CODE SWITCHING BETWEEN ARABIC AND ENGLISH, SOCIAL MOTIVATIONS AND STRUCTURAL CONSTRAINTS

A RESEARCH PAPER

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE

MASTERS OF ARTS

BY

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JULY 2012
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Bilingualism is a worldwide phenomenon, contrary to the widespread myth claiming the rareness of bilingualism (Grosjean, 2010). Bilinguals (and multilinguals for that matter), use their languages in different ways to convey their ideas when conversing with other bilinguals for multiple reasons. The strategies they employ through their language use have been at the center of linguistic, psycholinguistic, sociolinguistic, and neurolinguistic studies (Auer, 1998, Bhatia, 2004, Grosjean, 2010, Mey, 2009, Milroy, 1992). Grosjean (2010) classified such strategies under language functions utilized by bilinguals. He further explained that those functions are subject to various language modes of bilinguals and their language choice. A good example of bilingual language functions is code switching.

**Background**

Code switching (CS) is shifting from one language to another within the same utterance and/or speech event. This definition distinguishes CS from borrowing; according to Gumperz (1982), “[b]orrowing can be defined as the introduction of single words or short, frozen, idiomatic phrases from one variety into the other.”
Gumperz continues to define borrowing to be “incorporated into the grammatical system of the borrowing language. They are treated as part of its lexicon, take on its morphological characteristics, and enter into the syntactic structures.” While CS deals with the alternation of languages in a speech event, the alternated words are not “incorporated” into either of languages or become a part of the second language's lexical inventory therefore, code switches differ from borrowings in that their occurrences are unpredictable. Several researchers divide CS into two types: intra-sentential and inter-sentential (Poplack, 1980, Gumperz, 1982). The first deals with CS within a clause or a sentence e.g. code switching from Arabic to English:

1. La trooh outside
   **No go-masculine**
   *Don’t go outside.*

while the second examines CS across sentences:

2. Don’t bother, hiya galato.
   **she said it**
   *Don’t bother, she said it.*

   It was not long after Blom & Gumperz’ (1972) article was published that researchers began to venture around the world of bilingualism and investigate phenomena like code switching (Belazi, 1994; Bloom and Gumperz, 1986 Li, 2000; Muysken, 1995; Myers-Scotton, 1989, 1993, 2009; Poplack, 2004; Weineltich, 1957; 1972). Researchers of different linguistic fields started developing theories and models to explain and investigate CS. Approaches to CS are divided into two main categories: socially oriented studies and grammatical structure analyses. Many research studies that have been carried out have offered the existence of constraints

Code switching is a common pattern that is used by bilinguals. Members of a community that engage in code switching pass on a social message by the mere act of code switching. It is especially popular in social and informal settings, and might also be utilized where structural difficulties emerge, especially in relation to conveyance of a message to the intended party and in the intended manner. Different explanations of how bilinguals mix languages have been suggested by various researchers, but few of them agree (Mey, 2009). Therefore, despite an extant body of code switching research, human understanding of this phenomenon is not well developed and more studies on code switching are needed to improve the classification of code switching and making theoretical assumptions about its prevalence under certain linguistic condition.
Research Questions and Hypotheses

The focus of the present study is to examine and analyze the structure of code switching patterns and the social motivations behind it, the hypotheses chosen for this paper include the following hypotheses:

1. Code switching from Arabic to English serves as an unmarked choice for participants.
2. Resorting to a monolingual code serves as a marked choice, i.e., a negotiation strategy for specific social purposes.
3. All early system and content morphemes belong to the Embedded Language.
4. All late system and content morphemes belong to the Matrix Language.
5. Double morphology will be used as a compromise strategy to maintain congruency.
6. Insufficient congruency will trigger Embedded Language Islands.
Problem Statement

Code switching is a very intriguing linguistic phenomenon; though much of the previous century's research indicated that it occurred chaotically, the modern opinions of linguists and ethnographers argue for the systematic nature of code switching in natural contexts (Poplack, 1980). Currently, there is much research on the subject of code switching as a linguistic peculiarity typical of bilinguals and multilinguals; however, the true nature, functions, and purposes of code switching are still only vaguely defined. Heller (1988) described code switching as a conversational strategy used for the aggravation or mitigation of requests, denials, topic shifts, elaborations, comments, validations, and clarifications. De Fina (2007) emphasized the ability of code switching to assist speakers in the construction of their identities in socio-linguistic context. Silva-Corvalan (1983) assumed that bilinguals incorporate code switches into their speech when they have insufficient knowledge of one of the languages and try to convey a message more explicitly in their mother tongue. Thus, as one can see, the functions and purposes of code switching are not agreed upon, and the investigation of which is a number one priority in the linguistic research today. Better understanding of code switching patterns, intentions implied by involvement in code switching practices, and the categorization of code switches used at different occasions and with different conversational partners will increase the body of knowledge on the code switching issue.
Purpose of the Study

The present research is mostly focused on the identification of the Matrix Language Frame in the observations of the English-Arabic code switching patterns, and the overview of the Markedness Model Theory offered by Myers-Scotton (1989) in real-life code switching settings. The Matrix Language Frame (MLF) is the dominant language that “sets the morphosyntactic frame for Matrix Language (ML) and Embedded Language (EL) constituents” (Deibert, 2008, p. 6). According to the research of Myers-Scotton (1993), the linguistic choices made by conversation participants can be either unmarked, which means an expected choice of a language code, or marked, involving the unexpected choice of a code. The performance of English-Arabic bilinguals will be studied against the principles of the Markedness Model to identify the strategies they employ for code switching. The theoretical approaches to code switching (such as the social and grammatical ones) are to be reviewed, and the MLF model with its 4-m submodels are used as the theoretical framework of the present study (Myers-Scotton & Lake, 2000). Moreover, critical review of studies existing in the field of English-Arabic code switching is presented in this work for the sake of linking theory and practice of code switching in the modern context. The issue of congruence will also be analyzed, since the English and Arabic languages are fundamentally different in syntax and grammar, and the use of code switching patterns is often predetermined by the intention to mitigate this incongruence (Alenezi, 2006). The purpose pursued by the present study is to
identify the frequency of code switching used by the participants, its social motivations, and the structural patterns of speech.

