LINGUISTIC CONSTRAINTS ON CODE-SWITCHING: A CASE STUDY OF SAUDI-SPOKEN ARABIC-ENGLISH CODE-SWITCHING

By

NASSER SALEH AL-MANSOUR

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1998
ACKNOWLEDGMENTS

I am indebted to many individuals both here at the University of Florida and elsewhere. My four years in the Program in Linguistics have enriched me in many ways. PIL at UF became a second home for me, and I will find it difficult to leave my fellow students and friends and my teachers to return to my home in Saudi Arabia.

I am greatly indebted to my advisor and chair of my doctoral committee, Dr. Haig Der-Houssikian. I have benefitted from his linguistic expertise and I thank him heartily for making critical and insightful comments and suggestions on all drafts of this dissertation. His constant encouragement over the years, the many hours he gave for discussion and his advice helped immeasurably to shape my graduate education and this dissertation.

I wish to extend my gratitude to my committee members, Dr. Diana Boxer, Dr. Chauncey Chu, and Dr. Clemens Hallman, from whose courses I learned much. Each also spent many hours reading draft copies and taking time to discuss them with me. Their helpful comments and suggestions were invaluable.

I wish to thank specially Dr. Marie Nelson, director of the Program in Linguistics. She was most generous with her time in supporting my efforts at earning my doctoral degree. Though not on my committee, she attended my qualifying examinations, read my dissertation draft and generally became a de facto committee member asking pertinent questions and contributing invaluable comments.
Special thanks and gratitude are owed to my sponsor, the Ministry of Islamic Affairs, Kingdom of Saudi Arabia, and its minister, His Excellency Professor Abdullah A Al-Turky, whose encouragement and moral support sustained me greatly through my doctoral studies.

I also wish to acknowledge the Saudi students who participated in this study. The time they granted me and their willingness to help me made this project possible.

In addition, I would like to express my gratitude to Ms. Arupa Freeman, who typed the drafts, and Ms. Margaret Joyner, who edited this dissertation.

I owe a deep debt of gratitude to my extended family, especially my mother and my father, Professor Saleh Abdulaziz Al-Mansour, for their help, their support, and their prayers. My parents-in-law also deserve heart-filled thanks. My children, Ameerah, Thamer, Hadeel, Al-Hanoof, Haneen, and Razan, all gave me love, support, and, in particular, patience with me at the times when my work gave me little opportunity to be with them. Finally, my deep and heartfelt thanks and appreciation to my wife, who has shared this journey with me. Her love, endless support, encouragement, and understanding helped me, in every sense of the word, to accomplish this goal.
بسم الله الرحمن الرحيم

أشكر الله سبحانه وتعالى على توفيقه وتسهيله كتابة رسالة الدكتوراه
وأسأله سبحانه وتعالى أن يتفعّل بها إله سمع نجيب
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xi</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>xii</td>
</tr>
<tr>
<td>CHAPTERS</td>
<td></td>
</tr>
<tr>
<td>1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 The Saudi Arabic Language, People, and Geographic and Ethnographic</td>
<td>1</td>
</tr>
<tr>
<td>Background</td>
<td></td>
</tr>
<tr>
<td>1.2 The Purpose of the Study</td>
<td>4</td>
</tr>
<tr>
<td>1.3 The Significance of this Study</td>
<td>6</td>
</tr>
<tr>
<td>1.4 Types of Language Contact</td>
<td>7</td>
</tr>
<tr>
<td>1.4.1 Introduction</td>
<td>7</td>
</tr>
<tr>
<td>1.4.2 Code-Switching vs. Code-Mixing</td>
<td>8</td>
</tr>
<tr>
<td>1.4.3 Code-Switching vs. Borrowing</td>
<td>10</td>
</tr>
<tr>
<td>1.4.4 Transfer vs. Borrowing</td>
<td>14</td>
</tr>
<tr>
<td>1.4.5 Definitions of Code-Switching</td>
<td>18</td>
</tr>
<tr>
<td>2 LITERATURE REVIEW</td>
<td>21</td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>21</td>
</tr>
<tr>
<td>2.2 The Linguistic Aspects of C-S</td>
<td>21</td>
</tr>
<tr>
<td>2.2.1 Nonsystematicity vs. Systematicity</td>
<td>22</td>
</tr>
<tr>
<td>2.2.1.1 Nonsystematic C-S</td>
<td>22</td>
</tr>
<tr>
<td>2.2.1.2 Systematic C-S</td>
<td>23</td>
</tr>
<tr>
<td>2.2.2 The Proposed Constraints on C-S</td>
<td>23</td>
</tr>
<tr>
<td>2.2.2.1 Language-specific Constraints</td>
<td>24</td>
</tr>
<tr>
<td>2.2.2.2 Universal constraints on C-S</td>
<td>34</td>
</tr>
</tbody>
</table>
3 METHODOLOGY ................................................................. 42

3.1 Introduction .............................................................. 42
3.2 Ethnographic Approach .............................................. 42
3.3 Geographic Setting .................................................... 42
3.4 Participant Selection .................................................. 43
3.5 Data Collection ........................................................ 43
3.6 Data Analysis and Preliminary Hypothesis Testing .......... 45
3.7 Coding Procedures .................................................... 46
3.8 Limitations .............................................................. 46
3.9 Transcription ........................................................... 47

4 RESULTS AND DISCUSSION ............................................... 48

4.1 Introduction .............................................................. 48
4.2 The Linguistic Aspects .................................................. 49
  4.2.1 Syntactic Level .................................................... 49
    4.2.1.1 Nominals ..................................................... 50
    4.2.1.2 Verbals ...................................................... 50
    4.2.1.3 Adjectivals .................................................. 51
    4.2.1.4 Prepositionals .............................................. 52
    4.2.1.5 Adverbials .................................................. 53
    4.2.1.6 Conjunctions ............................................... 53
    4.2.1.7 Determiners and demonstratives ...................... 54
    4.2.1.8 Fillers ....................................................... 54
  4.2.2 Complete Reinforcement ........................................ 56
  4.2.3 Partial Reinforcement .......................................... 56
  4.2.4 Complete Violation of Conjunction Constraint .......... 57
  4.2.5 Complete Reinforcement of Pronoun Constraint .......... 57
  4.2.6 Contrasting English with Saudi-spoken Arabic .......... 58
4.3 Linguistic Constraints ............................................... 59
  4.3.1 Language-specific Constraints ............................... 60
    4.3.1.1 The pronominal constraint .............................. 60
    4.3.1.2 The determiner constraint ................................ 61
    4.3.1.3 The conjunction constraint ............................. 63
    4.3.1.4 The adjectival constraint ................................ 65
    4.3.1.5 The number-of-switches constraint ................... 66
    4.3.1.6 The preposition constraint ............................. 67
  4.3.2 Universal Constraints on C-S ................................ 69
    4.3.2.1 The size-of-the constituent constraint .............. 69
    4.3.2.2 The free-morpheme constraint .......................... 70
    4.3.2.3 The equivalent constraint .............................. 71
    4.3.2.4 The Dual Structure Principle .......................... 75
APPENDICES

A  INFORMED CONSENT FORM .............................................. 119
B  QUESTIONNAIRE ......................................................... 120
C  DATA TRANSCRIPTION .................................................. 121

REFERENCES ................................................................. 149

BIOGRAPHICAL SKETCH .................................................. 158
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1. Host: SSA-E C-S</td>
<td>93</td>
</tr>
<tr>
<td>4.2. Frequency of C-S from SSA-E</td>
<td>94</td>
</tr>
<tr>
<td>4.3. Host: E-SSA C-S</td>
<td>95</td>
</tr>
<tr>
<td>4.4. Total number of code-switches</td>
<td>96</td>
</tr>
<tr>
<td>4.5. Frequency of C-S from E-SSA</td>
<td>97</td>
</tr>
<tr>
<td>4.6. Ranking of SSA-E and E-SSA C-S</td>
<td>98</td>
</tr>
<tr>
<td>4.7. Types of switches</td>
<td>99</td>
</tr>
<tr>
<td>4.8. Numbers of intra- and inter-sentential C-S</td>
<td>100</td>
</tr>
<tr>
<td>4.9. Distribution of participants’ school, major, age, number of intra-sententials, length of stay in the U.S.</td>
<td>101</td>
</tr>
<tr>
<td>4.10. The construction of Arabic words by inserting vowels into three consonants</td>
<td>102</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.</td>
<td>The Kingdom of Saudi Arabia</td>
<td>2</td>
</tr>
<tr>
<td>2.1.</td>
<td>Switches considered to be acceptable within the framework of Poplack (1978, 1980)</td>
<td>37</td>
</tr>
<tr>
<td>4.1.</td>
<td>The total numbers and percentages of C-S</td>
<td>91</td>
</tr>
<tr>
<td>4.2.</td>
<td>Numbers and percentages of utterances produced by the twenty participants</td>
<td>92</td>
</tr>
</tbody>
</table>
Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

LINGUISTIC CONSTRAINTS ON CODE-SWITCHING: A CASE STUDY OF SAUDI-SPOKEN ARABIC-ENGLISH CODE-SWITCHING

By

Nasser Saleh Al-Mansour

December 1998

Chairman: Dr. Haig Der-Houssikian
Major Department: Linguistics

The primary purpose of this study is to demonstrate how Saudi-spoken Arabic and English code-switching fits into the established point of view on the systematicity and rule-governed nature of code-switching, and to relate the apparent systematicity to current linguistic theory. Code-switching is defined here as the alternating use of two or more languages at the level of word, phrase, clause, or sentence. The data for this study were elicited from twenty bilingual male Saudi students from Washington, D.C., universities and the University of Florida. The study identifies and examines the linguistic aspects of code-switching between Saudi-spoken Arabic and English. The approach is ethnographic with the researcher acting as "participant-observer," gathering qualitative and descriptive data using audio recordings and handwritten notes.

The following hypotheses were tested: (1) participants with high levels of oral proficiency in a second language will produce intra- and inter-sentential code-switching; (2)
participants with low levels of oral proficiency in a second language will produce fewer intra-sentential code-switches; and (3) participants with low levels of oral proficiency in a second language will not use inter-sentential code-switching.

The data were analyzed in five areas: syntax, linguistic constraints, types of switches, syntactic and morphological ramifications, and proposed new constraints.

The results demonstrate that linguistic constraints proposed in the literature are far from being universal and contradict previous claims that there is a correlation between a high level of competence in a second language and a high frequency of use of all types of code-switching. This study supports the hypothesis that speakers with higher proficiency in both languages will produce all types of code-switches, inter-sentential and intra-sentential, as well as the hypotheses that speakers with low proficiency in a second language produce fewer intra-sentential switches and no inter-sentential switches. By inference, the study demonstrates that inter-sentential switching requires a higher level of proficiency in a second language than does intra-sentential switching. New constraints proposed are the filler constraint and the determiner and demonstrative constraint.
CHAPTER 1
INTRODUCTION

Code-switching (C-S), generally understood to be the alternate use of two or more languages within a single discourse, sentence, or constituent (Poplack, 1980), plays an important role in bilingualism. It is a natural process that takes place when two or more bilingual speakers engage in discourse, and serves an important social function. Whenever there is more than one language spoken in a community, its population can be expected to code-switch. C-S has been an area of investigation for at least the last two decades.

C-S is a process that takes place in the everyday conversation of most, if not all, bilingual or multilingual students, especially in a foreign environment. In the course of pursuing their studies at American universities, Arab students in general, and Saudi-Arabian students in particular, often code-switch between Saudi-spoken Arabic (SSA) and English, their second language. As a result, instances of C-S are readily identifiable whenever two or more Saudi-Arabian students in the U.S., or with U.S. experience, converse (Al-Mansour 1996).

1.1 The Saudi Arabic Language, People, and Geographic and Ethnographic Background

The purpose of this section is to provide the reader with a brief background on Saudi Arabia, its geographical location (Figure 1), language, and people. What is
currently known as The Kingdom of Saudi Arabia has a long and rich history that traces its roots back to the earliest civilization of the Arabian Peninsula. With the emergence of Islam in the seventh century, tribes and scattered nomadic people were unified under one religion.

Fig. 1.1 The Kingdom of Saudi Arabia.
Present-day Saudi Arabia comprises almost four-fifths of the Arabian Peninsula, an area approximately one-third the size of the United States. Geographically, the peninsula is located in the southwestern part of Asia. It is the largest country in the Middle East, situated at the crossroads of three continents: Europe, Asia, and Africa.

The country's area is estimated to be some 2,331,600 square kilometers (900,000 square miles). Riyadh, the capital, is located in the east-central Najd area. In the west, along the Red Sea, the Hijaz region includes the holy cities of Makkah and Madinah. According to the 1995 census, the population of Saudi Arabia is approximately 17,118,000.

The official language of Saudi Arabia is Standard Arabic, which, like Hebrew, is a member of the Semitic language family. One of the most widely spoken of the world’s languages, it is used and understood by millions of people and is one of the official languages of the United Nations. Different from Classical Arabic, the language of the Muslims’ holy book, the Quran, Standard Arabic is used in newspapers and on television as well as in education, the judicial system, and governmental agencies.

In addition to Standard Arabic, in every Arabic-speaking country, there are local dialects. Because they resemble Standard Arabic to a greater or lesser degree, Ferguson (1959) refers to the former as “high variety” and the latter as “low variety.” Each is the first language of its speakers, learned in childhood without formal instruction. Nowadays, short stories, plays, domestic films, and television and radio serials all use them when appropriate. Because these dialects are used for all forms of communication at the
informal level, this differentiates them from Classical and Standard Arabic, learned through formal instruction and used in formal situations, as mentioned above.

In the present study, SSA is used as an umbrella term to cover the main spoken Saudi Arabian dialects. These dialects are as follows: (1) Najdi-spoken Arabic (NSA), a dialect mostly spoken in the central and northern parts of the Arabian Peninsula; (2) Hijazi-spoken Arabic (HSA), a dialect spoken in the western part of the Arabian Peninsula and along the coast of the Red Sea and adjacent highlands; (3) Eastern-Province-spoken Arabic (EPSA), a dialect mostly spoken, as the name implies, in the eastern province of the Arabian Peninsula and along the Gulf Coast, which is often referred to as Gulf-spoken Arabic and which includes all the dialects spoken in the Arabian Gulf, including the eastern province of Saudi Arabia; and (4) Tihama-spoken Arabic (TSA), a dialect spoken in the southern part of the Arabian Peninsula. TSA is not as prevalent as the other dialects.

1.2 The Purpose of the Study

The present study is intended to closely examine one type of language contact, namely C-S, as it is used by bilingual Saudi students studying at selected universities in the Metropolitan Washington, D.C., area and at the University of Florida in Gainesville. The primary purpose of this study is to demonstrate how SSA and English C-S fit into the established point of view on the systematicity and rule-governed nature of C-S, and to relate the apparent systematicity to current linguistic theory.

C-S is a topic that attracts both syntacticians and sociolinguists. As a result, it is repeatedly mentioned in the literature with recent studies focusing on three aspects of C-S:
(1) sociolinguistics; (2) psycholinguistics; and (3) linguistics. Following the approach of Lipski (1985), the present study offers perspectives on the linguistic/syntactic aspects of C-S, and will be investigated accordingly.

From the linguistic aspects, the present study will discuss and analyze in detail the most recent studies on C-S (chapters 2 and 4) to determine the similarities and differences between them and the present findings. A study of this kind is worthwhile not only because of the structural differences between SSA and English, but because this study is the first of its kind.

Besides its contribution to understanding of the basic syntactic differences of English, it can be expected, in addition, to contribute to our general understanding of the multiple processes involved in C-S. The linguistic analysis divides into the following:

(1) The syntactic level, which will include the distribution of switches over different parts of speech—nouns, adjectives, verbs, adverbs, prepositions, pronouns, determiners, demonstratives, conjunctions, and fillers—as well as such phrases as noun phrases, verb phrases, adjectival phrases, prepositional phrases, and adverbial phrases;

(2) Linguistic constraints on C-S, which will include analyzing these constraints, testing their validity in the light of data from the study to see if these constraints are universal or language-specific as claimed, and determining whether or not they are applicable to SSA;

(3) The types of switches—intra-sentential and inter-sentential—will be analyzed to identify the relationships between them and the proficiency of the language speaker to see which one of these two types is most frequently used among the participants;
(4) Syntactic and morphological ramifications that may have occurred during a code-switched speech in either language;

(5) With regard to its potential contribution to C-S studies, in this last section new constraints will be proposed for C-S in SSA.

1.3 The Significance of This Study

To the best of my knowledge there has been no major, systematic research conducted on the use of C-S between SSA and English. This type of C-S has not been given the attention it deserves. This study is designed to show how bilingual Saudi students in a guest language (GL) environment apply C-S to their language production during their daily interactions.

It was observed that the majority of educated bilingual Saudi students frequently code-switched between SSA and English in two ways: (1) conscious C-S in which the speaker is and intentionally switching words and phrases between the GL and the host language (HL), and (2) unconscious C-S, which involves casual C-S during daily interactions with other bilinguals. I find that the latter kind of C-S may take place without the bilingual speaker’s conscious knowledge. I am primarily interested in the second kind of C-S, the informal, unconscious C-S.

These two types of C-S can be differentiated according to setting and topic of conversation. If the setting and topic are formal, then it can be considered conscious C-S because the speaker will try his best to show the listener that he is well educated and belongs to a higher class. If the setting and topic are informal, then it can be considered
unconscious C-S because the speaker does not pay attention to his speech and it becomes more natural and spontaneous.

It is my hope that the results of this study will contribute to the enrichment of the literature on C-S and fill the gaps that I have identified. My qualifications for this task include the fact that I speak both languages and am myself a frequent code-switcher. I agree with Gudschinsky (1967) who points out that knowing the language being studied is the top priority in field research and data gathering and helps eliminate the need for interpreters and bilingual informants. Further, there are often analytical and intuitive decisions to be made when an intimate command of the language is imperative.

1.4 Types of Language Contact

1.4.1 Introduction

It has been widely recognized in the literature that there is still a lack of agreement among researchers in the field of sociolinguistics as to what actually constitutes C-S, as opposed to code-mixing (C-M), borrowing, and transfer. Various ways of defining and distinguishing the differences and similarities among these types of language contact are described in the literature. Such researchers as Gumperz and Hernandez-Chavez (1975) and Romaine (1995) describe C-S as a type of borrowing, while Pfaff (1976, 1979) and Singh (1983) use C-S as an umbrella term for both C-M and borrowing. To differentiate between C-S and C-M, Bokamba (1988, 1989) associates C-S with inter-sentential C-S, and C-M with intra-sentential C-S.
In the present chapter I will briefly differentiate among these types of language contact—C-S, C-M, borrowing, and transfer—as they are mentioned in the literature in order to highlight their similarities and differences.

1.4.2 Code-Switching vs. Code-Mixing

As mentioned above, some researchers consider C-S and C-M to be generic and interchangeable terms while other researchers distinguish between C-S and C-M and consider them to be two different phenomena. Both C-S and C-M have been discussed in the literature with reference to the place within the sentence where switching takes place (Kachru, 1978a, 1982; Sridhar and Sridhar, 1980; Gumperz, 1982a; Bokamba, 1988, 1989; Lourdes, 1989).

Sridhar and Sridhar (1980) distinguish between C-S and C-M and stress that this distinction is not merely convenient but necessary because the two phenomena make different linguistic and psycholinguistic claims. By their definition, code-mixing refers to the use of one or more languages for consistent transfer of linguistic units from one language into another. These linguistic units can be words, phrases, or sentences. On the subject of C-M, Lourdes (1989) states that “C-M does not involve a complete shifting to another language, rather, it involves the insertion of elements from L1 to L2 [or vice versa] within the same utterance or speech act.” Similarly, Sridhar and Sridhar (1980) state that “C-M refers to the transition from using linguistic units (words, phrases, clauses, etc.) of one language to using those of another within a single sentence.” In fact, Sridhar and Sridhar (1980) distinguish C-M from C-S in two ways: (1) each instance of language
alternation in C-M is not accompanied by a shift in the speech situation, and (2) the language alternation in C-M occurs intra-sententially while in C-S it occurs inter-sententially.

Bokamba (1988, 1989) is another researcher who distinguishes between C-S and C-M. His distinction is as follows:

C-S is the mixing of words, phrases, and sentences from two distinct grammatical (sub-)systems across sentence boundaries within the same speech event. In other words, C-S is inter-sentential switching. C-M, on the other hand, is the embedding of various linguistic units such as affixes (bound morphemes), words (unbound morphemes), phrases, and clauses from two distinct grammatical (sub-)systems within the same sentence and speech event. That is, C-M is intra-sentential switching. (Bokamba, 1989).

Like Kachru (1978a, 1982) and Sridhar and Sridhar (1980), Bokamba (1989) states that these two phenomena serve different linguistic and psycholinguistic functions, and thus must be distinguished from each other. He adds that while C-S does not necessitate the interaction of the grammatical rules of the languages involved in the speech event, C-M does. To illustrate, Bokamba gives the following examples from Kinshasa Lingala and French:

(1) Na-ke-i Kimwenza. je revien-s dans une heure
   I-go-I.past Kimwenza. I return-1 pers in one hour
   'I have gone to Kimwenza. I will return in an hour.'

(2) Mobali na yo a-telephon-aka yo deux fois par jour
   spouse of you he telephone- Hab. you two times per day
   'Your husband calls you twice a day.'

According to Bokamba (1989), Example (1) is a demonstration of C-S because there is no interaction between the rules of the Lingala and French syntax. The speaker shifts from one language [Lingala] to the other [French] inter-sententially. Example (2) demonstrates C-M because there is a clear interaction between the syntactic rules of the
languages: the French verbal root-telephon-exhibits the characteristics of Lingala morphology in terms of subject-verb agreement by taking the Lingala subject prefix \( \{a-\} \), in reference to \textit{mobali na yu} and the present habitual tense \( \{-aka\} \). Further, the placement of the phrase \textit{deux fois par jour} is consistent with French syntax and does not seriously violate that of Lingala. As to whether or not to treat C-S and C-M as different types of language contact, I agree with Sridhar and Sridhar (1980) and Bokamba (1989) who differentiate between the two. Consequently, in this study C-S and C-M will be treated as two different phenomena.

1.4.3 Code-Switching vs. Borrowing

Whether or not to make a distinction between C-S and borrowing is currently one of the more controversial issues in the field of sociolinguistics. One group of researchers (Treffers-Daller, 1991; Myers-Scotton, 1993; Romaine, 1995) do not consider C-S and borrowing to be two distinct phenomena. Another group (Haugen, 1956; Poplack 1980, 1988, 1990; Grosjean, 1982; Muysken, 1987; Elasson, 1989, 1991; Sankoff et. al., 1990; Boeschoten, 1991) disagree, arguing that the relationship between these two types of language contact are separate and should be distinguished from each other.

Haugen (1956) distinguishes between C-S and borrowing, at times using the term “integration” to refer to borrowing. He defines the two terms below:

[Borrowing is] the regular use of material from one language in another so that there is no longer either switching or overlapping except in a historical sense, whereas C-S occurs when a bilingual speaker introduces a completely unassimilated word from another language into his speech.
Yet in order to distinguish between C-S and borrowing, we also have to consider
the morphological, phonological, and syntactic features of the words. Poplack (1980)
does this, claiming that borrowing involves those utterances that are fully integrated
phonologically, morphologically, and syntactically into the base language, whereas C-S
involves those utterances that are only syntactically or morphologically integrated.

Sankoff and Maineville (1986) state that borrowing from one language involves
satisfying the morphological and syntactic rules of another language, while code-switches
involve sentence fragments, each morphologically, syntactically, and lexically belonging to
one language, and each connected with a fragment of the other language.

