which indicates belonging to the same ethnic group, hence, reducing the social distance between the interlocutors. This supports Holmes' (2000) claim that bilinguals may switch to the other code to signal group membership and shared identity with an addressee.

In general, the findings of the sociolinguistic analysis widened the scope of communicative competence. The researcher employed Hymes' (1989) SPEAKING grid and Giles' (1970s) Accommodation Paradigm (refer to the discussion in sections 3.6 and 3.5 in the Literature Review Chapter) as tools for describing the switches that took place in different social contexts. By using Hymes' SPEAKING grid, the researcher was able to describe the physical circumstances in which CS occurred (setting), the interlocutors of the communicative event (participants), the purpose of the conversation (ends), the form and order of the communicative situation (act), the speakers' overall tone, manner or 'spirit' expressed in the communicative event (keys), the form and style of transmitting the speech (instrument), the rule that governed the speech events (norm), and the type of the speech message (genre). In applying Giles' Accommodation Paradigm to the data, the study was able to demonstrate that the children used their marked or unmarked CS with the lexical choices as social activities that were based on their assessment of the speech situation and their intended messages of whether to diverge or converge with their interlocutors. In this regard, the children who used unmarked CS reflected their adhering to the dictate of the speech situation with respect to the language use and interpersonal relation with the interlocutors. Those who employed marked switches, on the other hand, displayed their aim of redefining their social relations with their interlocutors for pragmatic and interpersonal reasons. Such findings underline the role of language use and CS in maintaining or constructing new social relations within the micro-social context of the communicative event.

- Other findings:
  - The relationship between the MUL, language dominance, and the parental attitudes towards bilingualism:

Given that the participants were English dominant whose parents did not prevent them from CS and saw the English acquisition positively although they preferred and encouraged using their ethnic language at home, most produced utterances were in English, which represented 78.25% of the whole data. This suggested that English dominance and the parents' positive attitudes towards their children's English acquisition were important factors behind the higher use of English, despite the fact that they were proficient in Arabic as well. The possible relationship between the parental attitudes and the children's greater use of their 2L in this study confirmed the findings of previous research which found a strong connection between the parental factor and children's language use and choice in bilingual contexts. Yu (2014), for example, monitored, for 28 months, the effect of parental language choice of English and Chinese on that of their children. He found that the parental use of English increased the use of English by the children, and if the parents responded in English to the children's CS, there was a little chance of the children to switch back to Chinese.

- The participants' proficiency in the non-dominant language and CS:

Furthermore, the analysis of the speakers' Arabic-only utterances (given that it was their nondominant language compared with English) in chapter 5, revealed the level of Arabic structures development which was expected in children in their age; and suggested that the participants were proficient at Arabic despite they were clearly English dominant. This finding, therefore, added support to the results of the Arabic language assessment test which was conducted previously on the participants and made it more valid. From another perspective, this finding mitigates against the argument that bilinguals code switch because they are not proficient enough in the language being switched. Thus, it could be concluded here that CS is not necessarily associated with a deficiency in knowledge in either or both of the languages. This brings back the assumption in the beginning of this section that the relatively small number of CS found in this study may be more related to the children's competence rather than a lack in linguistic knowledge. This conclusion is based on the linguistic and communicative

competence which the children showed in their bilingual performance and the fact that they were English dominant which made them to code switch less compared with bilinguals in other studies of CS (e.g., Poplack 1980; Pert 2007).

Finally, the findings of this study in general add to the ongoing knowledge that CS is a discourse strategy and plays important role in bilinguals' conversations. The findings also support the argument that bilinguals who are fluent in both languages tend to use intrasentential CS more than the other two types (intersentential and extrasentential switches).

#### ***8.4 Evaluation of the analytical linguistic framework:***

By considering the fact that Arabic and English have dissimilarities in their morphological and syntactical structures, the application of Myers-Scotton's MLF and 4-M model in the structural analysis provided ample evidence for the adequacy of this model for Arabic and English intrasentential CS data. Several theories of linguistic models have been proposed in the literature by different researchers (see section 2.8), however, the CS patterns detailed in this study did not completely correspond to constraints put forward in these models. Poplack's Free Morpheme and Equivalence Constraints framework, for example, was not applicable to the current data since it has been proven to be fit more with languages that share particular grammatical, syntactic or lexical features which facilitate CS. The "Free Morpheme Constraint" predicts that a switch may occur at any point except between a bound morpheme and a lexical form and if it does take place, a phonological integration into the language of the bound morpheme (i.e. following its phonological rules) is the prerequisite. The current data generated numerous examples of switching between Arabic bound morphemes and English lexis and vice versa which did not show any form of phonological integration since the two languages are phonologically comparatively distinct. In addition, the "Equivalence Constraint" states that a switch may occur where the surface structure of the two languages is similar. Whereas English has a relatively fixed SVO word-order, Arabic can be primarily classified as VSO language and sometimes allows for SVO. Similarly, the position of Arabic and English noun modifiers and nominal possessives are not alike. These structural differences lead to violation of this constraint which further disputes the universality of Poplack's theory and its adequacy for this study. As



for the constraints suggested in the Government relation theory, the current data revealed frequent examples showing violations which did not support this proposal.

For this reason, the MLF and 4-M model, which contrasted with all other models in dealing with switches in various syntactic environments, was adopted in the analysis. The findings revealed the possibility of switching at various distinctive syntactic boundaries, matching results from other studies on typologically distant language pairs which provided several examples of switches that took place in various syntactic positions (e.g., [Owens, 2005](#), [Al-Rowais, 2012](#)). In addition, the findings demonstrated the validity of the MLF and 4-M principles by showing that well-formed switches could occur even when the surface structure of the two languages is not equivalent. Furthermore, the data validated the generalization that there will always be a ML which provides the syntactic frame of the switched utterances and an EL which contributes with lexical insertions to that frame.

The findings support the MLF and 4-M model's claim that classic CS, which depends on bilinguals' linguistic competence, is an aspect of fluent bilinguals' CS. Abugharsa ([2013](#)) further found support for classic CS even in cases of developing proficiency in the bilingual's languages. Her participants were 16 Libyan children living in the USA and were aged between 5 to 11. The children only learned English when they came to the USA at the age of 2 and above. The researcher found that although the children did not have full mastery of both languages, they could still produce well-formed bilingual utterances, where one of the languages functioned as the ML and the other as the EL. Accordingly, the researcher argued that the criterion of the MLF and 4-M model which states that bilinguals must have full mastery of at least one language that structures the bilingual clause does not necessarily apply to all kinds of CS data.

Nevertheless, it is beyond the objectives of this study to assume the universality of this model based on the current data. More studies are needed to deal with this issue since previous researchers (e.g., [Callahan, 2002](#), [MacSwan, 2005](#), [Gardner-Chloros and Edwards, 2004](#), [Zabrodska, 2009](#)) provided evidence that this model does not give a complete grammatical description of CS in all language pairs.

### 8.5 *The study's limitations:*

Despite the interesting findings of the study, certain limitations could not be avoided. The first limitation faced by this study was the number of the participants. The main criteria for selecting the participants were their age range (8-11) and their Arabic and English active bilingualism. The fact that not all the pre-selected children available in the Libyan school in Newcastle (45 children) had good proficiency in both or one of the languages made it impossible to choose all of them, yielding a smaller sample than originally planned.

Secondly, there was a lack of Arabic standardised proficiency tests that cover all the age range selected in the study. The available Arabic proficiency test used in the study proved useful as indicative of the children's productive language knowledge. However, it would have been desirable to find a comprehensive test that would be more appropriate to use with older children.

Moreover, due to the nature of this study, the amount of Arabic utterances and CS produced by each child was less than expected. In the school context all children chose to play English games rather than Arabic ones; and in the home context the number of children who were recorded while having conversation with bilingual siblings was more than that of the children recorded with parents. This fact made it less likely to elicit a larger number of Arabic utterances and CS because the participants tended to use English most of the time. More Arabic data would have been obtained if all the children had been recorded with the parents or while they were playing Arabic games.

It is worth noting, though, that the above limitations have not had a major impact on the findings. Firstly, in spite of the small number of the participants and the minimal conversations in Arabic during the recording sessions, the data were extremely intensive which yielded useful information about the participants' CS behaviour; and provided a rich explanation of how the bilinguals conveyed their intended messages and how CS reflected their communicative and linguistic competences. Secondly, the Arabic proficiency test results were supported by analysis of the children's spontaneous utterances in Arabic which strengthened the analyses and interpretation of the linguistic competence shown in their CS patterns.

## **8.6 Recommendations for future research:**

Although this study has several limitations, it can nevertheless be considered as the basis for further research on linguistic and sociolinguistic perspectives of CS. Future research should include a larger number of participants and provide opportunity for the participants to engage in activities that are more likely to elicit the non-dominant language utterances and CS.

In the school context, the children were recorded with self-selected dyads to play with iPad games. In future research, it would be interesting to record older participants with younger ones to determine if age differences in a school context play a role in CS patterns as is the case in the home context in this study. It would also be interesting to conduct research that compares interactions with parents/older adults as opposed to siblings. These recommended ideas could reveal more about the use of CS in different circumstances.

Moreover, the present study has uniquely contributed to the linguistic research field more broadly by developing a valuable transcribed corpus of Libyan Arabic-English CS in CLAN that has not been previously available. This corpus can provide a rich source of information about child language in general which can be used in future research to address many theoretical issues at multiple level of linguistic structure (e.g., morphology and the lexicon). In addition, the availability of this corpus makes it possible for researchers to compare, for example, the language use in Libyan culture with that of other different cultures; or between CS patterns used by Libyan children and other bilinguals in different countries.