**Significance of the Study**

The present study provides a detailed analysis of Arabic-English code-switching which offers insights into the concept of code switching as a very heterogeneous attribute of multilinguals or bilinguals existing in complex social and language surroundings. As De Fina (2007) noted, identity and its construction in social sciences have come to the forefront of scholarly attention within the past couple of decades. Participants of social activities are now seen as not being plainly assigned to certain sociolinguistic and identity characteristics; they are perceived as actively constructing their identities through the continuum of their activities and interactions, which include linguistic encounters with other people (De Fina, 2007). Heller (1988) also emphasized the connection between language and social relationship; by means of code switching, speakers can either resort to claiming the rights of in-group membership, or avoid obligations in their own group. Recent research has also provided sound evidence of the fact that code switching represents a series of linguistic and extra-linguistic factors, which implies its belonging to a wider spectrum of theoretical and practical considerations (De Fina, 2007; Phillipson, 1992). Understanding the rules governing bilinguals in the modes of code switching they use is likely to open new possibilities in the field of conversational linguistics, and is certain to clarify the issues of identity construction,
inter-group and intra-group attitudes, the concepts of linguistic dominance. Hence, empirical data in the field of code switching instances and patterns are always a valuable contribution to understanding the nature, causes, and consequences of code switching.

**Limitations**

There are a number of limitations that have to be considered within the framework of the present research. The first limitation impeding on the generalizability of findings is the fact that only three participants were chosen for the present research, and all of them are siblings. Therefore, it is obvious that all three respondents belong to a similar social and educational background, have a similar family culture, and represent a homogeneous segment of a linguistic community. The results obtained through recording their code switching behaviors will be highly characteristic of their distinct family, but they will hardly be able to illustrate more general code switching patterns and meanings of the larger English-Arabic community. The second limitation of the present study is the narrow focus of the code switching contexts chosen for the research. The participants were instructed to turn on the recorders during their family meals or social gatherings; however, there is a pronounced lack of data on the code switching behaviors in fundamentally different contexts such as conversations with a monolingual English speaker (not knowing Arabic), conversations at work, conversations with bilinguals who were born and raised outside their native country, and those who have been learning
Arabic in natural surroundings and have only recently migrated to the English-speaking world. Since code switching behavior is known to depend heavily on the social context and the personality of an interlocutor, such observations would have significantly expanded the research value.
CHAPTER 2
LITERATURE REVIEW

The present chapter presents a detailed critical literature review conducted with the purpose of identifying the theoretical and empirical body of knowledge on different aspects of interest related to code switching. The concept of code switching and pioneering research is discussed in detail. The theoretical models of interest, such as the MLF and the Markedness Theory of code switching are also analyzed in the present section. Finally, since the subject of the present study is a family of English-Arabic respondents, the peculiarities of English-Arabic code switching are described in the corresponding section of the present review. This chapter is aimed at providing a sound basis for further analysis of empirical data elicited from respondents, with the further application of theories and rules to the further analysis of findings.

Overview of the Concept of Code Switching
Poplack (1980) and Gumperz (1977) are considered the pioneers of code switching research, since they were the first to research the linguistic and extra-linguistic
factors associated with code switching behavior. There are many definitions given to code switching; for instance, Poplack (2000) termed it as the “alternation between two linguistic systems in the course of speaking” (p. 264). Auer (1999) agreed with Poplack (2000), and defined code switching as the “language alternation phenomenon” (p. 309). However, the first definition was given by Gumperz (1977) who stated that code switching is “the juxtaposition of passages of speech belonging to two different grammatical systems or subsystems, within the same exchange” (p. 1).

Code switching might be used for exploratory purposes for two interlocutors communicating for the first time to express their identities clearer. In such a conversation, code switching behaviors might serve for the purposes of exploring and trying to judge the other person (Toribio, 2001). When such purposes are evident, code switching is commonly referred to as being utilized for multiple identities in order to find a suitable one for individuals express in communication. However, it is important to note that any bilingual has varying competencies in all languages he or she speaks, and in which he or she code switches; therefore, it was logical for Grosjean (1989) to assume that the bilingual will always have a lower competence in the second language than a native speaker of this language has.

When one individual initiates the code switching, it is expected that the other individual responds by also switching to the language code used by the first speaker. To illustrate this issue, one can refer to the article of Alfonzetti (1998) who investigated such code switching strategies as accommodation and diverging
preference (involving two switches – the first one to accommodate to the
interlocutor, and the second one to return to one’s preferred language code),
reformulations (conversational repair mechanisms that correct the initial choice of
the “wrong” code), etc. (Alfonzetti, 1998, pp. 183-185). Such strategies are enacted
when speakers are unable to identify the linguistic preferences of their interlocutors
or in the situations when conflict arises between their spontaneous linguistic
preference and the culturally and socially accepted norm of self-expression
(Alfonzetti, 1998). In such cases, individuals try out different switches and try and
observe the rights and obligations that they are bound with, and favor the one with
the most benefits (Myers-Scotton, 1993).

There is much debate about the significance of code switching as a structural
phenomenon. The researchers assumed that bound morphemes (morphemes not
occurring independently in a sentence and depending on other structural elements)
should be excluded in conversations that combine a matrix and an embedded
language, and that code switches are established borrowings (Poplack et al., 1987).
However, both code switching and borrowing are a result and indication of
linguistic contact between individuals. Borrowings more often occur in repeated
forms, and they involve particular lexical references (Mufwene & Moshi, 1993). In
contrast to such use, code switching instances usually occur for the sake of
achieving certain effects in speech (Silva-Corvalan, 1983). Code switches might be
utilized by individuals because they would want to express a phrase effectively, for
which they might not be aware of the specific glossary to utilize in a single language (Raymond & Edouard, 1991).