Similarly, Gumperz (1982b:66) states:

Borrowing can be defined as the introduction of single words or short, frozen,
idiomatic phrases from one variety (i.e., language), into the other. The borrowed
items are fully integrated into the grammatical system of the borrowing language
and they are treated as if they are part of the lexicon of that language and share the
morphological and phonological systems of that language.

Heath (1989:23) makes a distinction between C-S and borrowing as follows:

By code-switching is meant a pattern of textual production in which a speaker
alternates between continuous utterance of segments in one language, Lx, and
another language, Ly, with abrupt and clear-cut switching points, often at phrasal
or clausal boundaries. By borrowing is meant the adaptation of a lexical item, Py,
from Ly into Lx, becoming Px (that is, a regular lexical item in Lx satisfying
phonological, canonical-shape and morphological rules for this language).

Grosjean (1982:8) maintains the code-switched item can be of any length and
makes a distinction between C-S and borrowing as follows:

A code-switch can be of any length (a word, a phrase, a sentence) and is
completely shifted to the other language, whereas borrowing is a word or
short expression that is adapted phonologically and morphologically to the
language being spoken.
Regarding the work of the above mentioned researchers, Poplack (1980) and Bokamba (1989) in particular, like them, I consider the switched word, phrase, or sentence as instances of C-S if it maintains the syntactical, morphological features and is not integrated into the base language of the sentence. If it violates those conditions, I consider it to be an instance of borrowing.

Another feature that distinguishes C-S from borrowing is that the former does not interrupt the flow of speech. Rather, C-S usually takes place with no pauses or hesitations preceding it (Poplack, 1980; Sankoff and Poplack, 1980). As pointed out by Sridhar and Sridhar (1980), one of the motivations for borrowing words from another language is to fill a lexical gap in the language being spoken. I agree with them in their distinctions between borrowed items and code-switched or code-mixed items, which are as follows: (1) borrowed items fill lexical gaps in the host language; (2) they are restricted to single words; (3) they are restricted to a more or less limited set accepted by the community of the host language; (4) they are assimilated into the host language by regular phonological and morphological processes; and (5) they occur in monolingual speech.

Borrowing can be noticed in the speech of those with monolingual competence as well as those with bilingual or multilingual competence and only requires competence in the HL (Pfaff, 1979; Sridhar and Sridhar, 1980; Kachru, 1982). Shaffer (1978) makes a distinction between borrowing and C-S when he says that borrowing may occur in written form or formal speech, whereas C-S is restricted almost exclusively to informal speech. When borrowing, to avoid switching, the bilingual speaker will take some time to monitor his speaking or writing, and search for the most appropriate word or phrase.
Researchers such as Pfaff (1976), Sankoff and Maineville (1986), Poplack (1988), and Heath (1989) have difficulty determining what level of integration or assimilation can be accounted for in distinguishing between C-S and borrowing. Also, these researchers cast doubt on whether phonology is a reliable factor in distinguishing between C-S and borrowing because, to them, phonology may not reveal whether a bilingual speaker is code-switching or borrowing.

In spite of these disagreements as to whether or not phonology is a determining factor in distinguishing between C-S and borrowing, the researchers mentioned above, with the exception of Sankoff and Maineville (1986), still consider phonology to be a reliable factor in their studies of C-S and borrowing.

Finally, in the present study C-S is characterized by a lack of integration of one language into the phonology, morphology, and syntax of another. If an utterance is integrated into any aspect of the other language and becomes a permanent part of HL, then it will be considered borrowing, not C-S.

Following Poplack's (1980) definition of borrowing, I define borrowing as involving those lexical items that are fully integrated phonologically, morphologically, and syntactically into the HL and become part of its lexicon. In the present study, SSA has numerous examples of the borrowing of English terms. The reasons and motivations behind borrowing English terms involve the fact that Arabic does not have equivalents for certain technological and other newly invented terms. In addition, borrowing can be a result of frequent contact between the speakers of both languages. Some of the borrowed terms include names of countries, cities, places, buildings, foods, brand names, and so on.
Since Arabic speakers use these terms out of necessity in their daily conversations because they have no other choice, these words have become part of the Arabic language.

The following are representative examples from the present data of words borrowed from English that do not have equivalent words in Arabic. They have been fully integrated into the phonological, morphological, and syntactic systems of SSA.

<table>
<thead>
<tr>
<th>English</th>
<th>SSA</th>
<th>English</th>
<th>SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>computer</td>
<td>kumbiutar</td>
<td>doctor</td>
<td>doktoor</td>
</tr>
<tr>
<td>telephone</td>
<td>tilifoon</td>
<td>program</td>
<td>barnaamij</td>
</tr>
<tr>
<td>battery</td>
<td>baṭṭaariyah</td>
<td>Orlando</td>
<td>Orlaando</td>
</tr>
<tr>
<td>manager</td>
<td>manijar</td>
<td>bus</td>
<td>baash</td>
</tr>
<tr>
<td>cable</td>
<td>kabil</td>
<td>America</td>
<td>Amriika</td>
</tr>
<tr>
<td>bank</td>
<td>bank</td>
<td>Internet</td>
<td>internait</td>
</tr>
<tr>
<td>banks</td>
<td>bunuuk</td>
<td>cafeteria</td>
<td>kafityra</td>
</tr>
<tr>
<td>toefl</td>
<td>tofal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.4.4 Transfer vs. Borrowing

Transfer is another highly debated phenomenon in language contact. Researchers are not in agreement about what constitutes transfer.¹ For instance, Bloomfield (1933) considers interference to be synonymous with borrowing, while Clyne (1967), considers interference to be transfer.

In 1953, Weinreich was the first scholar to use the term “interference,” identified and defined by the Prague School. Weinreich (1953) defines interference as those instances of deviation from the norms of language under the influence of those of another

¹The term transfer is used in this dissertation to denote interference.
that occur in the speech of bilinguals as a result of their familiarity with more than one
language. Haugen (1956) further defines interference as the overlapping of two
languages, while Clyne (1967) defines interference as the adoption of any element or
feature from another language.

In distinguishing between interference and borrowing, Mackey (1970) defines
interference as the involuntary use of features belonging to one language while speaking
another. More broadly, Barkman (1968) points out that linguists generally define
interference as what happens when a bilingual speaker produces a form in a language that
a monolingual speaker of that language would not use, either as a result of identification
or for other reasons. When the bilingual’s L1 differs in structure from his L2, interference
may take place at any linguistic level. According to Romaine (1995), interference is
ultimately a product of a bilingual individual’s use of more than one language in everyday
interactions. Many researchers, including Weinreich (1953), Rouchdy (1977), and
Romaine (1995) assert that interference can take place at all levels of linguistic structure.

In the present study, I find that transfer at the phonological and syntactic levels is the most
common instance of this phenomenon, while morphological and lexical transfer is the least
common. In the case of Arabic, and SSA in particular, this is because the language is
morphologically very tight and rarely allows the introduction of foreign segments such as
affixations.

Phonological transfer is associated with “foreign accents.” For instance, a
bilingual speaker may use certain sounds from his native language system when he is
conversing in L2. When SSA is the L1, this is often due to the fact that, except in rare
cases, SSA does not allow consonant clusters. Thus, bilingual SSA-English speakers have phonological difficulties when pronouncing unfamiliar combinations of sounds, as in the following invented examples:

<table>
<thead>
<tr>
<th>English</th>
<th>SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>[streɪt]</td>
<td>[ɪstreɪt]</td>
</tr>
<tr>
<td>[ɡlɪmst]</td>
<td>[ɪɡlɪmstd]</td>
</tr>
<tr>
<td>[ɛrɛngd]</td>
<td>[ɛrɛŋɡd]</td>
</tr>
<tr>
<td>[kæts]</td>
<td>[kætɪs]</td>
</tr>
</tbody>
</table>

All these examples indicate that the Saudi bilingual speakers insert vowels to break up consonant clusters. In addition, the misproduction of specific sounds by the participants of this study can be attributed to L1 transfer. These sounds are as follows:

<table>
<thead>
<tr>
<th>English pronunciation</th>
<th>Arabic pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>/b/</td>
</tr>
<tr>
<td>/v/</td>
<td>/f/</td>
</tr>
<tr>
<td>/s/</td>
<td>/ʃ/</td>
</tr>
<tr>
<td>/t/</td>
<td>/t/</td>
</tr>
<tr>
<td>/q/</td>
<td>/ɡ/</td>
</tr>
<tr>
<td>/vi/</td>
<td>/viː/</td>
</tr>
</tbody>
</table>

The sounds /p/ and /v/ are not phonemes in either classical Arabic or SSA and they are not represented in the orthography. The pairs /b/ and /p/ as well as /f/ and /v/ in Arabic are allophones, while they are different phonemes in English. For example:

(3) (1.12) ... l- brobosal
   ‘... the proposal.’

(4) (14.19) ... suberfiysor
   ‘... supervisor.’

The sound /s/ remains as it is in SSA, in all cases except when it is preceded by the vowel /a/. There, the sound /s/ is changed into an emphatic /ʃ/, as in (5):
When speaking English, the sound /t/ remains as it is in SSA in all cases, except one. In that exception, the sound /t/ is changed into the emphatic /t/’, as in (6):

(6) (2.12) axäd al- pound of tomatoes bi 1.80
      take I the pound of tomatoes with 1.80
      ‘I buy the pound of tomatoes for $1.80.’

The sound /q/ is a phoneme in SSA. In some cases it is replaced by /g/, which is used in both classical Arabic as well as SSA, as in (7):

(7) (1.21) ... the major ideas Haggat at- ten courses
      ... the major ideas for the ten courses
      ‘... the major ideas for the ten courses.’

In relation to the sounds /vi/ → /vi/, the participants sometimes produced long vowels instead of shortening them. This process of vowel lengthening usually occurred in the second syllable of a two-syllable word, as in (8):

(8) (14.11) al office hours tixtilif min doktoor ila doktoor
      the office hours vary from doctor to doctor
      ‘The office hours vary from doctor to doctor.’

As far as examples of syntactic transfer are concerned, they are very common in the present study. These examples include (1) the occurrence of Arabic word order in an English sentence; (2) the deletion of the third-person-singular marker; (3) the alteration of adjectives-noun word order in the sentence (in Arabic, adjectives follow the nouns they modify, while in English they precede the nouns); and (4) the misuse of the definite article. All these examples are discussed further in Chapter 4.
1.4.5 Definitions of Code-Switching

As can be surmised by the previous discussions, considerable dispute exists regarding the definition of C-S. This section presents representative definitions of C-S that have been offered in the literature, followed by the definition that is applied in the present study.

Weinreich (1953:73) is one of the first researchers to deal with language contact phenomena. He points out that

an ideal bilingual switches from one language to the other according to appropriate changes in the speech situation (interlocutor, topic, etc.) but not in unchanged speech situations, and certainly not within a single sentence.

According to Haugen (1956:40), C-S takes place “when a bilingual introduces a completely unassimilated word from another language into his speech.” For Diebold (1963:84), C-S is “the successive alternate use of two different languages, standard language and a dialect, or sociolects of the same language and different written codes,” while Blom and Gumperz (1972:411) write it is “a shift between distinct entities which are never mixed.”

Hymes (1972) defines C-S from a sociolinguistic perspective. He states that C-S is the alternate use of two distinct languages within the same sociolinguistic perspective. In a later work, Hymes (1974:103) notes that “[c]ode-switching has become a common term for alternate use of two or more languages, varieties of a language, or even speech styles.” For Hartmann and Strok (1972), C-S is the process of changing over from one language to another, for example, in translating or interpreting, as in bilingualism.
Scotton and Ury (1977) define C-S as the use of two or more linguistic varieties in the same conversation or interaction. Those varieties may be anything from genetically unrelated languages to two styles of the same language. In contrast, Valdes-Fallis (1976) refers to C-S as the alternation of two languages.

Di Pietro (1978) defines C-S as the use of more than one language by communicants in the execution of a speech act. It takes place when a bilingual speaker engages in discourse with another bilingual speaker. Cheng and Butler (1989) see it occurring at the lexical, morphological, and syntactic levels of language.

According to Grosjean (1982), C-S is the alternate use of two or more languages in the same utterance or conversation. It can be of any length (a word, phrase, sentence), and involves a complete shift to the other language. For Sankoff et al. (1986), C-S is defined as "alternate sentence fragments in the two languages, each of which is grammatical by monolingual standards from the standpoint of appropriate function words, morphology, and syntax." Sridhar (1978) asserts that the term C-S refers to the alternate use of two or more languages or varieties in different social or functional domains, adding that the most significant characteristic of C-S seems to be that the switch from one code to the other signals a corresponding switch in the social situation. Bokamba (1989) defines C-S as the mixing of words, phrases, and sentences from two distinct grammatical sub-systems across sentence boundaries within the same speech event, thus C-S is intersentential switching. Poplack (1990), on the other hand, defines C-S as the juxtaposition of sentences or sentence fragments, each of which is internally consistent with the morphological and syntactic (and, optionally, phonological) rules of its lexifier language.
According to Lahlou (1991), C-S refers to a change of language at any point in discourse, that is, either between two sentences or within a single sentence. Finally, McClure (1977) defines C-S as an alternation of language at the level of surface sentence breaks or at the level of independent or dependent clause breaks.

It seems clear from the above-mentioned definitions of C-S that researchers are in agreement that C-S is the alternate use of two or more languages. For purposes of this study, I define C-S as a type of language contact that consists of the alternating use of two or more languages, e.g., between SSA and English and vice versa, or dialects of the same language at the word, phrase, clause, or sentence levels. I have chosen this definition because it is in accord with the definitions of the majority of researchers whose work most closely parallels mine.

In the next chapter, the literature review, I will deal with various theoretical and applied approaches to C-S.
CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

In this chapter I will review the more significant studies on C-S that have appeared in recent literature. This review will show that research on C-S has flourished in recent years, and that most research has been conducted using one of three main approaches: the sociolinguistic, the psycholinguistic, and the linguistic or syntactic approach. It is the main goal of this dissertation to investigate the linguistic aspects of C-S.

2.2 The Linguistic Aspects of C-S

From the linguistic aspect, early researchers concentrate on determining whether or not C-S is a random or a rule-governed phenomenon. Later, disagreements appear on whether or not there are constraints or restrictions on C-S and on whether these constraints are universal or language-specific. In addition to the syntactic aspects of C-S, there is other research on the morphological and phonological aspects affecting the production of C-S, as well as the bilingual speaker's competence in producing different types of C-S. These researchers include Gingras (1974), Timm (1975), Pfaff (1976, 1979), Wentz (1977), Kachru (1978, 1982), Poplack (1980, 1982, 1990), Sankoff and Poplack (1980), Zentella (1981), Bentahila and Davies (1983), Woolford (1983), Joshi

2.2.1 Nonsystematicity vs. Systematicity

In the following section, I review in detail various studies on the linguistic aspects of C-S as they appear in the literature regarding the question of whether or not C-S is a systematic, that is, rule-governed, phenomenon. In addition, I will review several proposed constraints on C-S and whether these constraints are universal or language-specific.

2.2.1.1 Nonsystematic C-S

Early studies of C-S suggest that it is not a rule-governed phenomenon. The first group of researchers who claim that the pattern of C-S is not systematic include Espinosa (1917), Labov (1972), Mkilifi (1972), and Lance (1975). Espinosa (1917) claimed that, in the Spanish of New Mexico, the use of regular English words and phrases has no fixed limits and does not follow regular laws. In another study of Spanish-English C-S, Labov (1972) also claims that no one has been able to show that such rapid alternation is governed by any systematic rules, and thus he describes C-S as the irregular mixture of two distinct systems. Lance (1975), one of the first researchers to claim that C-S is nonsystematic, gives a list of fourteen cases of switches between Spanish and English, claiming that "there are perhaps no syntactic restrictions on where the switching can occur in the sentence." Finally, Mkilifi (1972), in a study of KiSwahili-English C-S, claims that such switching is the result of habit.
2.2.1.2 Systematic C-S

The belief that C-S is a nonsystematic phenomenon—not rule-governed—remained unchallenged until about two decades ago. Beginning with Wentz and McClure’s article in 1977, publications by Kachru (1978), Lipski (1978), Pfaff (1979), Sankoff and Poplack (1980), Sridhar and Sridhar (1980), Poplack (1980), Gumperz (1982), Bentahila and Davies (1983), Joshi (1985), Berk-Seligson (1986), Kamwangamalu (1986, 1989), Nishimura (1986, 1992, 1995), Azuma (1987) and Bokamba (1988) appear disputing the previous point of view and, at the same time, arguing for the existence of constraints. Interestingly, the constraints they proposed did not remain unchallenged for long, being countered by other researchers who have provided examples from different languages disputing or invalidating those constraints.

2.2.2 The Proposed Constraints on C-S

It has been suggested in the literature on the syntax of C-S that there are two categories of constraints on C-S: (1) language-specific constraints, with the majority of the initial research performed on Spanish-English C-S, soon followed by French-English and French-Bantu and English-Bantu (e.g., Timm 1975; Gumperz 1976; Pfaff 1976, 1979; Kachru 1978); and (2) universal constraints on C-S, which have been proposed in the literature by Wentz and McClure (1977), Poplack (1980), and Sridhar and Sridhar (1980). Upon examination, these constraints soon prove to be far from universal. Among the first researchers to publish counterexamples to many of these constraints are Poplack (1980), Bentahila and Davies (1983), Bokamba (1988, 1989) and Scotton (1993).
2.2.2.1 Language-specific constraints

In a review of the literature on C-S by Kamwangamalu (1989), most of which focused on Spanish-English C-S, he points out that there are more than fifty language-specific constraints on the syntax of C-S. The following are some of Kamwangamalu's proposed constraints that I consider to be of greatest significance, particularly in regard to the research reported in this dissertation: (1) the pronominal constraint; (2) the determiner constraint; (3) the conjunction constraint; (4) the number-of-switches constraint; (5) the prepositional constraint; and (6) the adjectival constraint.

2.2.2.1.1 The pronominal constraint. The pronominal constraint stipulates that C-S is prohibited between a pronominal subject and its verb and between a verb and its object (Gumperz 1970; Timm 1975; Wentz and McClure 1977; Pfaff 1979). To illustrate this, Timm (1975: 478) provides the following nonpossibilities examples:

Spanish-English
(9)* Yo went

English-Spanish
(10)* He quiele

Spanish-English
(11)* Mira him

English-Spanish
(12)* She sees lo

According to Timm (1975), whether or not the subject and object pronouns are tightly linked to their verbs and whether English or Spanish word order is followed, seems to have no effect on the general inadmissibility of the above examples.
In their study of Moroccan Arabic-French C-S, Bentahila and Davies (1983:313-314) claim that there is not a single instance of switching between a pronominal subject and its verb or between a verb and its pronominal object. They give the following examples to illustrate what they consider to be the unacceptability of these occurrences in the speech of their subjects:

**French-Arabic**
(13)* je *yadi
'I go.'

**Arabic-French**
(14)* ana vais
'I go.'

**French-Arabic**
(15)* je vois hum
'I see them.'

**Arabic-French**
(16)* ana les nšuf
I them see
'I see them.'

This constraint has been counterexamplified by some researchers, including Sankoff and Poplack (1980), who find instances of Spanish-English C-S in their data that invalidate this constraint in cases where there is an English subject and a Spanish verb:

(17) You *estas deciende la pregunta*
'You are asking the question of the wrong person.'

(18) .....que he se monto
.....'that he got up'

Bokamba (1988:282) provides more counterexamples. These involve the prefixation of Bantu object clitic onto French and English roots, as in (19) and (20):
2.2.2.1.2 The determiner constraint. Wentz (1977) identifies the determiner constraint, a concept whereby a determiner must be in the same language as the part of speech it determines. According to this constraint, the following examples given by Wentz are considered grammatically unacceptable:

(21) *un car
    ‘a car’

(22) *a caro
    ‘a car’

Wentz claims that the above two noun phrases are considered to be ungrammatical because in Example (21) the definite article “un” is in a different language, Spanish, from the noun “car,” which is in English. In Example (22), the definite article “a” is in English, while the noun “caro” is in Spanish.

Kachru (1978:40) claims that there are several constraints on the items that can be code-switched in a noun phrase in the pre-head position. He illustrates his claim with examples from his data on South Asian languages and English C-S. He considers the following examples to be grammatically unacceptable:
(23)* Vaha five sundar larkiya parh ra hi thi. (numeral) there five beautiful girls reading were ‘There were five beautiful girls reading.’

(24)* tum this sundaar larkiki bat kar rahe the? (demonstrative) You this beautiful girl of talking were ‘You were talking about this beautiful girl.’

Abbassi (1977) partially supports this constraint when he argues that a French determiner “can never” precede an Arabic noun, although an Arabic determiner “can” precede a French noun.

Conversely, in their data on Moroccan Arabic-French C-S, Bentahila and Davies (1983) cite numerous examples that question the claim posit by Abbassi (1977), Wentz (1977), and Kachru (1978). For instance:

Moroccan Arabic-French

(25) ši semaine ‘some week.’

(26) dak d desodorant ‘that the deodorant.’

French-Moroccan Arabic

(27) de mraja:t ‘some mirrors’

(28) un Ṣaskri ‘a soldier’

We notice that the above examples contradict the claim posit by Wentz (1977) and Kachru (1978) in general and by Abbassi (1977) in particular. In examples (25) and (26), the definite articles are in Moroccan Arabic—ši, dak—followed by two French nouns—
semaine, desordorant—while in examples (27) and (28), two French articles—de, un—are followed by two Moroccan Arabic nouns—marjat, ʕaskri—respectively.

From her data on Spanish-English C-S, Poplack (1978:175) also provides examples contradicting this constraint, as in Example (29):

(29) where are they, *les* language things
    ‘where are they, the language things.’

2.2.2.1.3 The conjunction constraint. The conjunction constraint prohibits the occurrence of a GL conjunction in a HL coordinate sentence. Thus, the conjunction must be in the same language it conjoins (Kachru, 1978, 1982; Singh, 1981). In his study of Hindi-English C-S, Kachru (1978) claims it is impossible for a conjunction to be in a different language from either of the clauses it conjoins. He provides the following examples, which he considers ill-formed, from the conversation of Hindi-English speakers:

(30)* ram *and* ʃyan aye the
     Ram and Shyam came were
     ‘Ram and Shyam came.’

(31)* mai usko akhbar deta *but* diya nahi
     I *him* +obj. newspaper *would* give *but* gave neg.
     ‘I would give him the newspaper, but I didn’t’

(32)* bhai, khana khao, *aur* let us go
     brothers, food eat and *let* us go
     ‘Brothers, eat the food and let us go.’

(33)* John abhi aya nahi *lekin* I must wait for him
     John right now came neg. but *I* must wait for him
     ‘John didn’t come yet, so I must wait for him.’

In his study of English-Spanish C-S, Gumperz (1976) also claims that a conjunction must be in the same language as the conjoined sentence. Sometimes we find
that one constraint introduced by one researcher contradicts the terms and conditions of another researcher’s work. That is true in the case of the conjunction constraint proposed by Gumperz (1976) and challenged by Kachru (1978). Again, from Gumperz’ point of view, a conjunction must always be in the same language as the second clause it conjoins, whereas, from Kachru’s point of view, it is impossible for a conjunction to be in a different language from either of the clauses it conjoins.