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## Appendix A

### Questionnaire 1 (parents' information):

Please answer the following questions:

1- What is your:

- First language? a. Arabic b. others: \_\_\_\_\_ (please state)
- Second language? b. English b. others: \_\_\_\_\_ (please state)

2- Have you ever studied English? Yes ----- No ----- If yes, what level? Please select from the options below

Beginner ----- Intermediate ----- Advanced -----

3- What is your preferred language in the following settings? Select the appropriate column:

Setting	English	Arabic
At home with your child/ren		
At home with your spouse		
With your friends		
At family gatherings		
In public with your child/ren		
In public with your spouse		
Other setting not mentioned?		

4- Think of last week, can you calculate how many hours did you spend in talking with your child in English (approximates not absolute)?

Days	Play	Read	Eat	Exercise	Watch TV	Other
Saturday						
Sunday						
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						

- 5- Think of last week, can you calculate how many hours did you spend in talking with your child in Arabic?

Days	Play	Read	Eat	Exercise	Watch TV	Other
Saturday						
Sunday						
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						

- 6- How would you personally rate yourself in the following categories in your second language? Place an X in the appropriate column.

	Beginner	intermediate	advanced/fluent
Writing	_____	_____	_____
Listening	_____	_____	_____
Reading	_____	_____	_____
Speaking	_____	_____	_____

- 7- Please respond to the following statements by ticking the appropriate box:

Statements	Very often	Often	Sometimes	Rarely	Never
I speak English to my child.					
I speak Arabic to my child.					

I speak a mixture of English and Arabic to my child in the same sentence. Ex. “eat your fatoon”.					
If my child uses English, I correct him/her by using the Arabic equivalent. EX. child: “I want to play”. Me: “Nebbi nala’b”					
If my child uses Arabic, I correct him/her by using English equivalence. EX. child: “Nebbi nala’b”. Me: “I want to play”.					
If my child uses English, I continue talking in Arabic.					
If my child uses Arabic, I continue talking in English.					
I encourage my child to speak only Arabic when we are together.					
If my child speaks a mixture of English and Arabic, I ask him/her to speak in only one language?					

8- Which language does your child use the most in conversations with you?

- a) Arabic    b) English

9- Is there a rule that only Arabic is spoken in your home?

- a) Yes    a) No

- If yes, to what extent do people always follow it? Please select from the choices below:

Always ----- often ----- half and half ----- not very often----- never----

10- Which language does your child use the most in conversations with his/her sibling(s)?

a) Arabic    2) English

11- Have you ever felt that your child is using too much English with you at home?

Yes ----- No ----- Uncertain -----

- If yes, what do you usually do when you feel your child is using too much English?

-----  
12- Have you ever stopped your child using English and asked him/her to use Arabic?

Yes ----- No -----

- If yes, does the child usually do as you say?

Yes ----- No -----

13- Do you think Arabic is in danger of being lost in the UK?

Definitely ----- Maybe yes----- Uncertain ----- Maybe not----- Not at all-----

14- Does your child use a mixture of Arabic and English in the same sentence at home?

Yes ----- No -----

- If yes, how much does s/he use it?

Always ----- often ----- half and half----- not very often----- never-----

15- To what extent do you agree with the statement that speaking a mixture of Arabic and English in the same sentence is a bad linguistic habit?

Extremely disagree ----- disagree ----- agree ----- extremely agree -----

16- Do you think speaking a mixture of Arabic and English hinders your child's languages development?

Yes ----- No -----

17- How important do you think you are in keeping your child using only Arabic at home?

a) Extremely    b) very    c) important    d) not very    e) not important  
Important    important    important    at all

## Appendix B

### Questionnaire 2 (child's information):

Child's first name \_\_\_\_\_ surname \_\_\_\_\_

Please list the age, birth date, and country of birth of your child and his/her siblings. Also indicate the age at which your children were first regularly exposed to English and Arabic. Use the space on the back, if necessary.

Child	Age	Country of Birth	Birth date	Age of exposure to English	Age of exposure to Arabic
First child					
Second child					
Third child					
Fourth child					
Fifth child					

1- What is the preferred language of your child in the following settings?

Settings	Home	Neighbourhood	Family Gatherings	Libyan school	other
Preferred language					

2- How old was your child when s/he first arrived in the UK? Please tick the third choice if your child was born in the UK.

Years \_\_\_\_\_ Months -----. My child was born in the UK \_\_\_\_\_

3- Approximately, at what age did your child learn his/her second language?

-----

4- How would you rate your child in the following categories in Arabic language? Place an X in the appropriate column.

	Beginner	intermediate	advanced/fluent
Writing	_____	_____	_____
Listening	_____	_____	_____
Reading	_____	_____	_____
Speaking	_____	_____	_____

5- How would you rate your child in the following categories in English language? Place an X in the appropriate column.

	Beginner	intermediate	advanced/fluent
Writing	_____	_____	_____
Listening	_____	_____	_____
Reading	_____	_____	_____
Speaking	_____	_____	_____

6- Do you think that your child is better at expressing some ideas or feelings in English than in Arabic?

Yes ----- No -----

If yes, what kind of things (Ex. Speaking about food, friends, games, TV show etc.)? -

-----

-----

7- Do you think that the child is better at expressing some ideas in Arabic than in English?

Yes ----- No -----xx-----

If yes, what kind of things? -----

-----

*Thank you for your cooperation*



## Appendix C

### Children's questionnaire:

Name .....

1- How long have you attended classes at the Libyan school?

- a) Less than 1 year      b) 1 year      c) 2 years      d) 3 years      e) More than 4 years

2- Do you like coming to this school?

- a) Yes      b) No

3- If you had a choice, what would your choice be?

- a) Continue to attend every Saturday  
b) Attend once in a while  
c) Stop attending

4- How often do you speak to your mother in Arabic language?

- a) Always      b) Almost always      c) Very often      d) Often      e) Sometimes      f) Seldom  
g) Never

5- How often do you speak to your father in Arabic language?

- a) Always      b) Almost always      c) Very often      d) Often      e) Sometimes      f) Seldom  
g) Never

6- Do you use a mixture of Arabic and English when you speak to your parents?

- a) Yes      b) No

If yes, how often?

- a) Always      b) Almost always      c) Very often      d) Often      e) Sometimes      f) Seldom  
g) Never

7- Do you have any siblings?

- a) Yes      b) No

If yes, do they speak English?

- a) Yes      b) No

8- How often do you speak to your sibling in Arabic language?

- a) Always      b) Almost always      c) Very often      d) Often      e) Sometimes      f) Seldom  
g) Never

9- How often do you speak to your sibling in English language?

- a) Always      b) Almost always      c) Very often      d) Often      e) Sometimes      f) Seldom  
g) Never

10 - Do you use a mixture of Arabic and English when you speak to your siblings?

- a) Yes
- b) No

If yes, how often?

- a) Always
- b) Almost always
- c) Very often
- d) Often
- e) Sometimes
- f) Seldom
- g) Never

11- Why do you use a mix of Arabic and English when you speak to your parents and siblings?

.....  
.....  
.....  
.....

12- Do your friends at the Arabic school speak English?

- a) Yes
- b) No

13- Do you have any friends who do not speak English?

- a) Yes
- b) No

If yes, do you sometimes speak English with them?

- a) Yes
- b) No

If yes, do they understand you when you speak English?

- a) Yes
- b) No

If yes, how often do you use English when you speak with them?

- a) Always
- b) Almost always
- c) Very often
- d) Often
- e) Sometimes
- f) Seldom
- g) Never

14 - In the Arabic school, what language do you mostly use when speaking with your friends who speak English?

- a) Arabic
- b) English

15- Do you use a mixture of Arabic and English when speaking to your friend?

- a) Yes
- b) No

If yes, how often?

- a) Always
- b) Almost always
- c) Very often
- d) Often
- e) Sometimes
- f) Seldom
- g) Never

16- Why do you use a mixture of Arabic and English when you speak to your friends?

.....  
.....  
.....