One more difference between code switching and borrowing stems from the exceptional utility of code switching in the construction of the speaker's identity, which borrowing cannot accomplish. For example, code switching is popular among specific community groups because it can enable the proper analysis of the behaviors, trends, and social identities that are popular in that particular community (Nicol, 2001). Code switching and borrowings can be utilized as social grouping markers in the analysis of general, i.e., social elements of identity as well (Labov, 1972).

Certain constraints limit and characterize the differences in code switching use, and the major constraint – ethnicity (Heller, 1988). Unmarked choices of code switching might only occur in particular social groups, for example among peers and in informal settings. Positive evaluation, such as praise or interest, is a great factor in the inclusion of individuals into conversations that might have code switching as an unmarked choice. The context in which the conversations of bilinguals occur also matters in the decisions related to employing code switching; it is popular in places and communities where a former colonial language has been made to be the official language in the country; for example, in some African countries, e.g., French, or English (Heller, 1988).

Alongside studying the nature of code switching, the modern research community has taken an active interest in identifying the sources of code switching
occurrence and its sociolinguistic facilitators. Linguistic imperialism is one of theories fully compliant with the notion of code switching, and explains the roots of code switching as the duality of identities and the conflict of power relations reflected in language use in particular countries (Phillipson, 1992). A number of countries that were colonized by England usually have English as the official language. In turn, countries that were colonized by France have French as the official language. Thus in such countries, it is common to find that people belonging to particular social groups might frequently use code switching to their native language to communicate in various life situations.

The use code switching, in addition, has been found out to reveal the socio-economic identity of speaker. Myers-Scotton (1998) concluded that code switching as an unmarked choice is prevalent among people belonging to similar social classes, such as people who might be of the same age, belong to the same working organization, or come from the same community. The dual identities that the members of the verbal communication share influence the language choices they make. For this reason, several code switching constraints are usually suggested based on the country and language that are specific for the code switching. Such constraints might be posed by the existence of different ethnic communities and dialects in different countries; the study of Blom and Gumperz (1972) proved that at a particular Swedish site, due to certain cultural changes, the code switching behavior was instrumental in the maintenance of distinctions between the old-tradition settlement and the modernized Swedish settlers from the neighborhood.
Thus, the use of code switching is nationally, socially, culturally, geographically, and linguistically predetermined, which implies the complexity of the issue in the modern, multilingual, and globalized context.

Theory of Code Switching: Matrix Language Frame and Markedness Theory

There are several dominant theories guiding modern research on the topic of code switching; the MLF is a production-based theory used to explain the morphological, grammatical, and syntactic coordination of various language units in code switching speech. MLF was developed by Myers-Scotton (1993) and found many supporters and followers. The premise of this theoretical frame states that the matrix language (base language) exists as a dominant language frame into which the code switches are inserted as the embedded language (guest language) items. Myers-Scotton (2002) conducted intense work in the field of identifying the roles of participants’ languages in the formation of “embedded” and “matrix” languages in the bilingual communication acts.

As a result of her research, Myers-Scotton (2002) identified the necessary preconditions for the emergence of bilingualism and code switching within any community: she outlined the presence of a history of subordination and conquests or colonization, the presence of powerful or distinctive ethnic enclaves in a particular country, the visible migration patterns among the country’s population, the second language fluency requirements for educated people, the prestigious status assigned to an international language in a certain state (e.g., English, French,
etc.), and ethnic awareness from which the desire to know one’s mother tongue along with the nationally accepted language. The author’s findings contributed enormously to the generation of the MLF; this model proposes that the different languages used by bilinguals play different roles in conversations.

Understanding of the MLF proposed by Myers-Scotton is impossible without identifying the constraints of the code switching behaviors, and the 4-m model of Myers-Scotton (1998) as a necessary precondition for the theoretical foundation. The existence of constraints stems from the fact that code switching has proven to be rule-governed (Poplack, 1980). These constraints are based on social, grammatical, and pragmatic fundamentals. There are two common types of constraints: the free morpheme and the linear equivalence constraints (Poplack, 1980). The first constraint stated that the free-standing morphemes (not connected grammatically or syntactically with other morphemes in a sentence) were much more readily code switched than the bound morphemes were. The linear equivalence constraint assumed a much easier and probable code switch in cases when the syntactic structure of the matrix language and the embedded language mostly overlapped (Poplack, 1980).

It is also essential to note that the use of MLF model presupposes distinguishing code switching instances at the inter-sentential (among sentences) and intra-sentential (in a single sentence) level; both types of code switching exist as possible options for bilinguals, but the second type is a subject of socio-linguistic research, since it is connected with the grammatical and syntactic morpheme use.
In intra-sentential code switching, there is uneven distribution of the languages that are mixed in verbal communication. In such a case, the more dominant language in use is referred to as the matrix language, while the other one is termed as the embedded language. Classical code switching is used to refer to the use of grammatically correct use of one language as the matrix language (Myers-Scotton, 1993).

In her 1998 article, Myers-Scotton explained that the 4-m model is a fundamental method of explaining the use of different morphemes in verbal communication. Later, Myers-Scotton and Lake (2000) characterized the 4-m model as the one offering an explanation about how language production works, and how linguistic competence is linked to speakers’ performance. The 4-m model also explains how the content morphemes (occurring more freely, participating in the thematic grid) differ in their access from functional elements, system morphemes (similar to functional, or closed-class elements), and how system morphemes differ from each other (Deibert, 2008). Moreover, the 4-m model is also considered to reflect the organization of mental lexicon, since lemmas (entries in the mental lexicon) are “neither words nor morphemes but sets of directions for ultimately realizing simple and complex words” (Myers-Scotton & Lake, 2000, p. 1).