Both Gumperz and Kachru agree on one thing, however. That is that a conjunction must be in the same language as one of the elements it conjoins (Lahlou, 1991), although this constraint has been questioned and invalidated in numerous studies, including that of Bentahila and Davies (1983), who find in their data on Moroccan Arabic-French C-S counterexamples, as illustrated in the following:

(34) ana tanzarz hadşi kulu et tan dir l ma
   ‘I take everything out and pour water over it.’

(35) je merase wla je ne me rase pas
   ‘I shared or I do not have.’

(36) w xla:h tu vois w bqa tajšuf
   ‘and he left him, you see, and kept looking around.’

We notice that in Example (34) a French conjunction “et” conjoins two Arabic sentences, whereas in Example (35) an Arabic conjunction “wla” conjoins two French sentences. In Example (36), the Arabic conjunction “w” conjoins another clause that is different from the first clause.

In studies of Spanish-English C-S, Pfaff (1979) and Poplack (1980) also provide counterexamples that violate this constraint, as does Bokamba (1988) in a study of
French-Lingala C-S. From this evidence, we can conclude that in all of these counterexamples the conjoining conjunction does not have to be in the same language it conjoins.

2.2.2.1.4 The adjectival phrase constraint. This constraint prohibits the switching of adjectives and nouns within the noun phrase (NP). In a study of Spanish-English C-S, Pfaff (1979) claims that “Adjective/noun mixes must match the surface word order of both the language of the adjective and the language of the head noun.”

The following example is considered by Pfaff to be unacceptable:

(37)* I went to the house *chiquita
I went to the house little
‘I went to the little house.’

In Example (37), Pfaff states that the constituent structure of the English language is violated. The Spanish adjective “chiquita,” which modifies the English noun “house,” violates the NP structure of English because, in English, unlike in Spanish, adjectives precede the nouns they modify.

Bokamba (1989) mentions that there are few published studies to test the validity of this constraint. According to him, that is due to the infrequent occurrence of adjectives in code-switched speech. However, he gives some examples from Lingala-French and English-French contradicting this constraint, which appear below:

(38) mobali na yo a-tele phon-aka yo deux fois per jour.
‘Your husband calls you twice a day.’

(39) Mise au point oyo nazali kosala ntina mini?
clarification this I am to make for what (from Sesep, 1978)
‘Why am I clarifying this matter?’

(40) He presented a paper exceptionel.
‘He presented an exceptional paper.’
According to Bokamba (1989), the numeral adjectival NP “deux fois” in Example (38) violates the Lingala constituent order in that the numeral “deux” precedes the noun “fois,” which is the convention in French but not the convention in Lingala. Example (39) violates the adjectival NP constraint because of the occurrence of the demonstrative adjective “oyo” after its head, “mise au point.” Example (40) is consistent with French grammatical word order in relation to adjectives, but it violates English word order, in which the adjective must precede the noun. Thus, in Example (40) the English is considered to be ill-formed.

In their study of Moroccan Arabic-French C-S, Bentahila and Davies (1983) find counterexamples that violate Arabic word order where the adjective must follow the noun. Thus, this constraint is violated, as demonstrated in examples (41) and (42):

(41) un professeur faDim
     a teacher excellent
     ‘an excellent teacher.’

(42)* un faDim professeur
     ‘an excellent teacher.’

We notice that the switching of the adjective “faDim” (excellent) in Example (41) is acceptable because in Arabic all adjectives are subcategorized as postnominal, whereas in French some adjectives are subcategorized as prenominal. In Example (42), the switching is not acceptable, because it violates the subcategorized rule of Arabic (Bentahila and Davies, 1983).

2.2.2.1.5 The number-of-switches constraint. Gumperz (1976:35) proposes “the number of switches constraint,” in which he claims that switching is limited in such a way
that “the total number of switches within any message subunit cannot be more than one.”

In other words, there can be only one switch in a code-switched sentence. He also claims that a switch may occur after the first or second clause, but not after both. He provides the following example to illustrate this constraint:

(43) I think that he believes that my father is the oldest.

According to Gumperz’s number-of-switches constraint, the following examples of switches are considered acceptable because they include one instance of Spanish-English C-S (44) and one instance of English-German C-S (45):

(44) Spanish-English
    that has nothing to do con que hagan ese
    ‘That has nothing to do with the fact that they are doing this.’

(45) English-German
    go and get my coat aus dem schrank da
    ‘Go and get my coat out of the closet there.’

Bentahila and Davies (1983), Mohamed (1989), and Kamwangamalu (1989) provide numerous counterexamples in which there are various kinds of sentences that contain more than one switch, as in (46), (47), and (48):

Moroccan Arabic-French

(46) hadak l pince djalu
    those the pliers of him
    ‘those pliers of his.’

French-Moroccan Arabic

(47) sur place taHu nna:s f le piege
    ‘At once the people fell into the trap.’

(48) elle te pique waxa tibs le drap *li:k
    ‘It bites you even if you put the sheet over you.’
As we can see in Example (46), the switch takes place within the NP. In Example (47), the switches takes place within a simple sentence, while in Example (48), the switches takes place within a complex sentence (Bentahila and Davies, 1983).

2.2.2.1.6 The preposition constraint. Pfaff (1979:310) claims that in Spanish-English C-S it is impossible for a preposition to be in a different language from the items both preceding and following it. In other words, prepositions alone are never switched.

Abbassi (1977), on the other hand, formulates a similar constraint through which a switch “can occur” between a Moroccan-Arabic preposition and the French noun phrase it governs; however, he also claims that the opposite switch, where the preposition is in French and the noun phrase it governs is in Arabic, “never occur.”

Bentahila and Davies (1983:315) provide counterexamples from their data refuting this constraint. They state that “switching is possible within a prepositional phrase where a preposition in one language governs a noun phrase in the other.” They provide the following examples to illustrate their claim:

Moroccan Arabic-French

(49) \textit{le debut}
    \begin{tabular}{c}
    \textit{`in the beginning.'}
    \end{tabular}

French-Moroccan Arabic

(50) \textit{marza}
    \begin{tabular}{c}
    \textit{`from the port.'}
    \end{tabular}

Madaki (1983), in a study of Swahili-English C-S, provides counterexamples invalidating Pfaff’s (1979) constraint, as in Example (51):

Madaki (1983), in a study of Swahili-English C-S, provides counterexamples invalidating Pfaff’s (1979) constraint, as in Example (51):
(51) amma it is disappointing Wallahi judging from his background [y]a politics
   ‘But it is disappointing, by God, judging from his background in politics.’

In Example (51), a Swahili preposition, “ya” (in), is switched into an English sentence in violation of this constraint.

2.2.2.2 Universal constraints on C-S

Kamwangamalu (1989) states that language-universal constraints, sometimes referred to as general constraints, are assumed to be these that can be applied to C-S across cultures and languages. In this section I will discuss four kinds of so-called universal constraints as proposed in the literature. These constraints are as follows:

1. the size-of-the constituent constraint; 2. the free-morpheme constraint; 3. the equivalent constraint; 4. the Dual Structure Principle.

2.2.2.2.1 The size-of-the constituent constraint. The size-of-the constituent constraint stipulates that major constituents, such as noun phrases, verb phrases, and clauses, are more frequently switched than smaller ones, such as nouns, adjectives, verbs, adverbs, prepositions, demonstratives, and conjunctions (Gumperz and Hernandez-Chavez 1975; Timm 1975; Poplack 1980).

This constraint, however, has been invalidated in numerous studies, including those by McClure (1977), Pfaff (1979), Sridhar and Sridhar (1980), Bentahila and Davies (1983), Scotton (1983), Berk-Seligson (1986), Bokamba (1988, 1989), Houwer (1990), and Kite (1996). These studies indicate that the smaller constituents comprise the largest number of constituents in code-switched speech. Pfaff (1979), for example, finds that 74 percent of all code-switched utterances in the speech of Spanish-English bilingual subjects
are single nouns. Also, in a study on C-S between Swahili and English in Nairobi, Kenya, Scotton (1983) finds that among 649 switches, 66 percent are single nouns, 16 percent are verbs, 5 percent are adjectives and adjectival phrases, and only 4 percent are whole sentences.

2.2.2.2 The free-morpheme constraint. As documented by Poplack (1978, 1980, 1982) and Sankoff (1980), the free-morpheme constraint prohibits switching between a bound morpheme and a lexical form unless the latter has been phonologically integrated into the language of the bound morpheme. Poplack (1980) provides the following well-known example from Spanish to illustrate her argument regarding this constraint:

(52)* eat-iendo
‘eating’

In this instance, the Spanish continuous-aspect bound morpheme “iendo” (-ing) is suffixed to the English free morpheme “eat.” This results in a violation of free-morpheme constraint unless one of the two morphemes, whether English or Spanish, is phonologically integrated into the Spanish or English system. This violation involves the affixation of different forms of bound morphemes to nouns and verbs in agglutinative languages such as Arabic, Chinese, Japanese, and Bantu. In addition, in a study of Lingala-French and KiSwahili-English C-S, Bokamba (1988, 1989) provides several examples violating this constraint.

Bentahila and Davies (1983), too, find counterexamples to this constraint among their data, as in (53) and (54):
(53) tabqa tat- gratter
       yo keep durative scratch
   'You keep scratching.'

(54) mbqaš y-fonctionner
       it stopped imperfect work
   'It stopped working.'

These examples show the Arabic bound morphemes "tat" and "y" in (53) and (54) affixed to the French roots "gratter" and "fonctionner." In his Egyptian Arabic-English C-S data, El-Noory (1985, cited in Bokamba, 1989) provides the following counter-examples:

(55) il- pituitary gland bi-y-samm-uu-ha
       the pituitary gland pres. 3rd pl. call it
   'They call it the pituitary gland.'

(56) ana ba- cope ma9 a l- lahja
       I pres. cope with the dialect
   'I cope/am coping with the dialect.'

Those two examples show that the switch takes place after the Arabic bound definite article "il" (the), where in Example (55), it is prefixed to the English NP "pituitary gland." In Example (56), the present-tense marker "ba" is prefixed to the English verb "cope" in violation of free-morpheme constraint.¹

2.2.2.2.3 The equivalent constraint. On the basis of studies of Spanish-English C-S among Puerto Ricans living in New York City, Poplack (1978) formulates the equivalent constraint. She claims that:

¹Additional counterexamples are found in the works of Nartey (1982) in a study of Adajme-English C-S, in Sankoff et al. (1986) in a study of Tamil-English C-S, and in Atawneh (1992) and Kamwangamalu (1989) in studies of Bantu languages and English/French C-S.
Code-Switches will tend to occur at points in discourse where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language, i.e., at points around which the surface structures of the two languages map into each other.

In a later version of her work (1980), Poplack modifies her position and states that “a switch is inhibited from occurring within a constituent generated by a rule from one language which is not shared by the other.”

Poplack (1980) provides an example (Figure 2.1) in which she predicts that C-S is permissible in the light of the equivalent constraint. In Figure 2.1, the surface structures of English and Spanish match at the boundaries marked by the dashed lines; the continuous lines indicate ways in which constituents from English and Spanish map into each other.

Where lines cross, switching is prohibited, so it is considered that “dije him” cannot occur, since “told him” and “le dije” do not map directly onto one another.

Equivalent constraint is considered by many researchers to be a good example applicable to Spanish-English C-S speech, especially in the word order of adjectives and nouns. In Spanish, as in Arabic, adjectives follow nouns, whereas in English adjectives precede nouns. Therefore, placing adjectives before nouns will result in a violation of the syntactic rule of Spanish and the equivalent constraint as well.

**Figure 2.1. Switches considered to be acceptable within the framework of Poplack (1978, 1980).**

<table>
<thead>
<tr>
<th>A. English</th>
<th>I</th>
<th>told him</th>
<th>that</th>
<th>so</th>
<th>that</th>
<th>he</th>
<th>would bring it</th>
<th>fast</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Spanish</td>
<td>yo</td>
<td>le dije</td>
<td>eso</td>
<td>pa</td>
<td>que</td>
<td>(el)</td>
<td>la trajera</td>
<td>ligero</td>
</tr>
</tbody>
</table>
Despite this, numerous recent studies (Sridhar and Sridhar 1980; Narney 1982; Bentahila and Davies 1983; El-Noory 1985; Berk-Seligson 1986; Bokamba 1988, 1989; Kamwangamalu 1989; Atawneh 1992) cast doubt on the universality of Poplack’s equivalent constraint by providing counterexamples from different language varieties that reject this constraint in both its versions.

In a study on Palestinian Arabic-English C-S, Atawneh (1992) finds among his data examples that supports the equivalent constraint in some cases and in other cases invalidates it. In (57) the Arabic “uxt” is replaced by its equivalent English noun “sister.”

(57) inti ahla sister fi d-dinya
you-f most beautiful sister in the world
‘You are the most beautiful sister in the world.’

This replacement matches the syntactic rules of both Arabic and English languages, giving evidence to support this constraint. In another instance, Atawneh gives the following example, Example (58), in which the syntactic rules of one language, in this case Arabic, are maintained, but not those of the other, English.

(58) waaHid bidd-u ye-invent machine
someone wants-he prf.-3- invent machine
‘Someone wants to invent a machine.’

In this instance, the Arabic perfective marker “ye” is prefixed to the English verb “invent.” This matches the Arabic pattern but violates the grammar rules of English. In addition, this example violates the constraint as well as casting doubt on its universality as a constraint.

Bentahila and Davies (1983) also provide a number of counterexamples that violate the equivalent constraint. For example, they discuss the switching between a
subject and its main verb in a French declarative main clause. In French the subject must precede the verb since French is a SVO language, but in Arabic VSO is also possible, as in (59) and (60):

(59) bqat l’ appartement remained the apartment
    ‘The apartment remained.’

(60) za le controle come the checking time
    ‘It’s time to do the checking.’

These two examples show an Arabic surface structure that, while it is not equivalent to that which is required in French, is perfectly acceptable, that is in terms of its nonviolation of the equivalent constraint.

2.2.2.2.4 The Dual Structure Principle. The Dual Structure Principle is formulated by Sridhar and Sridhar (1980) to correct the perceived inadequacies of Poplack’s equivalent constraint. This principle stipulates that “the internal structure of the guest constituent needs not to conform to the constituent structure rule of the host language, as long as its placement in the host sentence obeys the rules of the host language” (Sridhar and Sridhar 1980:412).

According to Sridhar and Sridhar’s claim, English NPS with postnominal modifiers can be code-switched in Kanada, even though they are formed in violation of the constituent structure rules for NPS in Kanada, as long as the English NPS are in positions normally occupied by NPS in Kanada sentences. Sridhar and Sridhar provide the following examples to illustrate their point:
(61) avanu obba man of considerable courage
    ‘He is a man of considerable courage.’

(62) nanna abhiprayadalli his visiting her at home sariyalla
    my opinion - in his visiting her at home proper not
    ‘In my opinion, his visiting her at home is not proper.’

Furthermore, Atawneh (1992), in a study of Palestinian Arabic-English C-S, claims
that his findings conform to this principle. He provides the following examples:

(63) ilha   big nose
    has she big nose
    ‘She has a big nose.’

(64) biti9malu  second floor zay heyk
    PRS-you-do second floor like this
    ‘Are you doing the second floor like this?’

In the above examples (63) and (64), while the English switched-noun phrases “big
nose” and “second floor” violate the host language rules, nevertheless their internal
structure remains unchanged when they occur in the place of a noun phrase in an Arabic
sentence.

This proposed constraint has not remained unchallenged. According to
Kamwangamalu (1989), there is a challenge to this constraint as a result of C-S involving
not only English with Indian languages, but also English or French with Bantu languages.

Pandharipande (1986, cited in Kanwangamalu 1989), also provides counter-
examples from Marathi-English C-S invalidating this constraint, as in (65):

(65) gadi (*in the station) ali
    mar (station-at) mar.
    train station-in came
    ‘The train came into the station.’
Thus, according to the claim by Pandharipande (1986), the internal structure of the guest English constituent has to conform to the constituent structure of the host Marathi language. The nonconformity of the English constituent to the Marathi structure causes the English structure “into the station” to be unacceptable in Marathi, while in the second sentence it is acceptable because the locative suffix “at” is attached to the English word “station.”
CHAPTER 3  
METHODOLOGY

3.1 Introduction

This chapter describes the methodology employed in this study. It is organized as follows: (1) ethnographic approach; (2) geographic setting; (3) participant selection; (4) data collection; (5) data analysis and preliminary hypothesis testing; (6) coding procedures; (7) limitations; and (8) transcription.

3.2 Ethnographic Approach

This study is based on the ethnographic approach and, as such, utilized qualitative, descriptive analysis. I adopted the technique of the “participant-observer,” utilizing audio recordings and interviews. By using this approach, I am following the example of Babbie (1992), who wrote that “the observer as participant is the one who identifies himself or herself as a researcher and interacts with the participants in the social process, but makes no pretense of actually being a participant” (p. 289). This technique of collecting data in an informal, casual, naturalistic environment has been commonly used by anthropologists and linguists.

3.3 Geographic Setting

Two areas were selected for data collection, Washington, D.C., and Gainesville, Florida. The Washington, D.C., area was selected as one data site for this study for the following reasons:
(1) it has more than eight universities at which many Saudi students are studying; (2) having lived there from 1988 to 1993, have a personal experience with the demographic circumstances of the participants and the area; and (3) there are several libraries in the area, which facilitated this effort.

Gainesville, Florida, the site of the University of Florida, was chosen as the other data site because: (1) it is the place where I have subsequently lived and studied since I left Washington, D.C.; and (2) Gainesville has a sufficient number of Saudi students who meet all the requirements for this study.

3.4 Participant Selection

A total of 20 Saudi graduate and undergraduate students bilingual in Arabic and English voluntarily participated in this study. These 20 were classified into two groups: the first group was made up of 12 students studying at various universities in the Washington, D.C., area; the second group consisted of eight students studying at the University of Florida in Gainesville. All were males from traditional middle-class Saudi families. Their ages ranged from 21 to 40 years old and they had been studying in the United States for at least one year. All had been exposed to English through their universities, friends, television, and the general environment in which they lived.

3.5 Data Collection

The methods used in this study for data collection consisted of three approaches, all used to record the type and frequency of C-S employed by the participants of this study. The first was face-to-face conversations, the second was informal interviews, and the third was telephone
conversations. These exchanges, undertaken in an informal and natural manner, were conducted both individually and in group conferences.

I contacted the 20 participants either by phone or in person. I explained the project, then sought their consent to participate. I told the participants that the purpose of the interviews was to show how Saudi students communicate and express themselves in a foreign environment. They were told that some features of their speech behavior would be studied and analyzed. By doing this, I was following the spirit of the law. All participants were assured that confidentiality would be respected and their identities would not be revealed. They were also informed that, upon completion of this study, all tapes and hand-written notes would be destroyed. After these assurances from me, the participants gave their written consent and recording commenced. A sample of the consent form can be found in Appendix A.

The meetings took place in different locations, including my home, friends’ homes, participants’ homes, university facilities, parks, and medical centers. The topics of conversation were general and varied and covered such areas as the cost of living in the United States, holidays and travel, sports, family life and problems, computer technology, entertainment, banking, education, school issues, and health issues.

Over a period of four months a total of fifteen hours of face-to-face conversations, interviews, or phone conversations were tape-recorded using a small, portable Panasonic tape recorder. The conversations were as natural and informal as possible. Additionally, a diary and hand-written notes were used for supplemental data collection. The interviews consisted of either individual or multiparty conversations. For individual sessions, each meeting lasted between thirty minutes and one hour. In the case of group sessions involving three to six persons, the
sessions lasted one to two hours. I either took the role of investigator and participant-observer in these conversations or sometimes merely maintained a low profile while the participants spoke. Most of the participants were already known to me, while others had been introduced to me by friends. The existing friendships with most of the participants facilitated the process.

To reduce possible anxiety and inhibition, the tape recorder was placed behind the participants. The participants seemed both to be at ease and to ignore the presence of the tape recorder and all spoke naturally.

When the conversations and interviews were completed, I told the participants the exact purpose of this study. The participants then were given the opportunity to document their perceived reasoning and motivations for using C-S by completing a questionnaire. An example of the questionnaire can be found in Appendix B.

3.6 Data Analysis and Preliminary Hypotheses Testing

The data that were collected from the participants of this study were analyzed to determine the frequency and types of switches, the language proficiency levels of the bilingual speakers, and the linguistic constraints that govern C-S. The following hypotheses emerged from the data collected and proposed in this section and discussed in detail in Chapter 4:

1. Participants with high levels of oral proficiency in L2 will produce all types of C-S.

2. Participants with low levels of oral proficiency in L2 will produce intra-sentential C-S.
3. Alternatively, participants with low levels of oral proficiency in L2 will not produce inter-sentential C-S.

3.7 Coding Procedures

In distinguishing a code-switched item from a noncode-switched item, the determining factor is the degree of integration of the switched item into the base language. Following Haugen (1956) and Poplack (1980), a given item is considered to have been code-switched if that item is not phonologically, morphologically, or syntactically integrated into the base language. Items such as proper names (place names, buildings, people’s names, names of countries and cites, names of foods, and brand names) are not counted as instances of C-S. Lengthy passages of conversation uttered in one language and which did not include instances of C-S in the other language were excluded.

3.8 Limitations

Participants selected for this study were limited to the following: (1) those able to speak and understand both SSA and English; (2) those who agreed to participate voluntarily; (3) those bilingual Saudi Arabian students who lived in the Washington, D.C., area or in Gainesville, Florida; and (4) male graduate and undergraduate students between the ages of 21 and 40. For religious and cultural considerations, female students were excluded from this study. These considerations prohibit a Muslim male researcher such as I from contacting or even approaching potential female participants.
3.9 Transcription

The transcription of the data was done by me using a "realistic transcriber." Transcription was limited to those relevant, audible, and comprehensible conversations that contained instances of C-S. Noise and sounds that were not relevant to the research were eliminated. The data were transcribed into 48 pages of written text in both SSA and English. The transcribed material was then analyzed applying the following techniques: (1) counting the number of switches in both languages; (2) classifying them according to the parts of speech, e.g., single words such as nouns, verbs, adjectives, and so on, and sentences and phrases such as noun phrases, verb phrases, adjectival phrases, and the like; (3) distinguishing C-S from C-M, and distinguishing C-S from borrowing and transfer from borrowing; and (4) determining whether the instances of C-S complied with or violated the linguistic constraints discussed in Chapter 2, the literature review.

The transcription of C-S data was done using conventional Arabic and English orthographies. Samples of the transcribed data can be found in Appendix C. I provided a morpheme-by-morpheme or word-by-word translation for SSA and English utterances whenever possible, followed by the meaning in standard English.

Finally, I asked three Saudi graduate students from three different universities who were fluent in both languages and were not participants in this study to review and verify the reliability and authenticity of the transcribed data. Verification of the data was necessary in order to guard against potential problems due to the highly diglossic nature of Arabic. My purpose was to make certain that the participants were consistent within SSA.
CHAPTER 4
RESULTS AND DISCUSSION

4.1 Introduction

In this chapter, in order to investigate the type and frequency of linguistic entities that are candidates for switching and to identify the place in an utterance where switching occurs, the switches found in the data will be analyzed in five ways, as follows:

(1) The syntactic level. This will include the distribution of the switches over different parts of speech—nouns, adjectives, verbs, adverbs, prepositions, determiners, pronouns, demonstratives, conjunctions, and fillers—as well as such phrases as noun phrases, verb phrases, adjectival phrases, prepositional phrases, and adverbial phrases. Lexical switches will refer to the introduction of one-word items from the Guest Language (GL) into the utterance in the Host Language (HL), while phrasal switches will involve the inclusion of phrases also from GL into HL.