17- Do you like speaking Arabic?  
a) Very much b) A little bit c) Not at all

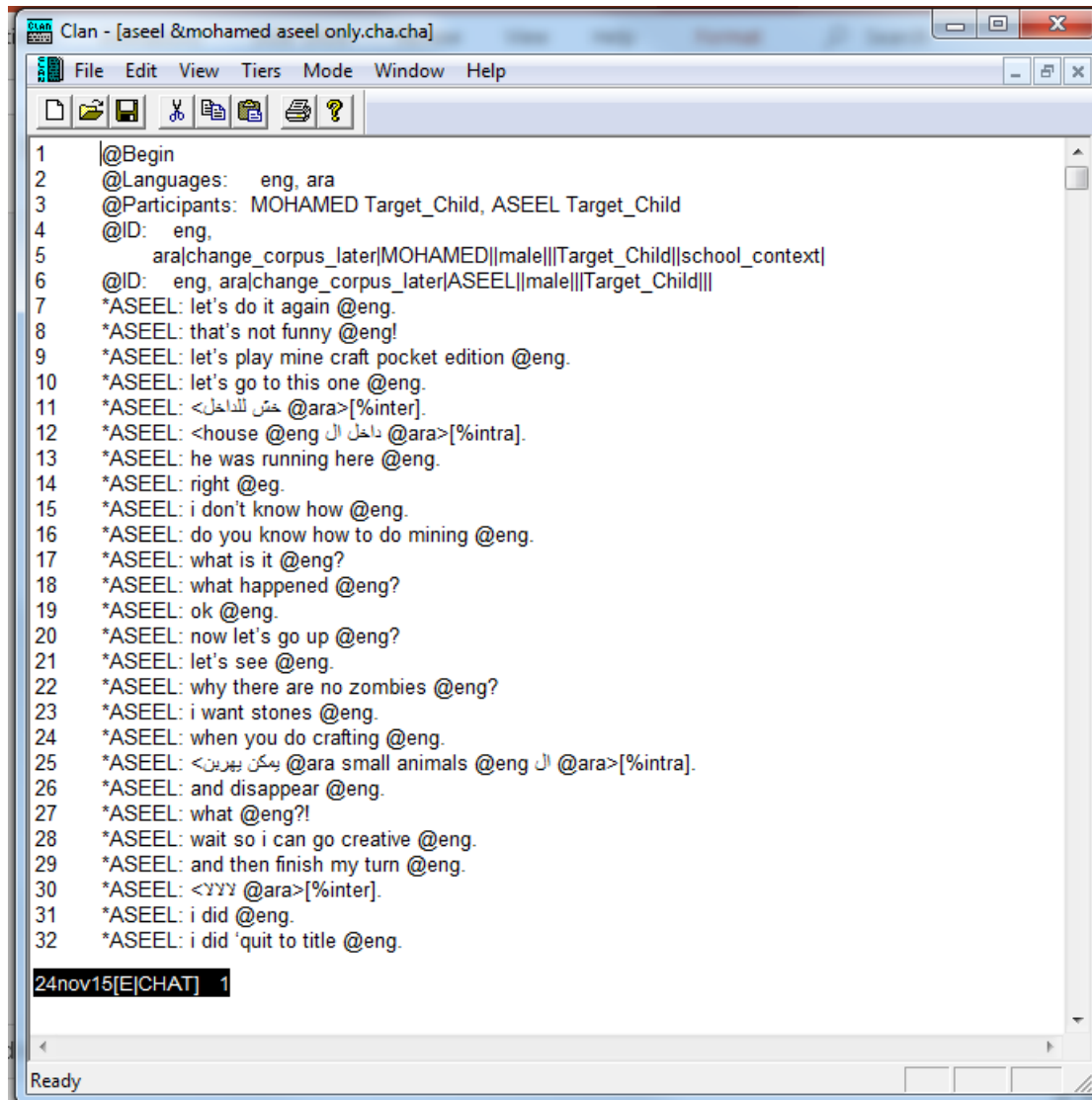
18- Do you like speaking English?  
a) Very much b) A little bit c) Not at all

19- Why are you learning Arabic?  
.....  
.....  
.....

*Thank you*

## Appendix D

An example of the data transcription:



```
Clan - [aseel & mohamed aseel only.cha.cha]
File Edit View Tiers Mode Window Help
1 |@Begin
2 @Languages: eng, ara
3 @Participants: MOHAMED Target_Child, ASEEL Target_Child
4 @ID: eng,
5 ara|change_corpus_later|MOHAMED||male||Target_Child|school_context|
6 @ID: eng, ara|change_corpus_later|ASEEL||male||Target_Child||
7 *ASEEL: let's do it again @eng.
8 *ASEEL: that's not funny @eng!
9 *ASEEL: let's play mine craft pocket edition @eng.
10 *ASEEL: let's go to this one @eng.
11 *ASEEL: <حس للداخل @ara>[%inter].
12 *ASEEL: <house @eng ال داخل @ara>[%intra].
13 *ASEEL: he was running here @eng.
14 *ASEEL: right @eg.
15 *ASEEL: i don't know how @eng.
16 *ASEEL: do you know how to do mining @eng.
17 *ASEEL: what is it @eng?
18 *ASEEL: what happened @eng?
19 *ASEEL: ok @eng.
20 *ASEEL: now let's go up @eng?
21 *ASEEL: let's see @eng.
22 *ASEEL: why there are no zombies @eng?
23 *ASEEL: i want stones @eng.
24 *ASEEL: when you do crafting @eng.
25 *ASEEL: <يمكن بيهرين @ara small animals @eng ال @ara>[%intra].
26 *ASEEL: and disappear @eng.
27 *ASEEL: what @eng?!
28 *ASEEL: wait so i can go creative @eng.
29 *ASEEL: and then finish my turn @eng.
30 *ASEEL: <لا لا @ara>[%inter].
31 *ASEEL: i did @eng.
32 *ASEEL: i did 'quit to title @eng.
24nov15[E|CHAT] 1
Ready
```

## Appendix E

### The participants' Arabic-only utterances (without CS):

Hamam

مش عارف
اصلا هو قاللي ان غدوة ماشي مع باته
ايه ماشي معاه باته
لالا
صح هذا علاش مايقدرش
حتى سراج مايقدرش
ماهو سراج قال المرة اللي فاتت مشي
لكن المرة هذي مش متأكد
ايه مرات امه ماتخليش يمشي
هو قال بيبي يمشي
لالا
انا قلتها له
قلت له نبي نمشي
لالا مش جيعان
شنو هو الغداء اليوم
لالا
كليت في المدرسة
اها عارف
حتى محمد وسراج ايجوه اللابيس كريم
لالا مانبيش
نبيه هكي طويل
لالا كل يوم نمشط فيه
حتى انتي شعرك طويل
عارف
يقعد واقف وسمح
مش توا ياماما
هكي احلا
لالا مش زي البننت
البننت شعرها اطول من هكي
انا اصلا مانحبش نمشي للحلاق
مافيش حد ضحك عليا
بالعكس كلهم يجبوه
اصلا مافيش حد ايخليهم
وبعدين هم مايعرفوش يغسلوه بروحهم
انا نعرف
لالا مش هكي
تمشطيه قبل
والله نعرف
بس خليتي انديره بروحي
وتوا انتشوفي
حتى بابا قاللي نفس الكلام
وقلت له لا
وقاللي باهي
ديري كيفه وقولي باهي
شكرا
عارف مش واجد انحطه
اشوي يعني
زي هكي
ايه زي هكي
وبعدها نحطه عالشعر كله

حتى من لاورا
هم يعطو في هدايا ديما للي ينجحو
ابلة ابتسام عطتهم ساعة
والبنات عطتهم
الازرق اجمل
مانحيش اللون هذا
عشان هن ديما هاديات في الفصل
والاولاد ايديرو في هلبة مشاكل
المدرسين الواعرين قالو هكي
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ايه هو اللي كتب ع ال
ب ال
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Nader

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وهو
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Rania

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Leena

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جا اليوم
كان مريض
قعد ثلاث ايام مريض
لكن توا خلاص بريان
من اللي كسره

لا والله مش انا
توا بس شففته
بلكي معاذ
والله مش انا
عندك لصقة
يعني خلاص
نعز قوه
توا انحطه في الكناسه
ايه خذيت
توا ناكله بعدين
مانبيش توا
خليها الاغنية هذي
انحبها
حيه شوفو المطر
مطر واجد بكل
ايه نتذكرها
نحساب المية تبي اتغطي الحوش كله ونغرقو
قعدت نيكي ونيكي
لالا بس صح
المية عبت المكان كله
وانا خفت بكل
ارجي انغيرها بروحي
شن تبي ؟
ام بي سي 3
سبيستون؟
لالا مانحبهاش
باهي عطيني شحني
عند بابا شححك
هات هنا
ماما قوليله يعطيني شحني
شوفي ابياده
الشحن خمسة وخمسين
انا امتعي احداش بس
قريب يطفأ متاعي
بعد انكمل بيه توا نعطيه له
ماقاله حد ايخرب شحنه
انا كنت ديما انحافظ علي متاعي
وهو لا
خلاص امالا
يرجاني نين انكمل بيه
ماما قوليله
قاللي
معش نبي نعطيه له
عشان قاللي
امالا قوليله ايقولي
شفتي؟
مايبيش ايقولها
وحتى انا مانبيش نعطيه الشحن
امتاعي وانا حر فيه
ايوه
هكي خليك مؤدب
توا قول من فضلك عطيني الشحن
قول من فضلك عطيني الشحن
مش ديما اتقولي اعدو مؤدبين؟
هو مايبيش يقعد مؤدب
باهي خلاص
قلته توا نعطيه لك
بعد انكمل بيه عشان

اصحى الخيط
قبل انقطع
مافيش مكان اخر انحطه فيه
حتى هنا تمام
بس اصحي واحد يقربه
معش فيه

Suhaib

ابوه هكي احسن
خوذ الحصان
شيل الحيطه
عشان صحراء
مافيش
هيا حطه توا
يامرحب يامرحب
عشان تاخذ متاعها
ابوه
ياهلا بالضيف
يعني اهلا بالضيف
افتح هذا
وبعدين توا تلقى الحفرة
الحفرة اللي فيه
خوذه
شنو هذا
وطي الصوت اشويا
باهي شن راك تختار هذا
غير وجهه
تمام
حلو
وين راحت
امشي للجبيهة الثانية
خيمتين مش وحدة
وفيها بدو
ياهلا بالضيف ها ها
ابوه
راهو ايطيح في الوادي
يامرحبا بالضيف
اشرب اشرب
مايقدرش ايخش من هنا
توا ايقول يامرحبا
ماقالهش
عطيه لي
تمام
ماتبيش انترنت
اضربه
ياسلام عليه
قوي
الجرس رن

Jamal

اه صح
ايه
شنو هالسؤال الغبي
جيبلي كيتكات والا سنيكرز

اي حاجة
نفس مهاب
هو الغلطان
هيا
من بدري؟

Khalid

مقلوبة هكي
اهي مكتوبة هنا
بكل
حيه شوف الساعة كم
قريب تكمل
ممکن!
قربناها زمان في التربية الاسلامية
طواف الافاضة
والوقوف بعرفة
والسعي بين الصفا والمروة
تصميم في رمضان!
تبي تقعد بدون طعام و
لعدن المغرب
سكرها

