CODE-SWITCHING PATTERNS IN INFANT BILINGUALISM: A CASE STUDY
OF AN EGYPTIAN ARABIC-ENGLISH-SPEAKING FOUR-YEAR-OLD
BILINGUAL CHILD

by

Randa Adel Suliman Gamal

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As members of the Dissertation Committee, we certify that we have read the dissertation prepared by Randa Gamal entitled **Code-Switching Patterns in Infant Bilingualism: A Case Study of an Egyptian Arabic-English-Speaking Four-year-old Bilingual Child** and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

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Final approval and acceptance of this dissertation is contingent upon the candidate’s submission of the final copies of the dissertation to the Graduate College. I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

_________________________________________ Date: May 23, 2007  
Dissertation Director: Luis C. Moll
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SIGNED: ___Randa Gamal__________________
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DEDICATION

I dedicate this dissertation to my loving husband, Ahmed Hasan, whose encouragement and invaluable, unconditional support and courage made it possible to achieve this academic honor.

Above all, I am grateful to my beautiful daughter, Sara, for providing me with an abundance of data on code-switching without which this project could not have been possible.

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The purpose of this sociolinguistic case study is to analyze the language processes and speech patterns of code-switching of an Egyptian Arabic-English-speaking three-year-old girl named Sara. Sara, who is the daughter of the study’s author, has been exposed to and has learned both languages simultaneously since she was nine months old. Family composition played an immense role in the language the parents used with their child and the language the child chose to speak. Sara’s parents spoke to her in Arabic since she was born; thus, a one-language household model was used. At the age of nine months, Sara started to attend day care and was exposed to English for the first time.

The integral role of the environmental influences of the English language were considered and examined with regard to Sara’s language choices within the framework of family gatherings, community settings/activities, and recreation/leisure activities, and the positive influence of these contexts was assessed.

Sara facilitated her natural communicative abilities by code-switching lexical items between Arabic and English and vice versa to complete her sentences. Lexical switches including nouns, verbs, and adjectives were the most susceptible to code-switching. In addition, nouns and adjectives were code-switched more than verbs because of the incongruence in verbs between Arabic and English. Sara code-switched depending on the language abilities of the interlocutor. However, there was no association between Sara’s code-switching and the topics of conversation. It was found that the proportion of intersentential code-switching decreased over time and that of intrasentential code-switching increased during the three-year study.
CHAPTER 1
INTRODUCTION

The preparation for this case study began when Sara, my daughter, was approximately 12-15 months old and started speaking one-and-two word utterances. When Sara was an infant, I decided I would speak to her only in Arabic, although this required a consistent and conscious effort on my part. Within a short period of time, however, it became an automatic response, and I rarely addressed Sara in English unless in public with English speakers present. Most of the time, Sara’s father spoke to her in Arabic. Occasionally, he was unable to express himself in Arabic, and he spoke to her in English. He indicated that after working all day in an English-speaking environment, it was difficult to switch to Arabic. However, he made a concerted effort to speak to Sara in Arabic. Thus, a consistent one-language household model generally was used until the present time (Barron-Hauwaert, 2004; De Houwer, 1990; Lanza, 1992; Sneddon, 2000).

Purpose of the Study

The purpose of this sociolinguistic study was to explore and examine the relationship between the social contexts in which Sara, an Egyptian Arabic-English speaking four-year-old, lived and played and the variability and conditional development of her speech patterns, such as code-switching, that she acquired in a bilingual/bicultural setting in which Arabic and English were spoken. Sara was exposed to and learned both languages simultaneously since she was nine months old. This study chronicles Sara’s language development in shifting bilingual contexts as English was introduced through
other sources, e.g., caregivers, relatives, and friends. The research questions addressed were

1. How did Sara develop her complex language abilities in Arabic and English?
2. What was the role of multiple settings in Sara’s language choice?
3. What was the role of code-switching in Sara’s bilingual development?

Three conditions that were central to this research played a prominent role in Sara’s Arabic language development: parents, school, and a trip to and return from Cairo. Therefore, as Sneddon (2000) remarked, the immediate and surrounding community also has an impact on language use:

In a context where the language has no recognized national or educational role, families who have access to greater opportunities for home language use in local community contexts may be encouraged to take active steps to maintain their children’s use of the language. (p. 106)

Need for the Study

A review of case studies and other literature revealed a limited number of Arabic-English infant bilingualism studies, e.g., Bader (1998) and Bader and Minnis (2000). This study differs from others in several ways. First, it addresses two languages that have rarely been studied together. Second, it is a developmental study that consists of three parts: a baseline of Sara’s language prior to a trip to Cairo, Sara’s language acquisition during the trip to Cairo, and Sara’s maintenance and language shift after her return from Cairo (see Table 1). Third, it adopts a different stance, one based on understanding a child’s combined language resources and what is meant by language by virtue of
providing a foundation based on various sociolinguistic aspects such as Sara’s language use and frequency of code-switching depending on interlocutors (through which Sara determined the language[s] spoken by her interlocutors).

Table 1

Language Shift of Sara’s Speech in 2003-2004

<table>
<thead>
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<th>Baseline Prior to Trip</th>
<th>Trip to Cairo</th>
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<td>English primarily is spoken.</td>
<td>Arabic is primarily spoken within a week of arrival.</td>
<td>Arabic is maintained, but Language shift occurs. English is gradually regenerated.</td>
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As such, this study provides insight into the field of child code-switching and complements other work to pave the way for future research in the Western and non-Western (Arab) world. To date, only Bader (1998) and Bader and Minnis (2000) have conducted research on code-switching between Arabic and English by a three and one-half year old bilingual child. Bader examined the development of lexical and semantic code-switching speech patterns of his child between the ages of three years and eight months and four years and three months. As a follow up, Bader and Minnis studied the development of morphological code-switching speech patterns of this child during the same time period.
Other studies have researched English-Spanish (Fantini, 1985; Genishi, 1976; McClure, 1977), English-French (Genesee, 1989; Grosjean, 1982), Russian-French (Jong, 1986), and English-German (Saunders, 1982) bilingual children. There have also been studies conducted on adult speakers’ code-switching between Arabic and English (Abu-Haidar, 1988; Bader, 1995; Bader & Mahadin, 1996; Bentahila & Davies, 1983).

According to Genesee (2002), sociolinguistically adult bilingual code-switching is shaped by characteristics of interlocutors, the situation, and the purpose of communication. Adult bilinguals code-switch for a variety of meta-communicative purposes; for example, to mark ethnic identities or affiliations, to negotiate social roles and status, and to establish interpersonal intimacy or distance. It has been shown that the social functions of adult code-switching are conditioned by community factors. (p. 3)

However, studies addressing Arabic-English bilingual children’s code-switching are extremely limited.

This study responds to Leopold’s (as cited in Hatch, 1976) statement urging language researchers to study child language and infant bilingualism.

America offers countless opportunities for observing infant bilingualism in the making. Children in immigrant families and in the Spanish-speaking Southwest often grow up with two languages. . . . I appeal to the few who are capable of carrying out such an investigation to add sorely needed case histories of infant bilingualism and infant language to the available material, as indispensable spade work for the higher purposes of linguistics. (p. 11)
Thus, the intent of this study was to continue the inquiry process regarding infant bilingualism.

Importance of the Study

Few studies have focused on the acquisition of Arabic and English. More often cited are the acquisition of Arabic as a native language (Omar, 1973) with references to Egyptian Arabic (Aller, 1977; Aller & Saad, 1979). These studies provided an insufficient contribution to research in language acquisition compared with what is currently available on European languages.

Research studies on the acquisition of Arabic dialects, data that are comparable to those that have resulted from studies involving English, French, Russian, Japanese, and other languages, are urgently needed. Such studies would expand and reinforce the existing theory that children raised in different linguistic backgrounds learn the sociolinguistic patterns and functions of their respective languages in the same way and at the same rate and are able to adopt similar acquisition strategies across cultures.

Few research studies have examined and described bilingual child language after the age of three. Children are thought to have acquired most of their language by the age of four or so, motivating research with children older than four (Chomsky, 1969). According to (Bloom, 1975), “These were the neglected years 3: 0 to 5: 0¹ in the last decade of research, just as they have often been the neglected years in studies of cognitive development” (p. 281).

---
¹ The zero represented in a child’s age indicates that the child is 3 years and zero months, and the 5:0 indicates that the child is 5 years and zero months.
Furthermore, children begin to use complex sentences after the age of three, and most research on the acquisition of complex sentences currently consists of experimental studies involving children after that age (Bowerman, 1979). Many researchers studying child language have assumed that children acquire most of the grammatical structures of their native languages by the age of five. Chomsky’s (1969) research was a response against that general assumption and maintained that children as old as 10 years could still acquire grammatical constructions of their native language (Bowerman, 1979; Karmiloff-Smith, 1979).

Scope of the Study

To ensure thorough and in-depth naturalistic investigation of infant bilingualism, I studied the process of simultaneous dual language acquisition of one child within the framework of a sociolinguistic case study. The study limited its scope of investigation to the framework of family gatherings, community settings/activities, and recreation/leisure activities, and the influences of these contexts were assessed.

Language learning starts at a very early age. Infants as young as one month can ascertain differences in speech sounds such as voiced and voiceless consonants. They are able to distinguish speech patterns regardless of what language is being spoken. Piper (2003) confirmed that

The first 3 months of life, newborns exhibit early signs of communicative interest and behavior. They are visibly interested in human faces, voices, and speech sounds, more so than in other objects and sounds. We have several decades of evidence that infants pay more attention to people than to objects, that they prefer
human voices over other acoustically similar sounds, female voices over male voices, and their mother’s voice over other female voices. (p. 65)

Studies have shown that on average American children rapidly acquire language in their early years. By the age of one, they use about three words consisting of single morphemes such as mom, eat, and more (these are the beginning words for language learning).

Between the ages of two and three and one-half years, a child learns language very rapidly (National Association for the Education of Young Children [NAEYC], 1985). In addition, after the age of two, children are aware of dual language acquisition and are able to separate both languages orally and aurally (Imedadze & Uznadze, 1967; Leopold, 1945).

In one of Piaget’s (as cited in Walker de Felix, 1979) developmental stages—the preoperational stage—children between the ages of two and seven were able to learn a second language. Piaget’s Interactionist Theory recognized that children were biologically prepared for language learning. It emphasized that universals in children’s language reflected a basic interplay among cognitive development, linguistic development, and biological maturation and that the environment played a crucial role in language learning because children hear simplified versions of adult speech in order to acquire the linguistic concepts that promote language development (Shaffer, 1985).

According to Piaget, a child at age level two to seven (preoperational period) is able to use words (symbols) to deal with problems (see Table 2).
## Table 2

*Summary of Piaget’s Stages of Cognitive Development*

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age level</th>
<th>Developmental capacities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensorimotor Period</td>
<td>0 – 2</td>
<td>Progressed from instinctual reflexive action to symbolic activities; separating self from object; anticipating the consequences of actions.</td>
</tr>
<tr>
<td>Preoperational Period</td>
<td>2-7</td>
<td>Performing preconceptual thinking: unable to group things; using words (symbols) to deal with problems; developing better here-and-now reasoning.</td>
</tr>
<tr>
<td>Period of Concrete Operation</td>
<td>7 –11</td>
<td>Performing intellectual operations: reversibility, conversation, ordering of things by number, size, class; relating time and space.</td>
</tr>
<tr>
<td>Period of Formal Operations</td>
<td>11-15</td>
<td>Performing hypothetical reasoning; functioning on a symbolic, abstract level; maturing capacities of conceptualization.</td>
</tr>
</tbody>
</table>

Children’s thought process is symbolic, which allows them to develop language with a greater facility. A newborn baby is aware of two languages and is sensitive to the language used by his/her caregiver in the first few months as a survival technique to be fed and changed (Barron-Hauwaert, 2004). In a study by Moon, Panneton-Cooper, and Fifer (1993), two-month-old and six-month old babies of Spanish/English and Irish/English descent showed that they could distinguish between their two languages but were not able to distinguish between other foreign languages.

Therefore, it appears that babies are highly sensitive to intonation and prefer continuous natural speech to segments. Young babies absorb language deeply, even in the early months, and input from the mother or father or the country language will become productive a year or two later. (Barron-Hauwaert, 2004, p. 26)

Between the ages of three to six months, a linguistic rapport occurs between a mother and child, with the baby responding to the mother’s voice by smiling, gurgling, and babbling. The father’s voice is also recognized.

When the baby is a year old and starts sitting, crawling, walking, and exploring, objects such as mama, papa, cup, and spoon are labeled. At the age of two, the child is aware that two languages are being communicated. The child recognizes that some people speak different languages, and some speak only one language. The child realizes that objects are labeled in two different languages. He/she will mix languages to communicate because he/she lacks enough words in one language and substitutes or borrows words across two languages (Barron-Hauwaert, 2004).
At the age of two or three, the child is aware of language differentiation. Depending on the speaker, the child tries to respond in the appropriate language. Yet, the child continues mixing as a means of communicating or when there are bilingual speakers who speak both languages (Barron-Hauwaert, 2004). Meisel (1989), Genesee (1989), and De Houwer (1990) believed that children differentiate between two linguistic systems from a very early age. Studies conducted by Paradis (2001) and Nicholadis (1998) also confirmed that children have knowledge of two different languages from birth and that mixing is a stage of development.

At the age of four, the child becomes socially aware of which language should be spoken. He/she starts to follow the social norms of the culture in different formal settings (at nursery or school, in shops or with strangers etc.) or informal settings (playing with other children, with family and friends, neighbors etc.). Mixed language use fades out with monolingual speakers as he or she realizes it is simply not appropriate or accepted (Barron-Hauwaert, 2004, p. 31).

When a child starts school, he/she uses the appropriate formal or informal language with the outside world. Based on the child’s prior knowledge of the two languages, he/she refers to the language he/she speaks and explains why he/she is speaking that language. At the age of six or seven, the “child reaches a state where he is capable of switching languages according to speaker, topic, setting, language hierarchy and the social norms” (Barron-Hauwaert, 2004, p. 31).
Fluency level is reached by the age of four in both languages, and social etiquette has been gained over the years. The child knows which language is understood by others. He/she then begins to read, write, and explore the world of print (Barron-Hauwaert, 2004).

First language acquisition research has indicated that children are still learning the structure of language at the age of three and that this process of learning is completed by the age of four (Aftat, 1982; Bar-Adon, 1971; Bellugi, 1967; Dale, 1976). The hypothesis of this dissertation is that Sara, at the age of four, is still learning both form and functions of some structures of both languages; this is contrary to the general notion that children are able to master the majority of two languages by that age (Cambon & Sinclair, 1974; Chomsky, 1969; Slobin, 1966). Children can produce simple and basic forms of language at the age of four; however, complex forms “involving subordination, coordination, and relativisation are not common in their speech” (Basena, 1996, p. 46). They learn more complex language structure after the age of six.

Therefore, I chose the age period between three and five for this study. I assumed that Sara had developed a repertory of words in solving the problems that had arisen from her interaction with the social environment. It was in this process of interaction that her speech patterns, either in Arabic or in English, formed and developed.

Demographics in the United States

The growing ethnic diversity in the United States has been well-documented. According to the 2000 United States Census Bureau Report, nearly 33.5 million U.S. residents who were born in another country arrived here between 1970 and 2003; of the
33.5 million recent arrivals, 53.3% came from Latin America, 25% from Asia, and 8% from the Middle East (see Figure 1). In 2000, there were 20 million school children between the ages of 5 and 19; half of these school-aged children lived in minority language families; 18% spoke a language other than English at home; and the proportion of children who spoke a language other than English at home ranged from 28.1 million for Spanish to 2 million Chinese speakers and .5 million Arabic speakers (see Figure 2).

Figure 1. Foreign Born by World Region of Birth: 2003 (in percentages).

In 2000 the U.S. population was 298.2 million, which included 1.2 million people of Arab ancestry (United States Census Bureau, 2000). According to the United States Census Bureau Report, this number increased from 610,000 in 1980 and 860,000 in 1990. Thus, the Arab population increased 41% in the 1980s and 38% in the 1990s. The
population of Arabs in the U.S. constituted an increase of 42% in 2000 as compared to 27% in 1980. According to the U.S. Census Bureau report,

Most people with ancestries originating from Arabic-speaking countries or areas of the world are categorized as Arab. For example, a person is included in the Arab ancestry category if he or she reported being Arab, Egyptian, Iraqi, Jordanian, Lebanese, Middle Eastern, Moroccan, North African, Palestinian, Syrian, and so on. It is important to note, however, that some people from these countries may not consider themselves to be Arab, and conversely, some people who consider themselves Arab may not be included in this definition. (p. 1)

*Egyptians in the U.S.* The Egyptian population increased more than any other Arab group during the 1990s. People who reported Egyptian ancestry grew by 64,000, an 82% increase between 1990 and 2000. In comparison, the Lebanese population increased only 12% during that decade, and the Syrian population increased by 10% (United States Census Bureau, 2000). Figure 3 shows the Arab population by ancestry according to the 2000 United States Census Bureau. The figure indicates that the Egyptian population in the United States is the second-highest increasing Arab ethnicity.
Environmental Influence of the English Language

The introduction of English in the home has been one of the leading causes of loss of the Arabic language in recent years in the United States. At one time, Arabic was the only language spoken by native Arabic speakers. It served most of the functions in the home and a few within the community. Children started school speaking Arabic and knew little or no English. English gradually took over many of the functions within the community. During the 1950s-1960s, American society and the educational school...
system convinced many parents that speaking another language in the home was 
detrimental to their children’s education, so many parents started speaking English to 
their children at home. They used little or no Arabic, and within a few years, English 
replaced their native language within the family. Thus, English became the first language 
of these children and in most cases, remained the only language these children knew. 
Barron-Hauwaert (2004) confirmed that “Social pressure from other parents to use the 
majority-language or increase use in communicating with teachers and assistants can 
quickly precipitate a downward slide into majority-language speaking only children” (p. 
39). However, dual language learning can be achieved in the home as two entirely 
different and separate systems of learning.

Significance of the Study

The present study provides insight into the field of education and dual language 
acquisition. In addition, it complements the research on this topic and paves the way for 
future research to be conducted in the United States and Arab countries.

The study examined Sara’s language learning and development in both languages, 
and the information generated might provide theoretical as well as practical implications 
for dual language acquisition at an early age. In other words, adults can use their own 
resources and abilities to prompt, extend, nurture, and guide the process of dual language 
acquisition of their children. Some theoretical implications might be that the more varied 
the types of verbal interactions Sara might have, the faster her rate of developing and 
processing various speech acts in both languages. Parents and relatives also encouraged 
Sara’s vocabulary to develop by orally interacting with her. Environmental interaction
enhances the development and enrichment of language patterns for interpersonal communication. Another implication might be the frequency of code-switching between the two languages to facilitate communication with others.

The organization of this dissertation is as follows. Chapter 2 reviews the literature for my study. It also provides definitional terms that were the basis for my initial coding system. Chapter 3 discusses Sara’s environment in more detail and provides the methodology that was used to collect the data for this study. Chapter 4 discusses Sara’s early stages of language development, Chapter 5 discusses Sara’s late stage of language development, and Chapter 6 provides the reader with a summary of the study as it related to this case study. Chapter 6 also addresses the various implications involved in research and the implications for educators.
CHAPTER 2

REVIEW OF LITERATURE

This chapter reviews the literature which examines the process of language acquisition, bilingualism, language confusion, and code-switching and borrowing, with an emphasis on language differentiation, language maintenance, and environmental influences.

Language Acquisition

Language acquisition is a process of gaining and mastering language whether it is the native language or the second language. The two languages acquired simultaneously by the subject in this study were Arabic, the native or first language, and English, the second language. The first few years of life are essential to dual language learning. At a very early age, a child’s brain is able to process a language he or she hears. Lenneberg (1967) proposed that under certain conditions, children could learn more than one language before the age of five. Schumann (as cited in Bailey, Long, & Peck, 1983) believed that “Given social and psychological integration, an individual endowed with normal brain faculty will acquire a second language” (p. 7). Penfield and Roberts (1959) asserted that brain lesions to the left hemisphere of the brain affected dual language acquisition.