Using the 4-m model, system morphemes and content morphemes are included and analyzed in different categories. Myers-Scotton (1998) analyzed the content and system morpheme into three subdivisions. The different categories are dependent on the stage at which the morphemes are activated in the human speech,
the mental ability to decipher and combine the different words, and the manner in which the words are formulated so as to make sense. The content morphemes are usually converted into an active role at the lemma level; as a result, they also receive/assign thematic roles. The speaker according to his or her objectives in verbal communication chooses the content morphemes.

The early system morphemes are usually activated at the lemma level, which means that they are basic components of the mental lexicon, the fundamental knowledge of an individual. However, unlike content morphemes, early system morphemes do not receive or assign thematic roles; they are activated at the lemma level because lemmas underlying the content morphemes point to them (Jacobson, 2001). Early system morphemes contribute to the formation of the conceptual structure connected to the lemma, which means that they are conceptually activated, similarly to content morphemes (Jacobson, 2001). Some of the prepositions that are used in the English language are classified as early system morphemes (Leonore, 1998).

Late system morphemes do not receive/assign thematic roles to produced projections. These morphemes are not activated at the lemma level, in contrast to content and early system morphemes. Late system morphemes are usually “structurally assigned when information about the constituent structure of morphemes and their assembly” is available at the level of formulator (Jacobson, 2001, p. 43). They are more like signals indicating that early system morphemes
have accomplished their role in rendering meaning through language, and that it is time for other morphemes to take control (Hudson, 1996).

Late system morphemes are usually divided into two components: late bridge morphemes and late outsider system morphemes. The late bridge system morphemes are usually dependent on the information in the whole sentence structure in order for their effect to have maximum projection. However, the late bridge morphemes are not dependent on ideological structures. In English, most late bridge system morphemes usually connect nouns in sentences (Hudson, 1996). The late outsider system morphemes are part of the late bridge system morphemes. These morphemes are usually dependent on content that is not within their limits, e.g., prepositional phrases and clauses.

The 4-m model is commonly used in the analysis and categorization of the double classic code switching. The model is, however, specific in that only late system morphemes should be derived from the matrix language utilized in the code switching (Bloommaert & Meeuwis, 1998). One more distinct model dominating the modern code switching research is the Markedness Model, which was also proposed by Myers-Scotton (1989). This model claims that choosing the code for a conversation is based on the identities of the people who communicate with each other. Myers-Scotton (1989) claimed that people use code switching as a means of negotiating a social advantage in a conversation; the negotiation at the social setting is, however, considered subconscious, depending on the subjective choice for a
certain way of rendering a thought or an opinion by speakers (Thomson-Nedergaard, 2006).

According to the Markedness theory, the use of specific code switches in conversations accompanied by the roles of the different individuals in the community would confer a particular meaning. Certain codes involved in the language switching might be expected to give certain privileges depending on the social relationship of speakers. Use of particular code switching patterns might result in re-evaluation of the relationship between speakers. The gradient of utilized markedness is seen in choices of codes in conversations. Most members of a community make use of codes in the same way (Leonore, 1998). Thus, in compliance with this theory, the choice of certain linguistic codes that conventionally exhibit certain social relationships is the unmarked linguistic choice. In case other codes are chosen to convey a negotiation for something other than the unmarked balance of rights and obligations conventionally presupposed by a certain linguistic instrument, these choices are considered more or less marked (Myers-Scotton, 1989).

**English-Arabic Code Switching Research**

There has been much research in the field of code switching with the past fifty years; however, the majority of authors have focused on code switching behaviors for speakers of European languages. There is a pronounced lack of research in the field of code switching between language families, e.g., the Semitic, such as Arabic,
and Indo-European languages, such as English, which indicates the lack of a theoretical foundation for discussing code switching behaviors of English-Arabic bilinguals (Abalhassan & Alshalawi, 2000).

In a study that was carried out in Jordan, it was found that most of the code switching centered on greetings (Myers-Scotton, 2002). The same observation can be made in other studies, since traditionally, the use of code switching in Arabic and English by bilinguals could be linked to the religious bases that accompany the greetings. One of the components of most Arabic speakers is *Alhamdulillah* which means “praise be to God”. This almost signifies a greater number of code switching instances that would occur between Arabic speakers, in a conversation, regardless of their geographical location (Woolard, 2004). This form of code switching is expected to have a social function, and it might not necessarily abide by the grammar rules that are applicable while using either of the languages separately.

In another study that was carried out in the United States of America, Saudi Arabian citizens were involved in a code switching survey (Bhatia, 2004). Some of the interviewed students reported that the reason they had switched from Arabic to English was as a way of being polite because the words they wanted to say in Arabic were taboo; they did not want to be offensive, so they switched their language, e.g., a curse, or a taboo word. In another case, a student said that the reason that he switched from Arabic to English was to boast; he was engineering major and he wanted to show that he knew the English terms of the technical content that he was discussing with his colleagues (Bhatia, 2004). For some individuals, switching from
Arabic to English or vice versa occurred because they could not recall the technical term of the word that they wanted to use in one language so they used the word of the other language, resulting in a language switch (Thomson-Nedergaard, 2006).

Lanza (1997) also conducted a study pertaining to the use of code switching by English-Arabic bilinguals, and found out that the parents of young Arabs paid more attention to teaching them fluency in English for the sake of social and academic success. Hence, the fluency in English was higher for them than in Arabic, their mother tongue. Upon careful analysis of the conversations where the students had been involved in code switching, it was found that some of them had switched languages in order to emphasize certain opinions or points, or to exclude other speakers from the conversation (Lanza, 1997).