Mohamed

عشان هنا مافيش
امالا عيش عندك
يومتها قلتها ليا
اهو قاعد
مكرونة مبوخة
فيها طبيخة هلبة
بسرة سكره

Aseel

ماحببتهاش بكل الريحة هذي!
ارجي اشويا
انسكر الباب وانجيك
وين وصلنا؟
وصلنا في درس البرتقال
الابلة ماقلتش حلو الاسئلة كلها
قالت سوال واحد وخمسة وستة واحداش بس
واتنين منهن ايجن في امتحان الفترة
مع درس جنتي
ودرس الشتاء
اهي
هذا
الابلة قالت اكتبوها في كراس التعبير
لكن كراس التعبير مازال عندها
خذاته عشان اتصححه
ومازال ماجاباته
تعرفي؟
حتى كراس الاملاء مش قاعد
مش متذكر انها خذاته
بس مالفيتاش

معناها اكيد خذاته حتى هوا
ارجي انشوف في الشنطة الاخرى!
حتى هنا مش قاعد
وين اجابة هذا
هذا وهذين الاثنين داخلات في الامتحان
ايه اكيد
اهو الابلة دارت عليهن علامة!
الدرجة من عشرين
هيا
s-درجة
في ال
يعني صاح
لكن مانبيش الدرجات هذين
نبي درجة نهائية
اهو قاعد انا نقرا
امتحانات الرياضيات والدين الاسبوع الاخر
ايه قبل ال
الامتحانات كلهن قبل ال
منين نبدأ؟
لا واجد من البداية
نبدأ من السطر.. واحد اثنين ثلاثة اربعة خمسة ستة
نبدأ من
تمام
لم يتمكن حمزة من طرح المزيد من الاسئلة بسبب الازدحام
عندها طلب من والده ان يشتري له انواعا مختلفة من البرتقال
عاد الى البيت وفي نفسه شوق ورغبة لمعرفة ميزات كل نوع
خلاص لعند هنا اليوم
شن رايك اتديريلي املاء سمعية في السطور هذين؟
لا والله مش ساهلات
تمام
خلينا ناخذو اشوي
ايه ماز ال اجي لل
خلاص معش بيو ايردو لماتشستر
هم حولو هنا ومعش بيوا ايردو
ايه متأكد
هوا
سببوه حوشهم الاخر
حولوا في ال
الجديد
جابوا
كله
بابا تلاقى مع باته يومتها
احني واسعة مش زي
هم متاعتهم صغيرة
ماتسدش حد بكل
ايه عنده اخت
في تالثة ابتدائي
مازلنا مادنناها
عشان مايخلوناش انخشو فيها
لكن يا عوينهم
عندهم
شفتي؟
ديما انقوللكم جيبولي قطوسة وماتبوش
شن فيها
عادي توا انعلموها كيف اتخش لل
ماسألنش شن دايرين معاها
لكن اكيد اتخش للحمام بروحها
تتذكري زمان لما شفت البوفيططة درتها

قلناكم جيبولي
ومايتوش
حتى ال
مايتوش
امالا اندير البوفطية
مافيش غيرها
باهي شن رايك في
والا
باهي باهي
توا انكمهن بعدين
لكن بشرط
بعد اندير
كلهن طلوعي الاكبوكس
مانيش انراجي لعند العطلة
تمام
وين حطينا الكتاب
اهواه
شن اندير توا؟
نقرا باقي درس البرتقال؟
والا نمشو لدرس ثاني؟
والا شن رايك انحل واجب الرياضيات قيل؟
جدول الضرب
والقسمة المطولة
اشوي اشوي
معناها بعد ايجي بابا توا افهمني
توا نقرا درس البرتقال وخلص
وانحلو اسئلته
وبعدها خلاص
معش نبي اندير شي اليوم
تعبت ومليت
صفحة واحد وعشرين!
خش للداخل
داخل
يمكن يهرين
لالالا

Zainab

لالا مافيش داعي
هكي وخلص
ثلاثة وثلاثين باشاطرة مش سلاسة وسلاسين
نحسابك غلطتي
وانا صلحتها لكي بس
عليش خذيته منه
معش تاخذه منه
والله انقولها لماما
! ماما فكيني من احمد
مش ديما اتقوليله معش اتضايق باسم؟!

Noor

كنها هكي يده؟
انغيرها؟
سلاسة وسلاسين

يعني كانت اتقول بكاكا اميكنة
ضحكتني كلمة بكاكا ميكنة
بطاط ميطنة
والله ماقلتها
ماقلتها بكل
انت سمعتني غلط
مش هذي
لانك ماتسمعش كويس
مشكالك انت
انت احسن رسام
انا مش
زيك انت
ان انت احسن رسام في العالم
وتحب الرسم
كبير مش بيبي
هذين حاجات توا تقراهن

Marwan

؟ اتصدق
ماعرفش يلعبها كويس
صاح
هذي
ماتعرفش وين
مش عارف
حتى هي تكرهه
حسيت كانني ا
انا ماقلتلكش غيريها !
هاتي الريموت
حمار
انتي قلتي عليا اني انا
وبابا قال اللي يقول كلام انعاقبه
امس قال اللي يقول كلام
معش نعطيه الايباد
بديتي!
عند ماجيتي وغيرتي
اولا!
مازلت نبي اتقولها لبابا
اربع دقائق
ماتنسش ان عندك

Tammer

كنا يدك؟
كيف عرفت؟
؟شن صار
باته خذا تليفونه
كنا نلعبو في ال

مانحب نقعد جوا
كليت ال
متاعي وبعدها طلعت
ايه كلنا طلعتا
مانبيش هذا
مانحباش وخلص
انتي عارفتني مانحباش بكل
باهي توا ناكل منه اشوي
ماما خلاص!
والله شبعان
نبي
تمام كان كليت من هذا تعطيني ال
؟ توا تمام
اصحي الكباية
قبل طاحت
حودي هو اللي كب الشاهي
شفته والله شفته
قال لميار اتصبله الشاهي
ميار صباته له وحطاته عالطولة قريب من الحافة
اشويا حمودي ماشافاش
قال هكي بيده
وبعدها انكب ال
كله
بس انتي حطيتيه عالحافة
هو ماشافاش
المفروض حطيتي الكباية في النص
يعني هي غلطتك انتي من البداية
مش غلطته هو
ارجيني اشويا نين انكمل الواجب هذا
ماما نمشي معاك للتاون بعدين؟
تمام تمام
لوكان تسمعي هيا شن قالت
مش بس انا اللي انقول فيها
حتى هي ديما اتقول فيها
ديما نطلع في الصبح بدري
انا انشط منها
انتي ما قبل توعي في الصبح
انا نوعا اسرع منها
ماشالله عليا
ايه هذا عطري انا
شفتي مش قنالك
باهي بعدين توا نقرا
انا سني توجع مش انتي
المعجون هذا مش حلو بكل
فيه طعمة زي طعمة الدوا
درت منه توا
كأنني واخذ دوا
غسلت فمي و مافيش فايذة



وينه المعجون الاخر
من يبي اجره هذا؟
طعمته شينه بكل
سنسوداين وكولجيت احلا معجونين عندي
تمام
توا نمشي نجره
حسيت طعمة الدواء حولت من فمي
ايه امس لعبنا كورة
بس هو ماقدرش يلعب معانا
ماهو مازال ايحس في رجله اللي طاح عليها زمان
ماحكيتلكش انا عليه؟
اه هو كان يلعب عال
متاعهم وال
متاع ال
مشروطة وهو مش فاطنلها
اشويا طاح منها علي رجله
لالا مانكسرتش
قعد ايحس في رجله وخلص
ومازال يحس فيها لعندتوا
قعدتوا في
عشان كانت تمطر
قعدتوا ايدلعو فيه
طبعاً جابوله غداه لعنده عشان ماقدرش يمشي ويصبي في الطابور
كيف يعني؟
ايه حتى هم قعدتوا جوا
انا ماشفتش حد
قصدك بوللي ويعقوب؟
ايه حتى هم
ولما ال
جت
بوللي كانت تلعب مع يعقوب
يعقوب
مريض
وبعدين ال
جابت
غداء
ونحن طلعتنا نلعبو في ال
لكن كانت تمطر واجد
شنو؟
لالا بعد شفتنا المطر خشينا جوا علي طول
وكملنا اللعبة جوا
علي حسب الطقس
مش ديما نلعبو برة
نين اتمللي منها
نعرف هكي وهكي
مش زي اريج لاتعرف لاهكي ولاهكي
ليش امولة الضي هذا؟
امتى جاية؟

تبي اتطول لعتد الليل؟
امالا خليني انطلع الاكس بوكس
عندي حفظ سورة الليل من الاية الاولى لعند الاية رقم احداش
ساهلة اصلا حافظ لعند الاية رقم خمسة
يعني ماز اللي ست ايات ونحفظها كلها
هذا بس ماعنديش حاجة غيرها

Adnan

بابا واعندي ايجييلي
في عيد ميلادي
مش جيعان واجد
معاي
اضني معش عنده رغبة يجي لل arabic school
يعني يبي يقعد في الحوش
ويقرأ المواد الداعمة بس
وايجي وقت الامتحانات
اصحابي كلهم
ونغسل معاك المواعين
واندير كل حاجة تبيها
اشويا باوند راهو
مش باوند
حسني فرحان!
لالا ماتخافيش
كلهم كويسين ومؤدبين
قلت توا نطلع بدون
عشان ناكل وانا جيعان
كل حاجة
عشان انذكرك بكل حاجة

Yaseen

شفت توا؟!!
غبي!
قاعدة في الاكس بوكس متاعي
في ثلاثة وعشرين مارس
تبي؟
معش فيه كمل
والله مافيه حتى واحد
اني جيت!
! خلاني نفقد اعصابي
افضل منك
معناها عدي من قدام وجهي توا!