At birth the cerebral hemispheres are considered to be equipotential with respect to language localization. Progressive cerebral lateralization occurs after about 36 months of age, leading finally to the restriction of language function to the
dominant cerebral hemisphere (usually considered to be the left hemisphere) at about 14 years of age. (p. 15)

In either case, Lenneberg referred to this as the “critical period” but believed that it ended at the time of adolescence. Krashen (1973) re-examined Penfield and Roberts and Lenneberg’s theories of a critical period of dual language learning but contended that the critical period must occur before the age of 5 and not 9 as suggested by Penfield and Roberts or 13 as suggested by Lenneberg. Piper (2003) confirmed that

A great deal of language learning occurs after age 5 (and, indeed, some occurs after age 13), and so it would seem that a critical period for language acquisition might be critical only for the triggering of language acquisition. That is, a weakened version of the critical period hypothesis would claim that if language acquisition is to occur it must begin during a critical period. (p. 77)

Hakuta (1986), however, believed that there was evidence to suggest that the right hemisphere plays a greater role in processing one of the languages, presumably the weaker of the two. In most cases, however both languages are more left-hemisphere dominant; one is simply more so (or less so) than the other. (p. 89)

Research by Hamers and Blanc (1989) attributed language learning to the following factors:

Cerebral control of language behaviour is characterised by functional asymmetry which is a product of neuropsychological maturation. Cerebral lateralization develops in early childhood; most researchers agree that its first manifestations
can be observed around the age of 4-5 years although the claim for a genetically programmed biological basis is well founded (Corballis, 1980; 1991). Generally speaking, the majority of the population has a dominant left hemisphere which exercises a contra-lateral control, i.e. control of the right side of the body (most humans are right handed); the left hemisphere also controls most of linguistic behaviour. Concordance between hemispheric preference for motricity and for language is however not complete; whereas 96 per cent of right-handers do have a left-hemisphere control for language, 70 per cent of left-handers also have the language control centers in the left hemisphere (Milner, 1975). Right-hand preference is therefore a good indicator of left-hemispheric dominance for language, whereas left-hand preference is not. (p. 136)

From a linguistic perspective, language acquisition has a direct interactive relationship with cognitive growth development (Ervin-Tripp, 1968). For example, children do not necessarily learn languages more easily than adults but use different strategies by utilizing cognitive and biological advantages which they have from birth to the age of five (Barron-Hauwaert, 2004). They enjoy rote memorization rather than problem solving. Children learn new words through sensory activity rather than verbal context. Children learn linguistic abstractions if presented to them; however, adults remember the grammatical rules for these abstractions. They are more adept than adults at the sounds of a language rather than the meaning of the language.

Children are able to distinguish basic phonetic sounds or phonemes. If children also hear a second language, they will learn that language as well. Children are able to
speak both languages easily and alternate between both languages. Thus, a bilingual
person has two parallel systems for each language he/she speaks. Hakuta (1986)
contended that “Languages leave their own imprints on the linguistic, psychological, and
social experiences of the bilingual” (p. 3). He elaborated, “Bilingualism is a phenomenon
that comes about as the result of different social and familial circumstances” (p. 57).

First Language Foundation

Language use in the home contributes immensely to language development, and the
amount of first language use in the home is associated with student readiness for
academic demands and continued initial language development in school (Cooley, 1979;

A first language foundation can serve as a support for learning English as a second
language and facilitate a more efficient transition process of learning (Cummins, 1984).
When children start school, academic learning in their first language can transfer readily
to English (Cummins, 1981; Cummins, Swain, Nakajima, Handscombe, Green, & Tran,
1984; Genesee, Polich, & Stanley, 1977; Goldman, Reyes, & Varnhagen, 1984; Stern,

Bilingualism

The term bilingual refers to the existence of, and the exposure to, two different
languages, the home (native) language and the second (target) language of the society in
which a child lives, attends school, learns, and interacts. The people who learn to use a
second language in addition to their own native language are called bilinguals, and the
language behavior of using two languages is referred to as bilingualism (Hoffman, 1991;
Saunders, 1983). Being bilingual also implies the constant use and learning of two languages, in other words, the consistent production of communicative and meaningful utterances in two different languages acquired at the same time in a naturalistic setting. When two speakers of two different languages come in contact with each other for an extended period of time, they tend to learn the new language in order to communicate with the people who speak that language. Economic, political, social, and regional factors determine who endeavors to learn an additional language and to what extent (Akinnasos, 1991).

Owing to economic, political, and technological changes, bilingualism has become widespread, and the rapidly growing number of bilinguals has caught the attention of language-related researchers. Some educators are advocates of ensuring the progress of native language minorities within a second language school environment (Baldauf, 1993; Jernudd, 1993); others are promoting the study of second languages as a resource for expanding the knowledge of monolingual students (Paulston & McLaughlin, 1984). The attention that has been given to the issue of bilingualism is evidence of its importance to society.

Lewis (1976) stated that bilingualism was the average or typical way of communication rather than the exception. According to Grosjean (1982), people became bilingual for various reasons such as social and economic needs, education, emigration, industrialization, and nationalism. Grosjean indicated that a substantial percentage of the world’s population was bilingual and that bilingualism was “present in varying degrees in all countries that are officially monolingual” (p. 11). Grosjean believed that children
became bilingual because “There is a policy in the community or in the family to make them bilingual” (p. 172). Furthermore, childhood bilingualism occurs because children need to communicate with their parents, other family members, peers, and teachers. Authors such as McLaughlin (1978) and Jong (1986) made a distinction between two types of bilingual acquisition. If both languages were acquired before the age of three, this was referred to as *simultaneous acquisition*; however, if a second language was learned after the age of three, this was referred to as *successive acquisition*. Researchers such as Ben-Zeev (1977), Ianco-Worrall (1972), and Peal and Lambert (1962) emphasized that bilingualism was an asset to children. Bilingual children had a better awareness of language differences and were better at learning new languages. Personally and educationally, bilingual children were more motivated, their intelligence and cognitive growth were further developed, and they were often ahead of their classmates (Grosjean, 1982).

*Types of bilinguals.* The study of *infant bilingualism* or *bilingual first language* acquisition examines how a young child who is exposed to two languages from birth is able to “mix” between languages. McLaughlin (1978) affirmed children in this situation could simultaneously acquire two languages. Padilla and Lindholm (1984b) argued that children could acquire two languages after their first birthday and referred to them as “bilingual first language users” (p. 3). De Houwer (1990) used the same term for children who were exposed to a first language and then exposed to a second language and who heard both languages on a daily basis. Researchers such as Ervin and Osgood (1954) and Brisk (1999) have acknowledged there were two types of bilingual speakers,
the compound versus coordinate bilingual. A compound bilingual child was one who learned the languages in a setting where switching occurred or as the result of foreign language instruction based on translation procedures. A coordinate bilingual child was one who acquired the two languages as two separate systems and was typical of the true bilingual. A more formal definition was offered by Paliji and Homel (1987) who stated that a compound bilingual was one “who learned both languages in the same environment from birth . . . the coordinate bilingual is one who learned one language from birth and learned the second language later in life in contexts different from those of the first language” (p. 144).

Pena (as cited in Pham, 1989) found some similarity between a coordinate bilingual and an independent bilingual (a child who could maintain one language independent of the other). Larson and Smalley (as cited in Pham, 1989) defined a dependent bilingual child as one whose second language was dependent on their first language. An interdependent bilingual child learned two languages in various settings and thus might have limited vocabulary in either language. In addition, a child who was a balanced bilingual was one who possessed “reasonable” or “good” ability in both languages (Baker as cited in Blair, 2000). Thus, a child who understood and functioned in classroom activities and his/her home environment in both languages was considered to be a balanced bilingual. Lin (1998) showed that the acquisition of two languages resulted in simultaneous balanced bilingual competence. Students’ characteristics and parental involvement made the difference in bilingual families. A strong sense of identity and pride compelled a student to be bilingual, and parental persistence and practices led
to raising their children to be bilingual. Native (home) language learning can support schooling in developing truly bilingual students both in immigrant families and in foreign language learners in English-speaking families. The elements of bilingual practices include teaching children at an early age to value both languages and to implement both at home and in their community setting, having parental involvement and support, and immersing students in a one—language environment (e.g., visiting their native country). A child who has unequal proficiency in both languages is referred to as a subordinate bilingual.

One aspect of bilingualism is the use of two languages simultaneously in a single discourse or setting. Being bilingual does not necessarily mean that one will use the two languages interchangeably and simultaneously. For example, some bilinguals have distinct social environments in which they feel comfortable using each language. When the environment changes, they automatically change languages without code-switching. Whereas sociolinguists have focused their definition on the functions of code-switching, linguists have defined code-switching according to its structural properties. Sankoff and Mainville (1986) stated that “two elements that are ordered differently in the two languages are prohibited” (p. 76). Bokamba (1989), on the other hand, defined code-switching as the mixing of words, phrases, and sentences to include intrasentential code-switching. Some definitions consider code-switching as a practice that includes both social and formal properties. In each social environment, bilinguals speak one language just as monolinguals do.
However, there are bilinguals whose social environments allow them to code-switch from one language to another within the same sentence. These types of social environments are characterized by the presence of other speakers who are bilingual in the two respective languages (Eastman, 1992). These bilinguals have an interesting and unique way of combining the vocabulary and rules of two languages to create a completely new system that is as regulated as any other human language (Swigart, 1992). This dissertation addressed issues that pertained to the simultaneous use of two languages (Arabic and English), focusing on child code-switching in two typologically different languages.

Opponents of Bilingualism

Infant bilingualism has many supporters; however, opponents argue against its success. Saunders (1982) emphasized the writing of Sondergaard who decided when his son JH was three not to raise him bilingually. Sondergaard was a native speaker of Finnish, and his wife was a native speaker of Danish. Sondergaard believed several factors indicated that JH should not become bilingual.

The factor that was of the utmost importance to Sondergaard (as cited in Saunders, 1982) was that his son was not able to pronounce several letters correctly in Danish and Finnish. Saunders remarked that his own children were not able to pronounce some letters phonetically until they were between three and one-half and five. He felt that Sondergaard’s expectations for JH’s pronunciation were higher than they should have been for his son’s age.
The second factor Sondergaard (as cited in Saunders, 1982) mentioned for having JH become a monolingual speaker was opposition from relatives and the community for speaking to his son in two languages. The relatives felt that the little boy should have one dominant language so he did not confuse the two languages and also to ensure that he pronounced the Finnish words correctly. They believed that Danish was interfering with JH’s Finnish pronunciation.

The third factor that made Sondergaard (as cited in Saunders, 1982) abandon bilingualism was the influence of his son’s friends who did not understand Danish and who made fun of JH’s mother for being Danish and of JH for being half-Danish. This type of mockery made JH resentful, and as a result, he began to use Finnish all the time so he would be accepted among his peers. Saunders (1982) addressed these factors and issues in his article. He provided several examples from published research of how to assure relatives that being a bilingual speaker was an asset to any child and that children would eventually be able to separate and pronounce each language phonetically.

Saunders believed that the influence of friends was tremendous and that their advice affected parents’ choices of language use. He remembered that several of his friends warned him that his children would stop speaking German at various developmental stages such as when they entered kindergarten, when they began elementary school, or even when they reached high school. Saunders did not believe this would occur, and in fact his adult children still speak to him in German. Saunders acknowledged that the loss or attrition of a minority language as a child grows older will also depend to a certain extent on whether the language can be made to be regarded as a viable
alternative to the dominant language of the community in various spheres, e.g., in reading for pleasure and information, writing notes and letters, and so on. (p. 283)

Saunders believed that reinforcing biliteracy was an important aspect of his children’s reading development. He provided his children with attractive, interesting reading materials in German so they were motivated to read them. The German reading materials were competing with the English materials his children were reading in school; therefore, the German stories had to be appealing to them.

Saunders contended,

However much a parent encourages and assists, ultimately the loss or retention of a home language as children get older and approach adulthood is going to depend more and more on the children themselves. If their interest can be sustained, . . . the home language will not only be maintained but worked on and developed. (p. 283)

Another issue Saunders (1982) addressed was the influence of his children’s friends. According to Saunders’ own children, their friends were fascinated that they spoke German, and some wanted to learn German. Saunders believed including his sons’ friends in the conversation in German first and then English made the children more curious about what was being said prior to translation, and thus curiosity led to learning. Saunders also maintained that many children found other languages fascinating and believed it was unique to speak a language other than the dominant one. This inspired a desire to learn a different language. Saunders provided a vivid description of visiting his
son’s school one morning and hearing someone greet him with a perfect German accent, “Guten Tag” (Good Morning). He explained that it was one of his son’s friends who spent a great deal of time at his house and that the little boy had made a brilliant attempt at learning a few key words in German to please him.

Dual Language Acquisition and Bilingualism

A review of the published literature on dual language acquisition and bilingualism revealed a limited number of systematically researched studies in the area of simultaneous language acquisition and bilingualism by Arabic-speaking infants.

Language acquisition research focused on dual acquisition and infant bilingualism has been conducted from several different perspectives. Sociolinguistics have focused on identifying reasons that support or obstruct code-switching in various conversational situations. Many sociolinguists have investigated the effect of the setting, the participants, and the topic of conversation. Thus, they examined the relationship between the speaker and the society and focused on the social aspect, the topic, and the interlocutors involved in the code-switching. To conduct an in-depth sociolinguistic study of the developmental and code-switching processes of a four year old, I reviewed the different research studies on language acquisition and bilingualism prior to examining the literature on code-switching.

*Strategies of Second Language Child Learners*

Ervin-Tripp (1974) used data from American children between the ages of four and nine who were learning French in Geneva, Switzerland, to analyze the relationship
between first and second language acquisition and between age and rate of learning. Her findings indicated that

1. The basic preference of a child at first is for a principle of one meaning, one form, and that he/she rejects two forms for what appears to be an identical meaning or referential situation;

2. Dual language children remember best the items they can interpret;

3. The first features of sentences to be used in comprehension rules are those which survive in short term memory best;

4. Older children also did syntactical tasks faster than younger children;

5. Children above the age of seven in the study learned segmental phonological features faster than younger children.

Shapira (1976) found that the rules were generated from the speech of first language as well as first language learners when they were exposed to natural environments. Brown (1980) indicated that pre-adolescent children from the age of 9 or 10 began to develop self-consciousness about learning a second language. This did not occur with young children.

Strategies of Dual Language Acquisition

Children who learn two languages simultaneously acquire them by distinguishing separate contexts or environments for the two languages. There are two distinct contexts such as home/school, home/neighborhood and parents. Children do not experience difficulty discerning the separateness of such environments, though sometimes acquisition in both languages is slightly slower than the normal rate of first language
acquisition (Brown, 1980). Thus, being bilingual does not delay or hinder intelligence (Gonzalez, 1995; Lambert, 1962). It is definitely not an intellectual handicap, but in fact, according to Hakuta and Gould (1987), it is a cognitive asset.

**Acquisition Strategies and Linguistic Features**

Ervin-Tripp (1974) found that second language learners make use of prior knowledge skills like first language learners. Imedadze (as cited in Pham, 1989) acknowledged that concepts are learned almost simultaneously in the two languages when the linguistic forms are similar.

Imedadze and Uznadze (1967) and Burling (1959), like Leopold (1945), found that simultaneous acquisition in child language was a process that began with the two languages being mixed with each other, then gradually being separated into two languages by the age of two. The mixing of the two languages in the child’s early stage of dual language acquisition is a natural process. It is not a form of interference because the concepts in both languages are just starting to develop in a similar way.

Imadadze as (cited in Pham, 1989) made continuous observations of a child’s language from the beginning of his active speech until the age of four based on the premise of simultaneous fluency in Georgian, spoken by his parents, and Russian, spoken by his grandmother and nurse. An important result was obtained from these observations; the functional autonomy of two language systems developed in the bilingual child with two distinctive sets of language patterns (Hatch, 1978).
Profiles of Child Language Acquisition Case Studies

Most of the previous dual language acquisition case studies dealing with observational research in natural environments have undertaken morphological, lexical, phonological, and syntactic aspects rather than the interaction-based functional role of speech. A meta-analytic view of child language acquisition studies revealed this research trend. The present case study attempted an observational-based analysis of speech patterns and was intended to contribute to the sociolinguistic area of natural speech analysis in infant bilingualism. In Chapter 6, I suggest the need for more empirical investigation of this communicative area for instructional purposes.

As indicated in Table 3, the most commonly studied areas were vocabulary (lexical items), phonology, and syntax. Many of the researchers studied simultaneous rather than sequential acquisition. They found to a significant extent unbalanced development of the two languages. Imedadze (as cited in Pham, 1989) presented Uznadze’s *set theory* as a basis for language use which indicated that children’s alternative autonomous functioned in two languages, and Huerta (1977) explored code-switching in infant bilingualism in two languages (Spanish and English), which was similar to my case study. The case study conducted by Itoh and Hatch (1972) demonstrated both simultaneous and sequential acquisition of a three year old Japanese boy having difficulty with pronouncing English which was similar to Sara’s pronunciation of certain Arabic words. Klee (1984) made a conversation analysis of the oral language interactions of Spanish/English bilingual children in three environments: home, play, and the classroom. Both Halliday (1973) and Dore (1975) analyzed and
classified functional categories of a child’s speech acts. Table 3 represents simultaneous child bilingualism studies.

Table 3

*Simultaneous Child Bilingualism Studies*

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Year</th>
<th>Languages</th>
<th>Research Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ronjat</td>
<td>1913</td>
<td>French/German</td>
<td>Minimal phonological evidence.</td>
</tr>
<tr>
<td>Leopold</td>
<td>1939-1949</td>
<td>English/German</td>
<td>Limited bilingualism during the first two years.</td>
</tr>
<tr>
<td></td>
<td>1949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burling</td>
<td>1959</td>
<td>Garo/English</td>
<td>Evidence of unusual morphological acquisition.</td>
</tr>
<tr>
<td>Imedadze</td>
<td>1960</td>
<td>Russian/Georgian</td>
<td>Concepts learned almost simultaneously when linguistic forms were similar.</td>
</tr>
<tr>
<td>Itoh &amp; Hatch</td>
<td>1972</td>
<td>Japanese/English</td>
<td>Simultaneous as well as sequential acquisition was not an easy process.</td>
</tr>
<tr>
<td>Fantini</td>
<td>1974</td>
<td>English/Spanish</td>
<td>Strong influence of caregivers’ examples of children’s attitudes toward bilingualism.</td>
</tr>
<tr>
<td>Celce-Murcia</td>
<td>1975</td>
<td>English/French</td>
<td>Avoidance of phonologically difficult words in each language.</td>
</tr>
<tr>
<td>Researcher(s)</td>
<td>Year</td>
<td>Languages</td>
<td>Research Findings</td>
</tr>
<tr>
<td>--------------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hansen-Bede</td>
<td>1975</td>
<td>English/Urdu</td>
<td>No evidence of first language interference. Evidence of similar strategies and rules for acquisition of certain structures in two languages.</td>
</tr>
<tr>
<td>Peters</td>
<td>1977</td>
<td>Vietnamese/English</td>
<td>The “gestalt” style was used in interaction with an older brother. The “analytic” style was used while reading books with the mother.</td>
</tr>
<tr>
<td>Hatch</td>
<td>1978</td>
<td>Second language</td>
<td>Input was an important factor in the emergence of structures.</td>
</tr>
<tr>
<td>Matluck</td>
<td>1980</td>
<td>Bilingualism</td>
<td>Three environments were examined (home, playground, and classroom). The classroom was the most inhibiting environment in terms of the children’s language use.</td>
</tr>
<tr>
<td>De Souza</td>
<td>1982</td>
<td>Portuguese/English</td>
<td>Brazilian children’s bilingualism was based on a linguistic system of development—phonetic/phonological, the morpho-syntactic, the lexical, and the semantic/pragmatic.</td>
</tr>
<tr>
<td>Researcher(s)</td>
<td>Year</td>
<td>Languages</td>
<td>Research Findings</td>
</tr>
<tr>
<td>--------------</td>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Saunders</td>
<td>1982</td>
<td>German/English</td>
<td>Environmental and peer factors influenced bilingualism.</td>
</tr>
<tr>
<td>Taeschner</td>
<td>1983</td>
<td>German/Italian</td>
<td>Emerging bilingualism from birth to age five. Appearance of well-balanced bilingualism at the end of the study.</td>
</tr>
<tr>
<td>Klee</td>
<td>1984</td>
<td>Spanish/English</td>
<td>Child/adult connection in the home allowed more participation by children than institutional interaction in the classroom.</td>
</tr>
<tr>
<td>Blair</td>
<td>2000</td>
<td>Arabic/English</td>
<td>Language competence, bilingualism, and cognitive development of three Lebanese children.</td>
</tr>
</tbody>
</table>

I have explored an area similar to that studied by Bader (1998) and Bader and Minnis (2000) in an effort to understand how two languages develop simultaneously in a child born to Egyptian parents and experiencing verbal interactions in her bilingual
environment. I have also narrowed my research to focus on how a four-year-old child functionally adapted her early language repertoire in different contexts and settings and developed speech patterns in Arabic/English. Results support Klee’s (1984) view that research on the language development of bilingual children should concentrate on the interactional and social skills necessary for second language acquisition and study the language use of bilingual children in society. Klee, for example, researched the oral interactions of Spanish/English bilingual children at home, on the playground, and in the classroom. She found that the speech activities encountered by the children varied according to the communication environment and within each communication environment according to the participants and purpose of the interaction. I have examined the interactional impact of familial and social context on Sara’s speech use and development in both languages.