The study of Alenezi (2006) is relevant for the present research, since the author researched the formal constraints on Arabic-English code switching in the light of the MLF and the 4-m model. The author indicated that the majority of adults in his study sample use Arabic as the ML, while children are increasingly using English as the ML; the ML was found to govern word order choice, and EL use was restricted to content and early system morphemes (Alenezi, 2006). She also provided feasible findings on the subject of Arabic-English incongruence, stating that it results in the choice of strategies to incorporate English verbs into the bilingual constituents, and English EL islands are largely used by bilinguals to avoid incongruence between these two languages. Double morphology, i.e., using morphemes of similar syntactic functions from both languages, identified by Alenezi
manifested in pronoun doubling, whereas the first pronoun was from ML, and the second one from EL. The overall finding of Alenezi (2006) concluded that content morphemes such as nouns, verbs, and adjectives represent the largest category of language units regarding the code switching to EL.
CHAPTER 3 METHODOLOGY

The present chapter presents the key methodological principles underlying the framework of this research project. A detailed overview of the research, as well as the population sample chosen for data collection, is presented here. I also outline the data collection and data analysis methods chosen to fit the purposes of the research. Finally, the ethical considerations underlying the present research framework will be analyzed.

Methodology Overview

The present research utilizes a methodology specific for code switching. Thus, the study will encompass both qualitative and quantitative analysis methods. The qualitative analysis I undertake is content analysis, and identifies the code switching patterns according to syntactic categories. The quantitative part of the research is undertaken with the application of frequency distribution and cross-referencing techniques. Frequency distribution is the “organized tabulation of the number of individuals located in each category on the scale of measurement” (Gravetter & Wallnau, 2008, p. 37).
Thus, the frequency distribution method is quite helpful in transforming a disorganized set of scores into a set of categorized and systematized data eligible for quantitative analysis. Moreover, Brillouin (2004) noted that cross-referencing is highly efficient for organizing data elements that belong to different data categories, which is obviously the case for the present research – many sets of varied data have to be cross-referenced in order to identify a correlation for different syntactic categories of code switching, and patterns of different participants.

**Population and Sampling**

The participants of the present research are three siblings, two sisters and a brother, who represent a family of Arabic-English bilinguals living in the United States. Their parents are from different countries; they have an American mother and a Saudi Arabian father who were both raised in Saudi Arabia and later moved to the USA. The participants are aged between 21 and 31, and their first language is English, but they learned Arabic in preschool between four and five years of age, practicing their Arabic language skills when speaking to their father, and their father’s parents. The respondents’ level of proficiency in English exceeds their proficiency in Arabic, which implies that their proficiency in Arabic is lower than that of average native Arabic speakers.
Data Collection Methods

Since the examination of instances of code switching requires the collection of data in spontaneous and natural surroundings (Blom & Gumperz, 1972), the data collection process was based on the recordings of participants’ spontaneous speech; the recording sessions took place at the participants’ home during social visits by the researcher, and during their commonplace gatherings at meals. The participants were provided with clip-on microphones attached to small recorders that they could carry in their pockets for their convenience. The agreed process of data collection was that the participants kept the recorders with them for two consecutive weeks and were asked to record their daily conversations over dinner, coffee, etc., and at social meetings with their friends and other bilinguals. The researcher took part in the majority of recorded meetings, and sometimes redirected the topics discussed by respondents to elicit natural and spontaneous code switching among those present. The recordings included long minutes of silence, as well as inaudible speech; however, the major portion of recorded information appeared natural, and the switches were assessed as occurring without pauses and hesitation. Two participants provided 27 hours of recorded conversations each, while the third participant provided recordings for five hours of duration. Hence, based on these data, the overall length of 120 minutes was taken as the research material for each participant. These conversations represented parts of several conversations in which participants presented the most natural behavior.
Data Analysis Methods

The data analysis process involved a thorough investigation of the syntax of coded phrases, sentences, or single words to determine the type of morphemes used in each of the respondents' utterances. The data for each participant were categorized by the Matrix Language used in the speech, either Arabic or English, depending on whether they represented a marked or unmarked choice of code switching. Finally, the analysis of markedness of language choices was conducted according to the functions of code switching known in the present-day body of theoretical knowledge.

Eight hours of the recorded conversations were transcribed using the transcription software. The fragments chosen for the research were chosen according to the portion of code switching instances. The Arabic words and phrases were transcribed in Roman letters with the adoption of phonetic representations as needed with direct or literal translation, and grammatical features associated with every morpheme. Further on, the recorded conversations were translated in such a way that they would fit the English language translation. It was essential to identify the alternations between two fundamentally different languages when dealing with code switching; therefore, for the purposes of the present study, borrowed words were excluded from the research. The words classified as borrowed were those phonologically, morphologically, and syntactically integrated in the language “base” of the ML. Proper nouns, the names of food dishes, names of TV shows, and the
names of TV channels were also excluded from the analysis for the sake of research data objectivity.

After that, the switched items were categorized under the principle of inter-sentential and intra-sentential code switching; subsequent categorization was conducted according to the syntactic category of code switches for each participant. For the sake of estimating the extent of language dominance, the researcher undertook the frequency distribution analysis of code switching in each language and for each participant. The cross-reference analysis was further undertaken for Arabic coded utterances and the English coded items to identify the presence of any preference for a certain syntactic form in both languages.

**Ethical Considerations**

Several ethical considerations and limitations have to be considered for the purpose of the present study. The first ethical consideration is the use of human subjects acquainted with the researcher in the process of data collection. I was present at the majority of recorded gatherings, and directed some of the conversations in the direction needed to facilitate code switching. Though only some portions of the recorded conversations were taken as the research material, there is still an ethical issue concerning the researcher’s bias, and in creating the artificial surroundings in the conversations.