Alya

امشي هنا
!بسرعة

في الليل
تمام
هيا اختاري
سندويتش شامية
شنو هذي؟
انا لااعتبها من قبل
احسن وحدة
اللعبه هذي
تمام؟
وقت الغدا

Rana

لالا مش في الكتاب هذا
كتبتبها في كتاب اخر
معش القيته
ياربى وينهو
دورت هنا
حتى في دار لعيال
كتاب لونه اصفر
لالا مش هذا
كبير اشويا حجمه
اكبر من هذا
باهي شن رايك نبحت عنها في اليوتيوب؟
اكيد موجودة
مش عارفة
لكن مرات
كذه نقالك
وينه؟
مش قاعد فوق المايكرويف
اه ممكن في الشحن
القيته اهو
براونيز براونيز
عدنا
اللى كتبتبها مافيهاش
تمام توا انتشوف
يمي شكها ابهبل
شن رايك في هذي
شكها
اوكي
خليني انجر بها هي
لالا مافيهاش
هذي فيها ثلاث بيضات وفانيليا
حقه عدنا فانيليا؟
شن اندير معناها؟
اها فيه ليمون في التلاجة
البيض قبل
ويعددها كباية وحدة سكر
خليني اندوب
وين

هذي والا هذي
هذي مكتوب عليها
اصحي اتطحي الكباية !
ذابت كلها
حطيتها في المايكرويف
نعرف انديرها
اصلا المطبخ صغير مايسدناش نحن الاثنين
توا
اولا
هكي قالت المرأة
انحط من الكاكو هذا والا هذا
معناها نستخدم
نبي كباية وحدة وربع
ايه الكاكو اكثر من الدقيق
نقدر نستعمل هذا؟
الطاجين هذا كبير
نبي واحد صغير
والافضل يكون مربع
هذا مش مربع
وين الطاجين الصغار
تمام توا انحطه في هذا وخلص
قبل انسيت البيكنج باودر
نبي كاشيك صغير
لالا مش هذا
شن فيها الحكية هذي؟
قالت حطوه مع الدقيق والكاكو
عادي انحطه توا؟
تمام
مش عارفة كيف
وينها السباتيولا
شفتي توا
الطاجين كبير والبراونيز اشويا
مش مهم المهم اتطيب كويس
شن رايك بعدها اندير
تبي حاجتين بس
تخلطيهن مع بعضهن
وبعدا اتحطيهن في طاجين
وبعدا اتغطيه واتحطيه في الفريز
لالا مش مالبوتوب
هنا داراته
وقالتلي علي طريقته
ساهر صاح؟
مش بكرة اليوم
اهو عندنا
شفته في الدولاب
اهو توا انجيبه لك
مش مليون واجد
خلاص حولي ال tub

المتاع الايسكريم tub
وتوا يتوسع
تمام
لازم خمسة واربعين دقيقة
ماسمعتيش اللي قالها؟
مرات ايطيب في اقل من هكي
نبي الحمام!
احمد من بدري في الحمام
ماما قوليله بعد ايخش معش ايطول
ديما ايطول في الحمام
ويومتها القيته واخذ المعجون متاعي
وامليز بيه مرية الحمام
لا والله هو
متأكدة انا
مش عارفة عlish ايدير هكي
مكسد وخلص!
حتى انا مانبيش نمشيله
فكيني منه
شن فيها الشكارة هذي؟
مش عارفة
اها هذي اللي جابها باب بدري
انحط الحاجات في الدولاب؟
تمام
الخبزة وين انحطها
ماهو الفريز مليون
توا تيبس
والجينة انحطها في السطل الصغير
والا انخليها هنا وخلص؟
هذا تبي اتدسيه؟
اصحي الدحي يتكسر
توا انحوله من هنا خير
ماعليك فيه
توا انحوله انا
لالا مانبي شي
والله مانبي حاجة
شن صار
كذه شوفيه طاب والا مازال؟
المفروض يكون طايب توا
الله بنته اتهيل
اسه كتبتها
هي اصلا موجودة اونلاين
صح مرات نحتاجوها ومافيش انترنت
ماهو هذا عlish كتبتها
تمام
اضني هكي خلاص
انخليها اشويا تبرد
وبعدا انقطعها
ممم تذكر كلما مشينا لعميمة انتصار اتديرلنا نفس الكيكة هذي بالضبط

بعد نمشو للبيبا في الصيف توا انبات في حوشهم اسبوع كامل
اصلا هما ما عندهمش عويل باش اتبات عندهم
هذا عlish ماما اتخلي فيا انا وماتخليش فيك انت
مش صاح ياماما؟
هه شفت؟
واو ريحتها اتهيل
سلم ايديا
قتلني !
هاها ديما اتسير
سندويش فول مدمس

Mus'ab

ايه هي عمرها
هي تعلمتها
هذوما فيش ايديرو
النت ضعيف والا شنو؟
تمام
دقيقة
ماشالله!
يبو ايديروه الملعب
والله لاه
اخ ياراسي
يبي ايجيني
الجبال العاليات بكل
مانخافش منهن

Kamal

لعبنا كلنا مع بعضنا
ايه ماعدا حسام
هي هوا
مايبش يلعب كورة
يبي فيديو قيمز وخلص
لعبنا اشويا
بعدها اعميمة قالت معش اتخطو عالجيران اللي لوطا
اي زي جيراننا نحن
كلينا تشيبس وعصير وبرقر ومايونيز
ماما ليش ماتديرلنا غدانا برقر وتشيبس
ومعاهن قازوزة
حسني توا جيعان
نقدر ناخذ شكولاطة والا ايس كريم؟
باهي شكولاطة؟
ديما
تمام
نبي
خايف اتقولي مش مفيد حتى هوا
شكرا
نبي الابيض
اللي مرسوم عليه الدبوب
ايه قالولنا جيبو ال
هذا احلا من الثاني

تفرجنا عالتلفزيون
وبعدھا عطتنا نكتبو جمل
جمل بخط الرقعة والنسخ
ايه كتبت
كتبت صفحتين
اخترت اية قرآنية
وكتبتها مرة بالرقعة ومرة بالنسخ
عبودي مزعج
ماخلناش نكتبو براحتنا
قعد يلعب عالكتابات
ويصرخ
ايه عشان بيبي ورقة وقلم حتى هو
ايه عطياه وقعد يكتب
يحساب روحه يكتب
يخربش وخلص
لالا مانبيش بشكوط
كملت!
الحمد لله
ناخذ الايباد توا؟
ايه لميتها
لميتها كلها
عدي شوفيا
وين الايباد
شنو؟!
توا تاخذه!
ساعة ونص بس !
شكرا
وين حطيتيه
ماما مش قاعد في دولاب بابا
شفتيه ومالقيتاش
امالا وين؟
من اللي خذاه
انا امس حطيتيه في الشحن
وقلت مانبي حد يقربه
وين راح؟
مالقيتاش حتى تحت السرير
سرير من؟
مش قاعد
كلمي بابا اساليه
كلميه ياماما
بابا ايطول
ديما ابجي في الليل
امس جا في الليل
اكيد واحد خذاه وطمره
عشان ماتونيش نلعب بيه
باهي امالا وين؟
ومن خذاه
انا امس سيبته هنا في الدار
عشان شحنة كان 2 في المية!
كده انشوفه فوق الدولاب هذا!
ارجي انجيب الكرسي
وين؟!
القيتيه؟
وين القيتيه
اكيد انتي اللي خذيتيه
باهي هاتيه
اوف شوفي شحنة توا
خمسين في المية

معناها اكيد فيه واحد كان يلعب بيه وانا مش قاعد
معش نبي حدي يقربه فهمتو؟! اسأ
فيش ايديرو؟ كنهم
ارجى اشويا انشوف
قاعد ايحمل توا
نقدرو انديرو
اقتله

Asma

الحرف الناقص
ايه ساهلة
عشان تعرفي شنو الحاجة
خلاص
هذا هو
شوفي اللي موجودات قدامك
الاجابة الصحيحة
اختاري السوداء
عشان نعرفو لأي فئة تنتمي
برتقال
لاه سته!
عدي الحروف بروحك
وحجمها كبير
ولها عدة استخدامات
وتربط الدول ببعضهن
سفينة
هااي!
طعمها لذيق
واصلها تركية
ومصنوعة من السكر والنشا!
ايه
صناديق شني؟!!
حتى انا
تعرفي وحق ربي جيت نبي انقولها
كده شوفي الصور هذين
هذينك
باهي امالا اختاري وحدة ثانية
الطولة هذي
واحد جديد
ونعطيك كف على وجهك!