(2) Linguistic constraints on C-S. This will involve analyzing the constraints mentioned in Chapter 2 to test their validity in light of the data from the study, to see whether these constraints are universal or language specific, and to find out whether or not they are applicable to SSA.

(3) The types of switches—intra-sentential and inter-sentential—will be analyzed to see the relationships between them and the proficiency of the language speaker and to
see which one of these two types of switches is most frequently used among the participants.

(4) Syntactic and morphological ramifications that may have occurred during a code-switched speech in either languages.

(5) With regard to its potential contribution to C-S studies, in this section new constraints will be proposed to C-S in SSA. The new constraints are the filler constraint and the determiner and demonstrative constraint.

4.2 The Linguistic Aspects

4.2.1 Syntactic Level

The data in Table 4.1 show that the majority (62%) of total switches occurred at the lexical level. Phrasal switches comprised 38% of the total. In addition, the majority of the lexical switches involved nouns. These findings support previous results by other researchers. When the two languages are SSA and English, the majority of lexical and phrasal level switches occur when SSA is the HL and English the GL. My data correlate with findings of this kind by researchers who investigated other languages.

As mentioned in the works of Lindholm and Padilla (1978b), Poplack (1980), Huerta (1980), McClure (1981), Bentahilla and Davies (1983), Berk-Seligson (1986), Azuma (1987), Myers-Scotton (1993a,b), and Halmari (1997), the majority of lexical level switches are nouns. The following are examples of the various syntactic categories uttered by the participants of this study in both languages:
4.2.1.1 Nominals

4.2.1.1.1 Nouns

(66) (2.8) 9ind-ik CHOICES li l- ?ašyaa allati tabgaa-h have you choices in the thing which you it ‘You have choices in the things you need.’

(67) (14.29) ana ruHt li l- MANAGER wa gilt luḥ al- ALARM mo šag’alal I went to the manager and said to him the alarm not working ‘I went to the manager and told him the alarm was not working.’

Examples (66) and (67) show English nouns choices, manager, and alarm used in Arabic contexts.

4.2.1.1.2 Noun phrases

(68) (1.7) al- mušrif gaal li YOU ARE A GRADUATE STUDENT the advisor said to me AND YOU HAVE TO BRING UP YOUR OWN POINTS ‘The advisor said to me, “You are a graduate student and you have to bring your own point of view”’

(69) (2.9) huwa gaal li I DO NOT CARE ‘He said to me “I do not care”.’

Examples (68) and (69) show English noun phrases, you are a graduate student and you have to bring your own point of view and I do not care, used in Arabic sentences.

4.2.1.2 Verbals

4.2.1.2.1 Verbs

(70) (14.4) hina ta xuṣ mawaad-ik BASED 9ala inn-ik mutajih ila ta xṣṣs mua9ain here take you courses based on that you heading tomajor specific ‘Here you take your courses based on your specific major.’

(71) (14.30) gaal li ṭayyib CHECK ma9 al- COMPANY said to me okay check with the company ‘He told me, “Okay,” then he asked me to check with the security company.’
Examples (70) and (71) show two English verbs, *based* and *check*, used in two Arabic sentences.

### 4.2.1.2.2 Verb phrases

(72) (9.15) *huwa fi l aamār* JOINED US

he in the end joined us

‘He finally joined us.’

(73) (1.16) *fihi taalib Sa'udi* PRODUCED A LOT OF PAPER WITH HIM

there was student Saudi produced a lot of paper with him

‘There was a Saudi student who produced a lot of paper with him.’

Examples (72) and (73) show two Arabic sentences switched to two English verb phrases, *joined us* and *produced a lot of paper with him* [the participant’s advisor].

### 4.2.1.3 Adjectivals

#### 4.2.1.3.1 Adjectives

(74) (13.2) *9ind-i jara?id wa kull-ha* FRESH

have I newspapers and all it fresh

‘I have today’s newspapers.’

(75) (1.12) *al-graduate courses allta kulla-ha* VALID

the graduate courses which I took it all it valid

‘The graduate courses I took are all valid.’

Examples (74) and (75) show two English adjectives, *fresh* and *valid*, used in two Arabic sentences.

### 4.2.1.3.2 Adjective phrases

(76) (17.4) *ba9āl al-mawaad fi-ha maqālan* SMALL PROJECT AND

GROUP STUDIES

some the courses in it for example small project and

group studies

‘Some of the classes require a small project and group studies.’
Example (76) and (77) show two Arabic sentences switched to two English adjective phrases, *small project and group studies* and *good experience*.

### 4.2.1.4 Prepositional

#### 4.2.1.4.1 Prepositions

(78) (1.21) the major ideas *Haggat at-* ten courses

the major ideas for the ten courses

‘The major ideas for the ten courses.’

(79) (1.23) three topic exam, *kull* topic *fiih* three questions

three topic exam each topic in it three questions

‘The exam has three topics, each with three questions.’

Example (78) and (79) show two Arabic prepositions, *Haggat* “for” and *fiih* “in it,” used in two English sentences

#### 4.2.1.4.2 Prepositional phrases

(80) (7.3) nissawi group studies *9lašaan* TO BENEFIT FROM IT

make we group studies in order to benefit from it

‘We form study groups to benefit from [working together].’

(81) (10.6) sawfa tikallam *9an* al-*mawduu9* IN GENERAL

will I talk about the topic in general

‘I will talk about the topic in general.’

Examples (80) and (81) show two English prepositional phrases *to benefit from it* and *in general* used in two Arabic sentences.
4.2.1.5 Adverbials

4.2.1.5.1 Adverbs

(82) (17.5) ba9d al- buHuu9 allti kitabt- ha tikuun mu9tarakah wa some the research which wrote I it is joint and
ba9d- ha yukuun INDIVIDUALLY some it is individually
'Some of the research papers I wrote are joint with other
students and some are written individually.'

(83) (3.1) al- jaami9a tli ana fii - ha SO FAR murtaH fii -ha
the university which I in it so far comfortable in it
'So far, I feel comfortable with my university.'

Examples (82) and (83) show English adverbs switched in Arabic sentences.

4.2.1.5.2 Adverb phrases

(84) (11.12) Halat- uh VERY VERY CRITICAL
condition his very very critical
'His condition is very critical.'

(85) (9.16) at TESOL mawduu9 VERY INTERESTING
the TESOL field very interesting
'TESOL is a very interesting field.'

Example (84) and (85) show English adverbial phrases used in Arabic sentences.

4.2.1.6 Conjunctions

(86) (18.13) wagga9t al- 9aqd, BUT ACTUALLY I DO NOT WORK
signed I the contract but actually I do not work
'I signed the contract but I actually I did not work.'

(87) (7.1) the course is built on the paper wa darajt- ik ti9timid 9ala al-
the course is built on the paper and grade your depend on the
paper haadi
paper this
'The course is built on a term paper and your grade depends on this
paper.'
Example (86) shows an English conjunction *but* used to conjoin Arabic and English sentences. Example (87) shows an Arabic connector *wa* "and" used to connect English and Arabic sentences.

### 4.2.1.7 Determiners and demonstratives

Notice that there is no instance of English determiner and demonstrative code-switching when SSA is HL, while there are a few cases when SSA is GL. For example:

(88) (3.21) actually, *ḥaḍā* *a* the third semester
- actually, this *a* the third semester
- "Actually, this is the third semester."

(89) (7.1) the course is built on the paper *wa* *dārajāt*-ik *tīqīmiḍ* *9ala*
- the course is built on the paper and grade your *depend* on
- *al-paper* *ḥaḍī*
- the paper this
- "The course is built on a term paper and your grade depends on this paper."

Examples (88) and (89) show two Arabic determiners, *a* "the" and *a* "the," used in two English sentences. The same examples above also show two Arabic demonstratives *ḥaḍā* "this" to refer to a masculine object and *ḥaṭī* "this" to refer to a feminine object.

### 4.2.1.8 Fillers

There was not a single case of filler code-switching when SSA was HL, while there were some cases of filler code-switching when English is HL. For example:

(90) (17.7) how to search, *ya9ni*, *an* - *nuqāṣt al-* maṭlūuba
- how to search, that is, the *points* the required
- "How to search, as you know, the required points."
Examples (90) and (91) show Arabic fillers used in English contexts. These fillers are *ya9ni*, meaning “that is,” or, “in other words” and *kida* “like that.”

As far as these findings are concerned, 62% of switched items are single words, and 55% are made up of noun switches only (see tables 4.1 and 4.2). Similarly, according to Kite (1996), many researchers mentioned that single-word switches comprised about 60% and switches of other types 40% of their total (Berk-Seligson, 1986; Azuma, 1987; Nishimura (1985, cited in Azuma, 1987); Myers-Scotton, 1993a,b; Fotos, 1995; Halmari, 1997). The present findings, which suggest that single-word switches are universal among languages, dispute a previous claim by Timm (1975) that phrasal switches occur more frequently than single-word switches.

From the analysis of the present data, the total number of switches were 614 items in both languages. These switches were made by twenty students in the study population. Five-hundred-sixty of these switches, which correspond to 91% of the total switches, were carried out when the HL was SSA, and 54 switches, or 9%, were made when 11 of the students used English as HL (see Table 4.4 and Figure 4.1). These findings indicate that the number of switched English items is higher when the participants engaged in conversation carried out in SSA, while the number is lower when the participants engaged in a conversation with English as HL. This suggests that the participants’ first language has a strong influence on their daily use, as indicated in tables 4.1, 4.3, 4.4, and Figure
4.2.2 Complete Reinforcement

According to the data, nominals were the most frequently switched items among the participants. This finding agrees with the findings of other researchers, including McClure (1977, 1981), Lindholm and Padilla (1978b), Pfaff (1979), Poplack (1980), Huerta (1980), Bentahila and Davies (1983), Berk-Seligson (1986), Azuma (1987), Houwer (1990), Myers-Scotton (1993a,b), and Halmari, (1997), and support the concept of the universality of nominal switches into the HL. In this study 55% of the participants' switches were nouns and 20% were noun phrases, or a total of 75% (see Table 4.2).

4.2.3 Partial Reinforcement

According to this study, the second most frequent switch is the adjectival. Specifically, the data show that 15% of the switched items are adjectivals—4% are adjectives and 11% are adjectival phrases. Although researchers may disagree on which switched item is second after the nominals, this data confirm that adjectivals are second, agreeing with the findings of McClure (1977), Sridhar and Sridhar (1980), and Houwer (1990). Also, this study finds that adverbials are third in frequency after nominals and adjectivals. As far as ranking is concerned, adverbial phrases ranked fifth at 3% and single-word adverbs ranked seventh at 1%. Verbal switches are fourth in frequency, which correlates in part with the findings of Lindhultm and Padilla (1978), who ranked verbal switches fourth. Moreover, only 2% of the prepositional switches involved prepositional phrases, correlating with existing finding of other researchers, such as Mohamed (1989) and Nishimura (1997). Not one case of a preposition switched from SSA as HL to GL
was found, supporting Pfaff's (1979) constraint that states it is impossible for a preposition to be in a different language from the items before and after it (see tables 4.1, 4.2).

4.2.4 Complete Violation of Conjunction Constraint

As far as SSA is concerned, 1% of the switches are conjunctions (see Table 4.2). This is in violation of the previously established theory of conjunction constraint, which claimed that a conjunction is to be in the same language as the connected elements, whether they are sentences or lower-level entities (Gumperz, 1976, 1982; Kachru, 1978, 1982; Singh, 1981). Other researchers (Pfaff 1979; Bentahila and Davies 1983; Bokamba 1989; Mohamed 1989; Mustafa and Al-Khatib 1994) have also provided counterexamples where conjunction constraint is invalidated.

4.2.5 Complete Reinforcement of Pronoun Constraint

Linguists are divided in their findings on pronoun constraint. Some claim that there is a constraint on switching a pronominal subject and its verb, and also on switching a verb and its pronominal object (Wentz and McClure 1977, Timm 1975, Pfaff 1979). Researchers such as Poplack (1978), Scotton (1983), Bokamba (1988), Lahlou (1991), and Mustafa and Al-Khatib (1994) provide counterexamples to invalidate the pronoun constraint claim. Because no pronoun switches were uttered by the participants (see tables 4.1 and 4.2), the present data reinforce pronoun constraint.

As far as English as the HL is concerned, in the present study the frequency of lexical switches are close to the frequency of phrasal switches. That is, the number of
lexical switches encountered is 51% of the total, while the phrasal switches are 49% (see Table 4.5). This finding suggests that the participants’ level of production of lexical and phrasal items is about the same. In other words, when Saudi students use English as HL, there is almost no difference in the frequency of lexical and phrasal switches. According to this study, the first highest in frequency is nominals (26%); the second highest in frequency is prepositional switches with 19%, and the third highest in frequency is fillers (15%), followed in descending order by verbal items, adverbial items, conjunctions, determiners, and demonstratives (see Table 4.5).

Interestingly, the participants do not make a single adjectival or pronominal switch when using English as HL, which suggests that pronoun switches do not occur, that is, pronoun constraint is not applicable to English-speaking Saudis (see Table 4.5).

As far as ranking is concerned, the switches are grouped according to their grammatical categories (nouns and noun phrases, adjectives and adjectival phrases, and so forth). For example, as Table 4.6-B shows, the NP and PP rank first, fillers second, nouns, verbs, verb phrases, and conjunctions all in third position followed by adverbial phrases, determiners, and demonstratives in fourth position, and verbs and prepositions last.

4.2.6 Contrasting English with Saudi-spoken Arabic

According to the data, there are only 54 switches of E-SSA as HL, which corresponds to 9% of the total number of switches, while there are 560 switches, which corresponds to 91% of all the SSA-E type of switches. When Saudi students use English as HL and SSA as GL, the NP and PP are the most frequent switches. In SSA-E switches,
the NP ranks second, while the PP ranks sixth. In E-SSA switches, fillers rank second, while in SSA-E switches, fillers do not occur at all. In E-SSA, nouns rank third, while they rank first in SSA-E. In E-SSA, verb phrases rank third, whereas they rank sixth in SSA-E switches. Conjunctions rank third in E-SSA, but they rank seventh in SSA-E switches. In E-SSA as HL, determiner and demonstrative switches rank fourth, while they are constrained in SSA-E switches. Adjectives and adjectival phrases do not occur when English becomes HL, whereas adjectival phrases rank third and adjectives rank fourth in SSA-E switches. Finally, the occurrence of switched pronouns in both cases is zero; they are constrained in both languages (see tables 4.2, 4.6 and Figure 4.1).

4.3 Linguistic Constraints

In the following section, examples from the findings in relation to the proposed constraints on C-S mentioned in the literature will be discussed to see if these constraints are applicable to SSA. As we have seen earlier, these constraints have been divided into two types—language-specific constraints and universal constraints. Also, we have seen earlier that all of the proposed constraints have been invalidated by several researchers who provided counterexamples from different language varieties. The data from the present study, discussed in this chapter and in Chapter 2, support the contention that, contrary to the claims of some researchers, these constraints are not universal. In light of recent discoveries, these constraints appear to be vulnerable to criticism. As will be
discussed, in the present data, several instances of C-S between SSA-E and E-SSA are documented that cast doubt on most of these claims.

For the sake of clarity, the definition of each of these constraints will be repeated to guide the reader to compare the findings with these constraints. Readers may refer to the examples and counterexamples of C-S in Chapter 2 for more information on the proposed constraints.

4.3.1 Language-Specific Constraints

In Chapter 2 several language-specific constraints are proposed in the literature on C-S. They are as follows: (1) pronominal constraint; (2) determiner constraint; (3) conjunction constraint; (4) adjectival constraint; (5) number-of-switches constraint; and (6) prepositional constraint. In the following section, findings regarding their applicability, or lack of applicability, to SSA will be discussed.

4.3.1.1 The pronominal constraint

The pronominal constraint is one of the constraints proposed by Gumperz (1970), Timm (1975), Wentz and McClure (1977), and Pfaff (1979). It stipulates that C-S is prohibited between a pronominal subject and its verb and between a verb and its object.

The results of the present study generally support the claim raised by the researchers mentioned above; that is, switching between a pronominal subject and its verb or between a verb and its pronominal object is prohibited. There is not one case of C-S of this kind in the data. The following are invented examples considered by the study's participants to be unacceptable in SSA-E or E-SSA C-S, and probably in other Arabic dialects.
<table>
<thead>
<tr>
<th>pronoun subject</th>
<th>verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA-E</td>
<td>E-SSA</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>E-SSA</td>
<td>SSA-E</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>verb</td>
<td>pronoun object</td>
</tr>
<tr>
<td>SSA-E</td>
<td>E-SSA</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>E-SSA</td>
<td>SSA-E</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Just as in those examples of Spanish-English C-S mentioned in Chapter 2 by Timm (1975), these examples demonstrate that in Arabic-English C-S the subject or object of a sentence cannot be in a language different from the language of the verb they belong to grammatically. It appears that the pronominal subjects and objects have a close relation to their verbs, regardless of whether the word order followed is English or Arabic.

4.3.1.2 The determiner constraint

Wentz (1977) identifies the determiner constraint, a concept whereby he claims that a determiner must be in the same language as the part of speech it determines. Kachru (1978:40) claims that there are several constraints on the items that can be code-switched.
in a noun phrase in the pre-head position. Abbassi (1977) partially supports this constraint when he claims that there is no evidence of a French determiner preceding an Arabic noun, whereas there is evidence of an Arabic determiner preceding a French noun.

In the present study, the data partially invalidate the claims of Wentz (1977) and Kachru (1978), and support the findings of Abbassi (1977). There is no single case of switched determiners when English becomes HL, but there are numerous examples of determiners switching when Arabic becomes HL. For example:

SSA-E

(92) (7.23) țaaH min al- bridge
fell he from the bridge
‘He fell from the bridge.’

(93) (4.2) law truuH li 1- farmer...
if go you to the farmer...
‘if you go to the farmer...’

(94) (8.4) kUll a- graduate courses tabda 5:20 p.m.
all the graduate courses starts 5:20 p.m.
‘All of the graduate courses start at 5:20 p.m.’

(95) (18.18) fi r- rush hours tikuun aś- šawari9 zaHama
in the rush hours become the streets crowded
‘During rush hour the streets become crowded.’

(96) (2.27) saweet report li t- top management
made I report to the top management
‘I made a report to the top management.’

The existence of such examples as (92), (93), (94), (95), and (96) challenge the already mentioned claims by Wentz (1977) and Kachru (1978), who report that single determiners or subject pronouns cannot be switched. At the same time, the examples above are in agreement with the findings of Abbassi (1977), who maintains that a French
determiner "never" precede an Arabic noun, whereas an Arabic determiner "can" precede a French noun. We notice that in the above examples the Arabic definite articles "al," "a," "r," "t," and "l" precede the English nouns "bridge," "graduate course," "rush hours," "top management," and "farmer." I believe that Abbassi is referring to the fact that French determiners have not appeared before Arabic nouns in the data he has examined. There is no structural obstacle to such a C-S. I hesitate to use these words--"can" and "never"--because the prospective data referenced is simply not currently attested.

4.3.1.3 The conjunction constraint

The conjunction constraint prohibits the occurrence of a GL conjunction in an HL co-ordinate sentence. Thus, according to Gumperz (1976), Kachru (1978, 1982) and Singh (1981), the conjunction must be in the same language it conjoins, and it is impossible for a conjunction to be in a different language from either of the clauses it conjoins.

In the present study, there are numerous examples where Arabic conjunctions conjoin two English sentences and English conjunctions conjoin two Arabic sentences, thus violating this constraint. Also, there are examples of coordinate-clause conjunctions that appear to be in the language of the second clause, as in (97), (98), (99), (100), (101) and (102), below.

SSA-E

(97) (4.7) at- tuition fi l- braiyfit universities gaali and very costly
the tuition in the private universities expensive and very costly
'The tuition in private universities is expensive and very costly.'
(98) (9.6) saa9a wa nusf li 1- presentation and nusf saa9a
one hour and half for the presentation and half hour
for discussion
for discussion
‘one and a half hours for the presentation and a half-hour
for discussion.’

(99) (18.13) wagga9t al- a9qd but actually I do not work
signed I the contract but actually I do not work
‘I signed the contract but actually I haven’t started working.’

(100) (1.33) li hadaf or a point I am looking forward for it
for me goal or a point I am looking forward for it
‘I have a goal or a point I am looking forward to achieving.’

E-SSA

(101) (7.1) the course is built on the paper wa darjt- ik ti9timId 9ala
the course is built on the paper and grade your depend on
al- paper haaDi
the paper this
‘The course is built on writing a paper and your grade depends
on this paper.’

(102) (7.19) if the game is on I watch it bass ma ataHammas la- ha
if the game is on I watch it but not get excited by it
‘If the game is on I watch it, but I do not get excited.’

We notice that in (97) the conjoining conjunction “and” is English, but it conjoins
two clauses, the first in Arabic and the second in English. The same principle can be
applied to examples (99) and (100). In Example (98), the conjoining conjunction “and” is
English, but the conjoined clause is Arabic, while in examples (101) and (102), the con-
joining conjunctions wa “and” and bass “but” are used to conjoin two Arabic clauses. We
can conclude that the above-mentioned examples contradict the conjunction constraint.
4.3.1.4 The adjectival constraint

The adjectival constraint prohibits the switching of the order of adjectives and nouns within a noun phrase (NP). In a study of Spanish-English C-S, Pfaff (1979) claims that:

Adjective/noun mixes must match the surface word order of both the language of the adjective and the language of the head noun.

In the present study, as in other studies in the literature, there are examples of noun phrases followed by adjectives from the GL that violate this constraint, as shown in examples (103) and (104).

(103) (6.32) sawwu Hašara experimental
    made they insect experimental
    ‘They made an experimental insect.’

Here the adjective “experimental” is in the right place for an Arabic postnominal adjective, but in the wrong place for an English adjective. This sentence violates both English grammar and Pfaff’s adjectival constraint.

(104) (14.18) 9ind-i great wažiifä
    have I great job
    ‘I have a great job.’

Again, the adjective “great” is in the right place for an English prenominal adjective, but the wrong place for an Arabic adjective. This kind of switching is acceptable according to English structural rules, but, at the same time, it violates the adjectival constraint. When either adjective in the above examples is put in the wrong place to satisfy the structural requirements of Arabic (103) or English (104), the sentences are considered ungrammatical. Furthermore, the present study includes some examples
that support this constraint, in which the switching of the noun and adjective from both languages matches the word order of both languages. However, since there are examples from the data like (103) and (104) that violate this constraint, we can stipulate that this constraint lacks validity and consistency. The following example partially supports this constraint.

(105) (18.3) ad- dorm Hawaali ten adwaar
       the dorm approximately ten stories
       ‘The dorm is approximately ten stories.’

Example (105) above shows that the adjective “ten” matches the surface word order of both the language of the adjectives (Arabic) and the language of the head nouns (English).

4.3.1.5 The number-of-switches constraint

Gumperz (1976:35) proposes the number-of-switches constraint, by which he claims that switching is limited in such a way that “the total number of switches within any message subunit cannot be more than one.” In other words, there can be only one switch in a code-switched sentence. Gumperz (1976) also claims that a switch may occur after the first or second clause, but not after both.

In the present study, the data show that a sentence can contain one switch or more than one switch. This finding correlates with the findings of other researchers. Also, this finding invalidates Gumperz’s constraint. The following are representative examples from the data of the present study.

(106) (3.3) hum yuwazi9uun flyers
       ‘They distribute flyers.’
We can conclude that the length of the sentence has nothing whatsoever to do with the number of switches in a code-switched sentence. As indicated in the above-mentioned literature and in these data as well, the number-of-switches constraint is the most frequently violated. Consequently, this constraint can be considered one of the weakest.