Leopold (1939-49), who is considered a pioneer in the field of dual language acquisition, stated in his Preface to Speech Development of a Bilingual Child that even though many studies had been conducted on child language, not many had been conducted on the simultaneous acquisition of dual languages by young children. Leopold’s work was based on the acquisition of two languages by a bilingual child. He recorded his daughter’s speech in German and English from birth to the age of 15, with an emphasis on the first two years of her life. His daughter, Hildegard, began to distinguish two separate linguistic systems and to use them with the appropriate interlocutors soon after her second birthday.
In 1952 Leopold published a book, *Bibliography of Child Language*, in which he compiled a listing of researchers of child language development. Slobin revised and updated Leopold’s bibliography in a book published in the 1972. This updated bibliography listed recent and ongoing studies on the acquisition of 41 different languages, and he only listed one study that included Arabic, Omar’s (1973) study which related to the acquisition of Arabic as a native language of Egyptian children of various ages. Since Slobin’s bibliography was published, four studies have examined different aspects of the Arabic language. Aftat (1982) examined native Arabic language acquisition, and Atawneh (1992) explored code-switching of Arabic/English syntactic structure. Another study that researched code-switching of Arabic/English (both semantic and syntactic structure) was conducted by Bader (1998) with a follow-up study (Bader & Minnis, 2000). Tables 4 and 5 represent code-switching studies and native Arabic acquisition studies, respectively.

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Year</th>
<th>Languages</th>
<th>Research Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoshida</td>
<td>1977</td>
<td>Japanese/English</td>
<td>Nominals had the highest score of all the words acquired.</td>
</tr>
<tr>
<td>Researcher(s)</td>
<td>Year</td>
<td>Languages</td>
<td>Research Findings</td>
</tr>
<tr>
<td>--------------</td>
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</tr>
<tr>
<td>Valerio</td>
<td>1980</td>
<td>English/Spanish</td>
<td>Simultaneous acquisition of both languages. Separation of both languages as child’s language developed.</td>
</tr>
<tr>
<td>Vihman</td>
<td>1982</td>
<td>Estonian/English</td>
<td>Involuntary code-mixing between two languages. Single lexicon used by bilingual child, child then separated lexicon between two languages depending on interlocutor.</td>
</tr>
<tr>
<td>Pham</td>
<td>1989</td>
<td>Vietnamese/English</td>
<td>Functional patterns of simultaneous acquisition of Vietnamese/English.</td>
</tr>
<tr>
<td>Atawneh</td>
<td>1992</td>
<td>Arabic/English</td>
<td>Syntactic structures of code-switching between Arabic/English.</td>
</tr>
<tr>
<td>Bader</td>
<td>1998</td>
<td>Arabic/English</td>
<td>Semantic and syntactic structures of code-switching between Arabic/English.</td>
</tr>
<tr>
<td>Bader &amp; Minnis</td>
<td>2000</td>
<td>Arabic English</td>
<td>Lexical and morphological structures of code-switching between Arabic/English.</td>
</tr>
</tbody>
</table>
Omar’s (1973) study, which was conducted in a small remote village on one of the branches of the Nile delta river, was related to the acquisition of Arabic as a native language of Egyptian children of various ages. Aftat’s (1982) study was a single case study of a four year old child of Moroccan ancestry and his acquisition of Arabic as his native language.

Table 5

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Year</th>
<th>Language</th>
<th>Research Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omar</td>
<td>1973</td>
<td>Arabic</td>
<td>The acquisition of Arabic as a native language of children of various ages.</td>
</tr>
<tr>
<td>Aftat</td>
<td>1982</td>
<td>Arabic</td>
<td>Utilization of “wh” words, and ”ask/tell” structures based on spontaneous and elicited speech.</td>
</tr>
</tbody>
</table>

Definition of Key Terms

There are linguistic characteristics that are unique to language discourse settings. One such linguistic characteristic is known as multi-competence. Cook (2005) defined multi-competence as

The coexistence of more than one language in the same mind. Research shows that the mind of an L2 user differs from that of a monolingual native speaker in
knowledge not only of the second language but also of the first in syntax, phonology, etc. (p. 1)

Other types of linguistic characteristics are *code-switching* (code-mixing) and *borrowing*. Although virtually all linguists agree that *code-switching* and *borrowing* are features of language discourse settings, there is only minor agreement as to what each of them specifically refers to or even how the two relate to each other (Pfaff, 1979). According to Bokamba (1988), “There has been some confusion in the literature concerning the relationship between these two terms; sometimes they are treated as two aspects of the same phenomenon, and sometimes they are undistinguished altogether” (p. 25).

Some researchers contended that in order to carry out productive research in the areas of code-switching and borrowing, a clear distinction must be made between them (Boeschoten & Verhoeven, 1987; Poplack, Sankoff, & Miller, 1988; Reyes, 1976; Sridhar & Sridhar, 1980). Without a concise theoretical foundation for isolating the two concepts from each other, comparing results of two or more research studies or replicating earlier studies will be delayed. Therefore, the chance of any meaningful development in the knowledge base pertaining to these two important concepts of language is repressed.

Another aspect of bilingualism related to borrowing and code-switching is referred to as *confusion of two languages*. *Language confusion* has not received as much attention as borrowing and code-switching because most of the studies conducted have been on adult bilinguals rather than infant bilingualism or bilingual children (Genishi,
The studies that were conducted on infant bilingualism (Redlinger & Park, 1980; Vihman, 1985; Volterra & Taeschner, 1978) have been concerned with the possibility that between the ages of one and three years in a child’s bilingual development, the child might be confusing the two languages. This notion has not been confirmed, and it contradicts the view that the utterances of infants in two languages are actually deliberate and systematic.

Language confusion is related to two different concepts depending on whether a person is a psycholinguist or a layperson. Psycholinguists such as Volterra and Taeschner (1978) used language confusion to refer to a particular stage of linguistic development in bilingual children. They used the concept of language confusion as evidence of a single vocabulary system. Psycholinguists do not associate any type of stigma to the term *language confusion*, though they do not view it as an ideal attribute of a model bilingual.

To the layperson, the term refers to a linguistic disorder that is beyond the speaker’s intention and one that is potentially harmful to the bilingual speaker. Therefore, it is subject to ridicule, condemnation, and correction. This type of interpretation has been used by uninformed teachers and parents who have until recently discouraged children from speaking two languages (Basena, 1996). Language confusion is used in this dissertation to be identical with the psycholinguists’ definition which argued that a four-year old can maintain two languages separately. The interpretation of the layperson is revisited in Chapter 6 which addresses the issue of how the results of the present study can benefit teachers and parents of bilingual children.
The potential for language confusion becomes vital in the investigation of code-switching and borrowing in infant bilingualism. An important question is how probable is it that language confusion will impact the study of code-switching of bilingual children? The close and mistaken relationship between language confusion and code-switching and borrowing justifies its definition and distinction from code-switching and borrowing. Theoretically based definitions of the terms language confusion, code-switching, and borrowing are presented in the following section.

Language Confusion

Language confusion refers to the failure of a second language speaker to use one or both languages according to the pragmatic, grammatical, and sociolinguistic expectations of the speech community (Basena, 1996). Each language has its own rules, and the speakers of a given language apply these rules to construct meaning. Furthermore, the speaker’s interpretation of utterances within specific linguistic environments is also socially trained. For example, when a child is exposed to two languages from birth or relatively soon afterwards, the child is able to acquire the grammatical rules and all of the other competencies associated with each language and is able two separate both systems.

Once the two systems are mixed without due regard for their differences, language confusion results, and communication is likely to be affected because the rules that underlie the usage of surface forms of each language are language specific, hence nontransferable. (Basena, 1996, p. 5)
Therefore, in order for a child to be considered a balanced bilingual, the two language systems must be used cohesively and grammatically correct with other bilingual speakers and in the appropriate linguistic situations (Bentahila & Davies, 1983; Kwan-Terry, 1992; Lanza, 1992).

Research has indicated that a discussion of language confusion excludes second language (L2) users after they have attained fluency in their first language (L1) or native language. Fluency in the first language requires pragmatic, grammatical, and sociolinguistic competence (Bachman, 1990) which enable bilingual speakers to construct grammatical and meaningful utterances but also utterances that are socially acceptable. Unless there is convincing support to verify that with the acquisition of a second language already practiced, competence in the first language is disrupted, the bilingual speaker should be comfortable using the first language in various situations.

It is implausible that the second language will be mistakenly used in the linguistic context in which the first language is appropriate or required. Communicative competence in one of the two languages should hinder the opportunity of consistently code-switching between both languages in a nonsystematic approach.

The next section discusses and explains how to differentiate between code-switching and borrowing in the case of bilinguals. This difference will be dealt with in the section that discusses the relationship between code-switching and borrowing. The definition of code-switching is discussed in the next section.
Lanza (1992) defined code-switching as “the mixing of languages within and across utterances or sentences” (p. 636). Code-switching has also been defined as the “term used to identify alternations of linguistic varieties within the same conversation” (Myers-Scotton, 1993, p. 1). Mixing of languages or code-switching has been shown to be a communicative resource that bilinguals use in their daily interactions. Code-switching is also used to enhance or complement communication with other bilingual speakers. Code-switching may be used by a speaker when a particular word or phrase has a more specific meaning in one language than the other language or when a word is not known in one language and is simpler to convey in the other language. Heredia and Altarriba (2001) rejected the notion of “language deficiency” and contended that there are specific reasons to account for code-switching. They argued that bilinguals switch codes as a strategy in order to be better understood. In their opinion, code-switching is regarded as a competence, even an advanced competence, through which bilinguals can derive from two or more inputs to communicate effectively. They have also supported the notion that language accessibility might be the reason why bilinguals use code-switching.

Code-switching has been defined by Poplack et al. (1998) as “multi-word Ls sentence fragments which remain morphologically and syntactically unadapted to recipient language patterns” (p. 52). In addition, Huerta-Macias and Quintero (1992) defined code-switching as different styles of speech within the same language, as in the case of monolinguals using formal and informal speech; it is most often used within the
field of bilingualism or multilingualism to refer to the alternate use of two or more languages in discourse.

Furthermore, Myers-Scotton (1993) defined code switching as “the selection by bilinguals or multilinguals of forms from an embedded language (or languages) in utterances of a matrix language during the same conversation” (p. 4). Code-switching may take place on any level of linguistic differentiation (language, styles or dialects, registers).

*Situational code-switching.* Blom and Gumperz (1972) suggested that there are two types of code-switching based on social or communicative functions. Situational code-switching occurs when a switch in language corresponds to a change in speech, e.g., a change in speakers or a change in topic. For example, two individuals are speaking and are joined by a third individual; at that point, the language spoken is switched to the other language for whatever reason. Gumperz (1982) defined situational code-switching as “a simple almost one to one relationship between language use and social context” (p. 61).

*Metaphorical or Conversational*

Metaphorical or conversational code-switching, on the other hand, was defined by Gumperz (1982) as how speakers “intend their words to be understood” (p. 61). Nivens (2002) elaborated by noting that conversational code-switching referred to the use of another language because of the tone or other information conveyed by the very use of that language—in other words, the medium is part of the message. For example, someone may switch to the language of political authorities in an attempt to assume a position of authority himself.
Myers-Scotton (1998) emphasized that code-switching was a linguistic choice that negotiated personal rights and obligations as determined by the speakers and the conversation. Myers-Scotton made the distinction between unmarked and marked language choice. The unmarked choice depended on the “rights and obligations set associated with a particular conventionalized exchange” (p. 178). An example of an unmarked choice would be when a monolingual elderly speaker of a minority language enters a room with bilingual speakers who are speaking in the majority language. The bilingual speakers will switch to the minority language. The marked choice is determined when “the speaker is trying to negotiate a different right and obligations balance” (p. 178). An example of a marked choice is when the minority language is used as a way to express solidarity or to rebel, or it is used to exclude a particular speaker from a conversation.

Previous research on code-switching described how bilinguals mix languages as a conversational strategy for quoting and interpreting (Gumperz, 1977); for focusing and style shifting (Wentz, 1977); for emphasizing and attracting attention (McClure, 1977); for mitigating and aggravating requests (Valdis-Fallis, 1978); for footing, crutching, controlling, and appealing (Zentella, 1981); and for filling lexical gaps, translating, and reporting speech (Poplack, 1985, 1987). Different types of code-switching are defined in Table 6.
Table 6

*Types of Code-Switching*

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersentential Code-Switching</td>
<td>When a switch occurs from one language to the other between sentences.</td>
</tr>
<tr>
<td>Intrasentential Code-Switching</td>
<td>Switches that occur within the same sentence, i.e., from a single morpheme to a clause level (Myers-Scotton, 1993).</td>
</tr>
<tr>
<td>Globally Determined Switching</td>
<td>“Determined by apparently relatively long-term factors outside of the particular communication undertaken by the speakers” (Jorgensen, 1998, p. 239).</td>
</tr>
<tr>
<td>Locally Determined Switching</td>
<td>“Determined by apparently relatively short-term factors within the particular piece of communication” (Jorgensen, 1998, p. 239).</td>
</tr>
</tbody>
</table>

Code-Switching–A Natural Process for Bilinguals

Children who receive some input in two languages from infancy either through the home environment or through contact with another language outside the home are
referred to as bilingual speakers. Skutnabb-Kangas and Toukomaa (as cited in Gonzalez, 1995) offered a more formal definition of who qualifies as a bilingual speaker.

A bilingual speaker is someone who is able to function in two (or more) languages, either in bilingual or monolingual communities, in accordance with the sociocultural demands made of an individual’s communicative and cognitive competence by these communities or by the individual himself, at the same level as native speakers, and who is able positively to identify with both (or all) language groups or cultures or parts of them. (p. 105)

As bilingual speakers, they are able to code-switch which is a process of linguistic interaction between two languages.

Gardner-Chloros (1995) indicated that code-switching is found in a variety of social and linguistic contexts and settings. Code-switching ranges from very educated bilinguals speaking with each other to alternating between two languages which are similar to monolingualism and to situations where entire societies practice multilingualism.

Children who are simultaneous bilingual speakers from infancy sometimes code-switch between languages. According to Redlinger and Park (1980), children acquiring two languages simultaneously from infancy begin by processing the languages as a single system, and only gradually differentiate the two. . . . A bilingual child may essentially be able to keep the two languages separate from the earliest stages of linguistic development. (p. 337)
Throughout the following literature review, the term code-switching is used to signify either code-mixing or language mixing; thus, these three terms are used interchangeably. Backus (2003) defined code-switching as “the use of two or more languages in the space of a single conversation, a frequent phenomenon in the speech of bilingual communities around the world” (p. 84). Code-switching as a sociolinguistic strategy is used to convey meaning in a group discussion, and it establishes the sociocultural identity of the speaker.

Code-switching is also rule governed and function specific, it is the point where the language switch occurs, which may be at the word, phrase, or sentence level, is specified by a set of rules; in particular the word at the switch point must be an appropriate syntactic structure in both languages. (Malakoff & Hakuta, 1991, p. 147)

Reyes and Ervin-Tripp (2004) stated, “Bilinguals’ use of both languages in a conversational turn, code-switching, is a specific type of strategy for discourse organization” (p. 320).

Grosjean (1982) believed that code-switching or code-mixing was an unconscious creative process of communication employed by bilingual speakers. Poplack and Meecham (1988) confirmed that “It is a verbal skill requiring a large degree of competence in more than one language” (p. 72). Code-switching is a natural means of communication in bilingual/multicultural societies (Grosjean, 1982) and is practiced on a daily basis (Jong, 1986). Mixing of languages or code-switching has been shown to be a communicative resource that bilinguals use in their daily interactions. Code-switching is
also used to enhance or complement communication with other bilingual speakers. Code-switching may be used by a speaker when a particular word or phrase has a more specific meaning in one language than another or when a word is not known in one language and is simpler to convey in the other language. Bilingual children might also be more proficient in one language than the other, and they tend to use their more proficient language. Genesee (1989) agreed that the rate of mixing depends on several factors such as

(1) differential exposure to the languages in question, (2) the possibility of unequal or inequitable sampling of the child’s language use in different language contexts and/or with different interlocutors, (3) the lack of an acceptable metric of language development with which to identify children at comparable stages, (4) different operational definitions of mixing, and (5) different language histories. (p. 164)

Grosjean contended,

Code-switching is different from borrowing in that the switched element has not undergone nativization; that is, it has not been phonologically or morphologically integrated into the base language; instead, we notice a sudden and complete shift to the other language. (p. 146)

Grosjean (1982) added, “Bilinguals bring in a word from the other language by code-switching and then, as that word is used repeatedly, they slowly adapt it to the phonology and morphology of the base language” (p. 310).

Nonce borrowing, a term coined by Poplack and Sankoff (1988), implied that utterances which are a single lexical
mixed element are usually nouns or verbs. “Nonce borrowing . . . involves syntactic, morphological, and (possibly) phonological integration into a recipient language of an element from a donor language” (p. 1179). Grosjean confirmed that nonce borrowing is a term that has been borrowed from the majority language and has become part of the minority language community’s vocabulary. An example of nonce borrowing is the word *pizza*. It has been borrowed from English and has been integrated into the Arabic language.

Genesee (1989) contended that examples of mixing or code-switching could be “phonological, lexical, phrasal, morphological, syntactic, semantic and pragmatic” (p. 162). Lindholm and Padilla (1978a) found that children made more lexical code-switches than phrasal switches, and the most common was substituting a noun phrase. As cited in Genesee (1989), in a study conducted by Lindholm and Padilla, when “switching does occur, the structural consistency of the utterance is maintained so that there were no lexical redundancies or syntactic errors” (p. 163). Lindholm and Padilla noted that children switch languages in a systemic way and with a specific intent or purpose.

Reyes and Ervin-Tripp (2004) elaborated by suggesting that lexical borrowing is used in the context of “single items in bilingual interaction. This strategy is observed in a variety of styles among bilingual speech communities” (p. 1).

According to Appel and Muysken (1987), Grosjean (1982), and Harding and Riley (1986), there are several reasons why adults and children code-switch. It is contingent upon the situation, the speaker, the function, and the topic being discussed. Reyes and Ervin-Tripp (2004) stated that other research on children’s code-switching (Fantini, 1985;
Genishi, 1976; McClure, 1981; Reyes, 2001; Saunders, 1975; Zentella, 1982, 1997) “has shown that children develop a bilingual communicative competence and learn to use their two languages depending on the addressee, the topic of the conversation, and the situation” (p. 2).

Another reason for code-switching is the lack of ability in one language when discussing a particular subject. Thus, an adult or child is not able to find the appropriate word or phrase to express him/herself in the native language or is unable to convey an idea or concept in one language better than the other. Reyes and Ervin-Tripp (2004) elaborated,

Children code-switch when they do not know the word in that language; hence, they draw on the other language. It is incorrect, however, to assume that all cases of this type of code-switch are the result of incomplete knowledge of one of the codes. In some cases children might be momentarily unable to access a term for a concept in the language in use but can access it in another code at that moment. (p. 2)

Nicholadis and Genesee (1996) confirmed that

Bilingual children code-mix, in part if not wholly, in order to fill lexical gaps in their knowledge of each language . . . bilingual children are more likely to code-mix when using their less proficient language and that code-mixed words more probably lack translation equivalents than do words that are not code-mixed. (p. 2)
Bader (1998) addressed the issue of semantic switching from either Arabic to English or English to Arabic. He stated, “These switches were overwhelmingly at the level of the word or the phrase; sentential switches were rare or even nonexistent” (p. 8). The words and phrases that were switched from one language to the other depended on the place and topic at the time. The child used “various strategies, like translation, repetition, avoidance and blending” (p. 8).