Munira

لالا ماعمر يش شفته من قبل
لالا مانبيش
نبي دوريتوس
عطيني!
حمار وهيل وديما تبكي زي البيبي!
ليش تكذب!
فهمت



عشان انت -
امشي غادي

Hana

ماتقدر يش
عشان
ترقدي بدري
تمام
ليش ديما ما عندكش واجب؟
نسمع فيها وتعجبني
حتى سارة تحبها
مش عارفه
توا تاخديه بعد يكمل دوري
اهو قاعد يجري توا
تمام
يبي يكمل
يوم السبت الجاي توا نلعبو اللعبة هذي

Taiba

وبعدين
اسمعي
عشر دقائق مازالك بس
متاعك
واجب

Farah

متاعي انا
اسمعي انقولك
ماما قالت لي عادي
اللي جاهزات في التلاجة
اهوه قاعد
لالا
امتحان جغرافيا

Zahra

واو, عدد الصور كبير
قريب مية والا ميتين صورة
اي وحدة نختار؟
الصورة هذي تتكون من ست حروف
لونها برتقالي وشكلها دائري
مم وفيها حرف اللام
يعني حرف واحد ناقص
وباقى الحروف مش ناقصات
لكن الصورة مش واضحة
كلمة برتقال تتكون من خمس حروف
الكلمة هذي تتكون من خمس حروف
هيا حاجة تتحرك بدون عجلات
الطيارة فيها عجلات!
صح

اللي بعدها
صندوق كبير
لالا
ثلاث صناديق صغار
حسبتهن واحد كبير
شن هذا
معناها مش صناديق
هذي حاجة تونكل
ماعرفتش الاجابة انا
ااااه حلقوم
لا عاد
ديري روحك تعرفي
هاتي
دوري توا
اي وحدات
تعرفي؟
خلينا نشوفو لعبة ثانية
هذي حسبتها
انتي اختاري
من جدك

## Appendix F

### Code switched utterances in the data:

Arabic utterances	English utterances
اليوم تغدينا	fish fingers, wait
مش	fish finger, fish
ديما	on fridays
والا	fish
ومعاهم	fish singers
و	beans
يعطونا	other vegetables
و مرات	on monday
وكل يوم ناخذو بيتز	chicken fajita
وفيه ايس كريم	chicken wraps and margherita pasta
اها عارف	even in the cold weather
عارف	
لكن لما انحط ال	hair gel
يقعد واقف وسمح	
تمشطيه قبل	
وبعدها اتحطي عليه ال	hair gel
والله نعرف	
ابلة ابتسام عطتهم ساعة	
والبنات عطتهمن	ipad cover
لونه	pink
الازرق اجمل	
ايه هو اللي كتب ع ال	
ب ال	board
لالا مش هو	permanent marker
هذك فراس	
تعرفي حتى مهند دارها زمان	
لكن هو دارها	by accident
عليش لونها ؟	red
خليها توا هكي	
شوف شوف هذي	it is downloading
مانعرفش	I don't know
توا انردو عليها	later
تاخذ اشوية	downloaded it
عشان هكي فيه اللي ياخذها للمحل	time
عشان ايديرو لها	download
عالسريع	What?
ارجى اشويا	
نبي انتأكد من	something
ارجى اشويا	
حاجة	What?
ماصارش منها	yeah
ماقلت لك مش	free
لالا ماتقوليش	no

اها عرفتها	
نكتب رقم واحد مرتين	and then
وبعدين نكتب من واحد لعند سبعة	
مش عارف	
بس انا اشطر واحد	yes i am
خلاص عاد	
	I can't remember
	but
	not just like that
	can we go on frive now?
مش عارفة ليش	he always puts taylor swift as a devil
تمام	use the super jump
حيه راح	far away
	just use it
صعبة	that's why it's
	complete
شكله	funny
اللي مايحبش ال	meat boy
اول مرة نشوفها ال	game
هذي	
صح اتذكرتها	ohhh that game
بكل	difficult
عارفته	I should've guessed there would be a bad guy
فوق هذا؟	when you move you leave a layer of this slimy stuff
قصدي	? a wall jump
الاتجاه الاخر	just jump and move to
ماتنسيش ان	this is my first time playing too
تمام	
لالا مش هذا	
قصدي ال اللي لونهن	strings
تي اهي	black
حطيتها	on the bed
عادي	leave
ال	heavy
شنطة هنا	
برة	before you go
نعطي ال	driver
الفلوس	
نين يرد ل ال	town
يعني مانزلش بكل	
نقعد قاعدة نين نوصل ل ال	town
قصدي الفلوس هذين	
اللي عطاهن ليا بابا عشان ال	party
بلكي في ال	weekend
الباصات ايطولن يوم الاحد	
احسن لعبة عندي	yeah it is
احسن لعبة عندي	Ijust said it was
عشان	it says come back tomorrow
اهو انا متت	Ok finally

دوري انا؟	it is
دوري انا	no, it is
تقدرى اتدبريها وتفوزي	ok just calm down
ياخسارة	nooo
اسكتي	let
انكمل	
باب التلاجة	so I pulled
يدي فيه	and I put
يعني الناس كلهم	were sleeping
لاه مانكذب	of course!
بروحي!	I'll do it
بعدين مش تو	no
ارجيني انولعه	let's play this one!
وين الشحن؟	wait
عشان في الغداء منى ديما تاخذ في	better stuff
غداء	next time if the
رز	is
سندويتش تن	I will take
لوكان انقوللها اني ماشية لل	space
عشان هو امس كان عنده	stomach ache
ماهو قالتلي تلقية في محل	new look
في المعاليق اللي قريب من	cashier
مانقدرش نلبسهن في ال	school
دورته في الابني	you know that mum
اه شوفي ياماما	
مكتوب عليه	used
مانبيش مستعمل انا	
هكي يعني؟	how do you play?
وحق ربي	rubbish
تمام	even a baby can program it.
شنو؟	I'm getting bored of this game
	you sure?
شطورة	next time i choose the game though!
باهي تمام فهمت	what
صاح	yeah
بازين؟	is that what we're having for lunch?
ديما دايرة روكك تعرفي	everything
وانتي اصلا مانك عارفة شي	it's so annoying!
ندفع لك	my point is that i'll if you drink it all.
شربتيها كلها	if you
يساوي اربعة دينار	one pounds
ايه عارفتها	do you really think i would waste that much on you?
عشان نحن لبيبين	oh come on,
دينار لبيبي	try changing that into
مش ديما انقول فيها؟	I love scary things.
لكن بال	this one is really good
عارفها	arabic
ايوه هكي احسن	choose the eye colour
خوذ الحصان ال	red

قاعد	running
توا	
شيل الحيطه	quickly
طاحت مرتين	oh i picked up the wrong stone
عشان صحراء	the temperature is high
اهو لقينا	water
مافيش	lots of
حيط	
هيا حطه توا	
حط ال	pouch
حيه شوف ال	stuff
سمعت شن قال؟	put this away
يامرحب يامرحب	
اقتل ال	goat
عليش؟	
عشان تاخذ ال	skin
مناعها	
صح؟	what did he say
يعني اهلا بالضيف	pretty good
افتح ال	door
هذا	
هذي غلط	
الحفرة اللي فيه ال	wood
خوذه	a lizard!
باهي شن رايك تختار ال	figure
هذا	
غير وجهه	black
لون ال	eye
لابس	black
و العيون لونهن	black
وين راحت ال	music
امشي للجبهة الثانية	nobody cares about you
ياهلا بالضيف ها ها	another
خيمة	let's explore this
يامرحبا بالضيف	again
ماقالهش	this time
اضربه بال	gun
وبعدها مايباش ياكل	nothing
لالا انا انحبه	just wondering
الرز الجاري	
يده	I mean
جت يده علي حافة السرير	
الحقيقة	I'm telling
	stupid idiot
قاللي	stupid idiot
امالا قوليله ايقولي	sorry
بعدين	I'll give it to you
مهمة جدا	it is
ال	teacher

قالت هكي	don't play this crap on me
صح؟	the answer is no
بعد انكمل بيه عشان	I still need it
	I don't like fried rice
اتديري لي حاجة ثانية؟	can you
زي مثلا	popcorn
والا	milkshake
ايه نبيه بالملح	haha calm down
اهو قاعد نكتب	and sit down!
مازاللي سطرين	I've finished!
! كملت	I'm pretty confident for that test!
مقلوبة هكي	why the screen
لا مش	seventeen
اهي مكتوبة هنا	seventeen!
	oh my god!
يكل	difficult
حيه شوف الساعة كم	just grip that
ال	break
قريب تكمل	
ممكّن!	go this way
قريناها زمان في التربية الاسلامية	imagine you were there
طواف	it is called
طواف	yes
طواف الافاضة	yes, the rituals of the hajj are
والوقوف بعرفة	and those people wearing white clothes are called
حجاج	
والسعي بين الصفا والمروة	it's so beautiful
	I know.
كتاب-s	at arabic school we take a lot of
	with us
تصميم في رمضان!	I dare you can
تبي تقعد بدون طعام و	because
لعند المغرب	water
سكرها	skip this add
اربعة	I mean
خمسة	not
اي حاجة	make sure to get me
جيبلي كيتكات والا سنكرز	something
نفس	
مهاب	class
هو الغلطان	you can't blame her for that though
هيا	not
من بدري؟	she's here
اهواه ال	villager
خش للداخل	
داخل ال	house
اهوقاعد	Behind you
خلاص صغير	because you are not
مكرونة مبوخة	I don't like