4.3.1.6 The preposition constraint

Pfaff (1979:310) claims that in Spanish-English C-S it is impossible for a preposition to be in a different language without the items both preceding and following it. In other words, prepositions alone are never switched.

Abbassi (1977), on the other hand, formulates a similar constraint through which a switch “can” occur between a Moroccan-Arabic preposition and the French noun phrase that it governs. He also claims that the opposite switch, where the preposition is in French and the noun phrase it governs is in Arabic, “never occurs.”
As far as the present study is concerned, the findings partially support the claims of Pfaff (1979) and Abbassi (1977) in that there is no single case in which an English preposition governs an Arabic noun phrase, whereas there is one case in which an Arabic preposition governs an English noun phrase. In other words, there is not a single case of switched prepositions when SSA is HL, whereas there is one case of a switched preposition when English becomes HL.

The second part of the findings is in agreement with Abbassi’s (1977) findings, while at the same time they violate Pfaff’s (1979) constraint. For example:

E-SSA

(110) (1.21) the major ideas Haggat at- ten courses
‘the major ideas for the ten courses’

In Example (110), the Arabic preposition Haggat “for” governs the English noun phrase “the ten courses.”

As far as prepositional phrases are concerned, there are several cases in which it is possible to switch prepositional phrases in a language different from the HL, whether the switching is between SSA- E or vice versa. The following are representative examples to support this claim:

SSA-E

(111) (7.3) nisawwi group studies 9alašaan to benefit from it
we form group studies in order to benefit from it
‘We form study groups in order to benefit.’

(112) (1.8) yajib an takuun Harriş on what you are doing
must that are careful on what you are doing
‘You must be careful about what you are doing.’
(113) (14.25) tiqdar tidxl 9ala computer al- jaami9a *from your local home*
   can you enter on computer the university from your local home
   ‘You can access the university computer from your house.’

E-SSA

(114) (10.21) they build al- bases li j- jaalib
   they build the bases for the student
   ‘They build the foundations [of the discipline] for the student.’

(115) (12.18) put the pen 9ala l- kursi
   ‘Put the pen on the chair.’

(116) (1.39) it turns out inn uh, ya9ni, min alfiin lines...
   it turns out, that that is, from two-thousand lines...
   ‘It turns out that from two thousand lines...’

(116) (1.23) three topics exam kUll topic fiih three questions
   three topics exam, each topic in it three questions
   ‘This exam covers three topics, each topic will have three questions.’

4.3.2 Universal Constraints on C-S

In the following subsection, findings in regard to the claimed universal constraints
proposed in the literature, as mentioned in Chapter 2, will be discussed to test their
applicability to SSA and to see if they are truly universal, as some have claimed. These
constraints are as follows: (1) the size-of-the constituent constraint, (2) the free-
morpheme constraint, (3) the equivalent constraint, and (4) the Dual Structure Principle.

4.3.2.1 The size-of-the constituent constraint

The size-of-the constituent constraint stipulates that such major constituents as
noun phrases, verb phrases, and clauses are more frequently switched than individual
lexical items, such as nouns, adjectives, verbs, adverbs, prepositions, demonstratives, and

The findings of the present study contradict this constraint, in that the data show
that out of 614 switches, 62% of switched items are single words and 55% are nouns,
whereas phrases are in the lowest percentage. Thus, these findings show that the size-of-
the constituent constraint lacks the universality that has been claimed.

4.2.2.2 The free-morpheme constraint

As documented by Poplack, (1978, 1980, 1982), and Sankoff and Poplack, (1980),
the free-morpheme constraint (FMC) states that switching is not acceptable between a
bound morpheme and a lexical form unless the latter has been phonologically integrated
into the language of the former.

The data of the present study both support this constraint and they violate it.

Examples (118), (119), and (120), below, superficially appear to be counterexamples to
FMC. An analysis of these examples might show that the bound morphemes [d], [l], and
[t] are cliticized to the prepositions — /fi/ = in, bi = with, li = to — before them. While I
recognize that this cliticized analysis is both controversial and unconventional, the FMC
itself is a significant one and must not be discarded or even taken lightly. The following
are representative examples supporting this constraint:

(118) (18.2) ana saakin fi d- dorm
      I live in the dorm
      ‘I am living in the dorm.’

(119) (5.14) ana a9taz bi l- culture Haggana
      I proud with the culture our
      ‘I am proud of my culture.’
The other instance where FMC is violated is in the affixation of the Arabic bound definite article /al/. Examples (121), (122), and (123), below, show the affixation of Arabic bound definite articles, [al, ar, as, = the], to English noun phrases, which violates Poplack’s free-morpheme constraint according to which a switch may not occur between a bound morpheme and a lexical item unless the latter has been phonologically integrated into the language of the former.

The following are representative counterexamples violating this constraint:

(121) (2.38) al- office hours very important
   the office hours very important
   ‘The office hours is very important.’

(122) (19.8) fiih anwaa9 ar - references fi l- maktaba
   there are kinds the references in the library
   ‘There are different kinds of references in the library.’

(123) (12.16) as- signal maujuuda
   the signal there
   ‘The signal is there.’

4.3.2.3 The equivalent constraint

On the basis of studies of Spanish-English C-S among Puerto Ricans living in New York, Poplack (1978, 1980) proposes the equivalent constraint. She claims that:

Code-switches will tend to occur at points in discourse where juxtaposition of L1 and L2 elements does not violate a syntactic

---

1The reader may know that the final consonant [l] of the definite article adopts the features of the initial consonant of the following word- - r, s, t, s, z, d, θ, δ, z, t, n, l.
rule of either language, i.e., at points around which the surface
structures of the two languages map into each other.

Poplack later (1982) modifies her position, stating that:

A switch is inhibited from occurring within a constituent
generated by a rule from one language which is not shared
by the other.

Among the data in the present study are a few instances where the equivalent
constraint is maintained. The following, however, are frequent occurrences of counter-
examples to the equivalent constraint where juxtaposed elements do violate syntactic rules
of either L1 or L2.

Placement of an adjective (Adj) within a noun phrase (NP) is one of the most
frequent instances where the equivalent constraint is violated. This placement results in a
violation of both Arabic and English syntactic rules, so it is quite clear that Arabic in
genral, and SSA in particular, do not share the same phrase structure rule (PSR) for noun
phrases as English.

The following are applicable rules:

(A) Arabic and SSA PSR
Det + N + (Det) + Adj or N + Adj.

(B) English PSR
(Det) + Adj + N or Adj + N.

Rule A states that in Arabic and SSA a noun phrase consists of a noun (N)
preceded or followed optionally by a determiner (Det) or an adjective. Rule B states that
in English an NP can consist of a noun which may be preceded optionally by a determiner
or an adjective. Since the rules in (A) and (B) are different from one another, the
equivalent constraint would prevent any type of C-S between Arabic and English within noun phrases. In Example (123), below, the adjective “experimental” follows the Arabic syntactic rule that the adjective follows the noun, while at the same time it violates the English syntactic rule that the adjective precedes the noun. In Example (124), the adjective “outdoor” follows the English syntactic rule and violates the Arabic syntactic rule. In Example (125), the placement of the Arabic adjective jidiid comes after the English noun “technique,” which is in line with the Arabic syntactic rule and violates the English syntactic rule. Also, in this example, and in most of the examples in the data, the copula “am, is, are” is missing, which follows the Arabic structure rule that there is no verb “to be” in Arabic in the present tense. We notice that when English adjectives occur in Arabic sentences, they are never inflected for gender and number, but Arabic adjectives follow their nouns and agree in gender and number. For example, jidiid, “new,” is masculine singular, and kiGira, “a lot,” is feminine singular. Example (126) violates English surface structure, whereby the Arabic demonstrative pronoun haadi should precede its noun, but is in line with Arabic surface structure, which requires demonstratives to follow their nouns. In Example (127), the Arabic pronoun Hagguh, “his” is in the right position to satisfy Arabic rules, but violates English rules by which the pronoun “his” must precede its noun. The same thing can be said about Example (128), where the Arabic pronoun Haggik “your” follows the noun “opinion,” in accordance with Arabic rules, but again violates the English rule whereby “Haggik” (your) must precede “opinion.”

(123) (6.32) sawwu Hašara experimental
made they insect experimental
‘They invented an experimental insect.’
(124) (3.12) 
la9ib- na outdoor kura fi January
played we outdoor soccer in January
‘We play outdoor soccer in January.’

(125) (2.4) 
haaďa technique jidiid
this technique new
‘This is a new technique.’

(126) (7.1) 
the course is built on the paper wa
darjt- ik ti9timtd 9ala
the course is built on the paper and grade your depend on
al- paper haaďi
the paper this
‘The course is built on the paper and your grade depends on this paper.’

(127) (2.43) 
al- pronunciation Hagguh ta9ban
the pronunciation his bad
‘His pronunciation was bad.’

(128) (8.11) 
al-mudarris gaal li 9at-ni al- opinion Haggiık
the teacher said to me give me the opinion your
‘The teacher asked me to give him my opinion.’

The following representative examples from the present study support the
equivalent constraint, in which the surface structure of both languages is maintained.

(129) (18.3) 
ad- dorm Hawaali ten adwaas
the dorm approximately ten stories
‘The dorm is approximately ten stories high.’

(130) (16.6) 
ana daiyman busy
I always busy
‘I am always busy.’

(131) (12.14) 
haaďi al- maHaṭṭa free
this the channel free
‘This channel is free.’

(132) (11.5) 
9at- ni call bukra
give me call tomorrow
‘Give me a call tomorrow.’
Most of the adjectival forms in this study are predicate adjectives that have equivalent surface structure in both languages. This is clear from examples (129), (130), and (131), above, where, if the adjectives “ten,” “busy,” and “free” were to be replaced by their Arabic equivalents such as ])**sur, mu**guul, and majaan, nothing would need to be changed and the syntactic rules of both languages would be satisfied. The same thing can be said about examples (133) and (134). If we replace the English nouns “weekend,” “test,” and “bridge” with their Arabic equivalents, 9u**lat nihaayat al-isbu9, ixtibaar, and jaser, their order will not change. In Example (132), the English verb “call” is followed by an Arabic adverb bukra “tomorrow,” which is in the correct position in both languages, since adverbs follow their verbs in English and Arabic. The surface structure rules of both languages are satisfied.

This constraint has been frequently invalidated in the literature and in the data from the present study. Based on the evidence, one must conclude that this constraint has proven to be far from universal.

4.3.2.4 The Dual Structure Principle

The Dual Structure Principle was formulated by Sridhar and Sridhar (1980) to correct the inadequacies of the equivalent constraint proposed by Poplack (1978, 1980).
This principle stipulates that:

the internal structure of the guest constituent needs not to conform to the constituent structure of the host language, as long as its placement in the host sentence obeys the rules of the host language. (Sridhar and Sridhar, 1980:412)

The findings in the present study support the Dual Structure Principle and, at the same time, agree with the finding of Atawneh (1992) in his study on Palestinian Arabic C-S. The following are representative examples supporting this principle.

(135) (1.1) șraHaatan, 9ind- i a big family
      honestly, have I a big family
      ‘Honestly, I have a big family.’

(136) (12.13) 9ind-i international channels
      have I international channels
      ‘I have international channels.’

(137) (20.4) al- 9ayš hina good experience
      the living here good experience
      ‘Living here is a good experience.’

Here we notice that the internal structure of all English switched adjectival phrases in examples (135), (136), and (137) conform to the rules of English, although they violate the rules of the Arabic HL since in Arabic adjectives follow their nouns, while in English they precede them. Here they remain unchanged when they fill the place of an NP in an Arabic sentence.

4.4 Types of Switches

Two types of code-switches, inter-sentential and intra-sentential, were presented in Chapter 1. These types will be discussed in relation to whether or not the bilingual
speaker’s high level of proficiency in L2 or lack of it matters in producing both types.

The present findings, like those of Berk-Seligson (1986) and Bentahila and Davies (1992), contradict Poplack’s (1978, 1980) claim that there is a correlation between high competence in L2 and high frequency in all C-S. In the present study, intra-sentential switches were made by both fluent and nonfluent participants. For example, the low proficiency of Participant #13 produced only intra-sentential switches, which correlates with the findings of both Berk-Seligson (1986) and Bentahila and Davies (1992). Also, the data suggest that most of the switches were made by both highly fluent, proficient participants in L2 and by those less fluent (see Table 4.9). This lends support to the hypotheses that speakers with higher proficiency in both languages can produce all types of switches, and speakers of low proficiency in their L2 tend to produce intra-sentential switches. The data also show that inter-sentential switches play a far less important role, comprising only 4% of switches, while intra-sentential switches produce the highest frequency of switched items, comprising 96% of the total number (see Table 4.7).

4.4.1 Intra-sentential C-S

As mentioned above, in this study intra-sentential C-S refers to the switches that occur within the same sentence or sentences or part of a sentence, as in the following:

Noun phrase:

(138) (2.9) huwa gaal I do not care
‘He said, “I do not care”.’
Nouns:

(139) (17.2) kitabt paper fi a'şr as- semester wrote I paper in end [of] the semester
‘I wrote a paper at the end of the semester.’

There is agreement among researchers (McClure 1977, 1981; Lindholm and Padilla 1978b; Pfaff 1979; Poplack 1980; Huerta 1980; Bentahila and Davies 1988; Berk-Seligson 1986; Azuma 1987; Houwer 1990; Myers-Scotton 1993a,b; Halmari 1997) that nouns and noun phrases are the parts of speech most frequently used in a code-switched sentence. The present study bears this out—that nouns and noun phrases are those most frequently used by the participants.

Adjective:

(140) (12.14) haa'di al- maHa'tta free
this the channel free
‘This channel is free.’

Adjectival phrase:

(141) (2.29) aba 9iik summarized report
will I give you summarized report
‘I will give you a summarized report.’

Verb:

(142) (14.30) gaal li tayyib check ma9 al- company
said he to me, okay check with the company
‘The manager said to me, ‘Okay.’ Then he asked me to check with the company.

Verb phrase:

(143) (9.15) huwa fi l- aaxir joined us
he in the end joined us
‘He finally joined us.’
Adverb:

(144) (5.7) šuft MoHammed yesterday
        saw I MoHammed yesterday
        ‘I saw MoHammed yesterday.’

Adverbial phrase:

(145) (3.28) al- Haya hina very difficult
        the life  here very difficult
        ‘Life here is very difficult.’

Preposition:

(146) (1.21) the major ideas Haggat  at- ten courses
        ‘the major ideas for the ten courses.’

Prepositional phrase:

(147) (7.4) fiih naas yistaxdimu-un al- maktaba for different reasons
        there are people use they the library for different reasons
        ‘There are people using the library for different reasons.’

It can be observed that the switches in examples (138) through (147) take place at
the intra-sentential level.

4.4.2 Inter-sentential C-S

In this study, inter-sentential C-S refers to the switches from one language to
another between sentences, that is, between coordinate and subordinate clauses.

The following are representative examples extracted from the data of inter-
sentential switches that occur between coordinate and subordinate clauses.
Coordinate clauses:

(148) (18.13) wagga9t al-9aqd but actually I do not work
         signed I the contract but actually I do not work
         'I signed the contract, but actually I do not work.'

(149) (3.38) ana aHib Florida and I have been to Orlando wa Miami
         I like Florida and I have been to Orlando and Miami
         'I like Florida and I have been to Orlando and Miami.'

(150) (1.33) li hadaf or a point I am looking forward for it
            for me goal or a point I am looking forward for it
            'There is a goal or a point I am looking forward to achieving.'

Subordinate clauses:

(151) (3.34) ana aruuH li 1-gym 9lašaan I maintain my health
         I go to the gym because I maintain my health
         'I go to the gym in order to maintain my health.'

(152) (5.10) kam anta 9aartf, I am the first case
            as you know, I am the first case
            'As you know, I am the first case.'

4.4.3 Statistical Analysis of the Types of Switches

The following section will present the statistical analysis of the findings in regard
to intra-sentential and inter-sentential switches and who among the participants are the
sources of the highest and lowest number of switches in either languages.

4.4.3.1 Intra-sentential C-S

In this study, among the 614 total switches, intra-sentential switches comprised
96% (591), and are made by all 20 participants. Almost half the switches, 47%, are made
by only five participants, while only 27% of the switches are made by half of the
participants and 26% of the switches are made by five participants. In other words, 73%
of the switches are made by half (10) of the participants. Also, in one instance one participant makes 72 switches and in another instance, three switches are made by one participant (see Figure 4.2 and tables 4.7, 4.8).

4.4.3.2 Inter-sentential C-S

As mentioned earlier, inter-sentential C-S plays a far less important role in the study, comprising 4% of the total switches (23) out of 614 switches. Also, I find that nearly half (48%) of the inter-sentential switches are made by only three undergraduate students. For instance, the first student (participant #18) is a pre-medical student whose medium of instruction in Saudi Arabia was English. The second and third students (participants #3 and #7) have each spent thirteen years in the United States.

Finally, the data suggest that inter-sentential C-S requires a high level of language proficiency in both languages. This finding is in agreement with the first part of Myers-Scotton's (1993a) finding, that inter-sentential C-S requires a higher level of language proficiency than intra-sentential C-S does. I, like certain other researchers mentioned above, find that speakers with a high level of proficiency in both languages not only produce all types of C-S, whether intra-sentential or inter-sentential, but, as we have seen above, that speakers with a low level of language proficiency produce intra-sentential C-S but not inter-sentential C-S (see tables 4.7, 4.8).

4.4.4 Syntactic and Morphological Ramifications of C-S

In the following section, two topics will be discussed, the syntactic and the morphological ramifications of C-S, with examples from the data of this study.
4.4.4.1 The syntactic ramification of C-S

There are several syntactic ramifications of C-S found in this study, but only those cases that have major effects on C-S will be discussed in this section. The following examples are given to illustrate the syntactic ramifications of C-S.

(153) (1.10) huwa COURSE-aat muta9aliqa biba9daha
that is course -s related with each other
'The courses are related to each other.'

In Example (153), "huwa COURSE - aat" the English word "COURSE" is attached to a third-person-plural marker aat. This suffix plural marker shows femininity. The English word "COURSE" does not show gender, but its equivalent Arabic word, *maada*, is feminine. Arabic nouns are either feminine or masculine. That is to say, neutral gender does not exist in Arabic. Therefore, the switched English word "COURSE," which is neutral, was suffixed with a third-person, feminine, plural Arabic marker. In other words, unswitched grammatical inflections agree in gender with the equivalent noun of the HL. Similarly, in Example (154), below, the switched head noun "COURSES" is followed by a feminine relative pronoun *allati*, which refers to the equivalent feminine Arabic noun.

(154) (1.12) al GRADUATE COURSES allati ağaðta- ha kUlla-ha VALID
the graduate courses which I took it all it valid
'The graduate courses I took are all valid.'

Other examples include (155), (156), (157), (158), and (159), below.

(155) (1.17) ana ma sawēct FORMATION li 1 COMMITTEE Haggiti
I not made formation to the committee mine
'I did not make the formation of my committee.'
In Example (155) the English noun “committee” is followed by the Arabic word *Haggīti*, which literally means “my own.” The free morpheme *Hagg* is followed by two suffixes, -ī. The suffix -ī is a feminine marker and -i is a first person possessive pronoun. The point is that the feminine marker refers to the English word “COMMITTEE,” and since “COMMITTEE” does not show gender, the feminine marker -ī refers to the Arabic equivalent word *lajnat*, which is feminine. The same is true in item (156), below.

(156) (2.43) al- PRONUNCIATION Hagg-uh ta9baan
the pronunciation his bad
‘his pronunciation was bad.’

Here the English noun “PRONUNCIATION” is followed by the Arabic word *Hagguh*, which literally means “his.” The Arabic free morpheme *Hagg* is followed by two suffixes *uh*. These two suffixes refer to masculinity and first person possessive pronoun. Thus, the gender marker refers to the English noun “PRONUNCIATION.” Since “PRONUNCIATION” does not show gender, the masculine marker *uh* refers to the Arabic equivalent word *mutq*, which is masculine. In item (157),

(157) (9.14) al- public school gariib-a jidan
the public school close-fem. very
‘The public school is very close.’

the adjective *gariib* is suffixed to a feminine maker, -a, because the equivalent Arabic word for school, *madrasa*, is feminine. In other words, the internalized grammar of the native speaker of Arabic is applied to the equivalent femininity of the switched word.

Furthermore, the syntactic function of a switched word depends on the function of its equivalent word in the HL. For example, the switched word “VALID” in (158), below is an adjective, but in Arabic it functions as a predicate.
Similarly, in item (159),

(159) (3.14) 9ind-ha EXPERIENCE $ki^\theta ir$-a
has she experience many
'She has a lot of experience.'

the Arabic adjective $ki^\theta ir$ is suffixed to a feminine marker, -a, because the equivalent word "experience" in Arabic is $\xi bra$, which is feminine.

The following are some of the grammatical errors made by the participants of this study that involve the deletion of the auxiliary verb or indefinite article and the misuse of adjective.

4.4.4.1.1 Auxiliary verbs. Arabic speakers in general and SSA speakers in particular frequently delete auxiliary verbs. That is because Arabic usually has no nominal sentences that function without having auxiliaries. The copula, "am, is, are," is not expressed and is commonly deleted by the participants, as in (160), (161), and (162), below.

(160) (19.13) ana alaan FRESH w agdar $a^\delta akir$ ila $z$- $\$ub H
I now fresh and can study to the morning
'I am highly motivated and I can study 'til the morning.'

(161) (2.4) haa$\delta a$ TECHNIQUE jidiid
this technique new
'This is a new technique.'

(162) (7.10) ba9ad an- naas VERY INDIVIDUALISTIC
some the people very individualistic
'Some people are very individualistic.'
4.4.1.2 Articles. Generally in Arabic and SSA in particular there are no indefinite articles. For HL Saudi-Arabic speakers, using indefinite articles in English usually causes them problems, so these articles are commonly deleted, as shown in (163) and (164), below.

(163) (15.4) yu9tabar AUTHENTIC SOURCE considered he authentic source
'He is considered an authentic source.'

(164) (11.5) 9a-t ni CALL buakra
give me call tomorrow
'Give me a call tomorrow.'

4.4.1.3 Adjectives. Unlike the English noun phrase order of adjective noun, Arabic order is noun adjective. In English, nouns and adjectives do not show agreement or gender, while in Arabic they do. As we have just seen in these examples, there are several cases where adjectives violate the syntactic structure rules of English and conform to Arabic syntactic structure rules, as in (165), and there are cases where the syntactic structure rules of Arabic are violated and conform to English syntactic structure rules, as in (166). Also, there are cases where the syntactic structure rules of both languages are satisfied, as in (167) below.

(165) (3.14) 9ind- ha Experience kiθīra
has she experience many
'She has a lot of experience.'

(166) (14.18) 9ind- i great waziiifa
have I great job
'I have a great job.'

(167) (3.37) maazilt ana young
still I young
'I am still young.'
4.4.4.2 The morphological ramification of C-S

It is well known that Arabic provides interesting data for research in the areas of morphology and syntax. In the following section I will discuss briefly Arabic morphology as an introduction to the morphological effect of C-S.

The most common word-formation rules are known as "affixation," "compounding," "conversion," and "incorporation." These four morphological types produced by these rules of word formation are very common, but they do not exhaust all the possibilities found in the languages of the world. Semitic languages, such as Arabic and Hebrew, provide a further possibility of word formation. In Semitic morphology, much of the word-formation takes place root-internally. Infixing and modifying of the root, rather than the stringing together of discrete morphemes, is the norm. So, traditional morpheme theory, which is ideal for the description of a word-building process whereby morphemes are concatenated (i.e., are attached one after the other), is not at all well-suited to the task of describing nonconcatenative morphological processes involving, for example, infixing or the internal modification of the root.