Bader (1998) gave an example of an Arabic-English child code-switching to Arabic when naming outdoor objects and animals but switching to English when naming indoor objects. Bader believed that most of the Arabic words the child used in English sentences were the ones he heard outside the home with his friends. Arabic served as the mode of communication during those interactions. Grosjean (1982) acknowledged that time, place, participants, and topics were important reasons for code-switching to occur. Fishman (as cited in Bader, 1998) stated, “Some topics are better handled in one language than the other [because] the bilingual has learned to deal with a topic in a particular language” (p. 140).

Another reason for code-switching is that the speaker is not familiar with a particular term in both languages. Bilingual children might also be more proficient in one language than the other, and they tend to use their more proficient language. Genesee (1989) agreed that the rate of language mixing depends on several factors, such as differential exposure to the languages in question. In addition, Grosjean (1982) believed that if a speaker were tired, lazy, or angry, the speaker may not be able to think of a particular word or expression in one language at that precise moment. Bilinguals
may also code-switch to exclude someone from a conversation, discuss a particular or specific point, win an argument, or quote someone (Harding & Riley, 1986). Blom and Gumperz (as cited in Saville-Troike, 1989) made a distinction between situational code-switching and metaphorical code-switching. Saville-Troike defined situational code-switching as occurring “when the language change accompanies a change of topics or participants, or any time the communicative situation is redefined. . . . Style may also shift situationally within a conversation, perhaps as the addressee shifts in topic from personal to work-related” (p. 59). On the other hand, metaphorical code-switching serves to identify a specific group membership of bilinguals who choose to switch between languages. This type of group identification within a particular situation, according to Saville-Troike “can convey the metaphorical meaning which goes along with such choice as well as whatever denotative meaning is conveyed by the code itself” (p. 60). Finally, bilinguals may code-switch to convey anger or irritation; convey confidentiality about a certain subject; or to change the role of the speaker, for example, to raise status, show expertise, and/or authority (Grosjean, 1982). Saville-Troike added,

Even young children make use of the choices in their linguistic repertoire for a variety of communicative purposes. They commonly use intrasentential code-switching (i.e., code-switching within a sentence), for instance, to give additional force to part of an utterance, such as highlighting the object of a claim or the thrust of an insult. (p. 60)

Harding and Riley (1986) observed that bilingual children code-switch in “subtle ways to express feelings and degree of involvement in a conversation” (p. 57). McClure
(1977) confirmed that children who were three years old code-switched to attract or maintain attention, understand statements, and resolve uncertainties or vagueness. At the age of six, they code-switched from narration to commentary or from soliloquy to questioning. At the age of eight or nine, they code-switched for elaboration, emphasis, topicalization, and focus.

Furthermore, Genishi (1976) estimated that older children code-switched to identify their ethnicity as they developed their code-switching abilities. Grosjean (1982) confirmed that in young children, code-switching was limited to single words or short phrases in either language. As their language abilities developed, their code-switching included whole phrases and sentences and became a method of communication that distinguished their group membership. McLaughlin (1978) contended that interference was minimal in bilingual children who had no dominant language. However, if a child is exposed to and dominant in one language more than the other, dominance of that language often occurs because “Linguistic constructs are harder to internalize and produce in one of the languages” (Grosjean, 1982, p. 188). For the purposes of this study, code-switching is defined as a type of language associated with alternating between two languages, e.g., Arabic and English, at the word, phrase, clause, or sentence level. This definition has been used by the majority of researchers whose work is similar to mine.

**Child Code-Switching**

Child code-switching refers to the use of two distinct languages by a bilingual child within a single word, utterance, or discourse (Boeschoten & Verhoeven, 1987; Lanza,
1992; McClure, 1981). Code-switching is a complex language behavior that requires fluency in two languages and one that entails an analysis of the similarities and differences between the two languages involved. Because of its complexity and need for prerequisite depth of analysis, some linguists continue to believe that children simply confuse the two language systems (Annamalai, 1989).

The issue of child code-switching must be approached from a second language acquisition viewpoint. As has been discussed above, before a person is considered a true bilingual, there has to be evidence to suggest that the two languages in question have been mastered to a reasonable degree (Meisel, 1989; Volterra & Taeschner, 1978). It has also been argued that in order for a person to code-switch, a certain level of proficiency in the two languages must be attained. These two points of view are hinged on the basis that second language acquisition (for first language users) and language acquisition in general (for second language users) are important factors in a child’s ability to code-switch. In other words, a child’s ability to code-switch should be an indication that a child’s process of acquiring two languages has reached advanced levels. Virtually all linguists in this area would agree with this statement.

The question that arises in the case of children who code-switch is how to rule out any possibility of confusion of the two languages. As stated in this chapter (language confusion), theoretically it should not be possible for the first language user to confuse the two languages because the forms and functions of the L1 will already exist. According to Aslin (1980), Jusczyk (1993), and Pearson, Fernandez, and Oller (1995), confusion of the two languages for a child under these circumstances is very unlikely.
Empirically testing for lack of language confusion should only be done based on the researcher’s assessment of the specific characteristics of the research subjects and their individual circumstances.

But if code-switching is an adult bilingual characteristic, when do children start code-switching? When does the child’s code-switching ability change from that of a child to approximate the adult? These are some of the significant research issues that have not been answered. The investigation of child code-switching has not received as much attention as it deserves, yet there is no doubt that it is not only an important area to be studied, but it is also significant for appreciation and understanding of bilingual language development and use.

The Significance of Child Code-Switching

The use of two languages by children is significant because it assists us in understanding the nature of bilingualism, second language acquisition, and language attrition, how they develop, and what are the characteristics of those developments. If it is examined from a broader perspective, it can reveal that child monolinguals are capable of code-switching. One can argue that code-switching is a normal language form that reflects fluency for bilinguals as well as monolinguals. DeBose (1992) and Farris (1992) referred to style and variety shifting of monolinguals as code-switching. For children, monolingual code-switching is acquired in the process of first language development, and when a monolingual child shows awareness of style shifting, that child is reasonably fluent.
DeBose (1992) examined African Americans who switched from Black English to standard American English and vice versa. Farris (1992) investigated the use of babytalk and adult speech in Mandarin Chinese at a Chinese preschool and observed that children reacted to teachers who used the babyish style differently, “the younger children in particular seeking [those] teacher[s] out for comfort or assistance” (p. 206). The children in Farris’ study were aware of differences between the two styles, the voice of authority versus the baby talk. The similarities between bilingual and monolingual code-switching as measures of fluency add reliability to the theory that children are capable of code-switching and that when they code-switch, it is an expression of their ability in the particular languages.

Introducing a second language to a child may lead to language confusion as some have claimed (Volterra & Taescher, 1978). Children start attending formal school between the ages of four and six years. Millions of children attend schools in which their native language is not used as the medium of instruction, making the study of code-switching (a sign of bilingual fluency) an important undertaking. It can contribute to deciding on these two issues: (1) What language or combination of languages can be appropriately used in instruction for young bilingual children? and (2) What is the potential of a presholderer for acquiring a second language?

The present study provides answers to some of the key questions that parents and educators are likely to have. One of the essential questions is whether the parents should raise their children bilingually. Harding and Riley (1986) stated,
A bilingual upbringing and education can be highly successful and it is not
dangerous in itself. But many parents, faced with problems . . . , influenced by ill-
founded advice, and in the absence of any source of encouragement or practical
instruction, simply give up. This often results in a deep sense of loss for one of
the parents, and has unfortunate social and practice repercussions, such as
children being unable to communicate with their grandparents. (p. 25)
The finding of the present case study will assist in making other parents` decisions much
easier. Teachers will also be able to teach their bilingual students more effectively.

In general, minimal attention has been paid to research pertaining to child code-
switching (Boeschoten & Verhoeven, 1987; Lanza, 1992). The apparent lack of interest
may also explain why linguists continue to disagree about whether children code-switch
at all. Lanza pointed out the limited number of child code-switching studies and cited
only three such studies: McClure (1981), Fantini (1985), and Boeschoten and Verhoeven
(1987). Boeschoten and Verhoeven and Genishi (1981) also observed the need for more
child-code-switching studies.

McClure (1981) examined the speech of children ranging from the age of 3 to 15
years. She found that “Children’s codeswitching is neither random nor the result of a
linguistic deficit” (p. 92). She offered evidence of children’s speech which confirmed
that children selected their codes according to discourse situations, participants, language
proficiency and preference of the participants, and social identity of the participants.

Boeschoten and Verhoeven’s (1987) study included children between four and
seven years of age whose first language (L1) was Turkish. When the study began, all 80
participants had lived in the Netherlands for at least two years. The results illustrated that except for 11 subjects, all the children involved in the study code-switched. Genishi (1981) also studied code-switching among four Chicano six-year-olds and found that the children had the ability to code-switch between Spanish and English depending on the situation and the proficiency of the interlocutor.

Annamalai (1989) disagreed, arguing that before the age of two, a child could not code-switch because of the inability to differentiate the two languages. Annamalai stated, “The use of elements from the two languages in this child’s [any child under two years] speech is not mixing at all from the speaker’s point of view because of the absence of code differentiation” (p. 49). In addition, Imedadze and Uznadze (1967) and Vihman (1982) affirmed that language differentiation did not begin until the age of three, and that is when they contended that systematic code-switching began. Yet there is indirect substantiation from the area of developmental phonology which suggests that children should be able to code-switch at an early age.

Kwan-Terry (1992) found proof of Elvoo’s code-switching at the age of three. She investigated the speech of Elvoo, a Cantonese-English bilingual, from three years and six months to five years and found that Elvoo’s choice of language depended on the speech and language use of the participants. In addition, by age three years and six months, he knew the labels in both English and Chinese, and he was aware of the mixes which he referred to as English-Chinese or Chinese-English. The opposing assertions regarding children’s ability to code-switch compels further research into this area. The
determination that children code-switch leads to the question of how complex is child code-switching.

Significance of Code-Switching as it Relates to this Study

Sara began to code-switch between Arabic and English when she was two and one-half years old; however, data collection increased at the age of four. Investigation of code-switching by a four year old adds empirical evidence to the theory that children between four and six years of age (preschool) do not confuse the two languages in question. The study also explored other specific features of child code-switching.

The age of four is significant because it is a time at which the child has gained reasonable fluency in the first language, but the mental or cognitive abilities may not be developed enough to sort words from two languages simultaneously. If only fluent bilinguals can code-switch (Sridhar & Sridhar, 1980), it is reasonable to state that Sara was quite fluent in English at four, the age at which data collection became more intense.

At four years of age, Sara was old enough not to confuse Arabic with English (Redlinger & Park, 1980; Vihman, 1985; Volterra & Taeschner, 1978) and young enough to acquire a second language like any other child acquiring a first language (Johnson & Newport, 1989; Lenneberg, 1967; Mayberry, 1993). Sara served as an ideal subject in that she was able to produce language data that enabled a novel contribution to the related fields. At four years old, monolingual children are expected to be quite competent in their first language and should be able to comprehend utterances in that language.

The research literature reviewed in this chapter indicated that according to some researchers, bilingual children begin by indiscriminately mixing the two languages, but
by the age of three, children are able to separate both languages. Although some researchers placed the critical age of language separation at less than a year (Genesee, 1989; Juscyzk, 1993), others indicated language separation at the age of three (Saunders, 1988). Data from Sara’s speech contributed to the notion of whether a child can code-switch or is confusing two languages. The data also assisted in determining if there was a pattern of increasing sophistication in Sara’s code-switching. In addition, the two languages that Sara code-switched were of great significant to the research issues raised above. The combination of Arabic and English made available data necessary for further investigation of intraword code-switching as evidenced by Al-Ani and Tel (1991), Atawneh (1992), Bader (1998), and Bader and Minnis (2000).

Poplack (1980) distinguished between code-switching and borrowing. She contended that borrowing included sequences that were completely incorporated into the phonological, morphological, and syntactic structure of the second language. However, code-switching involved utterances that were syntactically integrated into the second language. Likewise, Sankoff and Mainville (1986) stated that borrowing involved satisfying the morphological and syntactical rules of another language; however, code-switching involved sentence fragments, each lexically, phonologically, morphologically, and syntactically related to one language and each associated with a fragment of the other language. Furthermore, Collins (2005) suggested that the basic difference between code-switching and borrowing was that borrowing was prior knowledge from L1 (i.e., part of the L1 lexicon), while code-switching was not. He stated code-switches were conveyed
into speech consciously, as part of L2—a speaker’s second grammar. The concept of borrowing is discussed further in the following section.

Borrowing

Isolated cases of individual borrowing or even language interference as a result of a slip of the tongue (Chomsky 1965; Vihman, 1985) will occasionally occur in the fluent language of the speaker, but it is not a consistent pattern. Chomsky observed that real time constraints could lead fluent speakers to false starts, deviations from grammatical rules, and changes in grammatical structures in mid-sentence. Individual borrowing of unintentional slips of the tongue by fluent bilingual speakers, however, are few and occur with no consistent pattern. Identifying them can be accomplished by observing hesitations before they occur and translations (Pfaff, 1979). According to Pfaff, cues such as those indicated that the speaker was aware of the unusual or strange word or phrase he/she has used. And if the speaker is aware of the apparent use of the word, it is improper to think that the language alternation is a result of language confusion.

Borrowing applies to both simultaneous and sequential bilinguals. In the present section, a few of the definitions that have been proposed in the literature review are presented and discussed. At the end of the section, the definitions are summarized and a more complete definition of borrowing is implied. Historically, borrowing stipulated that all lexical items from the first language were mixed in a sentence that was otherwise constructed in the second language (Reyes, 1976). The mixed single elements may or may not be phonologically and morphologically adapted to the second language. Phonological and morphological alternation convey to the application of the two respective languages to
the imported words to make them sound and appear like any other lexical item in the first or second language. The definition offered by Reyes did not recognize code-switching of single words from one language to another. Reyes distinguished two types of borrowing: incorporated borrowing and spontaneous borrowing. Incorporated borrowing referred to the addition of foreign words that were spoken by the speech community. Poplack, et al. (1988) defined borrowing as involving

the incorporation of individual L2 words (or compounds functioning as single words) into the discourse of L1, the host or recipient language, usually phonologically and morphologically adapted to conform with the patterns of that [host] language, and occupying a sentence dictated by its syntax. (p. 52)

In contrast, spontaneous borrowing referred to the use of words from another language into the speaker’s native or first language, words which may or may not be used by the rest of the speech community. This type of borrowing is more idiosyncratic. The main difference between Poplack et al. and Reyes’ definition is that Poplack et al.’s. definition did not automatically consider all single lexical items as borrowings. On the other hand, Poplack et al. did not follow phonological and morphological adaptation as a rule for identifying borrowings. Poplack et al. rationalized this by stating that a word may be used in L1 or L2 speech patterns depending on the linguistic aptitude and the purpose of the speaker. Poplack et al. also agreed that it was necessary for a borrowed word to occur frequently in the speech of a bilingual speaker in his or her speech community.

Frequent use of such borrowed words enabled researchers to establish a pattern. More recently, borrowing has been defined as
taking a word or short expression from the other language and (usually phonologically or morphologically) adapting it to the base language. It can also refer to taking the meaning component of a word or expression and grafting it onto a word or series of words in the base-language, but in this case it may be that the underlying processes at work are quite different from those involved in code-switching and outright borrowing. (Grosjean, 1995, p. 263)

Within the category of borrowing are several different kinds that are discussed below.

Lexical Borrowing

There has been disagreement among researchers as to what encourages speech communities to borrow. Some believe that words are borrowed to fill a lexical gap in the borrowing language (Bentahila & Davies; 1983; Lipski, 1978; Pfaff, 1979); others believe that a lexical gap is not necessary for borrowing to take place (Fabian, 1982; Gysels, 1992; Poplack et al., 1988). The term *lexical gap* meant the lack of a word to express a concept in the speech community.

Linguists who opposed the lexical gap hypothesis insisted that some words or phrases were borrowed for other reasons such as the need to identify with the lending language, but not necessarily because the borrowing language did not have a word that had the same meaning. Indeed, Poplack and Sankoff (1984) maintained that some borrowed words replaced existing native language words that meant the same thing. They referred to this process as the “native-language synonym displacement” (p. 103).

There is agreement among researchers that the borrowed words originated from another language. As a result, borrowing of some form of language contact may take
place by way of native speakers of the lending language coming into contact with the speakers of the borrowing language. Likewise, some native speakers of the borrowing language may “introduce” the words from the lending language as a result of visiting the speech community of the lending language or through personal contact for education. The length of time and degree of direct contact between the speakers of the two languages together with the natural benefits (such as status and social mobility) linked with the culture of the lending language establish whether a borrowed word remains a nonce borrowing or is promoted to the level of an established loan (Poplack et al., 1988).

Other types of borrowings and loans are nonce borrowings, widespread loans, loan words, idiosyncratic borrowings, and recurrent borrowings. Nonce borrowings are words that occur once in a conversation. Poplack, Wheeler, and Westwood (1989) offered a more formal definition when they stated that nonce borrowing was “a lexical form that is phonologically and morphologically woven into the base language and that may not occur again” (p. 403). Nonce borrowings are similar to spontaneous borrowings in that they are idiosyncratic and tend to occur very infrequently in the language. Poplack et al. (1988) confirmed that three features were essential in nonce borrowings to become established loans: (1) frequency of use, (2) historical persistence, and (3) degree of phonological integration of the new words into the borrowing language. Poplack et al. ascertained that linguistic integration and insertion of the word in the dictionary of the host language were two indicators that the word had become an established loan. In addition, Bokamba (1988) suggested that the word’s inclusion in the dictionary of the host language was a somewhat steadfast sign that the word had become a borrowing. He,
like other researchers, contended that words borrowed from other languages were incorporated into the borrowing language where they functioned as part of that language (Bentahila & Davies, 1983; Gysels, 1992, Lederberg & Morales, 1985; Sridhar & Sridhar, 1980). Therefore, borrowing could occur both in the speech of bilinguals and monolinguals (Bentahila & Davies, 1983; Boeschoten & Verhoeven, 1987; Bokamba, 1988; Sridhar & Sridhar, 1980).

Widespread loans are words that are used by many bilingual or monolingual speakers. Loan words are borrowed words that are used in everyday conversation and are similar to incorporated borrowings. Established loan words are introduced in the borrowing language as nonce borrowings, but over time, they have a small chance of becoming established loans. Idiosyncratic borrowings are words that are used frequently by a single speaker. Recurrent borrowings are words that are borrowed more than 10 times (Poplack et al., 1988).

Even when bilingual speakers are able to maintain the borrowed word, as long as monolinguals use it in their speech, that word is regarded as a borrowing. That is why it becomes so crucial not to associate borrowings completely by virtue of phonological and morphological assimilation (Haugen, 1950; Poplack & Sankoff, 1984). Nevertheless, even monolinguals who are eager to identify with the culture of the speakers of the lending language will attempt to protect the original pronunciation of the borrowed words.

Thus far the discussion has focused on borrowing as an occurrence that is limited to single words. Some linguists agreed that borrowing always involves single words
(Gingras, 1974; Lederberg & Morales, 1985; Pfaff, 1979; Reyes, 1976). Other linguists such as Sridhar and Sridhar (1980), Bokamba (1988), and Bentahila and Davies (1983) contended that the borrowed words could be phrases or even clauses that were used idiomatically in the borrowing language (certain phrases are also used idiomatically in the loaning language).

Bentahila and Davies (1983) provided examples such as savoir fair, tete-a-tete, and faux pas that have been borrowed from French into English. Bentahila and Davies offered the examples as part of a reaction to Gingras’ (1974) assertion that “Where the change of language extends over only a single element, this element must be identified as borrowing, whereas if it extends over more than one element it is an instance of code-switching” (p. 303). It follows then that most of the borrowed words are single lexical items.