فيها طبيخة هلية	because
بسرعة سكره	it's cold
زي ال	onion
اهي	
هذا	
ال	I don't like ن-read
هذا	lesson
بس مالفيتاش في ال	school bag
وين اجابة ال	question
هذا؟	
ايه قبل ال	christmas
الامتحانات كلهن قبل ال	christmas
نبدا من السطر.. واحد اثنين ثلاثة اربعة خمسة ستة	line six
نبدا من	
تمام	
خلينا ناخذو اشوي	rest
ايه مازال ايجي لل	school
هوا	told me
سيبوه حوشهم الآخر	
حولوا في ال	and when they
الجديد	house
جابوا ال	stuff
كله	with them
بابا تلاقى مع باته يومتها	
احني واسعة مش زي	نا but car-
هم متاعتهم صغيرة	هم-car-
عندهم	cat
كبيرة	
تتذكرني زمان لما شفت البوفيطية درتها	my pet (laughs)
قلتلكم جيبولي	dog
ومابيتوش	
حتى ال	cat
مابيتوش	
امالا اندير البوفيطية	my pet
وخلص	
مافيش غيرها	
باهي شن رايك في	crocodile (laughs)
والا	snake? (laughs)
باهي باهي	
توا انكلمهن بعدين	
لكن بشرط	
بعد اندير ال	chores
(laughs) كنها هكي يده؟	I'll be better.
هكي وخلص	let it
! والله انقولها لماما	so i can't tell you what to do now?
! ماما فكيني من احمد	yes you did
مش ديما اتقوليله معش اتضابق باسم؟!	yes you did
والله ماقلتها	I said flick off!
ماقلتها بكل	no



انت سمعتني غلط	no i didn't
مش مشكلاتي هذي	wait!
لانك ماتسمعش كويس	I just wanted to say-
	I said wait!
مشكلتك انت	what's that?
ان انت احسن رسام في العالم	didn't i tell you
وتحب الرسم	I bet she'll be beautiful!
	like you
كبير مش بيبي	you are
هذين حاجات تورا تقرأهن في ال	high school
هذي؟	like
سمعت	what ahmed did in class?
كيف عرفت؟	yeah
؟شن صار	not really,
ماتعرفش وين	he lives ?
باته خذا تليفونه	probably because
مش عارف.	it's getting boring.
صاحبني	he's
	and all
حتى هي تكرهه	apparently
حسيت كانني	girl
حمار	so i'm
انتني قلتي عليا اني انا	idiot
انعاقبه وبابا قال اللي يقول كلام	like this
امس قال اللي يقول كلام	like this
معش نعطييه الايباد	for a whole week
بديتي!	you
لعند ماجيتي وغيرتي ال	I sat here peacefully
	movie
اولا	give me the money
مازلت نبي انقولها لبابا	
انه هي	was watching
الرسوم معاي	you have
اربع دقائق	exactly to get me the money,
ماتنسيتش ان عندك	punishment.
مانحب نقعد جوا	play ground
كلبت ال	dinner
مانحبناش وخلص	no I don't like it
انتني عارفتني مانحبناش بكل	
وبعدھا انكب ال	tea
كله	on the floor
انا انشط منها	no
اه هو كان يلعب عال	trampoline
	take breakfast you should be hungry
بس	! cake
تبي	? juice
معاي	juice
نمشي	to the park together in the easter half-term break
مش عارف	

اضني معش عنده رغبة يجي لل	arabic school
يعني يبي يقعد في الحوش	
ويقرأ المواد الداعمة بس	that's not the point!
اصحابي كلهم	are coming
ونغسل معاك المواعين	I'll clean the house till then!
واندير كل حاجة تبيها	mum,
اشويا باوند راهو	I'll do the dishes for a pound
مش باوند	I'll babysit for 5
حسني فرحان!	yes!
لالا ماتخافيش	also,
كلهم كويسين ومؤدبين	so no need to worry!
توا مش	hungry
قلت توا نطلع بدون	breakfast
عشان ناكل وانا جيعان	
كل حاجة	we've planned
عشان انذكرك بكل حاجة	I talk too much
معش فيه كمل	we don't have any
والله مافيه حتى واحد	we ran out of that yesterday
اني جيت!	move!
في الليل	so i heard zombies come and it's
ليل	
امالا?	this
اختاري	a game already
امالا	what
عشان نستخدم ال	I need energy
	tsar bomba
سندويش شامية	I've got
سندويش فول مدمس	I've got
? شنو هذي	what are you playing?
راهي مش	easy
انا لاعبتها من قبل	
احسن وحدة	you're
اللعبة هذي	I've only played
! مش	this one
تمام؟	
وقت الغدا	only few minutes till
s-ورقتين	I wrote it in two
لكن مرات نفس ال	ingredients
كده نقالك	how to make brownies?
القيته اهو	cooking chocolate?
براونيز براونيز	
عندنا	another recipe
اللي كتبتها مافيه اش	
تمام توا انتشوف	
يمي شكلها ايهبل	fudgy and fabulous
شن رايبك في هذي	
شكلها	
خليني اندوب ال	butter
وين ال	unsalted butter

هذي والا هذي	
هذي مكتوب عليها	alright!
اصحي اطيحي الكباية !	
الدقيق	I need to sieve
معناها نستخدم	drinking chocolate?
ايه الكاكو اكثر من الدقيق	that's it
شن رايك بعدها اندير	fudge
تبي حاجتين بس	condensed milk and chocolate
تخلطيهن مع بعضهن	
وبعدها اتغطيه واتحطيه في الفريز	for an hour
مش بكرة اليوم	please!
اهو عندنا	condensed milk
خلاص حولي ال	tub
ال	tub
متاع الايسكريم	
ايه هي عمرها	four years old
هي تعلمتها	and
	by herself
تعلمتها	how did she
هذوما فيش ايديرو	look at
فيش ايديرو؟ كنههم	woah flying is easier
النت ضعيف والا شنو؟	quarts cause its cool!
تمام	
ارجى اشويا انشوف	ok let's make some pillars
تمام	is it my turn yet?
نقدرو انديرو	destroy
لل	teams
اقتله	oh god
ماشالله!	so not many people come here?
	wow surprising
يبو ايديروه الملعب	may be because
لاه والله لاه	no i'm not
اخ ياراسي	
يبي ايجيني	headache
منك	
	I love heights
	even
الجبال العاليات بكل	it makes you feel so small in the world!
مانخافش منهن	
ماما ليش ماتديريلنا غدانا برقر وتشيبس	tomorrow?
ايه قالولنا جيبو ال	rulers
معانا	
السمحة	Ilike this game
لعية	I played this
	with my sister yesterday
الحرف الناقص	it is called
ايه ساهلة	
اقري ال	discription
اللي عليها قبل	

برتقال	it's
كلمة برتقال تتكون من خمس حروف	one, two, three, four, five, six
اللي بعدها	aeroplane
ثلاث صناديق صغار	what's that?
حسبتهن واحد كبير	me too
هذي حسبتها	boring
اشويا	
؟امالا	building
الطاوله هذي	I'm trying to move
	over there
جرحت	my arm
واحد جديد	can you convince her to buy
لالا سوال عادي زي ال	quiz
لكن انتي	adult!
شكل المربعات يقعد	cool!
هي دائرية ولما انقصوها تقعد	triangles
وجبة	it would get tomato sause all over you!
يوم الاحد نحن ماشيين للبيتزا هت زي ما وعدتي	Ok?
امكرونة	why do we always have
عادي المهم ناكلو ؟	chocolate ice cream or cake
المكرونة ماناكلش واجد منها	
لكن ال	chocolate can fill me up!
مش مهم	
توا نغسل اسناني	I'm sick of
مكرونة	
تقدري اتديرلنا حاجة ثاني؟	chicken nuggets
بيتزا والا	
(laughs) شفتي انا مؤدبة	I love pizza,
قلت	mum! please?
وعشان هكي ديرلنا بيتزا	please
ايه بدل المكرونة	
تمام	thanks mum,
انتي تحسابيه خذاته ال	hoover
ويبو ايجيبو	pouncey castle
و	face painting
ايوه حتى ال	littlest pet shop
و	
معش قعدت تلعب بيهن واجد	monster high dolls
ايه	
فيه	penguin biscuit
واذا كان ماكليتش معش تعطيني	I promise!
دوريها	in the
دولاب s-	
متاع	
ال	kitchen
اخر مرة شفته فيها	
يوم السبت الجاي توا نلعبو اللعبة هذي	Ok?
لالا ماعمرش شفته من قبل	that was amazing?!
لالا مانبيش	this one

نبي دوريتوس	did you ask mum!?
عطيتني!	give me one then!
ليش تكذب!	you don't have friends!
فهمت	or not?
مهم	it's not
يعني	shut up your
إفمك!	
عشان انت -	I don't want to waste my time on you!
امشي غادي!	I'm going to choke!
تمام	go and write your homework too
ليش ديما ماعندكش واجب؟	good for you
نسمع فيها و	always
تعجبني	
حتى سارة	told me
انها تحبها	
لالا	not
هكي	
مش عارف	why it doesn't move
توا تاخذه بعد يكمل دوري	you can do the same thing with a lever
اهو قاعد يجري توا	what the what?
تمام	that's
يبي يكمل	the charge
واجب	I don't care if it's
واجب	that doesn't look like
متاعك	it's not my fault you broke
اسمعي!	wait
اسمعي انقولك	can we bake something?
ماما قالت لي عادي	yeah
اللي جاهزات في التلاجة	bring out
	thanks!
وين ال	pan
وال	oil
اهواه قاعد في ال	drawer
لالا	don't worry
امتحان جغرافيا	next week
المدرسة	talking about
مرتين	fold it