The second issue arising from the choice of participants is the fact that they are siblings, and their cultural and social background is highly similar. Therefore, the
analysis will lack generalizability, which has to be noted for the sake of research findings' validity. The age of the participants is equal, so there are no considerable age differences that can help distinguish certain tendencies pertaining to the age of respondents. However, all respondents have been growing up in the bilingual surroundings, but in the USA, so their use of Arabic is quite restricted due to the social context in which they function. Therefore, a much wider perspective is needed for the sake of making more explicit conclusions on the issue of interest.
CHAPTER 4 RESULTS

This chapter presents the coded and categorized examples of code switching exercised by three respondents of the present research – Sammy, Cindy, and Layla – aged between 21 and 31. There were instances when English was used as ML, and Arabic was the ML as well. The number of English and Arabic ML utterances per each participant is shown in figure 4.1:

Figure 4.1 The Number of English and Arabic ML Utterances

The ratio of English and Arabic functioning as ML in the participants’ speech can be seen in Figure 4.2:
The use of Arabic and English as ML performed various linguistic functions for the participants. For instance, the use of Arabic as ML was rare; some examples thereof include:

3. Yostahsan enn they go paperless.

\textbf{(is advisable) that}

\textit{It’s advisable that they go paperless}

4. Enta Arif enn-aha

\textbf{You (masculine) know ‘masculine’ that-feminine marker}

\textbf{brought-feminine marker Same definite article question}

\textit{Do you know that she brought the same question like three times?}

The examples of English as ML are much more frequent, serving such purposes as annoyance:

5. Cindy, stop spraying kul Hajah!

\textbf{Every thing ‘feminine’}

\textit{Cindy, stop spraying everything!}

6. I made it up so – the first time I see Layla … Khalas my feet are hurting, leave my

\textbf{Finish}

\textit{feet alone. Stop stepping on my feet}
I made it up so – the first time I see Layla...Stop, my feet are hurting, leave my feet alone.

or exclamation:

7. Stop coughing ya lateef  
   vocative particle one of Allah’s names (it is used as an expression of annoyance, or as an exclamation)

Stop coughing, oh God!

As for the intra-sentential and inter-sentential code switching distribution, Figure 4.3 shows that the former category prevails very significantly in the occurrence of code switches observed in the participants’ observations:

![Figure 4.3 Inter-Sentential and Intra-Sentential Code Switches (Raw Numbers)](image)

The example of inter-sentential code switching is:

8. Eish – b – i- k ya Layla? Are you crazy?  
   What with-feminine marker-you Vocative particle  
   What’s with you, Layla? Are you crazy?
While the examples of intra-sentential code switching are much more numerous:

(adverb code switch)

9. My projects are marrah …
   Adv used to add intensity to a topic, issue, objects etc.
   My projects are...so...

(verb code switch)

10. Layla, you get the results directly when you tekhtibri
   Take the exam
   Layla, you get the results directly when you take the exam

(noun code switch)

11. That’s turab
   Dust
   That’s dust.

The results shown in Figure 4.4 indicate that the largest number of code switches was undertaken by Sammy, who made 112 code switches, and Layla who made 89 code switches, while Cindy made only 14 code switches (during the 120 minutes of recorded conversations):
Figure 4.4 Instances of Code Switching

The overall distribution of the frequency levels of code switches according to particular syntactic categories can be seen in Figures 4.5 – all statistics is presented in raw numbers. These data are generalized for all three participants; as one can see, nouns represent the most frequent code switching items, with interjections, adjectives, and adverbs following nouns in the frequency of their occurrence in code switching behavior. The smallest numbers of code switches are observed in the use of pronouns, noun phrases, and interrogatives.
All participants had their own distribution of syntactic categories of code switches, which is evident from Figure 4.6. More detailed categorization of code switches for each participant indicates that the largest number of code switches was observed in interjections, nouns, and discourse markers:

Examples of such code switches include:
(interjections):

12. No, Khalee-ha! Yeah, stuff coming out of the ground. Can you please take
   **Leave-feminine marker**
   your mail, Cindy?!?

*No, ignore her! Yeah, stuff coming out of the ground. Can you please take your mail, Cindy?!?*

13. Ya Allah … Women and their garbage!
   **Vocative particle**
   Oh, God!…Women and their garbage!

(discourse marker):

14. That’s what I said, Tayeb!
   **Good ‘masculine’**
   That’s what I said, alright!

The syntactic position at which the code switches are placed is also highly
significant for comprehending the research results; hence, one can see the
distribution of code switches within a sentence in Figure 4.7 (raw numbers). The
distribution is more even here than in the morphological nature of the code
switched items; however, there is a clear dominance in code switches before and/or
after nouns, before and/or after pronouns, and before and/or after verbs and verb
phrases. The smallest number of code switches is observed before and/or after
conjunctions, before and/or after adjectives, and before and/or after definite and
indefinite articles:

   (after verb)

15. There’s ashkal    handasiyah
   **Shape-pl    geometric**
   There’s *Geometric Shapes*
   *(EL island, English is ML)*

16. Oh, so it’s Kidah ay wahid yetla w kidah
   **Like any one ‘masculine’ appear ‘masculine’ and like**
Oh, so it’s like anyone can go on and stuff quickly or ...

Figure 4.6 Frequency of Code Switches according to Their Place in a Sentence.
Discussion

The results of the present study provide several practical observations in terms of how different code switching practices are used by the study participants, and which social and linguistic purposes they serve. In the process of analyzing the results, the following themes emerged: English as the Matrix Language, lack of inter-sentential code switching, the use of content and early system morphemes, the use of late system morphemes, and congruence between English and Arabic. Each of them will be discussed separately.