It has been recognized for a long time that in Semitic languages the root, usually consisting of three consonants (e.g., ktb or qtl), which are called radicals, is not pronounceable by itself. These three-letter roots are discontinuous morphemes and serve as the skeleton to which flesh is added in the process of word-formation. Before the emergence of prosodic morphology there was no theoretically elegant way of describing this method of word-formation. In word formation, it is the Arabic vowels that mark
inflectional categories such as tense, agreement, and aspect in verbs and number in nominals (Jensen 1992, Spencer 1992, Katamba 1993).

As can be seen in Table 4.10, each group of words shares a root consisting of three consonants with insertion of different vowels and consonants. Most of the inserted patterns are internal, in other words, infixes. This morphological structure makes Arabic and SSA very tight and foreign segments cannot easily interfere.

In the present study, Arabic bound morphemes are rarely switched and the only cases where there is C-S are in the switching of the definite article before English nouns when English becomes HL and SSA is GL. The Arabic definite article /al/ is a bound morpheme which corresponds to English / the / . The Arabic bound morpheme has several allomorphs, such as / ?al /, / el /, / 1 / and whose / 1 / assimilates to the initial consonant of the following “solar letters,” [called sun letters by Arabic grammarians]—/ t /, / θ /, / d /, / δ /, / r /, / z /, / s /, / ʃ /, / ʒ /, / ɬ /, / ʃ l /, / ʃ /, / n /, and / n /. Thus, we can formulate the following rule for SSA assimilation of the definite article:

\[
\begin{array}{ccc}
1 & \rightarrow & \alpha \\
+\text{palatal} & \rightarrow & +\text{palatal} \\
\text{or} & \rightarrow & \text{or} \\
+\text{alveolar} & \rightarrow & +\text{alveolar} \\
-\text{glide} & \rightarrow & -\text{glide} \\
-\text{affricate} & \rightarrow & -\text{affricate}
\end{array}
\]

The following examples show the use of English nouns with Arabic definite articles that underwent assimilation to / t /, / as /, and / ar / as in (168), (169), and (170).

(168) (8.14) ga9at kUll al weekend a9aakir li t- test
sat down I all the weekend studying for the test
'I spent the whole weekend studying for the test.'
(169) (9.10) al-Hayaa hina very organized wa s- system hina very strong the life here very organized and the system here very strong ‘Life here is very organized and the educational system very strong.’

(170) (2.7) fi l- jaami9a yu9t-uun-ik ar- respect wal free opinion in the university give they you the respect and the free opinion ‘In the university you have respect and freedom of opinion.’

4.5 New Contributions

In this section I will discuss two new constraints which do not appear in the literature on C-S. These new constraints are as follows: (1) filler constraint (such as ya9ni “that is” or “in other words”; see below) and (2) determiner and demonstrative constraint.

4.5.1 Filler Constraint

To the best of my knowledge, no filler constraint is mentioned in the C-S literature. Nevertheless, the participants of the present study do not switch any fillers when SSA is the HL and English is the GL, possibly the case with other Arabic dialects (see Table 4.1). In a study of Egyptian-Arabic and English C-S, Mohamed (1989) finds only one case of filler switching between Egyptian Arabic as the HL and English as the GL, as in the following:

(171) ba9ddiin il- nursery 9andu babies kida w Hagaat, you know then the nursery has babies like and things you know ‘Then the nursery has babies and things like that, you know.’

Occurrences of filler switches where English is the HL are frequent in the present study. The following are two examples,
E-SSA

(172) (7.2) they teach you, ya9ni, kUll šay
they teach you, as you know, everything
‘In other words, they teach you everything.’

(173) (17.7) how to search, ya9ni, an-nuqaṭ al- maṭluuba
how to search, that is/as you know the points the required
‘How to search. In other words, that is the point, required by your
teacher.’

In this study there are a total of eight filler switches when English is the HL, but
there is not a single instance of switched fillers when SSA is the HL. Therefore, the data
support the notion of a filler constraint in SSA. As illustrated and discussed above, fillers
are usually used in discourse and have no syntactic functions. The following are some
items that are used as fillers in this study: ya9ni –“that is” or “in other words”; kiḍa –“like
that”; kama anta 9aarif– “as you know.”

4.5.2 Determiner and Demonstrative Constraint

As far as determiners and demonstratives are concerned, in this study when SSA is
the HL, there is not a single instance of determiner or demonstrative switch, but there are
some instances when English was used as the HL such as examples (174) and (175),
below. (See also tables 4.1 and 4.2).

(174) (1.21) ... the major ideas Haggat  at - ten courses
... the major ideas for the ten courses
‘... the major ideas of the ten courses.’

(175) (1.30) I almost done with ΘalaaΘ arbaa9  al - brobosal
I almost done with three quarters the proposal
‘I’m almost done with three-quarters of the proposal.’
In Examples (174) and (175) two Arabic definite articles, *at* and *al*, prefixed to
two English nouns, "courses" and "proposal."

In the literature, only Mohamed (1989) reports an instance of a switched
determiner, and did not mention a single switched demonstrative item, as in (176), below.

(176) Ha ḥuṭṭ- u ḫut. put it in the sink
In THE Hood
‘I will put it in the sink’

This is not to deny that the determiners and demonstratives of other languages can
be switched. Poplack (1980) pointed out three instances of switched determiners from
Spanish, the HL, to English.
Figure 4.1 The total numbers and percentages of C-S.
Figure 4.2 Numbers and percentages of utterances produced by the 20 participants.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>33</td>
<td>12</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>43</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>15</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>16</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>26</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>29</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>13</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>20</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>306</td>
<td>112</td>
<td>5</td>
<td>12</td>
<td>21</td>
<td>63</td>
<td>6</td>
<td>17</td>
<td>0</td>
<td>11</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>55%</td>
<td>20%</td>
<td>1%</td>
<td>2%</td>
<td>4%</td>
<td>11%</td>
<td>1%</td>
<td>3%</td>
<td>0%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 4.1 Host: SSA-E C-S.
<table>
<thead>
<tr>
<th>Switches</th>
<th>% Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical Switches</td>
<td>62%</td>
</tr>
<tr>
<td>Phrasal Switches</td>
<td>38%</td>
</tr>
<tr>
<td>Total %</td>
<td>100%</td>
</tr>
<tr>
<td>Nominal Switches</td>
<td></td>
</tr>
<tr>
<td>Nouns 55% + NPs 20%</td>
<td>75%</td>
</tr>
<tr>
<td>Adjectival Switches</td>
<td></td>
</tr>
<tr>
<td>Adj. 4% + Adj.p. 11%</td>
<td>15%</td>
</tr>
<tr>
<td>Adverbial Switches</td>
<td></td>
</tr>
<tr>
<td>Adv.1% + Adv.p. 3%</td>
<td>4%</td>
</tr>
<tr>
<td>Verbal Switches</td>
<td></td>
</tr>
<tr>
<td>Verbs 1% + VPs 2%</td>
<td>3%</td>
</tr>
<tr>
<td>Prepositional Switches</td>
<td></td>
</tr>
<tr>
<td>Prepos. 0% + Prepos. p. 2%</td>
<td>2%</td>
</tr>
<tr>
<td>Conjunctions</td>
<td>1%</td>
</tr>
<tr>
<td>Determiners</td>
<td>0%</td>
</tr>
<tr>
<td>Pronouns</td>
<td>0%</td>
</tr>
<tr>
<td>Fillers</td>
<td>0%</td>
</tr>
<tr>
<td>Demonstratives</td>
<td>0%</td>
</tr>
<tr>
<td>Total %</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4.2 Frequency of C-S from SSA-E.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

| %   | 9%   | 17%   | 2%   | 9%   | 0%   | 0%   | 4%   | 6%   | 2%   | 17%   | 9%   | 6%   | 0%   | 15% | 6% |

Table 4.3 Host: E-SSA C-S.
<table>
<thead>
<tr>
<th>Switched Language</th>
<th>Number of switches</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host: SSA-E</td>
<td>560</td>
<td>91%</td>
</tr>
<tr>
<td>Host: E-SSA</td>
<td>54</td>
<td>9%</td>
</tr>
<tr>
<td>Total</td>
<td>614</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4.4 Total number of code-switches.
<table>
<thead>
<tr>
<th>Switches</th>
<th>% Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical Switches</td>
<td>51%</td>
</tr>
<tr>
<td>Phrasal Switches</td>
<td>49%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>Nominal Switches</td>
<td>26%</td>
</tr>
<tr>
<td>Nouns 9% + NPs 17%</td>
<td></td>
</tr>
<tr>
<td>Prepositional Switches</td>
<td>19%</td>
</tr>
<tr>
<td>prepos. 2% + prepos.p. 17%</td>
<td></td>
</tr>
<tr>
<td>Filler Switches</td>
<td>15%</td>
</tr>
<tr>
<td>Verbal Switches</td>
<td>11%</td>
</tr>
<tr>
<td>Verbs 2% + VPs 9%</td>
<td></td>
</tr>
<tr>
<td>Adverbial Switches</td>
<td>10%</td>
</tr>
<tr>
<td>Adverbs 4% + Adv.P. 6%</td>
<td></td>
</tr>
<tr>
<td>Conjunctions</td>
<td>9%</td>
</tr>
<tr>
<td>Determiners</td>
<td>6%</td>
</tr>
<tr>
<td>Demonstratives</td>
<td>6%</td>
</tr>
<tr>
<td>Adjectival Switches</td>
<td>0%</td>
</tr>
<tr>
<td>Adj 0% + Adj.p. 0%</td>
<td>0%</td>
</tr>
<tr>
<td>Pronouns</td>
<td>0%</td>
</tr>
<tr>
<td>Total %</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4.5 Frequency of C-S from E-SSA.
A. Ranking of SSA-E C-S.

<table>
<thead>
<tr>
<th>Switches</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>1</td>
</tr>
<tr>
<td>Np</td>
<td>2</td>
</tr>
<tr>
<td>Adj p.</td>
<td>3</td>
</tr>
<tr>
<td>Adj.</td>
<td>4</td>
</tr>
<tr>
<td>Adv P.</td>
<td>5</td>
</tr>
<tr>
<td>Verb p., Prep.</td>
<td>6</td>
</tr>
<tr>
<td>Verb, Conj., Adv.</td>
<td>7</td>
</tr>
</tbody>
</table>

B. Ranking of E-SSA C-S.

<table>
<thead>
<tr>
<th>Switches</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Np, pp</td>
<td>1</td>
</tr>
<tr>
<td>Fillers</td>
<td>2</td>
</tr>
<tr>
<td>Nouns, Verb ph. and Conj.</td>
<td>3</td>
</tr>
<tr>
<td>Advp., Det., demons</td>
<td>4</td>
</tr>
<tr>
<td>Verb, prep.</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 4.6 Ranking of SSA-E and E-SSA C-S.
<table>
<thead>
<tr>
<th>Subjects</th>
<th>Inter-sentential</th>
<th>Intra-sentential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>69</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>72</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>43</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>55</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>39</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>591</td>
</tr>
<tr>
<td>%</td>
<td>4%</td>
<td>96%</td>
</tr>
</tbody>
</table>

Table 4.7 Types of switches.
A. Numbers of intra-sentential C-S.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>69</td>
</tr>
<tr>
<td>2</td>
<td>72</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>43</td>
</tr>
<tr>
<td>7</td>
<td>42</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>10</td>
<td>55</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>39</td>
</tr>
<tr>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td>9</td>
</tr>
</tbody>
</table>

B. Numbers of Inter-sentential C-S.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 4.8 Numbers of intra- and inter-sentential C-S.
<table>
<thead>
<tr>
<th>Subj.</th>
<th>School</th>
<th>Major</th>
<th>Age</th>
<th>No.Intra.</th>
<th>Length of stay in U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GS. PhD.</td>
<td>Computer Sci.</td>
<td>38</td>
<td>69</td>
<td>13 Years</td>
</tr>
<tr>
<td>2</td>
<td>UG.</td>
<td>Computer Sci.</td>
<td>33</td>
<td>72</td>
<td>4 Years</td>
</tr>
<tr>
<td>3</td>
<td>UG.</td>
<td>Computer Sci.</td>
<td>21</td>
<td>48</td>
<td>10 Years</td>
</tr>
<tr>
<td>4</td>
<td>GS. PhD.</td>
<td>Computer Sci.</td>
<td>40</td>
<td>18</td>
<td>13 Years</td>
</tr>
<tr>
<td>5</td>
<td>UG.</td>
<td>Medical</td>
<td>27</td>
<td>20</td>
<td>2 Years</td>
</tr>
<tr>
<td>6</td>
<td>GS. PhD.</td>
<td>Linguistics</td>
<td>28</td>
<td>43</td>
<td>5 Years</td>
</tr>
<tr>
<td>7</td>
<td>UG.</td>
<td>Computer Sci.</td>
<td>22</td>
<td>42</td>
<td>13 Years</td>
</tr>
<tr>
<td>8</td>
<td>GS. PhD.</td>
<td>Computer Sci.</td>
<td>32</td>
<td>20</td>
<td>10 Years</td>
</tr>
<tr>
<td>9</td>
<td>GS. MA</td>
<td>English Lit.</td>
<td>33</td>
<td>25</td>
<td>4 Years</td>
</tr>
<tr>
<td>10</td>
<td>GS. PhD.</td>
<td>Computer Sci.</td>
<td>35</td>
<td>55</td>
<td>12 Years</td>
</tr>
<tr>
<td>11</td>
<td>GS. MA</td>
<td>Medical</td>
<td>33</td>
<td>13</td>
<td>1 Year</td>
</tr>
<tr>
<td>12</td>
<td>GS. PhD.</td>
<td>Architecture</td>
<td>32</td>
<td>19</td>
<td>3 Years</td>
</tr>
<tr>
<td>13</td>
<td>GS. PhD.</td>
<td>Agriculture</td>
<td>34</td>
<td>3</td>
<td>10 Months</td>
</tr>
<tr>
<td>14</td>
<td>GS. PhD.</td>
<td>Medical Physics</td>
<td>33</td>
<td>39</td>
<td>7 Years</td>
</tr>
<tr>
<td>15</td>
<td>GS. PhD.</td>
<td>Computer Sci.</td>
<td>32</td>
<td>23</td>
<td>6 Years</td>
</tr>
<tr>
<td>16</td>
<td>GS. PhD.</td>
<td>Computer Sci.</td>
<td>32</td>
<td>16</td>
<td>6 Years</td>
</tr>
<tr>
<td>17</td>
<td>GS. MA</td>
<td>Education</td>
<td>31</td>
<td>14</td>
<td>4 Years</td>
</tr>
<tr>
<td>18</td>
<td>UG.</td>
<td>Medical</td>
<td>28</td>
<td>28</td>
<td>2 Years</td>
</tr>
<tr>
<td>19</td>
<td>GS. MA</td>
<td>Medical</td>
<td>32</td>
<td>15</td>
<td>3 Years</td>
</tr>
<tr>
<td>20</td>
<td>UG.</td>
<td>Medical</td>
<td>27</td>
<td>9</td>
<td>2 Years</td>
</tr>
</tbody>
</table>

Table 4.9 Distributions of participants' school, major, age, number of intra-sententials, length of stay in the U.S.
<table>
<thead>
<tr>
<th>Verbs</th>
<th>Nouns</th>
<th>Adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>walada</td>
<td>wilaada</td>
<td>waalida</td>
</tr>
<tr>
<td>to give birth to</td>
<td>mawluud</td>
<td></td>
</tr>
<tr>
<td>qatala</td>
<td>qitaal</td>
<td>qaatil</td>
</tr>
<tr>
<td>to kill</td>
<td></td>
<td>maqtuul</td>
</tr>
<tr>
<td>akmala</td>
<td>ikmaal</td>
<td>mukmil</td>
</tr>
<tr>
<td>to complete</td>
<td></td>
<td>mukmal</td>
</tr>
</tbody>
</table>

Table 4.10 The construction of Arabic words by inserting vowels into three consonants.
CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter I will restate the primary purposes and main findings of this study in regard to the linguistic constraints affecting the use of C-S. In addition, I will discuss the results of the proposed hypotheses, mentioned in Chapter 3 and discussed in detail in Chapter 4. Finally, I will note types and frequencies of C-S among these participants. I will close this chapter with recommendations for future research on C-S.

One of the main purposes of this study has been to examine closely one type of language contact, C-S, as used by 20 bilingual Saudi students studying at selected universities in the metropolitan Washington, D.C., area and at the University of Florida in Gainesville, in order to determine the formal contexts within which C-S is used. This study identifies and examines the linguistic functions C-S plays in the conversations of these participants as well as those factors that might affect the use of C-S among these participants.

The data analyzed in this study on C-S provide important background information about the participants' proficiency in their use of SSA and English. In contrast to the former belief among certain linguistic researchers (e.g., Espinosa, 1917; Labov, 1972; Mkili, 1972; Lance, 1975) suggesting that there are no syntactic constraints on C-S, here
it is clearly evident that there are certain constraints governing the use of C-S. This study's findings focus on one aspect of C-S: the linguistic aspects.

5.2 The Linguistic Aspects of C-S

In relation to the linguistic aspects of C-S, the present study discusses and analyzes in detail the most recent studies on C-S in order to determine the similarities and differences among these studies and the present findings. The linguistic analysis is divided into five different subjects, as follows: (1) the syntactic level, (2) linguistic constraints, (3) types of switches, (4) syntactic and morphological changes, and (5) new constraints to the field of C-S.

5.2.1 The Syntactic Level

The syntactic level includes the distribution of the switches over different parts of speech. The present findings show that the majority (62%) of the total switches occurred at the lexical level, whereas phrasal switches comprised 38% of the total. At the lexical level, the majority of switches involved nouns (55%). These findings agree with previous results by such other researchers as Lindholm and Padilla (1978b), Poplack (1980), Bentahila and Davies (1983), Berk-Seligson (1986), Scotton (1993), and Halmari (1997). These findings also suggest that single-word switches are universal among languages, which disputes a previous claim by Timm (1975) that phrasal switches are more frequent than single-word switches. Also, the present study finds that the number of switched English items is higher when the participants engaged in conversation using SSA as the
HL, while the number is lower when the participants engaged in conversations using English as the HL. In addition, the present study finds that nominals are the items most frequently switched by the participants, which is in agreement with the findings of other researchers, including McClure (1977), Poplack (1980), and Berk-Seligson (1986).

5.2.2 Linguistic Constraints on C-S

In the following subsection I will give a brief summary of my findings regarding the linguistic constraints on C-S. The reader may refer to chapters 2 and 4 for information on these proposed constraints. These linguistic constraints have been analyzed to test their validity in light of data from the study to determine whether these constraints are universal or, as claimed earlier by some researchers, language specific, and to determine whether or not they are applicable to SSA.

5.2.2.1 Language-specific constraints

The language-specific constraints that have been discussed in the present study include the following: (1) the pronominal constraint; (2) the determiner constraint; (3) the conjunction constraint; (4) the adjectival constraint; (5) the number-of-switches constraint; (6) the preposition constraint.

5.2.2.1.1 The pronominal constraint. This constraint, proposed by Gumperz (1970) and Timm (1975), among others, stipulates that C-S does not occur in the context of subject, or object, and its verb. The findings of the present study generally support the claims raised by the researchers mentioned above. There is not a single case of C-S between a pronominal subject and its verb, or between a verb and its pronominal subject.
It appears that pronominal subjects and objects have a close relation to their verbs, regardless of whether the word order followed is English or Arabic.

5.2.2.1.2 The determiner constraint. In the present study there is not a single case of switched determiners when English is the HL, but there are numerous examples of determiner switching when Arabic is the HL. These findings partially invalidate the claims of Wentz (1977) and Kachru (1978) who claim that a determiner must be in the same language as the part of speech it determines. In addition, the findings partially support Abbassi’s (1977) claim wherein he argues that a French determiner "never" precedes an Arabic noun, although it is possible for an Arabic determiner to precedes a French noun.

5.2.2.1.3 The conjunction constraint. The conjunction constraint prohibits the occurrence of a GL conjunction in a HL coordinate sentence. In other words, the conjunction must be in the same language as the segments it conjoins, and it is impossible for a conjunction to be in a different language from either of the clauses it conjoins (Kachru, 1978, 1982; Gumperz, 1976). In the present study, there are several examples where Arabic conjunctions conjoin two English sentences or English conjunctions conjoin two Arabic sentences, both violating this constraint.

5.2.2.1.4 The adjectival constraint. The adjectival constraint prohibits the switching of adjectives and nouns within the noun phrase (Pfaff, 1979). This constraint was violated and at the same time it was maintained in the present study, as is true in other studies in the literature where there are examples of SSA noun phrases followed by adjectives from English and English noun phrases followed by SSA adjectives (see Chapter 4). However, since there are examples such those given in Chapter 4 that violate
this constraint, on the basis of the results of this study we can stipulate that this constraint lacks validity and consistency.

5.2.2.1.5 The number-of-switches constraint. In this constraint, proposed by Gumperz (1976), switching is limited in such a way that "the total number of switches within any message subunit cannot be more than one." In other words, there can be only one switch in a code-switched sentence.

The findings of the present study, which agree with findings of several other researchers, show that a sentence can contain one or more than one switch. The present findings show that the length of the sentence has nothing whatsoever to do with the number of switches in a code-switched sentence. In my data, this constraint is the most frequently violated. Therefore, the conclusion is drawn that the number-of-switches constraint can be considered one of the weakest constraints mentioned thus far in the literature on C-S.

5.2.2.1.6 The preposition constraint. The findings of the present study partially support the claim raised by Pfaff (1979), where he argues that a preposition does not occur in a language different from the one used for the items both preceding and following it. Also, this study partially supports Abbassi's (1977) claim that it is possible for a switch to occur between a Moroccan-Arabic preposition and the French noun phrase it governs. Abbassi (1977) also claims that the opposite switch, where the preposition is in French and the noun phrase it governs is in Arabic, never occurs. There is not a single case in my data in which an English preposition governs an Arabic noun phrase, whereas there is one case in which an Arabic preposition governs an English noun phrase.
5.2.2.2 Universal constraints on C-S

The following subsections consist of a brief summary of the findings regarding the purported universal constraints on C-S. These constraints are as follows: (1) the size-of-the constituent constraint; (2) the free-morpheme constraint (FMC); (3) the equivalent constraint; and (4) the Dual Structure Principle.

5.2.2.2.1 The size-of-the constituent constraint. The size-of-the constituent constraint stipulates that major constituents such as noun phrases, verb phrases, and clauses are more frequently switched than individual lexical items such as nouns, verbs, adjectives, and the like (Gumperz and Hernandez-Chavez, 1975; Timm, 1975). The findings of the present study contradict this constraint in that the data show that out of 614 switches 62% of the switched items are single words and 55% are nouns, whereas phrase switches occur less often. Thus, these findings show that the size-of-the constituent constraint lacks the universality that has been claimed.

5.2.2.2.2 The free-morpheme constraint. The findings of the present study both support this constraint and violate it. This constraint stipulates that switching is not acceptable between a bound morpheme and a lexical item unless the latter has been phonologically integrated into the language of the former (Poplack, 1980, 1982; Sankoff and Poplack, 1980). In the present study, there are examples that superficially appear to be counterexamples to the FMC, but in reality are not, as has been shown in the following example:

(177) (18.2) ana saakin fi d- dorm
       I live in the dorm
       'I live in the dorm.'
The above example suggests that the bound morpheme [d] is cliticized to the preposition before it. The single instance where the FMC is violated is in the affixation of the Arabic bound definite article /al/, “the.” For example:

(178) (2.38) al- office hours very important
      the office hours very important
      ‘The office hours are very important.’