## Appendix G

**A detailed profile of all participants:**

Participant & age group	Exposure to English	Home context		School context		Proficiency scores	
		English Utter.	Arabic Utter.	English Utter.	Arabic Utter.	English prof. score	Arabic prof. score
<b>Hammam 8-9</b>	Since birth	20	98	128	11	87	83
<b>Nader 8-9</b>	3	16	99	120	9	96	82.8
<b>Nihal 8-9</b>	3	145	10	117	6	86	77.5
<b>Sulaima 8-9</b>	Since birth	10	101	107	12	97	82
<b>Rania 8-9</b>	2	107	10	118	4	87	80.25
<b>Nisreen 8-9</b>	3	20	199	120	3	88	81.7
<b>Tasneem 8-9</b>	2	16	100	115	5	98	81
<b>Leena 8-9</b>	2	116	10	106	10	88	80.8
<b>Abdo 8-9</b>	2	15	108	170	53	97	81.8
<b>Suhaib 8-9</b>	1	102	15	142	47	94	79.8
<b>Khaled 9-10</b>	Since birth	117	12	118	6	87	84.8
<b>Jamal 9-10</b>	2	117	7	128	3	99	82.25
<b>Mohamed 9-10</b>	Since birth	117	6	116	3	84	83.5
<b>Aseel 9-10</b>	3	22	107	114	6	99	85
<b>Zainab 9-10</b>	2	118	6	105	6	89	83.8
<b>Noor 9-10</b>	4	109	13	114	9	97	82
<b>Marwan 9-10</b>	3	110	15	98	10	99	80.25
<b>Tammer 9-10</b>	4	18	103	117	5	96	80.5
<b>Adnan 9-10</b>	3	106	19	225	5	88	81.25
<b>Yaseen 9-10</b>	3	147	6	188	4	89	82.8
<b>Alya 10-11</b>	Since birth	116	8	142	10	94	82.5
<b>Rana 10-11</b>	5	19	121	147	5	101	83.5
<b>Mus'ab 10-11</b>	Since birth	136	8	183	6	96	83
<b>Kamal 10-11</b>	2	12	86	162	8	92	84.5
<b>Asma 10-11</b>	4	86	4	195	27	103	85
<b>Zahra 10-11</b>	2	23	171	198	38	105	84
<b>Munira 10-11</b>	3	129	11	119	3	105	85.5
<b>Hana 10-11</b>	2	105	15	118	1	103	86.25
<b>Taiba 10-11</b>	3	114	5	147	6	99	86.75
<b>Farah 10-11</b>	4	108	9	134	6	104	86.75
<b>TOTAL</b>		2396	1482	4111	327	87	83

## Appendix H

### Examples from the Arabic assessment tests:

#### (A) Sentence Comprehension Test:

**Instructions:** Before presenting any picture say to the child: “I want you to point to...”. Place a circle on the number representing the child’s answer. Then circle 1 for correct answers, 0 for incorrect one, and NR for no response.

		Score		
1- il-walad yasbah <i>The boy is swimming</i>	3 2 <u>1</u>	0	<u>1</u>	NR
2- il- dub fil ‘araba <i>The bear is in the wagon</i>	3 2 <u>1</u>	0	<u>1</u>	NR
3- il-fa:r taht il-kirsi <i>The mouse is under the chair</i>	3 <u>2</u> 1	0	<u>1</u>	NR
4- kammalt il- akel <i>I finished the food</i>	<u>3</u> 2 1	0	1	NR

#### (B) Expressive Language Test:

**Instructions:** Say to the child: “I will show you some pictures and I will say something about these pictures. I want you to complete what I say. Is this clear? Let’s try some”. Point to the picture in practice 1a): “il-walad ga:’id yal’ab” (the boy is playing), then point to the picture in practice 1b: “il walad ga:’id” (the boy is....).” If the child does not answer in 10 seconds, point to the picture in Practice 1b and say: “look ,,il- walad ga:’id yakil” (the boy is eating)”. Continue until the child understands the instructions.

**Scoring:** Circle 1 for correct answers, 0 for incorrect one, and NR for no response.

		Score		
1- A. had <sup>h</sup> y il-li’ba barra il-sondouq <i>Theis toy is outside the box</i> B. had <sup>h</sup> y il-li’ba ..... il-sondouq (jawwa:) <i>Theis toy is ..... the box (inside)</i>		0	<u>1</u>	NR
2- A. hana il-bint ga’da ra:gda <i>Here the girl is sleeping</i> B. hana il-bint ga:’da .....(tal’ab) <i>Here, the girl is ..... (playing)</i>		0	<u>1</u>	NR
3- A. hana fi:h batta wehds <i>Here, there is one duck</i> B. hana fi: t <sup>h</sup> la:t <sup>h</sup> ..... (batta:t) <i>Here, there are three.....(ducks)</i>		0	<u>1</u>	NR
4- A. Maryam ta’ty hadeyya li oxtha: <i>Maryam gives present to her sister</i> B. Maryam ta’ty hadeyya li ....(xu:ha:) <i>Maryam gives present to ....(her brother)</i>		0	<u>1</u>	NR

### (C) Sentences Repetition Test:

**Instructions:** I will say some sentences and I want you to repeat them exactly the way I say them. For example, if I say: Practice 1: “xu:y yitfarraj ‘al-tilfizyoun” (my brother watches TV), you have to say it exactly like me.

Practice 2: Say: „wein misha il-walad“ (where did the boy go).

**Scoring:** 3 for correct answers with no mistakes, 2 when there is one error, 1 for 2-3 error, 0 for more than 3 errors. NR=No response.

Score					
1- shu:f h:t <sup>h</sup> a <i>See this</i>	<u>3</u>	2	1	0	NR
2- niḥna nibu: nsa:fru: <i>We will travel</i>	3	<u>2</u>	1	0	NR
3- shinu: hat <sup>h</sup> i? <i>What is this?</i>	<u>3</u>	2	1	0	NR
4- ana nagdar inshi:la <i>I can carry it</i>	3	<u>2</u>	1	0	NR

### (D) Arabic Picture Vocabulary:

**Instructions:** Establish rapport with the child in a short conversation. Explain how this test goes by saying: “We will have a look at this picture book and I want you to point to the picture I am talking about”. Start with practice 1 and 2 by saying: “I want you to point to “kindra:’ (shoe)”. Encourage the child if s/he does not point and correct him if necessary. Praise him for trying regardless of accuracy.

**Scoring:** Put a tick (/) when the child answers correctly and if the child is incorrect, put a (x) on the item number and write the number of the picture the child chose. To calculate raw score, subtract the number of errors from the number of last item in the ceiling group.

Basal: Always start at item 1. Ceiling: you can stop if there are 8 incorrect items in one group. If you start a group, you need to complete it even if child reaches ceiling.

	Group 1		Group 2		Group 3		Group 4
1.	yashrab <i>Drink (v)</i>	5.	maknesa <i>broom</i>	9.	mumarrīḍa <i>nurse</i>	13.	ygi:s <i>measure(v)</i>
2.	beibi <i>baby</i>	6.	rugba <i>neck</i>	10	isharrit <i>tear</i>	14.	‘ishb <i>grass</i>
3.	bagara <i>cow</i>	7.	isbi’ <i>finger</i>	11.	ṭawu:s <i>peacock</i>	15.	gufl <i>lock</i>
4.	‘ain <i>eye</i>	8.	warda <i>flower</i>	12.	t:bi’ <i>(post) stamp</i>	16.	xashab <i>wood</i>



## Appendix I

**Individual scores for the separate Arabic language assessment test:**

### Age group 8-9

Child's name	SC	EL	SR	APV
Hamam	37	66	116	113
Nader	37	66	116	112
Nihal	37	66	115	112
Sulima	36	65	115	112
Rania	36	65	115	111
Nisreen	36	65	115	111
Tasneem	32	64	114	111
Leena	35	64	114	110
Abdo	33	63	114	109
Suhaib	34	63	113	109

### Age group 9-11

Child's name	SC	EL	SR	APV
Khaled	40	66	115	119
Jamal	39	66	115	119
Mohamed	39	65	113	118
Aseel	39	65	113	117
Zainab	39	64	112	116
Noor	38	63	112	116
Marwan	38	63	111	116
Tammer	37	62	111	115
Adnan	36	62	110	114
Yaseen	35	62	110	114

### Age group 10-11

Child's name	SC10	EL	SR	APV
Alya	40	68	120	119
Rana	40	68	120	119
Mus`ab	40	68	119	118
Kamal	39	67	119	117
Asma	39	66	118	117
Zahra	39	66	117	116
Munira	38	66	117	115
Hana	38	65	116	115
Taiba	38	64	116	114
Farah	38	63	115	114

## Appendix J

### Individual scores for the separate English language assessment test:

#### Age group 8-9

Child's name	AN	SC	PC	GM	NL
Hammam	88	90	89	88	89
Nader	95	93	87	87	87
Nihal	88	89	89	88	86
Sulima	87	89	92	90	89
Rania	90	93	90	85	86
Nisreen	93	90	87	95	95
Tasneem	86	95	91	86	90
Leena	95	95	94	87	90
Abdo	90	91	88	90	93
Suhaib	92	91	90	95	86

#### Age group 9-10

Child's name	AN	SC	PC	GM	NL
Khaled	88	88	93	95	96
Jamal	95	91	99	87	95
Mohamed	97	87	91	86	93
Aseel	88	86	92	90	94
Zainab	90	93	100	93	96
Noor	99	94	95	98	95
Marwan	87	93	96	88	93
Tammer	90	94	90	87	94
Adnan	95	93	98	89	95
Yaseen	94	92	90	86	93

#### Age group 10-11

Child's name	AN	SC	PC	GM	NL
Alya	95	89	90	85	96
Rana	95	93	90	87	96
Mus`ab	96	89	93	87	94
Kamal	92	89	92	97	96
Asma	93	91	95	96	96
Zahra	96	94	90	86	101
Munira	94	92	91	88	95
Hana	92	92	92	85	100
Taiba	95	89	95	98	95
Farah	92	92	91	98	98