More literature and research on linguistic borrowing are needed, especially in the discussion of borrowing as a developmental aspect of bilingualism. Speakers who learn a second language after they are fluent in their first language are likely to transfer words from the first language to the second due to the complexity of the vocabulary in the second language. The difficulty in accessing the second language words comes from the lack of automaticity that fluent language speakers utilize to function in any language.

Individual borrowing as a second language learning strategy is deliberate and temporary. It is replaced by code-switching as the speaker of the second language increases his/her vocabulary in the second language. Individual borrowing is similar to Poplack et al.’s (1988) nonce borrowing in that it is idiosyncratic. Members of the
speech community, whether they are become bilingual or not, are estimated to individually borrow the same vocabulary and in the same way. Linguists such as Ervin-Tripp (1978) have referred to this type of borrowing as *interference*, but the term *interference* implies an unconscious speech on the speaker’s part. However, as argued in the previous section, adults are capable of maintaining the two languages separately. Poplack and Sankoff (1984) expressed the concept of individual borrowing when they stated,

> Partial acquisition of a second language may lead to the use of first-language items in intended second-language discourse, but on an idiosyncratic basis. They may be considered borrowings on an individual speaker level, but not on the level of the community speech variety. (p. 102)

In summary, borrowed words can be phrases, words, or clauses from another language that are used by bilingual and monolingual speakers of the borrowing language in that language. The widespread use of foreign words by monolinguals is the most important attribute of borrowing (Poplack & Sankoff, 1984). Researchers such as Haugen (1950) and Poplack and Sankoff affirmed that phonological and morphological modification of the borrowed words into the borrowing language might not be a dependable criterion for identifying borrowed words, although, two types of borrowing have been suggested: *established loans and nonce borrowing* (Poplack et al., 1988).

However, there may be a third type of borrowing, *individual borrowing*, which is a second language strategy for learning that is used by bilinguals. Individual borrowing is similar to nonce borrowing, except individual borrowing occurs as part of a
developmental stage that should relinquish to code-switching as the bilingual’s second language develops more fluently. Individual borrowing is the same as what Poplack and Sankoff (1984) called “incomplete second language acquisition” (p. 102).

Parallel Words

Parallel words are words found in one language which have direct translations in the other language. Researchers such as Genesee, Wolf, and Paradis (1995) and Quay (1996) have shown that bilingual children have translation equivalents when they acquire two languages. In addition, these translation equivalents exist as early as the one-word stage.

Interference

One result of bilingualism, according to Weinreich (1953), is the interference component of one language upon another. Weinreich elaborated on “those instances of deviation from the norms of either language in the speech of bilinguals as a result of their familiarity with more than one language” (p. 1). Grosjean (1995) studied language modes of bilingual speakers; he addressed these language modes as types of language interference.

An interference is a speaker-specific deviation from the language being spoken due to the influence of the other “deactivated” language. Interferences can occur at all levels of language (phonological, lexical, syntactic, semantic, pragmatic) and in all modalities (spoken or written language). They are usually of two kinds: “static interference” which reflects permanent traces of one language on the other (such as permanent accent, the meaning extensions of particular words, specific
syntactic structure, etc.), and “dynamic interferences,” which are the ephemeral intrusions of the second language (as in the case of the accidental slip on the stress pattern of a word due to the stress rules of the other language, the momentary use of a syntactic structure taken from the language not being spoken, etc. (p. 262)

Other types of interference include interlingual interference, intralanguage interference, and interlanguage transfer. Definitions of all three are reviewed respectively. Interlingual interference occurs between two languages that are independent of each other. Intralanguage interference occurs within a language. Researchers have indicated that “in processing bilingual verbal knowledge, one linguistic system of bilinguals will intrude upon the other, which indicates that bilinguals do not keep their two languages apart” (Al-Ani & Tel, 1991, p. 60). On the other hand, interlanguage transfer has been defined by researchers such as Sneddon (2000) who have suggested that certain language skills transfer occurs from one language to another and that

A substantial cognitive, cultural and pragmatic knowledge about how language is used is shared and fuels developments in either language. In particular there is evidence to show that the ability to make sense of print (Cummins 1978, 1984, 1991) transfers from one language to another and that this operates even when writing systems are very different. (p. 104)

Furthermore, Collier and Thomas (1989) reported that children who had the advantage of academic development in two languages reached equivalent achievement in
the second language as their monolingual peers by the age of 11 or 12 and then proceeded to surpass them.

Language Maintenance or Language Attrition: Four Environments

“The study of bilingualism should include not only the study of the bilingual person but also the circumstances surrounding the creation of bilingualism and its maintenance or attrition” (Hakuta, 1986, p. 4). There are four types of language maintenance (environments) or language attrition as defined by Tabors and Snow (2001). The first type of environment is that the native language is used, but the family lives in an English-dominant society. The family speaks only the native language to the child at home, and there is a community that supports the native language, but English still plays a powerful role in the child’s exposure through the popular culture of the society and through the media, e.g., radio and television. Therefore, English cannot be excluded from the child’s life. Tabors and Snow contended that “Although the language outcomes and bilingual status of a child raised in this environment point to the child being monolingual in the home language, the societal influence of English continues to be taken into account” (p. 161).

The second type of environment occurs when the family speaks their native language exclusively to the child; however, the family immigrates or lives in a neighborhood where the native language is not spoken, and thus the child has a greater command and knowledge of English from the community. The child in this case is considered an incipient bilingual because he/she has a good foundation in the native
language and some knowledge of the English vocabulary and phonology (Tabors & Snow, 2001).

The third type of environment is when a child is being raised bilingually in a bilingual community and thus is classified as being an emergent bilingual because he/she has a “range of abilities in the two languages” (Tabors & Snow, 2001, p. 162).

The fourth type of environment is a bilingual home wherein older siblings attend an English school, and younger children attend day care centers where English is the predominate language. Children in such environments are considered to be at-risk bilinguals because they maintain receptive abilities in the non-English language but develop productive use of only one language—English. Once children discover that most significant others in their life also understand or speak the society language, they often shift rapidly . . . to a single language. (Tabors & Snow, 2001, p. 163)

Environmental Influences

By the age of three, young bilingual children can be exposed to a number of community and home factors that influence their proficiency level in each language. A child’s bilingual status can be classified along a spectrum from being at-risk English dominant to being monolingual in his or her native language. Children who have a strong foundation in their native language by the age of three and continue speaking that language through home activities such as reading books will transfer that knowledge to English. However, children who are at-risk bilinguals will acquire English more readily. The literacy development of these children is crucial at an age prior to their preschool
years, and without the parents’ support of their native language at home, their literacy development will be hindered. Saville-Troike (1989) stated, “In general, it has been found that children who are initially educated in their heritage language learn a second language better (and are academically more successful) than those who have no such solid foundation in their first language” (p. 111). Tabors and Snow (2001) elaborated by stating, “The early language environment of young bilingual children, whether intentionally constructed by families or merely happenstance, will have an important impact on children’s later language and literacy development” (p. 163).

Four Phases of Second Language Acquisition

Young children between the ages of three and five who are exposed to English in early childhood classrooms develop a specific sequence of language development which consists of four phases of acquiring the second language (Tabors & Snow, 2001).

The first phase is the home language use; if the parents continue supporting their native language, the children will speak their native language in preschool until they realize that the language they are hearing is different than the language spoken at home (Tabors & Snow, 2001).

The second phase is the nonverbal period in the new language, when they realize they are not being understood and communicate in other ways such as whimpering, pointing, whining, crying, or miming. Children use this period of time to watch and listen to their new environment and learn how to communicate in the new target language, English (Tabors & Snow, 2001).
The third phase is the telegraphic and formulaic language which comprises two types of communication styles. The telegraphic language use includes reciting the alphabet and counting and also naming objects and people. Formulaic language use involves using key words in the situational context of interaction such as *okay, hey, mine, no, yes,* and *I don’t know.* The use of both types of languages provides children with guidance regarding the activities being conducted in the classroom and thus helps them to become active members of the classroom (Tabors & Snow, 2001).

The fourth phase is the productive use of the new language which combines both formulaic and telegraphic language use to build their own unique sentence structures. According to Tabors and Snow (2001),

This developmental sequence is cumulative and there are individual differences in children’s rate of acquisition. As children progress, they move into new phases without giving up earlier ones, except for giving up the use of their home language with those who do not speak it. (p. 167)

In addition, four factors influence how quickly young children acquire English: age, personality, exposure, and motivation. Highly motivated older children with greater exposure to English are able to communicate more readily than younger children. Children with outgoing personalities communicate in English more easily and move through the developmental sequence more rapidly.

Language Differentiation

According to researchers, realizing that he/she has two languages is an important part of a child’s development. This is referred to as language differentiation. Various
case studies reported a growing awareness of the two languages from age two to three, depending on the child and his/her language use (Barron-Hauwaert, 2004). Research until the late 1980s indicated that “because children mixed languages they only had one ‘fused’ storage area in their brains. They had to grow into separate language use with age” (Barron-Hauwaert, 2004, p. 31). Meisel (1989), Genesee (1989), and De Houwer (1990) contended that children were able to differentiate between two linguistic systems from a very early age. Studies conducted by Paradis (2001) and Nicholadis (1998) agreed that children were aware of two different languages from birth, and mixing the two languages was considered a stage of development.

Paliji and Homel (1987) stated that the cognitive system played an integral role in the language differentiation of bilingual children. They contended that the ability to know and to use two or more languages fluently and appropriately reflected the remarkable functioning of a cognitive system that maintained separation among the languages being used while at the same time allowed free and easy interchange among them.

According to Redlinger and Park (1980),

Children acquiring two languages simultaneously from infancy begin by processing the languages as a single system, and only gradually differentiate the two. . . A bilingual child may essentially be able to keep the two languages separate from the earliest stages of linguistic development. (p. 337)

Researchers have argued that to keep the two languages separated a child must be exposed to each language in a separate fashion. Each speaker should address the child in
only one language (Arnberg, 1979; Ronjat as cited in Barron-Hauwaert 2004). On the other hand, researchers such as Huerta (1977) have suggested that it is not significant to separate the languages that the child hears. The child should hear the two languages in the most natural setting possible. To offset these two arguments, De Houwer (1990) declared that

> It is sufficient, perhaps, that a young bilingual child’s vocalizations include some that can be traced to one input language and others that can be traced to the other input language, regardless of interlocutor or context, either linguistic or extra-linguistic. (p. 49)

Some researchers have indicated that as long as children are exposed to two languages from birth and have a balanced input of both languages, whether they are spoken separately or not, they will develop two differentiated language systems (Lindholm, 1980; Lindholm & Padilla, 1978a, 1978b). In addition, children learn at a young age to differentiate the language they are speaking according to the social situation presented. As cited in Lanza (1992), Ochs elaborated, “Any differentiation process the young child undergoes must be investigated in relation to the community patterns of language within the child’s process of language socialization” (p. 635).

Context is another term that invariably plays a vital role in the child’s manipulation of two languages. The child is aware of when it is appropriate to mix both languages and when it is appropriate to separate languages. Language separation depends on the context of language use and the bilingual awareness of the child. Lanza (1992) defined context as traditionally serving as the “cover term for a cluster of
extralinguistic factors including setting, topic, and the social characteristics of the participants in the study such as age, social class, ethnicity, and education” (p. 636). The language use of the child within the context of conversation provides an opportunity to understand the child’s bilingual awareness and how the child adjusts his/her speech and language pattern depending on the age and status of the listener. Ochs (1988) observed that the “organization of everyday conversational discourse can reveal important aspects concerning the child’s psychological development” (p. 636).

The family often can facilitate the process of the child acquiring a first or second language depending on the environment to which the child is exposed. Brice Heath (1986) observed that the “distribution of English-speaking models may vary widely across language-minority communities and families” (p. 155). In an environment or community where English is spoken frequently, parents might provide recurrent occasions for their child to learn English. For example, in some households, the parents might speak only English to their child even though their command of English is not proficient.

Other examples might include one parent speaking English to the child and the other parent speaking the native language. In some cases, the parent who feels more proficient in speaking English chooses to do so, and the parent who is not proficient chooses to speak the native language. In other cases, parents retain their native language; however, their older children have learned to play games and discuss school events in English. The older children continue to speak the native language with their parents; however, they speak English to their younger siblings (Brice Heath, 1986).
Parents are not the only link to the outside community and exposure to the English language. For example, as children reach the age of three to five, their exposure to English increases through various settings such as attending day care or preschool. Other institutions or occasions that expose children to English might include direct contact with clinics, churches, play groups, or libraries. If the native language does not have a large community that supports its own grocery stores or shops, children will often accompany their parents on these errands and will hear English spoken more often. Thus, the environment of the dominant English society is an influential factor in native language loss (Brice Heath, 1986).

The other extreme occurs when a family lives in a community where the native language is spoken. The neighborhood will provide a wide range of services such as health clinics, churches, grocery stores, and other shops. This type of neighborhood not only promotes the native language, but it also cultivates the child’s language use in the community. Brice Heath (1986) contended that “The greater the opportunities for experiencing language uses across a variety of contexts, the greater the language repertoire the children of the language-minority community will learn” (p. 156). Several parental language household models will be discussed in further detail.

*Two-Language Household Model—Norwegian and English*

Family composition plays an immense role in the language use of the parents with their child and the language the child chooses to speak. If parents speak their native language at home with their children, there is a strong correlation that children will preserve that language through their adolescent years and into adulthood (Saunders,
Several models that indicate the success of the home language versus the environmental influences of the dominant language of the society in which the child lives were examined.

In a longitudinal developmental case study, Lanza (1992) investigated the language acquisition of a two-year-old child named Siri. Siri was born in Norway and continued to live there. Siri’s mother spoke English, and her father spoke Norwegian. Both parents were bilingual and used English as the means of communication between them. Siri’s parents used a one-person-one-language strategy. Her mother spoke to her only in English, and her father spoke predominately Norwegian but did use some English. Lanza’s data collection consisted mostly of audiotaped recordings of Siri’s spontaneous speech with either her father or her mother, and on rare occasions some family interactions such as at mealtimes were also taped. The father and mother’s interactions with Siri mostly consisted of book reading and free play.

The recorded samples were collected approximately one month apart and contained recordings made over several days. The recordings covered a period of seven months. During this time period, Siri advanced from one- and two-word utterances to multi-word utterances. Lanza (1992) defined an utterance as a “word or a group of words with a single intonation contour. A mixed utterance consists of a co-occurrence of both languages either within one word or a group of words” (p. 638). Siri used a combination of patterns in her speech. She used single-utterance words in either Norwegian or English; she also used mixed utterances, multi-word utterances in either Norwegian or English, and a group of utterances that were repetitious in either language. Redlinger and
Park (1980) referred to this type of language mixing as “combining of elements from two languages in a single utterance. Mixing may involve the insertion of a single element or of a partial or entire phrase from one language into an utterance of the other language” (p. 340). Overall, children whose language skills were more advanced produced fewer mixed utterances than children whose language development skills were less sophisticated, thus suggesting that the amount of mixing and language development were reversely correlated. Furthermore, various sociolinguistic and linguistic factors may influence the degree of mixing.

Lanza (1992) proposed that Siri was language dominant in Norwegian because it was the majority language in her environment, and she heard it more often. Dominance, according to Lanza, is affected by three factors: “quantity of situational exposure and variety of contexts of use; linguistic knowledge and proficiency; and cognitive processing and the nature of bilingual strategies” (p. 641). Siri’s interactions in English occurred only with her mother, whereas her interaction in Norwegian occurred on a daily basis with her father, her grandparents, and other Norwegian speakers.

In her interactions with her parents, Siri used language mixing; however, there was a distinct difference between grammatical mixing and lexical mixing. She mixed the Norwegian grammatical items in her speech to her mother, but she did not mix English words in her speech to her father. Lexical mixing occurred with both languages, but grammatical mixing only occurred in a monolingual context. Furthermore, lexical mixing occurred with nouns (Lanza, 1992). Redlinger and Park (1980) concurred that lexical substitutions were mostly nouns. Thus, Siri’s lexical mixing served as a basis for
evaluating her ability to code-switch and her bilingual awareness of the differences between the two languages.

In an early study conducted by Leopold (1939-1949), he observed that Hildegard, his two-year-old daughter, had an awareness and differentiated between using German and English and thus was aware of the two distinct linguistic systems. Lanza (1992) confirmed the notion that “Children do learn to differentiate their languages; however, this differentiation process occurs in language socialization through which they learn to differentiate ways of speaking according to social demands of the situation” (p. 654). In fact, studies have shown that children acquiring two languages simultaneously will separate them when they feel that is what the social context requires (Fantini, 1985; Vihman, 1985). Bilingual children consistently apply the correct form of a language when they are speaking. They decide which of their linguistic systems is appropriate, and they also decide on the differences between languages when addressing various speakers. In addition, Hakuta (1986) noted that differentiation and separation of languages do occur and that “There is no evidence of confusion between the two languages, even though in normal conversations with their bilingual friends, they engaged actively in switching between their two languages (code-switching)” (p. 8).

Allowing children the opportunity to speak freely is an issue of vital importance, and feasibility of code-switching is a process of becoming a bilingual and biliterate child. Code-switching not only enhances communication in both languages, but it also assists in maintaining and developing the language skills of bilingual children. The maintenance and development of using both languages in various activities such as speaking, reading,
listening, and writing allows children to engage in a significant learning process (Huerta-Macias & Quintero, 1992). Children do not develop their languages only in the classroom, but in fact

Children learn their language mostly outside of the classroom in other social contexts where they cumulatively spend more time than in school (at home, on the playground, at peer gatherings, etc.) Moreover the influence of the media (radio, TV, movies) on their language development is also very significant. (p. 85)

As mentioned previously, children have the opportunity to develop proficiencies in both languages through social situations and exposure to other bilingual speakers. An overall increase of children speaking their native language encourages them to use it more in response to the prevalent social context. In addition, prolonged discourse of children’s native language positively affects their self-esteem.

*A Two-Language Household Model—English and Dutch*

De Houwer (1990) conducted a research study on a two-year-old girl named Kate who was raised bilingually. Kate’s mother spoke English, and her father spoke Dutch. They lived in Antwerp, Belgium. Her father was bilingual in English and Dutch, and the parents used English as a means of communication between them. Kate’s mother was not fluent in Dutch, and she made many grammatical mistakes; thus, she did not use Dutch unless absolutely necessary. Kate’s parents used a one-person-one language strategy. Her mother spoke to Kate only in English, and her father spoke Dutch only. However, when there were visitors who were English speakers, the father spoke in
English. On several occasions when her parents were out of town, Kate spent week-long vacations with her grandparents who were also Dutch speakers.

De Houwer’s (1990) data collection consisted mostly of 19 audio tapes which she recorded over a nine-month period of time. De Houwer taped Kate’s interactions and speech patterns with her parents and herself. Kate spent most of her time with her mother and spoke primarily in English. She attended an English private pre-school twice a week, and all of her instruction was in English. She interacted with her father and De Houwer in Dutch.

De Houwer’s (1990) results with regard to Kate’s language use indicated that “Indeed, there is quite an imbalance in the material as far as the quantity of English vs. Dutch child utterances is concerned: There are about three times as many Dutch utterances than there are English” (p. 87). De Houwer also surmised that Kate’s language choice or selection depended on several criteria. The first criterion, which she believed was the main determinant of language selection, was the interlocutor. Children address their interlocutors in the language they know they will understand and thus respond to their needs. The second criterion is the language in which the child is addressed. De Houwer observed that

It is clear that the language the child was addressed in indeed plays a major role in her language selection. Obviously, however, type of addressee and language addressed to the child are very interconnected: after all, type of addressee is defined by the language an individual usually addresses Kate in. (p. 94)
Kate also used mixed utterances between Dutch and English. There were significantly more Dutch utterances than English utterances. The most frequently used utterances were found to be nouns, followed by adjectives, then verbs, and then adverbs (De Houwer, 1990). From other studies (e.g., Lanza, 1992), Kate displayed the same type of mixed utterances as did Siri. Studies by Lindholm and Padilla (1978a, 1978b) also found that lexical utterances were most common and were also found to be nouns. They speculated that these one-word insertions might be due to the child not knowing a direct translation equivalency for a noun in the language the child was speaking. On the other hand, Huerta (1977) proposed that language preference might be an explanation for the insertion of mixed utterances.