(For more detailed information about this constraint see Chapter 4).

5.2.2.2.3 The equivalent constraint. The equivalent constraint, proposed by Poplack (1978, 1980), has the following criterion:

Code-switching will tend to occur at points in the discourse where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language, i.e., at points around which the surface structure of the two languages map into each other.

Among the data in the present study there are a few instances where the equivalent constraint is maintained, but there are numerous instances where the equivalent constraint is violated.

5.2.2.2.4 The Dual Structure Principle. The findings of the present study support the Dual Structure Principle formulated by Sridhar and Sridhar (1980). This principle stipulates that “the internal structure of the guest constituent need not conform to the constituent structure of the host language, as long as its placement in the host sentence is in harmony with the rules of the host language.” In addition, these findings agree with the findings of Atawneh (1992) in his study of Palestinian-Arabic-English C-S.

5.2.2.3 Conclusion. As mentioned earlier, while these constraints have frequently been invalidated both in the literature and in the data from this study, the findings of the
present study do not negate the possibility of the existence of some constraints on C-S in some languages not yet well studied. However, based on the evidence discussed above, it is necessary to conclude that at present these constraints have proven to be far from universal and appear to be vulnerable to criticism.

5.2.3 Types of Switches

There are two types of C-S discussed in this study—inter-sentential and intra-sentential code-switches. These two types have been discussed in relation to the hypotheses proposed in Chapter 3, as to whether or not a bilingual speaker’s high level of proficiency in L2, or lack thereof, matter in producing both types.

The present study, like those of Berk-Seligson (1986) and Bentahila and Davies (1992), dispute Poplack’s claim that there is a correlation between high competence in L2 and high frequency in all types of C-S. Also, the data suggest that most of the switches were made by both highly fluent, proficient participants in L2 and by those less fluent and less proficient. This lends support to the hypothesis that speakers with higher proficiency in both languages can produce all types of switches, while speakers with low proficiency in their L2 may produce fewer intra-sentential switches than those with greater proficiency (see Chapter 4).

Finally, the data suggest that inter-sentential C-S requires a high level of language proficiency in both languages. This finding is in agreement with the first part of Myers-Scotton’s (1993a) findings that inter-sentential C-S requires a higher level of language proficiency than intra-sentential C-S does. My own analysis, like others mentioned in
Chapter 4, found that speakers with a high level of proficiency in both languages produce all types of C-S, whether inter-sentential or intra-sentential, whereas, as mentioned in Chapter 4, speakers with low levels of language proficiency may produce intra-sentential C-S, but do not produce inter-sentential C-S.

5.2.4 Syntactic and Morphological Ramifications of C-S

5.2.4.1 Syntactic ramifications of C-S

There are several syntactic ramifications of C-S found in this study. These include the deletion of the auxiliary verbs and indefinite articles and the misuse by the participants of this study of adjectives (see Chapter 4).

5.2.4.2 Morphological ramifications of C-S

The findings of the present study show that Arabic bound morphemes are rarely switched and that the only cases in which there is C-S are when the definite article is switched before an English noun when English is the HL and SSA is the GL. The Arabic definite article /al/ is a bound morpheme. It has several alomorphs such as */?all, /ell, /?ll/, where the */ll/ assimilates into the initial consonant of the subsequent “solar letters.”

Finally, the findings of the present study also lend weight to the claim that there is not a single case of an inflected English verb stem with Arabic morphology. C-S does not occur with reference to verb affixes in either direction. For example, in this study I did not expect and indeed did not find a case such as “b?nridge al-ba?as” [meaning we will ride the bus] where English is the HL. Where SSA is the HL, I am not even able to posit a
potentially starred form due to the fact that Arabic in general and SSA in particular do not allow foreign segments to intrude into the morphological structure of a word.

5.2.5 New Constraints

In the following section two new constraints are presented which, to my knowledge, do not appear in the literature on C-S. These two constraints are as follows: (1) the filler constraint, such as *ya9mi*, which is equivalent to "that is" or "in other words," and (2) the determiner and demonstrative constraint.

5.2.5.1 Filler constraint

As mentioned in Chapter 4, to the best of my knowledge there is no filler constraint mentioned in the literature on C-S. In the present study, the participants do not switch any fillers when SSA is the HL and English is the GL. There are, however, several cases of filler switches when English is the HL and Arabic is the GL.

5.2.5.2 Determiner and demonstrative constraint

The findings of the present study show that there is not a single instance of determiner or demonstrative switching when SSA is the HL, but there are some instances when English is the HL. As mentioned in Chapter 4, the present findings do not deny the possibility of switched determiners and demonstratives in other languages.

5.3 Conclusions and Contributions of the Study

In the following section I will discuss what the present study has achieved thus far, along with its implications and contributions to recent linguistic theories. It is hoped that
this study will fill some of the gaps in the investigations of C-S by concentrating on the linguistic aspects that affect the use of C-S and applying those aspects to cases of SSA-English C-S. Also, this study has attempted to examine the validity of certain linguistic constraints on C-S in order to determine how two languages that are linguistically so distinct—in this instance, SSA and English—come into close contact and are used in daily interactions among the participants of this study. The linguistic study of C-S between SSA and English has produced the results below.

5.3.1. Nonuniversality of Linguistic Constraints

As we have just seen, the present study demonstrates that the linguistic constraints that have been proposed in the literature on C-S are far from being universal and are not consistently applicable to this study’s data. These findings are in agreement with the findings of most of the researchers, including Bokamba (1988, 1989), Bentahila and Davies (1983, 1992), Berk-Seligson (1986), and Halmari (1997).

5.3.2. Universality of Single-word Switches

The present study suggests that single-word switches are universal among languages, thus disputing previous claims by Timm (1975) that phrasal switches are more frequent than single-word switches. The data show that the majority (62%) of total switches occurred at the lexical level, whereas phrasal switches comprised only 38% of the total switches. Also, the data show that the majority of the lexical-level switches involve nouns (55%), followed by adjectives, verbs, and so forth.
5.3.3 Language Proficiency Not a Factor in Producing Intra-sentential C-S

The present study, like those of Berk-Seligson (1986) and Bentahila and Davies (1992), disputes Poplack's (1978, 1980) claim that there is a correlation between a participant's high competence in L2 and a high frequency of all types of code-switches. This study shows that most of the switches are made by both highly fluent, proficient participants in L2 and also by less fluent and less proficient participants. This lends support to the previously established hypotheses mentioned in Chapter 3, that speakers with higher proficiency in both languages can produce all types of code-switches, whether inter-sentential or intra-sentential, and speakers with low proficiency in their L2 tend to produce fewer intra-sentential but not inter-sentential switches. Moreover, the present study suggests that inter-sentential C-S requires a high level of language proficiency. This is in agreement with the first part of Myer-Scotton's (1993) finding, that inter-sentential C-S requires a higher level of language proficiency than does intra-sentential C-S.

5.3.4 New Constraints: Filler Constraint and Determiner and Demonstrative Constraint

The present study resulted in two constraints which, to the best of my knowledge, do not exist in the literature on C-S. These two new constraints are the filler constraint and the determiner and demonstrative constraint. The participants in this study do not switch any fillers when SSA is the HL, although there are several cases of filler switches when English is the HL. As far as the determiner and demonstrative constraint is concerned, there is not a single instance of determiner or demonstrative switches when
SSA is the HL, but there are some instances of switches when English is the HL. It is true, then, that, as mentioned in Chapter 4, the data do not deny the possibility of determiner and demonstrative switches of other languages.

5.3.5. **New Methods of Data Collection: Informal and Spontaneous Data Collection**

This study contributes to the field of research in its methodologies and techniques of data collection that were followed. The data of this study were collected through natural, spontaneous, face-to-face conversations, informal interviews, and telephone conversations, all documented using a small tape recorder. This technique is different from those used in most of the previous studies on C-S mentioned in the literature which, characteristically, collected data from books, newspapers, talk radio, speeches, texts, and published literature.

5.3.6. **New Method of Data Collection: Bi-level Disclosure of Purpose**

Another method utilized in this study consisted of the participants not initially knowing the exact purpose of the study. Instead, they were first told that the purpose of the study was to see how Saudi bilingual students express themselves in different environments. They were informed of the exact purpose of the study only after the study’s completion, a technique that differs from that of other researchers who informed their participants from the start about the exact purpose of their studies. For instance, Gumperz and Hernandez-Chavez (1975), Redlinger (1976), and Wentz (1977) told their participants that they were interested in hearing some examples of code-switching. In
addition, I take issue with the strategy employed by Bentahila and Davies (1983) who, in their study of Moroccan Arabic-French C-S, tape recorded conversations with their participants without those participants' prior knowledge or approval. My disagreement with these previous studies is based on the following considerations: on the one hand, it is unethical to tape record people without their knowledge or approval, but, on the other hand, if participants are told that the purpose of the study is to examine code-switching, this knowledge may affect the validity of the research. The present study avoided both these pitfalls.

5.3.7. Transcription Methodology

Finally, the transcribed data of this study are another contribution to the field of research methodology since they consist of morpheme-by-morpheme or word-by-word translations followed by their English meanings. This type of methodology is rare in the literature on C-S.

5.4. Recommendations for Future Research

It is apparent to me that much more research needs to be conducted on the syntactic and sociolinguistic aspects of C-S. It is also apparent that the sociolinguistic dimensions of C-S need to be studied thoroughly. The following are some recommendations for future research. When comparing already existing studies from the United States, Asia, and Africa, SSA-English C-S is an area yet to be fully investigated. It is suggested that further research on SSA-English C-S utilizing a more ethnographic
approach be conducted in very real, natural, and spontaneous settings in order to provide for a better understanding of the role of C-S and the social and formal functions it serves.

In the future, I hope to see a similar study of SSA-English C-S conducted among a comparable group of participants, but bilingual and living in Saudi Arabia. Furthermore, it is to be hoped that female researchers will conduct a similar study with female students bilingual in SSA and English who are studying in the United States, and compare their findings with this study in order to examine the variable of gender as it relates to C-S.

A final area for future research would involve conducting a similar study with participants bilingual in SSA and English drawn from different educational and occupational backgrounds, thus controlling for those variables.
APPENDICES
Appendix A

Informed Consent Form

I am a graduate student in the program in Linguistics at the University of Florida. As part of my doctoral dissertation I am conducting interviews to learn how native speakers of Saudi Arabic express themselves while they engage in conversation in Saudi Arabic and English. I am asking you to participate in this interview because you are a native speaker of Arabic and you know English. Interviewees will be asked to participate in groups or as individuals. Interviews will not last longer than 30 minutes each. You will not have to answer any question you do not wish to answer. These interviews will be conducted by phone or through face-to-face conversation at home or a friend’s home. Interviews will be conducted only after I have received a copy of this signed consent from you. I will need your permission to audiotape this interview. Only I will have access to the tape which I will personally transcribe, and remove all identifiers during transcription. The tapes will then be erased. Your identity will be kept confidential to the extent provided by law and your identity will not be revealed in the final manuscript.

There are no anticipated risks to your participation in this interview. Nor will there be any compensation or other direct benefits to you as a participant. You are free to withdraw your consent to participate and may discontinue your participation in the interview at any time without consequence.

If you have any question about this research please contact me or my faculty supervisor at the following:

**Project Director:** Nasser S. Al-Mansour  
**Rank:** UF Graduate Student  
**Dept.:** program in Linguistics  
**Address:** 205 SW 75th St., Apt. 1-H  
Gainesville, FL 32607  
**Phone:** 352-332-5625  
**E-mail:** nasseral@grove.ufl.edu

**Advisor:** Dr. Haig Der-Houssikian  
**Rank:** Professor  
**Dept.:** program in Linguistics  
**Address:** University Station  
P.O. Box 14105  
Gainesville, FL 32604  
**Phone:** 352-392-4829  
**E-mail:** haig@aall.ufl.edu

Questions or concerns about research participant’s right may be directed to the UFIRB office, University of Florida, P.O. Box 112250, Gainesville, FL 32611; Ph. 352-392-0433.

Please sign below and return this copy of the consent letter in the enclosed envelope. A second copy is provided for your records. By signing this letter, you give me permission to report your responses anonymously in the final manuscript to be submitted to my faculty supervisor as part of my doctoral research.

---

I have read the procedure described above. I voluntarily agree to participate in the interview and I have received a copy of this description.

---

**Signature of participant**

---

**Date**

---

Approved by the University of Florida Institutional Review Board (IRB 02) for use through SEP 22 1998
Appendix B
Questionnaire

Name of Subject: ________________________________________________________________

Age: ______ Languages: _________________________________________________________

Graduate: □ Undergraduate: □

Major: _______________________________________________________________________

Language spoken at home: _______________________________________________________

For how long have you been in the U.S.? ________________________________

Self-rating of language competence:

Language 1: __________________________________________________________________

Excellent Good Fair Poor

Reading ___________________ Writing ___________________

Speaking ___________________ Comprehension ___________________

Language 2: __________________________________________________________________

Excellent Good Fair Poor

Reading ___________________ Writing ___________________

Speaking ___________________ Comprehension ___________________

Age at which language 1 was learned: ___________________________________________

Age at which language 2 was learned: ___________________________________________

Personal reason for code-switching: _____________________________________________

How often is language 2 spoken? always □ sometimes □ never □

When is language 2 spoken? at home □ with friends □ at school □

How often do you switch languages? never □ rarely □ sometimes □ often □ almost always □
APPENDIX C
Sample of Transcribed Data

General Statement / Disclaimer

Laryngeals. Arabic phonology recognizes that laryngeal consonants extend their laryngeal quality to the end of the syllable and beyond. This dissertation does not address such phonological issues. Every effort has been made to transcribe each of the subjects's pronunciation accurately. Please note that there is a large variety of dialects represented among the subjects. As a result, the reader will note that certain words may be transcribed differently.

(1.1) ʂaraาHatan, 9ind-ī a big family
          honestly, have I a big family
Honesty, I have a big family.

(1.3) naHnu mut9awidiin 9ala namaṭ min al- Hayaah hinaak, ya9ni,
         we used on pattern from the life there, that is,
         culturally and religiously
         culturally and religiously
We are accustomed to a specific style of life, culturally and religiously.

(1.4) al- ?aktl hina kUl- luḥ fast food
         the food here all it fast food
The food here is all fast food.

(1.5) an alaan Ӎallaabilité al- course works Haggat ad - doktoora
         I now finished the course work for the doctoral degree
Now I have finished the course work for the doctoral degree.

(1.7) al- mušrif gaal li you are a graduate student and you have to
         the advisor said to me you are a graduate student and you have to
         bring up your own point
         bring up your own point
My advisor said to me “you are a graduate student and you have to bring your own point of view”
122

(1.8) yajib an takuun Hariṣ on what you are doing
must that are careful on what you are doing
You must be careful of what you are doing.

(1.10) huwa course - at muta9aliqa bibba9daha lakinuh
that is course s related with each other but
ma fiih differences in the program
not there is differences in the program
The courses are related to each other but there is no difference in the program.

(1.11) al course - at fi barnaamaj ad- doktoora ...
the course s in program the doctoral ...
The courses in the doctoral program ...

(1.12) al- graduate courses allati a xa dta- ha kUlla- ha valid
the graduate courses which I took it all it valid
the graduate courses which I took are all valid.

(1.13) ana ga9at sana aHaddir bass li l- brobosal
I spent year preparing only for the proposal
I spent only one year preparing for the proposal.

(1.16) fiih 9alib Sa9uudi produced a lot of papers with him
there is student Saudi produced a lot of papers with him
There is a Saudi student who produced a lot of papers with him.

(1.17) ana ma sawEet formation li l- committee Haggiti
I not make formation for the committee mine
I did not form my committee.

(1.19) ana wal - muşrif Haggî we will be the defender
I and advisor mine we will be the defender
li l- proposal haadâ, ya9ni, against the other, ya9ni,
for the proposal this, that is, against the other, that is,
That is, I and my advisor will be the defenders of this proposal against the others.

(1.20) ixtibaar al- qualifying şa9b jiddan
exam the qualifying difficult very
The qualifying exam is very difficult.

(1.21) ...the major ideas Haggat at - ten courses
...the major ideas for the ten courses
...the major ideas of the ten courses.

(1.22) ma fiih rule waHda
not there is rule one
There is no one rule.
(1.23) three topics exam, kUl topic fiih three questions
Three topics exam, each topic has three questions.

(1.24) aḵḍ̣o min- ni al- intiHaan one week wa kaan written
took from me the exam one week and was written
The exam took one week and was written.

(1.25) kUl ṭaalib luh adfisor yunaqiš ma9- uh al- blans
each student has advisor discuss with him the plan
Each student has an advisor to discuss the plans with.

(1.27) yajib an ṭ̣alḷ̣i al- course works and abHaaΘ- ik kUl- laha fi l- area taba9k
must that let the course works and research your all it in the area yours
Your course works must lead you to your area of interest.

(1.28) gaal li you have four topics you will be tested in
said to me you have four topics you will be tested in
He said to me you have four topics you will be tested in.

(1.29) an aşṭ̣ṭart communication w aşṭ̣ṭart computer architect w aşṭ̣ṭart educational
I chose communication and I chose computer architect and I chose educational
software
software
I chose these courses, communication, computer architect and educational software.

(1.30) I almost done with ΘalaaΘ arba9 al- brobosal
I almost done with three quarter the proposal
I am almost done with three quarters of the proposal.

(1.31) ana intaḥēt min al- proposal
I finished from the proposal
I finished writing the proposal.

(1.32) as-saa9a- at alli aḵ̣̣ṭ̣aḥ̣a kUlla- ha required
the hour- s which took I all it required
All the hours which I took are required.

(1.33) li hadaf or a point I am looking forward for it
have I goal or a point I am looking forward for it
There is a goal or a point I am looking forward to achieve.

(1.39) it turns out innuh, ya9ni, min alfiin lines
it turns out that, that is, from two-thousands lines
xamsiin lines, ya9ni, would affect that variable
fifteen lines, that is, would affect that variable
It turns out that, from the two-thousand lines, fifteen lines would affect that variable.
The debugging here saved a lot of time.

The debugging gave chances for you to diagnose the problem, fix it, and look for other problems to see if the program has no errors.

It is possible to shorten the testing procedure.

That is, the whole university has no ideas about it.

This is a new technique.

There is progress in the hardware, but there is still slow progress in the software.

In the university they give you respect and freedom of thought.

You have choices in the things which want you.

He said I do not care.

I took an incomplete in one class.

I take the pound of tomatoes for $1.80.
Let me know if you have a specific question.

I have one class which requires a term paper and mid-term.

Here it is rare for a student to be absent.

I took a take-home exam which was closed-book.

My grade was excellent.

I have a tutor to help me.

I have in-class open-book exam.

I wrote a report to the top management.

Top management's time is very valuable.

I will give you a summarized report.

I have fourteen year's experience in my work.

I performed a test for the program.
(2.35) nisawwi test fi l- lab
   we make test in the lab
We have the test in the lab.

(2.36) sawwEEt short baber
       made I short paper
I wrote a short paper.

(2.38) al- office hours very important
       the office hours very important
Office hours are very important.

(2.40) al- mudarrts gaal I do not have any experience fi haaða al - mawðuu9
       the teacher said I do not have any experience in this the subject
The teacher said ” I do not have any experience in this subject”.

(2.41) wa gaal min 9induh experience 9an haaða as- subject
       and said he who has experience about this the subject
The teacher asked, "who has experience in this subject?"

(2.42) sawwEE- na evaluation li - mudarrts jidiid
       made we evaluation for teacher new
We evaluated a new teacher.

(2.43) al- pronunciation Hagguh ta9baan
       the pronunciation his bad
His pronunciation was bad.

(2.44) ma fiih homeless 9ind- na
       not there are homeless have we
We do not have homeless people.

(2.46) kint absent yesterday
       was I absent yesterday
I was absent yesterday.

(2.49) iða sawwEEt mistake yajib an tiṣaHH- ha
       if made you mistake must that you correct it
If you made a mistake, you must correct it.

(2.50) fi s- safar tišuuf new culture wa tit9aawan ma9 new bebol
       in the travel you see new culture and co-operate with new people
In traveling, you see new cultures and work with new people.
(3.1) al-jaami’na tili ana fii- ha so far murtaH fii- ha
the university which I in it so far comfortable in it
I am satisfied with my university.

(3.3) hum yuwaqtuun flyers
They distribute flyers.

(3.4) ruH-na horseback riding ana wi ḵwaan- i ʂ- şgaar
went we horseback riding I and brothers my the small
I and my younger brothers went horseback riding.

(3.7) fi ʔ- thanks given aba ruulH li kam wilaayah
in the thanks given I will go to number states
At Thanksgiving, I will go to a number of states.

(3.9) šaraaHa, ma gdar a9iš fi balad fii- ha snow for five minutes
Honestly, not I can live in country in it snow for five minutes
Honestly, I can not live five minutes in a country which has snow.

(3.12) la9b- na outdoor kura fi January
play we outdoor soccer in January
We played outdoor soccer in January.

(3.13) kUllu- hum my friends
all they my friends
They are all my friends.

(3.14) 9ind- ha experience kiOiira
has she experience many
She has a lot of experience.

(3.17) while I was there aẖaṭt at- tofal
while I was there took I the toefl
While I was there I took the TOEFL test.

(3.18) al-jaami’na gaal- u 520 is not what we want
the university said they 520 is not what we want
The university said to me that the score of 520 is not enough.

(3.19) hum yibguun 570 at least
they want 570 at least
They want at least 570.

(3.20) lamma ṭala9 as- score tili yibguuna sajalt academic courses
when out the score which they want they register I academic courses
When I got the score which they required, then I registered for academic courses.
(3.21) actually haada a- third semester
actually this the third semester
Actually, this is the third semester.

(3.22) al- bakalurrius usually takes four years
the bachelors degree usually takes four years.

(3.24) aHayaanan nadris fi s- semester kUl- luh ila Thmaan chapaater
sometimes we study in the semester all it to eight chapters
Sometimes in the whole semester we study only eight chapters.

(3.25) axaad one topic min one of the chapters wa sawwet presentation
took I one topic from one of the chapters and made I presentation
I took one topic from one of the chapters and then I gave a presentation.

(3.26) haada al- bamaamaj miistarika fi- h I believe sab9 jaami9a- at
this the program participated in it I believe seven universit- ies
I believe that seven universities participated in this program.

(3.27) tigdar taaxid kutub min al- maktaba bi l- student card
You can take books from the library with the student card.

(3.28) al- Haya hina very difficult
the life here very difficult
The life here is very difficult.

(3.30) maOalan al- mailing service yuwaats1 al- package 9ala l- baab
for example, the mailing service handle the package on the door

(3.31) fi haada al- wagt you can live by phone and you can buy and sell anything by phone,
in this the time you can live by phone and you can buy and sell anything by phone,
you do all of these while anta gaa9td fi l- bayt
you do all of these while you staying in the house
At this time you can live by phone and you can buy and sell anything by phone,
you do all of these things while you are sitting at home.

(3.32) huwa gaal li have fun
He said to me have fun.

(3.33) mantiqt- na fii- ha recreation center
area our in it recreation center
Our area has a recreation center.
(3.34) ana aruuH li l- gym 9alašaan I maintain my health
I go to the gym in order I maintain my health
I go to the gym in order to maintain my health.

(3.35) ana aHtb as- soccer wa hiya al- main thing to me
I like the soccer and it the main thing to me
I like soccer and it is the main thing to me.