Markedness of Bilingual or Monolingual Codes

The first observation that needs to be discussed is the distinction between inter-sentential and intra-sentential types of code switching. The participants used a monolingual code when they spoke Arabic, or English, without EL islands. Therefore, the monolingual code can be examined only in terms of full-sentence code switches to Arabic, i.e., inter-sentential code switches. Intra-sentential code switching occurred with more frequency than inter-sentential code switching since only one of them used inter-sentential code switching more or less intensely, having used two fully Arabic sentences, having produced one exclamation/idiom in Arabic, and having used three tags and/or interjections in the speech. As for the other two participants, both of them used inter-sentential code switching, but to a much lesser
extent; Cindy used only one tag/interjection, and Sammy used five tags and/or interjections.

This observation supports De Fina (2007) about the construction of social identities with the help of code switches, and the theory of Myers-Scotton (1993) about the markedness and unmarkedness of the code switching choices. Inter-sentential code switches are mostly marked, since they imply expectations of a certain sort of a reaction from the side of the interlocutor. Moreover, a number of code switches, mainly EL islands and inter-sentential code switches, indicate the cultural identity of speakers. For example:

17. I was like, formerly Lipton meen ya Habib-i? 
   Who Vocative particle love – my ‘masculine’ (adj)
   *I was like, formerly Lipton Who my love?*  
   *(Cultural identity)*

18. You just keep saying, ya’ani Tayeb and all of these words? 
   Mean Good ‘masculine’ *(Discourse Marker)*
   *You just keep saying, [Discourse markers] and all of these words?*  
   *(Identity)*

The lack of inter-sentential code switching by the participants implies that there is a lack of proficiency in the Arabic language, which precludes inter-sentential code switching (nine inter-sentential code-switches as compared to 208 intra-sentential ones). The present findings are compliant with the suggestion of Grosjean (1989) about the lower proficiency in the second language evident in the bilinguals’ linguistic competency. However, in the present situation, all three participants are
Arabic by origin, and their mother tongue is Arabic. Having learned Arabic less intensely may have led to the choice of the English language as a Matrix Language used by all of them. According to Deibert (2008), speakers engage in intersentential code switching in case there is a strong in-group understanding between family members, or the interlocutors are in a specific context, in which the speakers can be sure that they will express their emotions more vividly with the help of an idiom, an exclamation, or an interjection in their mother tongue.

**Manifestation of the 4-m Model in the Use of ML and EL**

All three participants used English as the Matrix Language, which is strange taking into account their Arabic origin, the opportunity to speak and practice Arabic with their father and the father’s family still living in Saudi Arabia, and later on with classmates and colleagues. However, this finding agrees with the claims of De Fina (2007) about the construction of social identities by speakers. It also agrees with the Alenezi (2006) who claimed that the representatives of older generations coming from Arabic countries with their families, and living in the communities where people speak mostly Arabic, maintain Arabic as their Matrix Language even in English-speaking countries, while their children are more prone to using English as the Matrix Language. Alenezi’s findings are supported by the present research results. All three respondents, even while using Arabic words in their conversations with family members, the researcher, and peers, did not interact a completely Arabic conversation even once during the research process. This shows
that the participants do not need to switch to their mother tongue to claim their in-group status, or to exclude certain people from their conversation, as assumed by Silva-Corvalan (1983). Knowing that all of their interlocutors are proficient in both languages and will understand them seems to be sufficient.

However, in terms of discussing the Matrix Language, one should assume that the choice of the English language as a Matrix Language would affect the frequency of certain morphemes’ use when code switching. This is primarily due to the incongruence of these two languages which belong to different language families. Since Isurin, Winford, and De Bot (2009) claimed that speakers of a second language experience specific difficulties with comprehending late system morphemes and using them in speech, there is a high probability of code switching in terms of late system morphemes. In addition, Alenezi (2006) noted the frequent use of double morphology, especially in terms of article use in English-Arabic bilinguals’ speech, which is highly specific for this particular pair of languages. Therefore, one can see that the choice of English as a Matrix Language has a profound impact on code switches, which is caused by a different set of strategies needed to achieve congruence between English and Arabic language structures.

As Isurin et al. (2009) noted, the 4-m model is highly useful in fine-tuning the MLF model’s distinction between morpheme types; however, one should be careful with applying it to code switching, since the 4-m model is mainly for morpheme classification, not for code switching research. However, the 4-m model’s assumptions are useful in understanding the roles assigned by participants to the
code switches they use in their conversations. For instance, the content morphemes are perceived as morphemes functioning for conveying the semantic content; they are mostly found among nouns, adjectives, verbs, and some prepositions (Isurin et al., 2009). As one can see from the results of the study, most code switches occurred with content morphemes: 29 code switched nouns, 9 code switched verbs, and 18 code switched adjectives were detected during the conversations’ analysis and coding percentages. The fact signals the comfort with which participants resort to code switching in content morphemes, which can occur due to a number of reasons.

One reason may between of the cultural origin, i.e., the participants wanted to convey a specific meaning about a specific object inherent in the Arabic culture. Second, the code switches in content morphemes also signal the convenience in using certain terms or words in the mother tongue that may be unknown in the second language (Silva-Corvalan, 1983). Other reasons may include the participants’ wish to aggravate or mitigate certain expressions such as requests, denials, comments, validations, etc., for instance:

12. No, Khalee-ha! Yeah, stuff coming out of the ground. Can you please take your mail,

   Leave-feminine marker

   Cindy?!?
   No, ignore her! Yeah, stuff coming out of the ground. Can you please take your mail, Cindy!