A Case Study of a Trilingual Child – German, Spanish, and English

In a research study conducted by Hoffman and Ariza (1978), a two-year-old girl named Cristina was raised trilingually. Her mother spoke to her in German, and her father spoke to her in Spanish. However, they lived in England, and Cristina acquired some English words from television, the radio, and her playmates. The parents spoke to Cristina in their native language, and they never mixed languages. However, they spoke to Cristina in their common language, Spanish, when they interacted together in a family event or activity. According Hoffman and Ariza, Cristina seemed to have acquired the phonological system of both languages in essentially the same way, by about the same age, and to the same standards of achievement as monolingual German and Spanish speaking children. She seems to see a clear distinction in cultural contexts, which has been reinforced by trips abroad. (p. 1)
In comparing her language development in Spanish with a two-year-old child who grew up in Spain, Hoffman and Ariza stated that Cristina had acquired the same items in the Spanish phonological system at the same age and in the same order. They also believed that was the case for her acquiring German.

The development of the English language was a concern for Cristina’s parents; however, they noticed that she started learning the language naturally and quickly from visitors who came to see them or from playing with other children. They also noticed that Cristina started distinguishing and associating each language with a particular person. For example, she addressed her mother only in Spanish, her father in German, and her friends and visitors in English. This kind of consistency is very important because it enables a bilingual child to relate the use of each language to a particular context of circumstances and people. Even as early as 18 months, Cristina’s responses to each person were in the language they spoke. However, when Cristina “started a conversation she always began in the appropriate language, without a single exception, and she never mixed the two languages when speaking to each of us” (Hoffman & Ariza, 1978, p. 5).

Hoffman and Ariza (1978) contended that Cristina had acquired two vocabulary systems because she used two terms for each language and had acquired two grammatical systems for each language, which developed separately but with slight interference in word order. They stated that “There is a separation of context (in the wide sense) and therefore separation of the two languages” (p. 9). According to Snow (as cited in Nicoladis & Genesee, 1996), young bilingual children may acquire a
minimum vocabulary (50-100 words) in order to extract the phonological properties of their respective languages, and in turn, to differentiate their developing lexicons. According to this proposal, bilingual children’s differential use of their 2 languages would emerge only once they develop differentiated lexicons. (p. 461)

In addition, Gramlich (2001) believed that by the age of three and one-half, children acquired most of the grammatical speech of a language, and by the time they were five, their vocabulary consisted of 2,000 words.

To maintain both German and Spanish, Cristina’s parents must provide the appropriate language context beyond the home environment, for example, frequent visits to Spain and Germany to provide her with a cultural context and linguistic use of each language. In addition, depending on her educational experience, Hoffman and Ariza (1978) believed that English would become her dominant language and would also be the language in which she would be most fluent in writing. This would be the natural result of the environment in which she lived unless circumstances changed and she moved to Spain or Germany.

The Arabic Language and Dialects

The purpose of this section is to provide a sketch of the Arabic language and its dialects throughout the Middle East. Arabic communities are diglossic, using three distinct forms of the same language. These are the Classical Arabic, Modern Standard Arabic, and the Colloquial Dialects. Classical Arabic is the most formal because it is the language of the Quran, and it existed prior to the inception of Islam. Classical Arabic and
Modern Standard Arabic are both acquired through formal education and are used mostly in writing but not in speaking and are appropriate to one range of contexts; the colloquialism is the dialect of the country referred to as the Neo-Arabic vernacular and is acquired before formal education and is appropriate for various contexts and settings. Modern Standard Arabic was referred to as the Educated Arabic because it stands in the middle of a continuum between the other varieties and shares many aspects of both. It is the language of modern writing such as novels and pop culture and is the language of the media. Ferguson (1959) defined diglossia as

A relatively stable language situation in which, in addition to the primary dialects of the language . . . there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature . . . which is learned largely by formal education and is used for most written and formal spoken purposes but it is not used by any sector of the community for ordinary conversation. (p. 336)

In describing the Arabic-speaking community, the term diglossia is rather simplified because it does not account for the different levels that exist between the formal and colloquial varieties of the language. Most researchers agree that there are at least two coexisting varieties of Arabic, each having a specialized function. These are Classical Arabic/Modern Standard (MSA) and the Neo-Arabic dialects. Therefore, it would be more accurate to describe the situation in Arabic as having two varieties and a continuum along which native speakers shift according to a number of different variables.
Classical/Modern Standard Arabic

Classical Arabic (CA), the language of poetry, literature, and the Quran, was described and standardized by Arab grammarians during the eighth and ninth centuries and has survived to the present. In the 19th and 20th centuries, it went through a process of revival and developed into Modern Standard Arabic (MSA), the official language of all Arab countries. MSA differs from CA only in vocabulary and stylistic features; the morphology and the basic syntactic norms have remained unchanged. MSA is the language of Islamic worship, contemporary literature, journalism, television and radio programs, speeches, and scientific writing. Thompson-Panos and Thomas-Ruzic (1983) explained that “large differences in vocabulary, pronunciation and grammar exist between Modern Standard Arabic and the various colloquials” (p. 610). It is learned through formal education and is not acquired as a native language by any Arabs. Its use is reserved for formal occasions calling for spoken prose. As the language of the Quran, Classical Arabic is widely believed by Muslims to constitute the actual words of God and even to be outside the limits of space and time, i.e., to have existed before time began with the creation of the world (Ferguson, 1959). Therefore, even though no segment of the community regularly uses MSA as a medium of ordinary conversation, many Arabs hold the view that Arabic is really Classical Arabic or Modern Standard Arabic, the language which is prestigious and sacred.

Neo-Arabic Dialects

Neo-Arabic, or vernacular, splits into numerous colloquial dialects. Colloquial Arabic is the language that has numerous dialects throughout the Arab world. Arabs first
acquire a Neo-Arabic dialect and then learn MSA as a second language, according to their level of education. There are many varieties of Colloquial Arabic because each community in the Arab world has its own dialect. Most of these dialects are equally comprehensible because the differences between these colloquial varieties are minimal. Speakers, whatever their level of education, use vernacular dialects for all speech purposes apart from religious ritual and other forms of formulaic public speaking. Each dialect has its own distinct sound system, and thus it identifies the speaker as being from a certain Arab country. However, the dialects are disdained by many Arabs and are popularly regarded as mere corruptions of Standard Arabic, incapable of expressing abstract and complex concepts and associated with ignorance and illiteracy (Ayari, 1996). None of the regional dialects can be effectively written down.

The main groupings of the Arabic colloquial dialects are Iraqi, Saudi Arabian, Syro-Palestinian (also called Eastern or Syrian), Egyptian-Sudanese, North African, and Northwest African. They have co-existed with the formal language for at least 1,400 years, borrowing from it and influencing it in return, at least locally. Though related to each other, they are not mutually comprehensible with any ease, especially where they are widely separated geographically, e.g. Northwest Africa and Iraqi (Bright, 1992; Wickens, 1980). Within different geographical areas, there are also dialect differences that correspond to the degree of urbanization. The patterns of migration and settlement and the maintenance of separate sets of social and speech networks in the cities on one hand and the rural areas on the other have led to a situation in which the dialects of the countryside differ quite remarkably from those of the cities. In fact, the dialects of the
descendants of nomads in Jordan, Syria, Iraq, and Saudi Arabia have more in common with each other than they have with the dialects of the established cities such as Damascus, Jerusalem, and Amman. Similarly, the dialects of these cities have much in common. However, as the leveling influence of MSA becomes stronger, through the influence of the media in remote areas and the increase in public education since the 1960s, the rural-urban differences are beginning to break down (Asher & Simpson, 1994). All languages make some distinction between written, formal expression and verbal, informal utterance.

However, the difference between MSA and colloquial dialects is so great as to question the basic unity of the language concerned. Wickens (1980) offered two examples that illustrated the difference. An Arabic newspaper, book, or play written in Egyptian (in MSA) is understood by all educated Arabs throughout the Arab world, but if the same newspaper or book were read aloud in MSA, it would not be properly intelligible to poorly educated Arabs in Egypt or elsewhere. If the Egyptian author used the Arabic alphabet to represent his own colloquial dialect, his book or play would be intelligible to his fellow Egyptians only if they knew enough MSA to read the letters. Non-Egyptian Arabs would suffer varying degrees of incomprehension. Another illustration might be an Arab political leader making an important speech. He often must choose whether he wishes to be wholly intelligible to all educated Arabs everywhere, in which case he will speak MSA, or to all of his own countrymen, in which case he will speak his colloquial dialect. If he wishes to be understood in varying degrees by both groups, he will use a combination of both which is a form of code-switching.
In Egypt, there exists a wide variety of dialects, one of which is the dialect of Cairo which is sometimes called the Cairene Arabic. This is the dialect spoken by Sara in this study. Thus, the features discussed are specific to those of Cairene Arabic. The explanation of Cairene Arabic is important for making the transcriptions that follow understandable. Cairene Arabic contrasts quite radically with some of the other Egyptian dialects and it (like all varieties) differs from Classical Arabic in some aspects of phonology, morphology, syntax, and lexicon. However, a comparison of colloquial Arabic and Classical Arabic is of no relevance to the present study (Wickens, 1980).

Implications

Family composition, where both parents are foreign born versus one who is native born, and the frequent use of the native language as a family are predictors of bilingual success. The support provided by families for language maintenance in the home is critical to children’s bilingualism and language development. Another predictor of bilingual success is community involvement. The environment and community in which the child is raised are major factors in retaining his/her native language. If the community as a whole provides and supports the child’s native language, the child’s friends and neighbors will be indicative of bilingual maintenance (Gurnah, 2000).

When children learn a second language, their cognitive resources are an important factor in the rapid acquisition and ultimate success in gaining a new language. Other factors such as motivation and contextual factors “determine amount and type of exposure to the second language, are also central to the acquisition process and in most
situations are likely to interact with cognitive factors” (Cummins, 1993, p. 70).

Attribute-based proficiency in a language refers to the learner’s cognitive skills and personality type. Children who are outgoing and self-confident acquire a second language more readily than children who are shy. Thus, motivation to speak their native language is vital to children who want to maintain their cultural and linguistic abilities (Cummins, 1993).
CHAPTER 3

METHOD

This chapter describes the subject, the research setting, data collection methods, and methods of data analysis.

Overview

This sociolinguistic case study relied on data collected in natural settings and encompassed daily life situations and activities such as interactions with the parents, caregiver, relatives, other children, and other environmental influences such as Arabic and English children’s books, television programs, educational toys, and community events. My role was both as a participant and informal observer during family interactions and community events depending on the circumstances of the activities presented. I documented, examined, and analyzed Sara’s speech patterns in both languages and identified her beginning exposure to print and literacy awareness and development, which may have provided the child with additional resources for language development.

Research Questions

I video-taped and audio-taped Sara throughout the study at different times and during numerous occasions such as prolonged car and plane trips, playing with her friends, and during literacy activities. From these sources, I collected data and transcribed Sara’s audio/video language acquisition and development. From the
observations and data collected, I addressed several research questions significant to this study. These research questions included

1. How did Sara develop her complex language abilities in Arabic and English?
2. What was the role of multiple settings in Sara’s language choice?
3. What was the role of code-switching in Sara’s bilingual development?

Subject

The present naturalistic case study focused on a bilingual child, Sara, a four-year old Egyptian-American girl who was born and raised in the United States. The researcher is the child’s mother. The child’s parents were both born in Egypt. The mother immigrated with her family to the United States in 1978 when she was 13 years old. The father came to the United States in 1991. They are both fluent speakers of Arabic and English. The parents married in 1998 and Sara was born in 2000.

Sara’s Caregivers

I returned to work when Sara was three months old. Sara was first cared for by a Palestinian friend of the family who spoke Arabic with an Egyptian dialect (her mother lived in Egypt) for approximately three months. Sara was then cared for by an Egyptian caregiver for approximately two months. Sara returned to her Palestinian caregiver who had had a baby during that time. Unfortunately, her Palestinian caregiver was not able to care for both infants, and Sara went to a Hispanic caregiver when she was eight months old. This caregiver spoke to her primarily in English and used a few Spanish words. However, unlike the daily interaction between Sara and her daytime caregiver, English was used predominately for instructional dialogue and purpose between Sara and her
caregiver. Thus, Sara was exposed to Egyptian-Arabic speaking caregivers since she was born but was also spoken to in English and Spanish (see Table 7). Sara was able to understand the caregivers and her parents when spoken to in Arabic; however, because she was only eight months old, she was not able to respond.

Table 7

*Sequential Representation of Sara’s Caregivers*

<table>
<thead>
<tr>
<th>Sara’s age</th>
<th>Caregiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3 months</td>
<td>I stayed home with Sara.</td>
</tr>
<tr>
<td>3-5 months</td>
<td>Palestinian caregiver who spoke with Egyptian dialect.</td>
</tr>
<tr>
<td>5-7 months</td>
<td>Egyptian caregiver who had four children of her own.</td>
</tr>
<tr>
<td>7-8 months</td>
<td>Returned to Palestinian caregiver who had had a baby.</td>
</tr>
<tr>
<td>8 months-4 years-old</td>
<td>Hispanic caregiver who spoke primarily English with some Spanish words.</td>
</tr>
</tbody>
</table>

As an Egyptian-American mother, I preferred that Sara learn to speak Arabic first within the home environment for several reasons

1. Maintenance of the Arabic language and culture was an important personal and familial factor unlikely to be acquired elsewhere.

2. Young children are able to acquire English readily by watching television and by speaking to other children in school, as well as by interacting and visiting with neighborhood children.
3. I was aware that once Sara attended preschool, she would miss the opportunity to learn to speak Arabic because she would be exposed primarily to English.

I attempted to expose Sara to as many Arabic speakers as possible. Through her preschool, I encountered many Arabic speakers from various countries such as Yemen, Kuwait, and Palestine. I encouraged her friendship with a child who was Yemeni-American (born and raised in the United States) by inviting her friend to stay with us for several days. I also tried to have her interact with other Arab children from her school by visiting them in their homes. The social context in which we lived also promoted association with Egyptian visitors and other Egyptians who had immigrated to the United States. There was also an extensive Palestinian community, and on occasion we interacted with members during religious prayers and holidays. We also visited American friends and invited them to our home. Thus, Sara was exposed to both languages and was able to develop her English-speaking abilities at a more advanced level than her Arabic.

*Sara’s TV Watching*

At an early age (3-8 months), Sara listened to Arabic television at the homes of her Palestinian and Egyptian caregivers. When she went to her Hispanic babysitter, she listened only to English television. When Sara was 19 months old, she was exposed to Arabic television at home. She watched channels from Egypt, Syria, Lebanon, Palestine, and Saudi Arabia. She listened to Modern Standard Arabic that is mostly used in cartoons and in children’s movies.
Thus, Arabic programming was available to Sara at an early age, and she could listen to the language, minimizing the exposure to English-speaking television programs offered by her caregiver during the day.

*Sara’s Interaction with her Parents*

Sara’s mother usually picked her up from her caregiver after work. Sara received undivided attention from both of her parents in the evening. If one parent worked on the computer, the other parent interacted with Sara. If one parent was completing housework duties, the other parent played and interacted with Sara. Thus, at an early age, Sara received companionship from her parents that facilitated her language growth in Arabic. Similar to her conversational exchange with her caregiver during the day in English, her conversational exchange in Arabic with her parents began to develop linguistically.

*Sara’s Toys and Learning Tools*

Sara’s toys included a variety of different instructional and recreational items ranging from stuffed animals to letter blocks in both Arabic and English, lego plastic blocks, a football and frisbees, fish-catching games, a railroad set, several musical instruments (a guitar, a xylophone, and a piano) an English-speaking laptop, an Arabic-speaking laptop with rote memory speech, and an English-speaking leap pad rote memory computer.

*Parents’ Use of Arabic and English*

Both parents wanted Sara to retain the Arabic language and to learn about Egyptian culture, although they provided her with all sorts of sophisticated materials for educating her in the United States. We used an Arabic laptop computer with rote memory called
“Baba Salam.” It recited approximately 13 Suras (verses) from the Quran, and it also recited 45 hadiths (sayings). In addition, we provided Sara with several compact discs that were entertaining and educational. They were interactive and provided her with Arabic vocabulary, stories, puzzles, and Arabic songs. There were also less sophisticated materials such as Arabic books, blocks, and mesh Arabic letters to form words.

*Sara’s Outings*

Several times a month, particularly on weekends, the parents took Sara to the zoo, the mall, dining, the science museum, and picnicking. On numerous occasions, Sara visited relatives who lived in the United States and in Egypt. Friends also visited the home. Thus, Sara was exposed to a wide variety of stimuli. These experiences provided her with insight and more social interactions that assisted in her acquiring more linguistic terms to enrich her speech.

*Sara’s Social/Cultural Orientation*

The parents organized birthday parties for Sara, usually at the parents’ home or at either grandparents’ homes. On these occasions, Sara enjoyed opening her gifts. Sara also experienced large gatherings of people at birthday parties for other children held at their parents’ home or at an apartment complex. Sara participated in an Egyptian ceremonial ritual when she was 3 years and 11 months old whereby children go around in a circle with a newborn baby inside the circle with his mother while one of the adults will tell the newborn to listen to his/her parents. She also experienced enormous gatherings at religious prayers, holiday prayers, and holiday celebrations. At these holiday
celebrations, linguistic interaction occurred among the children attending these celebrations with their speaking, shouting, and playful noise opening their presents.

*Family Size*

Sara was an only child; she was the recipient of maximum interest, care, attention, and love from her parents, caregiver, and relatives. She had the advantages of professionally trained and employed bilingual parents. Thus, family size played an important role in her language development. Because Sara did not have any siblings, she received her parents’ full attention when it came to time, activities, toys, and outings.

*Settings*

Focusing on infant bilingualism in a naturalistic setting, I selected the family as the primary environment to collect sociolinguistic data because the family unit is where a child first acquires his/her language, and interaction occurs between the child and other people. In this case study, Sara interacted with her parents, her grandparents both abroad and in the United States, her caregiver, and friends of the family. In addition, the study included a trip to Cairo that resulted in a language shift in the setting. Various places outside of Sara’s home such as the zoo, the car, airplanes, and friends’ homes served as secondary settings for data collection. Khattab (2002) also found that “Since it is likely that the bilinguals’ social network has an influence on their linguistic choices, monolingual English friends of the bilingual children were also taped for the project” (p. 354).

*Participants*

Most of the participants in this case study were from an Arabic-speaking community. A formal definition is necessary to understand what constitutes a “speech community” and what characteristics the members of that speech community share. A
speech community shares not only a language; it also shares attitudes and beliefs. In this study, the members of the Arabic-speaking community mutually shared the same knowledge, values, attitudes, and abilities for the production and interpretation of socially appropriate speech (see Mehan, 1982).

The participants in this study were Arabic/English speakers who lived in Albuquerque, New Mexico. Some were students studying at the University of New Mexico. There were also a significant number of families who lived and worked in Albuquerque. Most of the participants in this study were originally from Egypt, and Sara’s paternal grandparents lived in Egypt. All participants identified ethnically as Arabs and linguistically as Arabic/English speakers.

Data Gathering Methods

*Ethnographic Approach*

Because language is used for various purposes, there are numerous ways to classify its functions. In linguistics, there is no single design that all linguists agree is the only method (Wardhaugh, 1992). This study utilized an ethnographic approach to communication and descriptive analysis. The ethnography of speech is crucial for research studies that are associated with the speech of a community for the objective of describing and analyzing its patterns of using languages and dialects. It is advantageous that the ethnographer be a member of the speech community. My qualifications for this endeavor were that I spoke fluently both languages, and I also code-switched between languages. Gudschinsky (1967) was correct in his assumption that knowing the language being studied is of the utmost importance in the field of research and data collection, and it eliminates the need for interpreters. Furthermore, analytical and intuitive decisions can be made when there is first-hand knowledge of the language. Previous studies have
documented that code-switching occurs more frequently between members of comparable speech communities (Poplack, 1988). During the data-collection phase, a well-recognized ethnographic technique known as “participant/informal observer” was used. By using this approach, I followed Babbie’s (1992) example, which stated that “The observer as participant is 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 ethnographic approach to collecting data in an informal, casual, naturalistic environment has been used by linguists and educational researchers. Thus, the goal of this research study was to investigate language development, concentrating on the various types of code-switching by an Arabic/English child. This method enabled the researcher to record and take notes in informal and natural settings.