(3.37) maazilt ana young
still I young
I am still young.

(3.38) ana aHtb Florida and I have been to Orlando wa Miami
I like Florida and I have been to Orlando and Miami.
I like Florida and I have been to Orlando and Miami.

(3.39) fi- ha a lot of activities wa n- naas hinaak friendly
in it a lot of activities and the people there friendly
There are a lot of activities and the people there are friendly.

(4.2) law truuH li l- farmer...
If go you to the farmer...
If you go to the farmer...

(4.3) al- kalaam alli yitaklam- uun- ah is not in English and it is not pure English
the speech which speak they it is not in English and it is not pure English
The speech they speak is not in English and it is not pure English.

(4.4) al- bubulation fi s- sa9uudia almost 17 million
the population in the Saudia Arabia almost 17 million
The population in Saudi Arabia is almost 17 million people

(4.5) aHasan tsawwiih brief
better you make it brief
It is better to make it brief.

(4.6) at- tiution 9ind- hum aqal min al- jaami9a- at al- uχra
the tuition at them less from the universities the other
The tuition there is less than other universities.

(4.7) at- tiution fi l- braiyfit universities gaali and fery costly
the tuition in the private universities expensive and very costly
The tuition in the private universities is expensive and very costly.

(4.8) 9ind- i qabuuI fi l- public bolicy fi qisim al- enfiyroment
have I admission in the public policy in department the environment
I have been admitted to the Public Policy program in the environment department.
I have difficulty financially and also socially.

Because I'm being patient, I would say get rid of it.

My Arabic language skills have become weaker than my skills in the English language.

Take, for example, writing papers in the English language. I know what the steps are.

I do not know how to write a letter in Arabic.

I spend most of the time in classes.

My friend gave me an article.

I saw MoHammad yesterday.

The program requires more than sixty credit hours.
(5.12) \[ \text{wb nafs al-wagt fiih akOar min \( \chi \)ams at same the time there more than five \( \alpha \)laaf saa\( \alpha \)a actual clinical hours thousands hours actual clinical hours} \]
At the same time, there are more than five thousand actual clinical hours.

(5.13) \[ \text{haa\( \alpha \)a juz? min al-cultural Haggana this part from the cultural ours} \]
This is a part of our culture.

(5.14) \[ \text{an a\( \alpha \)taz bi l-culture Haggi I proud with the culture mine} \]
I am proud of my culture.

(5.15) \[ \text{fiih \( \chi \)am\( \alpha \)st\( \alpha \)a\( \alpha \)s \( \tau \)alib miOil ta\( \chi \)a\( \chi \)\( \alpha \) in all over the States there are fifteen students like major my in all over the States} \]
In all the States, there are only fifteen students like my major.

(6.1) \[ \text{laazim tigra fi l-isbuu9 five novels must read you in the week five novels} \]
You must read five novels every week.

(6.2) \[ \text{yusaw-\( \alpha \)un lah social orientation make they him social orientation} \]
They introduce him to social orientation.

(6.4) \[ \text{laazim you fill this form must you fill this form} \]
You must fill out this form.

(6.5) \[ \text{marra 9a\( \alpha \)-uun-i mux\( \alpha \)aalafa min al-aircraft one time give they me ticket from the aircraft One time I have been given a speeding ticket by a police aircraft.} \]

(6.9) \[ \text{kaan 9ind-uh a\( \alpha \)niin emergencies was has he two emergencies} \]
He had two emergency cases.

(6.10) \[ \text{sanatiin at-trail Hagguh two years the trail his His trial in the court lasted for two years.} \]

(6.11) \[ \text{\( \chi \)at \( \alpha \)-telephone fii-h noise ki\( \alpha \)iira line the telephone in it noise many} \]
The phone line has a lot of noise.
(6.13) 9at- ni as- serial number
Give me the serial number.

(6.15) zaar- hum fi l- club Hag- hum
visited he they in the club their them
He visited them at their club.

(6.18) xal ad- doKtoor yisawwi lik evaluation
let the doctor make for you evaluation
Let the doctor evaluates you.

(6.19) ana sawweet root canal wi filling
I made root canal and filling
I had a root canal and a filling.

(6.20) ana aguu- luh ruuH 9ala s- student infirmary li?anah biblaaš
I told him go on the student infirmary because free
I told him to go to the student infirmary because it is free.

(6.21) ruuH 9ala as- sports center
go on the sports center
Go to the sport center.

(6.22) ana lamma aruuH ilall- mustšfa aguul- lu- hum I need a copy of the receipt
I when go I to the hospital I say to them I need a copy of the receipt
When I go to the hospital, I ask them for a copy of the receipt.

(6.23) ba9d al- mustšfaya- at yuğušu fi l- insurance
some the hospital- s lie in the insurance
Some hospitals lie in charging the insurance companies.

(6.25) sawfa yarfu9uun al- fatuura li l- collection agency
will send they the bill to the collection agency
They will send the bill to a collection agency.

(6.26) awwal complex ba9d al- mall
first complex after the mall
It is the first complex after the mall.

(6.27) al- giyaab mumkin yu?a9Oir 9ala l- grading
the absence possibly effect on the grading
Frequent absences can effect your grades.

(6.28) ba9d al- mawaad fii- ha mid-term paper wa final exam
some the courses in it mid-term paper and final exam
Some courses require a mid-term paper and a final exam.
The average reading assignment is at least 500 pages a week.

You read many chapters of from the book and three articles only for this one class.

He requires an in-class exam and only a five-page paper.

They invented an experimental bug.

This tape recorder is very sophisticated and at the same time it is auto-reverse recording.

For example, if I create a channel, I become the co-ordinator for this channel because I am the one who created it, and I can ban you and delete you from the channel.

The course is built on the paper and your grades depend on this paper.

They teach you, as you know, everything.

We form group studies in order to benefit from it.

There are people using the library for different reasons.
(7.5) ana bìnntsba li ana either go to the library
I as for me I either go to the library
to find books willa iða nni maOlán ma bi aðaakir
to find books or if I for example, not want study
fi l- bayt aruH aðaakir hinaak
in the home I go study there
As for me, I either go to the library to find books or, if do not want to study at home,
I go and study there.

(7.6) al- maada haaði 1llí ana maksið -ha all built on
the course this which I taken it all built on
research techniques and library research methods
research techniques and library research methods
This course which I am taking is built on research techniques and library research methods.

(7.7) min ðìmìn ar- requirements inn- ìk turuuH ila
from part the requirements that you go to
l- library of congress and see if you can find any sources fi t- tækkaś
the library of congress and see if you can find any sources in the area
As part of the requirements, you go to the Library of Congress.
and see if you can find any sources in the area of your field.

(7.9) in terms of, ya9ni, al- Hayaah wi kaða is different from our live
in terms of, that is, the live and like that is different from our live
As you know, in terms of the life here, it is different from ours.

(7.10) ba9dí in- naas very individualistic
some the people very individualistic
Some people are very individualistic

(7.11) literally speaking ma Had yigdar yisaa9idd-ik
literally speaking, not body can help you
Literally speaking, nobody can help you.

(7.12) yibga french fries w orange juice
He wants french fries and orange juice.

(7.13) t ìHts inn- ìk you have to accomplish some thing
feel you that you have to accomplish something
You feel that you have to accomplish something.
(7.14) undergraduate studies is different, ya9ni, it takes undergraduate studies is different, that is, it takes a lot of courses fii- ha different fields depending, a lot of courses in it different fields depending, ya9ni, on the class tilli ma9aak that is, on the class which with you Undergraduate studies are different, that is, there are a lot of courses, and there are different fields, depending on the students in the class.

(7.15) ba9d in- naas his life is built on studying some the people his life is built on studying The life of some people is built on studying.

(7.17) manṭiqat DC is very expensive area DC is very expensive The DC area is very expensive.

(7.18) ana taabi9 as- sports if I have time I follow the sports if I have time I follow sports if I have time.

(7.19) if the game is on I watch it bass ma ataHammas la- ha if the game is on I watch it but not get excited by it If the game is on I watch it but I do not get excited.

(7.20) abi nisxa min at- transcript wa nisxa min ad- degree want I copy from the transcript and copy from the degree I want a copy from the transcript and a copy from the degree.

(7.21) wa ma Htaaj al- original and not need the original and I did not need the original.

(7.23) ṭaaH min al- bridge fall he from the bridge He falls from the bridge.

(7.24) laazim t9abbi form mu9aiyna wa tsawwi deposit fi Hisaab- ik must fill form specific and make deposit in account your You must fill out a specific form and then make a deposit in your account.

(8.4) kUll a- graduate courses tabda 5:20 p.m. All of the graduate courses start 5:20 p.m.

(8.7) you have one minute to read al- ḟṣaab You have one minute to read the letter
(8.8) ana fi l- computer science school fi gisim as- software engineering and system
I in the computer science school in department the software engineering and system
I study in computer science school at the department of software engineering and system.

(8.9) ana sawweet 9iddat presentations
I made several presentations
I gave several presentations.

(8.11) al- mudarris gaal li 9at- ni al - opinion Haggik
the teacher said to me give me the opinion your
The teacher asked me to give him my opinion.

(8.12) al - mudarris yuwazzt9 9alaina handouts
the teacher distribute to us handouts
The teacher distributes handouts to us.

(8.14) ga9t kUl al- weekend ađaakir li t - test
stayed I all the weekend studying for the test
I spent the whole weekend studying for the test.

(9.2) ad - dirasa hina fi- ha flexibility akOar
the studying here in it flexibility more
Studying here has more flexibility.

(9.4) al- mudarris gaal li you are fantastic
The teacher said to me you are fantastic.

(9.6) saa9a wa nuşf li l- presentation and nuşf saa9a for discussion
hour and half for the presentation and half hour for discussion
One hour and a half for the presentation and half hour for discussion.

(9.7) haad ϊ-ay raajt9 ila your personality
this thing related to your personality
This thing is related to your personality.

(9.8) your personality hiya as -sabab
your personality it the cause
Your personality is the cause.

(9.10) al - Hayaa hina very organized wa s- system hina very strong
the life here very organized and the system here very strong
The life here is very organized and the system is very strong.

(9.11) ať- țullaab kUllu- hum standard waH1d
the students all them standard one
All of the students are [held to] one standard.
There is criticism from the people themselves. The school called me and said your daughter is sick, come and pick her up. The public school is very close. He finally joined us. TESOL is a very interesting field. And these courses were not accepted. My children go to a public school. They give you extra points. If you understand the game, then it becomes a pleasure to watch. You must know what is going on in your house. I study only in order that I may pass the test.
You can drop the course or you can make it incomplete.

I will talk about the topic in general. The number of employees in the private sector is large.

If you go to a specific spot...

Studying became my lowest priority.

You must eliminate one.

I will give them two options.

This model is perfect, but as far as its speed, it is very slow; some applications, especially, need a lot of time for processing.

They build the bases for the student.

That is certainly their main goal is to prepare the student to enter college.
They train the student so he is able to take notes and give presentations and use the library, so that he gains excellent experience before entering the university.

I have gained enough experience and knowledge in grammar, composition and reading.

For sure I will call you when I go home.

Give me a call tomorrow.

I will go home and take a shower.

Of course, the system is completely different.

The difficulty that faced me in the beginning was culture shock.

We gained experience, learned new skills and how to do research.
(11.12) Halat-uh very very critical condition his very very critical
His condition is very critical.

(12.2) al-credit card Hagg-ik luh limit
the credit card your has limit
Your credit card has a limit.

(12.3) lahaa briyfit connection
for it private connection
It has a private connection.

(12.4) irbuț Hizaam-ak 9alașaan ma taaxiđ ticket
fasten belt you in order not take ticket
Fasten your seat belt in order not to be given a ticket.

(12.6) haađa nuu9 min al- advertizment
this kind from the advertisement
This is a kind of advertisement.

(12.7) you have to get ready 9indama tii-j ik ad- doṣa
you have to get ready when arrive you dizziness
You have to be well prepared when you feel dizzy.

(12.9) al- waHid lamma yxliț al- qualifying yișiir relaxed
the one when finish the qualifying becomes relaxed
After finishing the qualifying exam, one becomes relaxed.

(12.10) maHaruug as- satellite Haggi bass yiįii- ni al- free channels
broken the satellite mine but receive I the free channels
My satellite dish is broken but I receive the free channels.

(12.11) ma 9ind- i cable
not have I cable
I do not have cable.

(12.13) 9ind- i international channels
have I international channels
I have international channels.

(12.14) haađi al- maHaṭṭa free
this the channel free
This channel is free.

(12.16) as- signal maujuuda
the signal there
The signal is there.
(12.17) baaṣ banaat
     bus    girls
[The] girls’ bus

(12.18) put the pen 9ala l- kursi
     Put the pen on the chair.

(12.19) bint- i Haṣal laha arm dislocation
daughter my occurred for her arm dislocation
My daughter has dislocated her arm.

(13.2) 9ind- i jar?aid wa kUlla- ha fresh
     have I newspaper and all it fresh
I have several current newspapers.

(13.3) 9ab9an misawwi- ha joke
     of course said I it joke
Of course I said it as a joke.

(14.1) sawfa jlis two nights
     will I stay two nights
I will stay two nights.

(14.4) hina taḫuḏ mawaad- ik based 9ala inn- ik mutajih ila taḫaṣṣuṣ mu9aiyan
     here take you courses your based on that you heading to major specific
Here you take your courses based on your specific major.

(14.7) hina y9llim- uu- k 9eef tšayyik 9ala s- spelling
     here teach they you how check on the spelling
lamma tgaddim baber yukuun baHOik magbuul
     when present you paper become research your accepted
Here they teach you how to use the dictionary to check your spelling,
so that when you present a paper it becomes acceptable.

(14.8) hina y9llimuun aţ- ṭalib 9eef yugaf and ygaddim presentation
     Here teach they the student how stand and give presentation
Here, they teach you how to stand in front of the class and give a presentation.

(14.9) hina yu9t- uun ak homework akOar min hinaak
     here give they you homework more than from there
Here they give you more homework than they do over there.

(14.10) aiydan hina yu9t- uun - ak handouts akOar min alli yu9- ūun-ak hinaak
     also here give they you handouts more than from that give they you there
Also, here they give handouts more than they do over there.
(14.11) al-office hours tixtilif min doktoor ila doktoor
the office hours vary from doctor to doctor.
The office hours vary from doctor to doctor.

(14.12) axad course at taHdiriya limuddat yuum wa yumiin
took I course- s preparative for a period one day and two days
I took preparatory courses for one and two days.

(14.13) maktabt-na fii- ha jamii9 al-periodicals
library our in it all the periodicals
Our library has all kinds of periodicals.

(14.15) 9ind- na kafiteria fii- ha Halawiyaat wa snack wa kUll anwaa9 al- aktl
have we cafeteria in it desserts and snack and all kinds the foods
Our cafeteria has all kinds of desserts, snacks and foods.

(14.16) ba9d an- naas ma 9indu- hum 9alfyya 9an ar-radiation
some the people not have they background about the radiation
Some people do not have a background in radiation.

(14.18) 9ind- i great wa9iifa
have I great job
I have a great job.

(14.19) law kaan 9ind- i superfiysor fi š- šugul sawfa tgaddim ntaa?ij ţaiyba
if was have you supervisor in the work will present results good
If you have a supervisor at work, you will have good results.

(14.20) 9indama tsawwi baHO laazim you prove inn- ik šaH
when you make research must you prove that you correct
When you write a research paper, you must prove that you are right.

(14.23) 9ind- i announcement
have I announcement
I have an announcement.

(14.25) tigdar tidxîl 9ala combuter al- jaami9a from your local home
can you enter on computer the university from your local home
You can access the university computer from your local home.

(14.28) 9indu- hum chatting wa news group bi l- 9arabi
have they chatting and news group with Arabic
They have on-line chat and a news group in Arabic.

(14.29) ana ruHt li l- manager wa gilt luh al- alarm mu ša9gaal
I went to the manager and told I him the alarm not working
I went to the manager and told him the alarm wasn't working.
(14.30) gaal li ṭayyib check ma9 al- company
  said he to me okay check with the company
He said to me, okay, check with the security company.

(15.1) ma yigdar yuruuH deep
not can he go deep
He cannot go deep.

(15.2) laazim təjiib the proper documents
must you bring the proper documents
You must bring the proper documents.

(15.3) amriica land of opportunities
America land of opportunities
America is the land of opportunities.

(15.4) yu9tabar authentic source
considered authentic source
It is considered as an authentic source.

(15.5) ana aḫaḥt 9ašer course- at wa 40 saa9a research
I took ten course- s and 40 hours research
I took ten courses and did 40 hours of research.

(15.7) 9amall- na fii- h šwaya risk
work our in it some risk
Our work has some risks.

(15.10) al- fan Hag Naaif al- baṭaariya tribga tagiir
the van belong Naaif the battery need change
The battery in Naaif's van needs to be changed.

(15.11) al- qisim 9indi- na yijīh grants
the department have our receive grants
Our department receives grants.

(15.12) taḫṣaṣṣ- i computer science wa t- taḫṣṣiq ad- daqiq huwa al- memory hierarchy
major my computer science and the major the specific is the memory hierarchy
My major is computer science and my specific major is memory hierarchy.

(15.14) al- ablications wa l- baraamij fi l- cumbuter kiʔiirah
the application and the programs in the computer many
The computer has many applications and programs.

(15.15) ana agdar an asawwi programming and designing
I can that make programming and designing
I can design computer programs.
(15.16) ma aHib aruuH ma9 al- forty people boat not I like go with the forty people boat I don't like going fishing on the forty-person boat.

(15.17) 9alšaan we get tangled all the time because we get tangled all the time

(15.19) al- captain yibii9 simak the captain sell fish The captain sells fish.

(15.20) Hiṭ ar- receipt 9ala al- maaşa Put the receipt on the table.

(16.1) al- bunuuk 9ind- hum ma9luumaat 9an al- customers the banks have they information about the customers Banks have information about their customers.

(16.3) al- bank yisawwi prediction the bank make prediction The bank makes prediction.

(16.5) I missed al- ?ahal I missed the family I missed my family.

(16.6) ana daiyman busy I always busy I am always busy.

(16.8) ruHtu fishing al- isbuu9 al- maadi ? went you fishing the week the last ? Did you go fishing last week?

(16.10) al- Internet sawfa tištiğiř fi s- Sa9uudia the Internet will work in the Saudi Arabia The Internet will work in Saudi Arabia.

(16.11) yimkin- k an tisawwi design li 1- homebage taba9ik can you that make design for the home page your You can design a home page for your.

(16.12) Haysaww- uun regulation li 1- Internet will make they regulation for the Internet They will impose regulations on the Internet.
(16.13) ad- downloading yaa_boldstyle\textit{j}i^m\textit{s} digaayg the downloading take five minutes

Downloading takes five minutes.

(17.2) kitabt paper fi ax\textit{ir} as- semester wrote I paper in end the semester

I wrote a paper at the end of the semester.

(17.4) ba9\textit{d} al- mawaad fii ha ma\textit{O}alan small project and group studies some the courses in it for example small project and group studies Some courses require, for example, a small project and group studies.

(17.5) ba9\textit{d} al- bu\textit{Huu}\textit{O} allati kitabt- ha tikuun mus\textit{t}arakah wa ba9\textit{d}aha yikuun individually some the research which wrote I it are joined and some are individually Some of the research papers I wrote were co-authored with other students and some were individual.

(17.7) how to search, ya9ni, an- nuqaat al- ma\textit{t}luuba how to search, that is, the points the required They teach you how to search the required points.

(17.8) kaanat al- presentation mujarrad 9an il- literature review was it the presentation mainly about the literature review

The presentation was mainly about the literature review.

(17.9) kun- na three groups wa kil group fii- ha \textit{O}alaa\textit{O} \textit{j}ullaab were we three groups and each group in it three students There were three groups and each group had three students.

(17.11) 9ind- na an- naas hina more serious have we the people here more serious Here the people are more serious.

(18.2) ana saakin fi d- dorm I live in the dorm

I live in the dorms

(18.3) ad- dorm Hawaali ten adwaar the dorm approximately ten stories The dorm is approximately ten stories.

(18.4) I will miss am\textit{ri}ica

I will miss America.
I will graduate, God willing, next term.

When you enter into the university, they first require sixty credit hours before you declare your major.

I finished most of the requirements and some of the electives.

I waited for a year or so.

I signed the contract but actually I haven't started working.

I am now taking a class in communication.

They teach you how to do interviews, how to use the overhead projector, and how to give presentations.

The computer becomes very easy.

During rush hours the streets become crowded.

...but still it is not my language.
(19.3) al- adfiysar Haggî mut9aawin jiddan
the advisor mine co-operative very
My advisor is very co-operative.

(19.4) ana gđi mu9żam wagt- i fi l- library
I spend most time my in the library.
I spend most of my time in the library.

(19.6) nafsiy- ity completely changed
life my completely changed
My life has been completely changed.

(19.8) fiih anwaa9 ar- references fi l- maktaba
there are kinds the references in the library
There are different kinds of references in the library.

(19.9) ma 9ind- hum ub to date references wala new arrival books
not have them up to date references not new arrivals books
They do not have updated references nor do they have new arrivals books.

(19.10) al- periodical magazines mutwafira w la- ha qisim olesale
the periodical magazines available and for it section special
Magazines and periodicals are available in special sections.

(19.11) kaan 9ind- i term baber yesterday
was have I term paper yesterday
I had a term paper yesterday.

(19.12) yimkin ttHa9stl new released periodicals fi l- braiyfit libraries
possible you find new released periodicals in the private libraries
It is possible you'll fined newly released periodicals in private libraries.

(19.13) ana alaan fresh w agdar ađaakir ila š- šubH
I now fresh and can study to the morning
I am highly motivated and I can study until the morning.

(19.14) iđa Hașalt 9ala ad- degree tansa at- ta9ab kUl- luh
if get you on the degree forget you the suffering all it
If you get the degree, you will forget your suffering.

(20.2) nsawwi group studies min awwal as- semester wa yiştîrk fi- ha ṭullaab
we form group studies from first the semester and participate in it students
min nafs al- class
from same the class
We form study groups at the beginning of the semester, and students who participate are from the same class.
(20.4) al- ḥayŷ ḥina good experience

the living here good experience

Living in the United States is a good experience.
REFERENCES


Nasser Saleh Al-Mansour was born in 1963 in Buraida, Saudi Arabia. In 1983 he graduated from Buraida Scientific Secondary School. He immediately joined the School of Arabic Languages at Imam Mohammad Bin Saud Islamic University in Riyadh, where he earned his Bachelor of Arts degree in English language and translation in 1987.

Following his graduation, he worked at the Islamic and Scientific Research Headquarters where he was in charge of translation services. In 1988, he joined the Saudi Embassy in Washington, D.C. where he worked as an administrative attache until 1993.

From 1990 to 1992 he studied in the Department of Languages and Foreign Studies at American University, earning a Master of Arts degree in linguistics. While at American University, he was awarded a certificate for the teaching of English to speakers of other languages.

In the fall of 1994 he joined the Department of Linguistics at the University of Florida, where he expects to earn a doctorate in linguistics in December 1998.

Nasser Al-Mansour is married and the father of six children.
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Haig Der-Houssikian, Chairman
Professor of Linguistics

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Chauncey C. Chu
Professor of Linguistics

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Diana Boxer
Associate Professor of Linguistics

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Clemens L. Hallman
Professor of Instruction and Curriculum

This dissertation was submitted to the Graduate Faculty of the Department of Linguistics in the College of Liberal Arts and Sciences and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 1998

Dean, Graduate School