   (aggravate meant as humor)

Hence, resorting to cultural and community-specific coee switching is in some cases obviously a successful strategy in achieving the intended effect of a certain expression, order, request, etc. As for system morphemes, the early system
morphemes serve the goal of adding meaning to the content morpheme by adding specificity to it; for instance, early system morphemes can be found among plural affixes, determiners, verbal prepositions, derivational affixes, etc. (Isurin et al., 2009). It is important to mention that the early system morphemes occur on the content morphemes, and cannot appear without them in the speech of bilinguals. Since there was only a small number of code switches detected in all three respondents' conversations, it is not surprising that the early system morphemes were not numerous – they included four prepositional phrases, seven coordinate conjunctions, five adverbial phrases, etc. out of more than 100 examined code switches, for instance:

3. Cindy, stop spraying kul Hajah! Everything ‘feminine’
   Cindy, stop spraying everything!
   (Annoyance)

16. Oh, so it’s Kidah ay wahid yetla w kidah
   Like any one ‘masculine’ appear ‘masculine’ and like
   saree’e wlla ...
   quick or
   Oh, so anyone can go on stage quickly
   (EL island, English is ML)

19. Bass ana mutawaqi’e enno she’s gonna give me at least darajah aw daraja-tain
   But I expect that mark or mark-2person pl
   on
   But I expect that, she gives me at least a mark or two on something.
   (EL island, Arabic is ML)

20. It was there w kida w kulu mawjood
   And like and all present-plural
   It was there and everyone was there.
   (EL island, English is ML)
As for late system morphemes, they are very scarce in any code switching, especially in code switching between Arabic and English, due to the fundamental differences in the language structure. Isurin et al. (2009) stated that late system morphemes are usually structural building blocks of clauses. The late system bridge morphemes join the elements of a larger constituent, while the outsider late system morphemes define relationships to make the argumentation structure more transparent (Isurin et al., 2009). Prepositions are often among late system morphemes, which means that in case a preposition is code switched, then the whole construction following it will be code switched for congruence of the speech in the ML.

**Congruence Influencing Morphology Formation and Language Choice**

The theory of congruence between ML and EL is supported by the findings of the present research. Since the most frequently code switched items in the three participants’ conversations are nouns, adjectives, and adverbs, one can note that the usual use of adjectives is related to the use of nouns – a noun defines an adjective, and a verb is often paired with an adverb to achieve the full structure of a language in which the expression is composed. The content morphemes bear the fundamental lexical meaning ascribed to particular speech items; therefore, it is difficult to express an idea in English when the subject is code switched to Arabic. There is a certain challenge in expressing the adverb in English when the verb is
code switched to Arabic, since the Arabic language presupposes quite a different structure of the verb-adverb alignment in a sentence. Instances of this include:

16. Oh, so it’s Kidah ay wahid yetla w kidah
   Like any one ‘masculine’ appear ‘masculine’ and like
   saree’e wlla ...
   quick or
   Oh, so anyone can go on stage quickly
   (EL island, English is ML)

19. Bass ana mutawaqi’e enno she’s gonna give me at least darajah aw daraja-tain
   But I expect that mark or point-2person pl
   ala something
   on
   But I expect that, she gives me at least a mark or two on something.
   (EL island, Arabic is ML)

20. It was there w kida w kulu mawjood
    And like and all present-plural

   It was there and everyone was there.

The prevalence of certain morphemes in code switching indicates the striving for congruence in the structure of the ML; in cases when the subsequent congruence of structure is impossible, the speakers choose to continue code switching to avoid ungrammatical utterances.
CHAPTER 5  CONCLUSION

This research supported the majority of the hypotheses considered. The participants of the present research involved in both bilingual and monolingual conversations. While the choice of Arabic was sometimes the unmarked choice, the choice of a monolingual code, or the choice of inter-sentential code switching obviously had specific functions in terms of enriching the meaning or strengthening the effect of the expression. The next two hypotheses referred to the use of early system and content morphemes belonged to EL, while late system and content morphemes – to ML. The 4-m model is reflected in the choice of ML and EL by participants. As for the late and early content morphemes, and early and late system morphemes, one can note that the hypotheses have also been verified in terms of their use by bilinguals. The main complication is that the participants are Arabic by origin, but use English as an ML, which complicates conclusions about the cultural and mother tongue impact on the choice of morphemes in code switching instances. However, it is obvious that content morphemes and early system morphemes are mostly used in the Embedded Language, which simplifies
Integrating the structure of the EL into ML used, and increases the congruence of English-Arabic conversations.

Double morphology was hypothesized to be an efficient compromise strategy in maintaining congruence, which was supported by code switching behaviors, for example, in the sentence:

21. So she said that humma they’re gonna make …

They
So she said that they, they’re gonna make...

Insufficient congruency, according to the final hypothesis, was perceived as a trigger for EL islands, which was also proven by findings. Congruence has also been found to affect language choice and sentence formation. Late system morphemes mainly come from the ML, since the structures of English and Arabic are quite different, and the use of late system morphemes in the English ML will inevitably reduce the congruence between Arabic and English. Therefore, the use of late system morphemes is scarce in the recorded conversations of participants, and when there are occasions of late system morpheme use that preclude congruence, the Embedded islands emerge in the form of prepositional phrases, and clauses.

The findings of this research were analyzed in terms of consistency of MLF with the 4-m model of morpheme classification. The markedness of bilingual and monolingual code choice was examined, and the issue of congruence as influencing the choice of language and sentence structure was subject to analysis as well.

However, there are some recommendations for further research that can expand the outreach of modern socio-linguistic theories, and may clarify the essence of code
switching, its purposes, functions, and rules for those using it. First, there is a need to conduct a study across age groups, i.e., to investigate the patterns of MLF and code switching among adults, children, and elderly people. Since code switching has been found to depend heavily on the extra-linguistic factors such as socio-cultural background, speaker’s and interlocutor’s identity, etc., code switching research may be enriched if these factors are considered. Second, there is a possibility to conduct a study with a wider sample of participants with various backgrounds, educational bases, social circles, etc., and to investigate their use of code switching in various sociolinguistic contexts, e.g., during a talk with old friends from their motherland, or speaking with residents of their current location. Examination of code switching in various contexts, with various interlocutors, involving different power and attitude relations is likely to offer much richer material for analysis.
REFERENCES


National Clearinghouse for Bilingual Education.