In summary, I used audio and video recordings, note-taking, and the participant/informal observer procedure to examine the types of Arabic/English code-switching. I provide additional details below.

Observations

Observational data were collected beginning when Sara reached the age of 15 months for a period of four years. In addition, field notes were taken during the observations and audio and video taping data-gathering sessions.

I also trained the grandmother to record (audiotape) her sessions with Sara and her grandfather. The tape-recorder was always placed in a concealed location near Sara so that spontaneous and naturalistic conversations could occur.
Informal observations. Data were gathered in various ways. I collected data on her speech development, activities, and behavior patterns as a silent, informal observer when Sara

1. Played alone with recreational and instructional toys;
2. Interacted and communicated with either parent;
3. Played and interacted with other children at home, at the zoo, at the museum, in the car, and on field trips;
4. Watched and listened to television programs.

A summary of Sara’s language environment is provided in Figure 4.

Figure 4. Dual Language Acquisition through Interaction with the Environment
Equipment used for gathering data. The equipment and materials used for gathering data included two tape recorders, Panasonic RX-SR29 and GE with built-in microphones, 60- and 90-minute cassette tapes, a Sony videocamera with 60-minute video cassette, and notebooks. I captured Sara’s interactions with various aspects of her environment such as riding in the car, visits to the zoo, conversations with her grandparents or friends, or during literacy activities with her Mexican-American caregiver and a friend. Thus, audio and video taping were conducted both inside and outside the home. Note taking would not have been possible during these interactions, activities, and settings.

Two notebooks were used; one notebook was used primarily to record speech in Arabic with translation in English which explained contextual events that occurred. The other notebook was a floater notebook that was used primarily for note-taking phrases and expressions in Arabic/English. During this note-taking process, I followed Valerio’s (1980) recommendation of utilizing a notebook in the car. However, I used scrap paper and transferred it to the notebooks. I also found this method to be dangerous while driving or stopping in traffic; therefore, I discontinued this method of data collection.

The data recorded included Sara’s utterances and ranged from an early age (15 months) to Sara’s speech and expressions at the age of 5. Data for this study were gathered in a naturalistic setting during routine daily-life activities.
The Language Contexts

I spoke to Sara only in Arabic from the time she was born, and she developed receptive listening skills at an early age. She could follow directions in Arabic and could understand reasonably well what was being said. As her exposure to English expanded, Sara spoke less Arabic. At age three, for approximately eight months she did not speak Arabic; however, I continued speaking to her in Arabic, and she translated my message and responded in English or by code-switching mostly in English with a few words in Arabic. Certain variables impacted whether Sara’s responses were in Arabic or in English. This depended immensely on the interlocutor and often the setting. If we had visitors from Egypt, she was told that they spoke Arabic, and she made an earnest attempt to speak Arabic. However, her frustration at not being able to express herself quickly dissuaded her from continuing in Arabic. Often a particular setting made a difference as well. For example, if we were in a store or at the park and other people were around, Sara spoke only in English so others could understand her.

Sara’s spontaneous expressions were also mostly in English or some code-switching of English and Arabic. Arabic utterances were few until December 2003 when we visited Cairo.

The study of Sara’s language acquisition, therefore, consisted of three components organized around a visit to Cairo: (1) pre-trip activities, (2) the visit to Cairo, and (3) the return to the United States (see Table 8). Each of these components examined similar language behaviors in both languages, but they included different aspects of data collection.
Table 8

Components of Trip to Cairo

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<tr>
<td>Age</td>
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<td>3; 11 Mother and caregiver at home</td>
<td>3; 11 – 4; 1 Grandmother and Grandfather</td>
<td>4; 1 – 4; 7 Mother and caregiver</td>
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<tr>
<td>Audio-taped recordings in the home environment, in school setting with peers, and with the caregiver.</td>
<td>Audio-taped recordings in the home environment.</td>
<td>Audio-taped recordings in the home environment and with the caregiver.</td>
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The pre-trip consisted of Sara’s receptive and productive oral language as acquired in three different settings: the home environment, the school setting (which included peer interactions), and with her caregiver. In these three settings Sara displayed productive oral skills in both languages.

In addition, to obtain a baseline, Sara was audio-taped for approximately one week prior to the trip. At the time of the trip, Sara was 3 years and 11 months old and
was speaking more English sentences than Arabic. She used some Arabic sentences, but at times she code-switched in the middle of a sentence or at the end of the sentence between Arabic and English.

During the trip to Cairo, I employed the assistance of my husband’s family to elicit data collection on Sara’s language use. Sara’s grandmother served as the primary caregiver and had been told to express to Sara that she (the adult) did not understand her when she spoke to her in English (her grandmother, in fact, does not understand English). However, other members of the family also used this strategy, although most of them understood English. As a researcher, I observed and documented whether there was a language shift from English to Arabic during the trip.

After returning to the United States, I continued to monitor Sara’s language use. I also audio-taped and video-taped Sara for approximately two to three weeks to observe which language she was using, how long she continued speaking Arabic, and whether she reverted to speaking English immediately.

Data Collection in Multiple Settings

The data for this study were collected by three methods: audiotaping of participants’ conversations, my role as a participant-observer, and note-taking. In addition, data collection in Cairo consisted of keeping two logs. One log was left at the grandmother’s house to document what Sara uttered. I carried one log when there was interaction with Sara in other places. This assisted in identifying Sara’s language development and her potential shift from speaking English to Arabic.
Data collection also consisted of audiotaping and videotaping Sara in various settings. Audiotaping of naturally occurring conversations was used as the primary data collection method throughout the case study. Audiotaping was a very effective method in documenting code-switching; I especially wanted to capture instances of code-switching in an informal setting. Permission to record conversations of other participants beside Sara were obtained in advance. I explained the importance of code-switching and the goal of the study to the participants before audiotaping the interactions with Sara. I observed that the data collection for adult participants was less difficult than the children’s audiotaping because they were aware of the importance of the study, and they were determined to assist the researcher by providing a quiet environment as much as possible for the recording sessions.

Alternatively, the children were asked to play and speak while the audio tape recorder was turned on. In addition to audiotaping, I used note-taking and participant/observer methods. Being an Arabic/English bilingual who had lived in Albuquerque for four years prior to the study, I considered myself an in-group member who was able to understand what was occurring from an insider’s point of view. During certain religious and cultural events, I participated in the discussion as a member and observer. Frequently I made notes to establish a concise relationship between the social setting, the interlocutors, and the activity. This provided a better comprehension of the audiotaping. For example, the notes assisted in reminding me to verify a connection to a code-switched sentence or phrase in a specific setting, which assisted in transcribing the
data. By utilizing both of these methods of data collection, I generated an extensive amount of information on Sara’s language use.

In December 2003, Sara was 3 years and 11 months old. She was audiotaped for a few days (December 11-15, 2003) prior to our trip to Cairo. Most of these recordings took place in the home. One 90-minute audiotape was collected. It was evident from these recordings that Sara was speaking more sentences in English than in Arabic, although she sometimes code-switched in the middle of a sentence between Arabic and English. A few days prior to the trip and on the plane, I explained to Sara that she needed to speak Arabic in Egypt because her grandparents did not understand English.

The grandmother was briefly instructed on how to tape record Sara’s conversations with her during the six-week trip to Cairo. Because the researcher’s husband had two business trips (a three-day trip that was unexpected and a week-long trip that was planned) outside of Cairo, Sara stayed with her grandparents. At various times, two of Sara’s uncles and their children visited and stayed with the grandparents. Upon our return from the first business trip, which was approximately three days toward the end of December 2003, Sara continued speaking to us in English. However, the grandmother verified that Sara had been speaking to her only in Arabic. When we returned from the second business trip, which was a total of nine days in the middle of January, Sara was speaking to us exclusively in Arabic. Thus, a language shift from English to Arabic occurred over this three-week time period, during which the grandmother had recorded conversations of various lengths totaling approximately 180 minutes.
When I visited them, a log was used to collect approximately two pages of observational notes on her speech. Most of her sentences or utterances in Arabic were short; however, she occasionally inserted a code-switched word in English. After reviewing one 90-minute tape that recorded conversations between Sara and the grandmother in Cairo, it was evident that the audio quality was not clear. Sara’s voice was sometimes low, suggesting that there would be gaps in the transcriptions that were to be used for classification and coding. A 60-minute tape recorded in Cairo had a clearer audio reception of Sara’s speech. Two audiotapes were recorded after the trip to Cairo. One taped 60 minutes of conversation between Sara and myself between January 19 and 26, 2004. The other recorded 45 minutes on January 26, 2004. Six audiotapes were collected during a seven-week period.

Interactive Strategies

Sara’s grandparents in Egypt used a certain strategy to minimize her spontaneous responses and expressions in English. When she wanted a particular item, they would say in Arabic “Say you want a sandwich?” She would repeat what they said in Arabic. This process continued for anything she wanted or asked for. I felt that this was an appropriate starting point linguistically, and I could develop this strategy further. The goal was to have Sara not only respond in Arabic but also to initiate conversations and to use Arabic spontaneously. At the beginning of this transition stage, she initiated conversations with her grandparents, relatives, and parents in English. By the end of the six-week period of time, Sara initiated and maintained conversations in Arabic. This transition stage lasted six months after we returned to the United States. When Sara was
four years and seven-months old, she started kindergarten and reverted to speaking more English.

Even though Sara has reverted to speaking more English than Arabic, I always accepted her speech and her formation of sentences. I acknowledged her statements and elaborated on them using Arabic only. My elaborations were directly related to her message. Because much of her speech was about events and things she had seen, my comments also related to what she had seen. I further reinforced my comments with a visual cue or by pointing at a particular object that would clarify what was being said. Sara was four years old when we were in Cairo, and I used a more direct strategy that reinforced what her grandparents in Cairo had attempted. When Sara expressed a desire for something, such as wanting chocolate milk, I would respond in Arabic “Do you want chocolate milk? You need to say, I want chocolate milk.” Most of the time, if the phrase or utterance in Arabic was short, she could say it. If the phrase or utterance in Arabic were longer, she could not repeat the entire utterance but selected two or three words she could say. When she said she could not, I would repeat it or say “try.” When she did try, I would praise her effort. I also used another strategy whereby I translated what she said in English into Arabic, thus acknowledging what was said and having her listen to what she said but in Arabic. This was done in an effort to increase her Arabic vocabulary and her Arabic sentence structure. I used these two strategies with Sara consistently throughout this study.

In addition, I used another strategy with Sara when she said something in English; I pretended at times not to understand and responded in Arabic “I do not understand.”
Sara would attempt to translate her message in Arabic or use fewer English words. I also told Sara that visitors from Egypt did not understand English, and Sara needed to speak to them in Arabic so they could understand her. This strategy was referred to by Barron-Hauwaert (2004) as the *False Monolingual Technique* which is used to force a child to use more of the minority language. Several other studies on bilingual children (Juan-Garau & Perez-Vidal, 2001; Leopold, 1945; Taescher, 1983) used this technique for balancing languages. Barron-Hauwaert (2004) explained that

> Its main purpose is to give sufficient exposure to the minority-language whilst keeping the language “pure” and free of mixed utterances . . . Bilingual parents can fake monolingualism to reduce over-use of the majority-language and mixing and then return to a more realistic code-switching mode later when a more equal bilingualism is established in the child. (p. 36)

My objective and goal were not only to have Sara use more Arabic words and minimize the use of English but also to attempt to initiate Arabic conversations spontaneously.

As Sara advanced in her development in Arabic grammar, she had to learn other conventions of Arabic use in social situations. For example, a distinction exists between the pronouns to address a male and a female. Sara initially addressed anyone as “heya” which is “she” in Arabic. She needed some modeling and correction to understand the difference between “heya” and “houa” (he) when referring to a particular gender. After several months, she was able to make that distinction and shifted to using the appropriate pronoun with a particular speaker. All of these strategies were used with varying degrees
of success. Nonetheless, I continued these strategies in an attempt to further Sara’s
development of Arabic speech without sacrificing her feelings for the advancement of the
language. If she resisted, I gave her the option of trying, and if she still resisted, I assured
her that she was intelligent and she could try it later. She still has much to learn about the
Arabic language and its use, so other strategies continue to be used.

Combining Data Collection

Spontaneous data were gathered through audio and video recordings of Sara’s
speech and language development. Data were gathered in a naturalistic and often
bilingual cultural setting. This procedure followed a triangulation method of data
collection used by Lincoln and Guba (1985) whereby data are recorded instaneously as
they occur. Triangulation was carefully carried out to ensure trustworthy data-gathering.
Non-verbal cues, unobtrusive informational residues, and cultural background facts were
also examined with caution. In addition, data were screened based on the cultural
background of Sara’s speech patterns whether they were Arabic or English. Utterances
of various categories and speech patterns were collected from field notes made during
personal observation and from transcriptions of recordings. Arabic and English words
spoken in Sara’s lexical vocabulary at the time of the study was first alphabetically
arranged for nominal word count. Sara’s vocabulary base was 56% in English and 44%
in Arabic. Nominal words constituted approximately 48% of Sara’s bilingual repertory
whereas action words represented 20% (see Chapter 6 for detailed analysis). Data were
then labeled, coded, systematically categorized, analyzed into patterns, and evaluated and
interpreted. Linguistic and cultural data were processed with the knowledge of basic ethnographic techniques.

Data Analysis Methods

The data collected from Sara for this study were analyzed to determine the frequency and types of code-switches and to determine the bilingual competence in Sara’s language development. Simultaneous language acquisition data were comprised of Sara’s utterances in Arabic and in English, frequently with accompanying notes of the context, where, when, and to whom the speech was directed. Single words, a group of words, sentences, and the settings in which the speech occurred were collected from either field notes or from transcriptions of audio and video recordings. These sources of data provided information which was triangulated in order to identify categories of classification. The obtained data were transcribed by following the notion of Bennett-Kastor (1988) who suggested the coding of audiotaped data into categories of analysis, including relevant linguistic and non-linguistic events.

Transcription of the Data

I listened to each audio/video-tape to determine the quality of the recordings. The acoustic quality of the tapes was generally good. Sara was not distracted by the presence of the microphone during her interactions with the other subjects. The researcher carefully transcribed Sara’s speech utterances, paying close attention to the code-switched sentences and its constituent’s types. All conversations in which Sara code-switched were completely transcribed, including her hesitations in speech and repetitions of certain words. However, the researcher was selective in transcribing data because
code-switching did not occur in every episode. All the recordings were transcribed as they occurred, i.e., in English and Arabic. Later I transliterated the Arabic speech utterance into the conventional Egyptian Arabic “orthography,” and then the English equivalent was transcribed. The International Phonetic Alphabet (IPA) was used for data transcription. Samples of the transcribed data can be found in Appendices A and B. I provided a word-by-word translation and a morpheme-by-morpheme translation in Egyptian Cairene dialect followed by the English translations.

Careful listening and double-checking occurred after all the data were collected and ready for analysis. Transcriptions were made along with information about the non-linguistic context (situational context), where appropriate, as it was recorded on the tapes or the toys Sara played with, the topic of conversation, and the subjects participating in the recordings. The flow of conversations was coherent for the most part and more organized with regard to the turn-taking. In general, the process of transcribing the data was very difficult and took more than three months. The estimated time of transcribing each hour was two to three days. The data were transcribed into 53 pages of typed text in both the Cairene dialect and English. The transcribed material was then analyzed using the following procedure: I counted the number of switches in Arabic and English; I classified them according to parts of speech, single word switches, lexical switches, phrasal switches, and complementizer phrases; and then I classified them according to their grammatical structure in both languages. Whether they were a noun, a verb, or a definite article designated the differences between code-switched versus borrowed words and determined whether the code-switched words were intersentential or intrasentential.
While transcribing the audiotapes, certain problems were encountered such as Sara’s inaudible and quiet voice or Sara’s loud voice which sometimes involved screaming and shouting. There were also unrecognizable segments because of overlap between the conversations, for example, three or more people speaking at the same time and noises from people (children and adults) at the time of recording. Literal translation in English was provided for each of the Arabic vocabulary, Arabic sentences, and English/Arabic code-switched sentences.

Mean Length of Utterance (MLU) is a methodological technique used for data analysis. MLU was found to be problematic when this author attempted to use it to measure Sara’s utterances. The attempt was a failure in using the Arabic language, despite the apparent success of other researchers. Bowerman (1973) stated, “MLU may have a wide applicability across languages as a measure of linguistic development” (p. 8). However other researchers such as Park (1970) found that the concept of MLU as a methodological data analysis for measuring children’s utterances was not a universally approved index of measure. He found problems with it and had to use an alternative method of data analysis. In addition, he expressed his surprise “at the trust often placed in MLU” (p. 113).

MLU is inappropriate for a study that utilizes Arabic as the base language because it is often difficult to determine what constitutes a morpheme in Arabic. For example, a morpheme is defined in its usual context when used to segment Indo-European languages. However, in Arabic some syllables in a word can be difficult to define as a word. Some syllables in Arabic, for example, represent English morphemes such as
pronouns. To determine English morphemes is usually easy; however in Arabic, the past tense or the subject Noun Phrase (NP) is not apparent in the grammatical structure. Thus, I used the complementizer phrase (CP) developed by Jake and Myers-Scotton (2002) as the unit of analysis because it is more precise than analyzing sentences or clauses and is the highest unit project by lexical words.

A sentence, according to Jake and Myers-Scotton (2002), has a main clause that includes numerous embedded clauses which may not all be code-switched. An analysis of code-switching based on the sentence may not indicate the exact constraints on the code-switching because not all clauses contain words from the two languages being code-switched. Therefore, the unit of analysis has shifted from discourse to the sentence to complementizer phrase. Thus, a CP is less ambiguous than a sentence or clause because it is the highest unit in a lexical switch. Often a sentence is not specific enough because it includes more than one CP. A CP can include a noun phrase and a verb phrase in addition to other grammatical structures. Based on this, there is always a matrix language in bilingual communities, and there is always only one matrix language at a time. Thus, I first coded each matrix language and then analyzed the structure based on the content morphemes in each CP. The matrix language was defined by “system morphemes.” There are two kinds of morphemes, based on the lexical feature of plus or minus “thematic roles.” Content morphemes assign or receive thematic roles, like “agent,” “experiencer,” “beneficiary”. . . etc. This category includes nouns, descriptive adjectives and most verb stems. System morphemes, on the other hand, cannot assign or receive thematic roles. This
category includes inflections, determiners, possessive adjectives and intensifier adverbs. (Bassiouney, 2006, pp. 55-56)

Both phonemic and phonetic transcriptions have advantages. Phonemic transcriptions illustrate the structural properties of the language; however, the phonetic transcription created a less difficult approach to analyzing speech acts. Thus, I preferred and used the phonetic approach to transcribe the data to allow people who knew the Egyptian dialect to understand readily what was said and to permit those who knew other Arabic dialects to compare it to what they knew. My linguistic analysis of code-switching focused not only on intrasentential code-switching, but also on the overall code-switching that occurred if it was a morpheme-by-morpheme transcription or a word-by-word transcription. This depended on whether I focused on linguistic or functional analysis of the code-switching in an utterance. The translation is as literal as possible to the original data.

The audio/videotapes were used to obtain the most accurate information regarding language acquisition and linguistic speech patterns. The audio/videotapes were transcribed to ensure accuracy prior to coding them for analysis. Transcription methods included transcribing all of the audio/videotapes of Sara’s speech word for word. The clarity of the transcription depended on the auditory reception of Sara’s voice. Coding began after all of the assigned linguistic and code-switching codes had been established and designated.

Categories used in coding emerged from both the primary and secondary data sources. The primary data sources included Sara’s interactions with other children in
various settings, literacy activities, and during prolonged car trips. Some probable
categories were identification of letters in Arabic and English, language use, and
vocabulary acquired.

From the secondary data sources, the researcher analyzed field notes and
observations of Sara’s linguistic and code-switching speech patterns according to her
language development and acquisition in both languages. Sara’s utterances in Arabic and
in English were accompanied by field notes and observations of when, where, and how
linguistic code-switching naturally occurred. From the field notes and observations,
classifications were determined based on reference to certain irregular, inconsistent, or
unusual (peculiar) code-switching patterns that evolved throughout this study were made.
An example of Sara’s code-switching occurred when she said “go rohee hena” meaning
“go over here” when she was giving me instruction as to where to stand. Another
example is when she said, “I go iktab haga for Amany Kaman.” In this sentence, she
code-switched twice by saying “I go write something for Amany [a child’s name] also.”
CHAPTER 4

THE EARLY STAGES OF SARA’S SPEECH DEVELOPMENT

The purpose of this sociolinguistic study was to explore and examine the relationship between the social contexts/networks in which Sara code-switched while becoming an Arabic-English bilingual. I began by examining Sara’s speech development and code switching in Arabic and English from the age of 2 years until our trip to Cairo when she was 3 years and 11 months old. The early data were collected between 2002 and 2003 and, as described in Chapter 2, were divided into two categories, code-switching and borrowing. Borrowed words were coded and included in the analysis only if they met one of two criteria. The first criterion was whether a word was included in the Arabic language (i.e., if it was used by monolingual Arabic speakers). The second criterion was based on whether the word existed in the Arabic language (i.e., if it did not have any equivalent in Arabic). Based on these criteria, many of the words such as legos, computer, cartoon, hamburger, pizza, police, and superman were included. A more comprehensive list is presented later in this chapter. English words were borrowed into Arabic contexts but not vice versa, i.e., borrowing in this case was asymmetrical. It is important to call attention to these borrowed items because they did not function any differently from switched items. The only motive for separating them from switches was my knowledge that Sara had no choice but to use them because no equivalent word existed in Arabic.
One and Two Word Utterances

Sara did not speak until she was 15 months old. Her pediatrician thought she was linguistically delayed. I believed that the delay resulted from her processing two different languages. In other infant bilingual studies, it was found that infants exhibited uneven acquisition of their two languages (Celce-Murcia, 1975; Fantini, 1974; Leopold, 1939-1949). According to Fantini, linguistic interference is frequent among bilingual children, and the amount, the type, and the direction of interference are related to the social situations that are exclusive to each speaker. Thus, children learn particular semantic meanings before they master the grammatical process of expression, and their acquisition of language passes through similar stages of development.

I began to collect data when she started speaking, but it was not until Sara was two years and one month old that she started using more words. As an example, as if having a conversation, she answered the phone and said, “Hello, hi, OK.” When Sara was two years and two month old, she used the following English words: dow (down), my shoes, ook (look), Bye Amaya, watch, color, horse, and tissue. Some of the Arabic words used were Ana (me or I); foo` (up), referring to wanting to be picked up; kora (ball); and taht (down). Her pronunciation of the letter “r” in English sounded like the French pronunciation “ghee.” For example, she said kugha (ball instead of kora). At the age of two years and three months, Sara began using two-word utterances both in English and in Arabic. In English she said, “I color.” When she saw a picture of herself on a screen saver on her father’s computer, she said in Arabic, “Dee Sara” (This is Sara). At that time, she had not code-switched any words into either language; she had been able to
keep both languages separate. This phenomenon was observed by Bader (1998) in his study of his son (William) at approximately the same age.

Three and Four Word Phrases

Sara’s speech was limited to one or two word utterances until she turned three years old. At her birthday party in January 2003 she said, “This is my favorite” (having seen a doll house with dolls). At the age of three years and four months, she combined three words or four words to form phrases such as “I help you,” “Where are you Mama?” “Where are we going?” “What you doing?” At the age of three years and five months, Sara said “you me,” meaning that we would do something together. Halliday (1973) called this interactional communication, one of six functional categories in the child’s early communication. During the same time period, she started translating phrases from Arabic into English. Her father told her in Arabic to have fun at her caregiver, and I said, “Intee Kamaan” in Arabic. Sara translated it into English and said, “You too.” It was worth noting that Sara was metalinguistically aware that we both spoke to her in Arabic and yet she translated her thought to English.

During this stage in Sara’s speech development, she began to form questions. For example, she pointed at people she saw and said, “Whose is that guy?” Also, instead of using the English phrase where is . . . , she said, “Feen baby Dillon?” in Arabic, which means Where is baby Dillon? She also said, “Feen Mama, Baba?” which means where is Mom, Daddy? At the library, she pointed at pictures of dinosaurs and said, “What is, what is?”, repeating the same question as she continued pointing. Her caregiver noticed that she was inquisitive and said, “How come?” and “Why?” frequently when asked to do
something. Halliday (1973) referred to the use of the word *why* as describing another functional category of child communication called *heuristic*. When asked a question by her caregiver, she replied, “Cause.” At this age, she frequently said, “I told you” or “Let me show you.”

It is interesting to note that at the age of three years and five months, Sara used the word *shukran* which means *thank you* with her caregiver, not differentiating between the speaker and the language she used to convey her message. When asked by her caregiver what that meant in English, she responded “Thank you.” Similar to Bader’s (1998) study, Sara used various strategies like translation. Thus, at this age, she was able to translate Arabic into English, but she did not necessarily distinguish interlocutors of different languages.

The influence of peers is also important in considering language development. For example, an African American child attended Sara’s day care for three weeks, and she and Sara became good friends. During this time, Sara addressed me as *girlfriend* and used this word in different contexts using various types of sentences. Like Fantini’s (1974) study of his son Mario, Sara had the strong influence of her friends’ speech acts on her initial tendencies of sociolinguistic and pragmatic development. I was specifically interested in pragmatics because I think that it is interlinked with lexicon, syntax, and semantics. An assessment of Sara’s strategies to use her language to develop certain function skills and express her feelings also involves an investigation into her vocabulary and her knowledge of word meaning and sentence structure.
Sara’s sentences became longer, and she learned to express herself well. I have always asked Sara if she could help with different chores. If she were in an agreeable mood, she would help. However, if she did not want to help, she would say, “I don’t want to, my regly (leg) hurt me.” She used the Arabic word for leg plus the Arabic possessive pronoun in the middle of an English sentence. Atawneh (1992) indicated that single word mixes occurred more frequently than phrasal mixes. These findings were also supported by Lindholm and Padilla (1978a) whose results also indicated that one word mixes were more common than phrasal mixes. Quay (1996) has shown that bilingual children have translation equivalents when they acquire two languages. In addition, these translation equivalents exist as early as the one-word stage. Thus, young bilingual children’s vocabulary might not be as developed and thus would include one-word insertions if they do not know a direct translation equivalency in the language they are speaking.

At the age of three years and five months, Sara took an interest in books. She chose an Arabic book entitled *A, B, Draw* (Dar al-Ma’aarif, 1998), which teaches a young child how to draw step by step. Sara told me, “Help me,” and then she said in Arabic “Ana inti,” which is the same as *you me* in English. This was an example of Halliday’s (1973) interactional functional category of child communication. A few weeks earlier, Sara had used this interactional communication in English, and she then switched to saying it in Arabic. Other phrases Sara used at this age were “Aakul Sara,” which meant *eat Sara*. At a birthday party, she saw a dog and said in Arabic, “Bobi aakul ’adma” which means *the dog is eating a bone*. However, in Arabic she was not yet able to
express her phrases, so there was a distinction using the present tense. Her sentence should have been *El-bobi biyaakul ʿadma*. Other phrases she used were “*Watch this, I go run, I jump,*” and “*Wait for me Mama.*” Some of the Arabic phrases were *Laʿ, fee* (No, there is), *I hutt you barra oda* (I put you outside the room). This particular code switching was unique because she followed a general rule of grammar; she used the pronoun *I* and the verb *put* in Arabic. She used a lexical category switch from an English sentence to using an Arabic verb and completed the sentence morphological, phonological, and syntactical correct in both languages. Another example was when Sara said, “I want mayya bass” (I want water only). According to Barkin and Rivas (1979), Gumperz (1977), and Timm (1975, 1978), this constraint underlying subject pronouns must be in the same language as the verb of a sentence. These were examples of the subject pronoun and the verb in English. It is important to note that the opposite is not true, i.e., where both subject pronoun and the verb of the sentence are in Arabic. Other phrases she used were *Attaʿ khyiayar* (Slice cucumber), and *Oʿud hena* (Sit here).

When Sara was three years and five months old, I wanted to know if she knew any letters. I asked her to press a computer key called “waaw” in Arabic. She recognized it and said, “This is a w.” She knew the letter “w” and was able to make the association from Arabic to English. She had learned the letter “w” at her caregiver’s home, where she had colored a picture of a watermelon. Once, while cleaning the garage, Sara was sweeping and referred to the dust she saw. She said, “*Kul shuwayya her waʿaa*” (Constantly her keeps falling). What she meant to say was *Once in a while bit*
keeps falling. This was an interesting example of using an Arabic sentence and switching only one word, which was a possessive pronoun in the middle of the sentence.

Four to Six Word Phrases

At the age of three years and six months, Sara had increased the number of words she used as phrases. When she was watching a cartoon, *1001 Dalmatians*, she said, “Ana attfarraag cartoon ana inti” (I watch cartoon me you). This was a unique example for several reasons. First, the pronoun and the verb were in the same language (Arabic), as previously noted in research by Barkin and Rivas (1979), Gumperz (1977), and Timm (1975, 1978). Second, the word *cartoon* was an English loan word that did not have an equivalency in Arabic. The equivalent expression in Arabic would be “moving pictures,” and most children would not understand what that expression meant. Thus, the word *cartoon* has been used as a borrowed word from English. Third, she did not yet link sentences with the conjunction (and). Another example of Sara not using a conjunction to link two sentences together was when she was upset with me, she said, “Mama wihsha, baba helw” (Mommy is bad, daddy is nice). When she heard the garage door open one day, Sara said, “Baba geh!” (Daddy came!). Beginning at the age of three years and six months, she used more Arabic phrases to make comments or to express herself. In the car one morning Sara said, “`Ifil shebbak, hawa not daffi me” (Close window, wind not warm me).

She then saw several birds fly by the car, and then another bird flew by, and she said, “`Asfuura Tanya” (Another bird). For several years we have grown tomatoes in our garden, Sara picked a tomato from the garden and said, “I give `uuta to Auntie” (I give
tomato to Auntie). In the past sentence Sara referred to her caregiver as her Auntie. Her caregiver was an English/Spanish speaker, and Sara code-switched when she told me about giving the tomato to her caregiver. The next day when Sara woke up she used another phrase; she said, “Shams til’it” (The sun came up). These three phrases conformed to Bader’s (1998) study, where he noted that his son, William (three years and eight months), switched words that included animals, birds, and food. He maintained that most Arabic words used in English sentences were ones the child heard inside the home, where the usual means of communication was Arabic. He elaborated on Grosjean’s (1982) statement that time, topic, place, and participants were important factors that caused changes in code-switching. Fishman (1965) contended, “Some topics are better handled in one language than the other [because] the bilingual has learned to deal with a topic in a particular language” (p. 140). Thus, Sara used the Arabic words for bird, tomato, and sun, words she heard at home frequently.

Sara used two phrases to express in both languages how she felt, “My stomach hurt me” and “My batni hurt me” (My stomach hurts me). Other English phrases she used frequently were I told you, I’ll show you, I don’t think so, I want to tell you something, Give me five, You lost (while playing a game), and You give me headache. An Arabic phrase she used was “Ideeni saboon tani” (Give me soap again). She also said, “Nenzil taht” (Let’s go downstairs) and “Cartoon khullus” (Cartoon ended) when asked what cartoon she liked to watch. When she saw a cat sleeping, she told the cat in Arabic, “Sahhi el-noom” (Wake up from sleeping), the same expression I used to wake her each morning. She began to imitate phrases she heard from others. Some of the
code-switched phrases she used were “I want *shay*” (I want tea); “Ana not khallas my *shay*” (I not finished my tea); “*Mayya* for my mouth” (Water for my mouth), indicating she had water in her mouth; and “*Sursaar* in the *bait*” (Cockroach in the house).

Somewhat longer phrases she used while operating a DVD were “*Beshwaish, duusi di,* where I *duus*?” (Gently push this, where do I push?) and “I can’t find *soat*” (I can’t find sound, when she couldn’t hear her cartoon). These examples followed Woolford’s (1983) theory that in a code-switched sentence, the fragments in each language appear phonologically, semantically, and syntactically just as they would if the entire sentence were in that language, in other words, a code-switched sentence in an utterance or interaction in which some parts are clearly in one of the bilingual’s languages and other parts are in the other language. While sitting outside on the front porch one evening, Sara saw that the lights were not working. She commented, “I *nuur go itfi*” (I lights go turn off). This particular sentence was an anomaly because it was grammatically incorrect in both languages, possibly due to language interference or language confusion.

One morning while we were driving, Sara said, “`Ayza haaga” (I want something). I did not understand what she was referring to, so she showed me a pin. I responded in Arabic, “dabuus,” (pin) so she could repeat it and learn a new word. At her caregiver’s house, she tapped her leg. The caregiver responded, “What do you say?” Sara responded, “Hold me.” This was very interesting because Sara had always asked me to “sheel” (lift). Therefore, at three years and seven months, she had started to differentiate between speakers and what languages they spoke.
Sara also had a fascination with her size and growth; she said two short sentences that indicated an interest in developmental growth. For example, she said, “My regly taweel” (My leg is long) and “Batnu kipeera awee” (My stomach is very big). Because she realized her size was different, she told me, “Mama `u`ud ganbee hena” (Mom sit next to me here — indicating that I would need more space to sit).

At various times, Sara’s behavior also played an important role in her persona. She could be polite or rude depending on the interlocutor with whom she interacted. For example, her father wanted to speak to her, and she politely responded, “Just a minute.” However, on another occasion, when she was with her caregiver, she rudely said to her, “What are you looking at?” One morning I kissed Sara, and she told me, “Kafaaya kida” (That’s enough). She did not want me to display affection toward her, yet she had said, “Intee kuntee fain?” (Where were you?) because she was concerned about my whereabouts. Besides being polite or rude to her interlocutor, Sara’s vocabulary showed the use of three or four word phrases.

One morning Sara said, “I told you, Baba mishee” (I told you, daddy left) and “I cold, takyef walla” (I cold, air conditioner is on). These were two examples of intrasentential code-switching whereby a speaker utters a full sentence in one language and makes the succeeding full utterance in another language. Intersentential code-switching is less complicated than intrasentential because it involves switching between a sentence rather than within sentences (Bader, 1998; El-Enazi, 2002). Wong Fillmore (1979) supported the above notion by suggesting that the first occurrence of second language production among children occurs in the form of prefabricated chunks used in
unprocessed forms to communicate predetermined meanings. If that concept is accurate, there is substantial reason to believe that intersentential code-switching involves larger chunks and will precede intrasentential code-switching in the development of bilingual speech. Intrasentential code-switching will be used by bilinguals only after the prefabricated chunks have been broken down and analyzed into smaller subcategories such as word classes.

At three years and seven months, Sara’s Arabic phrases increased slightly. When one of her friends was coming over to play with her, she said, “Adham gayya” (Adham is coming). She was not able to distinguish between using the masculine or feminine gender to refer to someone. When her father came home and she heard the car, she said, “Baba geh” (Daddy came). One day while waiting to pick up a boy from school, she said “Intee fain Ernest?” (Where are you Ernest?). She learned to begin an Arabic sentence with the proper pronoun; however, she continued to use the incorrect gender, “intee” (you — female), rather than “inta” (you — male). Some English phrases included “Come on Ernest” and “Be careful Mama.”

After she had finished coloring a picture in school, she showed it to her teacher and said, “I did it!” At this stage she was still inconsistent in using the correct gender. When she was in the vegetable garden, she pointed at something, and asked me, “Da tallaa’ aih?” (What is this going to bring up?) She found money in the car one day and said, “Fluus tany” (More money). Then she told me, “Ana hutt fluus hena” (I put money here). When I was making her tea with milk one morning, she said, “Iddeenee shay”
(Give me tea). When she was drinking water, she referred to the water cooler and said, “Mayya wihsha awee” (The water is really bad).

Five to Seven Word Phrases

Sara, at three years and seven months, began using more interesting code-switched phrases. I found two examples of code-switching to be unique compared to most other code-switched sentences. While riding in the car, she told me, “My regly hena do this” (My foot here do this — meaning she was kicking the seat). The same afternoon, she told me, “Baby Dylon sughayyar awy; I kibeera awy” (Baby Dylon is so small; I am so big). She only used an English pronoun in this sentence, and she used a borrowed English word for baby to complete her sentence. Sara did not use the conjunction (and) to link the sentences together.

Sara and her father were playing a game in which he asked her the names of different animals on Arabic blocks. One block she said was a dagaaga (chicken) which is the formal name in Arabic (MSA). Then when we said “dagaaga,” Sara replied, “Farkha is a dagaaga” (Chicken is a chicken). She used the word farkha to indicate the informal Cairene dialect for chicken. Thus she knew both names. Then I asked her what letter dagaaga started with, she said, “Harf el-dal” (The letter “d”). I was extremely surprised and asked her what letter the word batta (duck) started with. She replied, “Harf el-dal” (The letter “d”). She was not yet able to distinguish the difference between the sounds of letters. However, she was phonologically aware that all sounds correspond to certain letters.
Children of Sara’s age (three years and seven months) are curious about speaking on the phone, and they have a particular phone script that they develop on their own. One night, Sara held a brush to her ear and pretended to be speaking on the phone. She said, “I go *kallim Tant Sahar*” (I go call Aunt Sahar). Then I said to Sara, “So what are you going to say to her?” She replied, “Izzayyik Tant Sahar?” (How are you Aunt Sahar?). Sara code-switched when she referred to speaking on the phone, but within the conversation she continued to speak in Arabic. In this instance, Sara made an attempt to speak only in Arabic. Even though the following two examples are two or three word phrases, it signifies Sara’s increased vocabulary usage. For example, when Sara was jumping on the couch because she wanted attention, she said, “Bossi Mama” (Look Mama), and when she wanted a dress, she said, “Fustaan akhdar bezuraar” (Green dress with a button).

Sara started to attend a pre-kindergarten classroom at Salam Academy (an Islamic school), and she wanted to know the teacher’s name. She asked me, “Mama, what’s her name?” I said her name was Ms. Amina. Sara went to her and said, “Ms. Amina look what I got.” Sara realized quickly that Ms. Amina spoke English and that she had to communicate with her in that language. In contrast, one evening Sara heard thunder and saw lightning and she said, “*Fee haaga fi saama* scare me” (There is something in the sky scare me). This was a distinct example of intrasentential code-switching, when a switch occurs from one language to the other in the same sentence.

While she was watching television one night (August 18, 2003), I said, “Da darfeel” (That is a dolphin). Sara corrected me and said, “shark.” She made the
distinction between the two by noticing that a shark has teeth. Then she said to me, “Meen da?” (Whose is that?) This was the first time she said this in Arabic; she had always asked about someone in English. Most of the time when Sara was tired, she said “I tired,” but she finally said it grammatically correct, “I am so tired.” When Sara was in school and she wanted to alert her teachers that her work was complete, she said, “I done.” In school, they learned an Arabic letter in the alphabet, waaw. Sara started to recognize some of the words she had repeated, warda (rose), wuduu` (ablution) and walad (boy).

While riding in the car one day, she said, “Ishaara gayya” (Traffic light is coming), and then she asked me if “Tarek fil bait?” (Tarek is at home?). When I asked Sara if she was finished with her drink, she said “Burtu`aan not khulus” (Orange is not finished). While washing her hands, Sara noticed that the soap was different and said, “Da sabuun tany, loono asfar” (This is another soap that has a yellow color). At school she learned a few new letters from the Arabic alphabet such as alif (a in English) that started words such as arnab (rabbit) and asad (lion). She also learned the letter yaa` (y) and the word yadd (hand).

A few new English phrases Sara used at three years and seven months old were Whatever you say, Why you do that, Goodbye my friend (when she left her caregiver’s house), and Can I have this? (Asking her grandmother for something). A few new Arabic phrases were also learned during this time period. She said, “Aakul eeh?” (What will I eat?) and “Kuntee entee feen?” (Where were you?) This was a unique Arabic
sentence, some studies have shown that prepositions are the least used, and articles are not used in code-switching. According to Atawneh (1992),

One generalization emerges for the comparison of these results: the frequency order of nouns and noun-phrases is always the first highest position; prepositions occupy the lowest position; and articles are never used . . . One possible explanation for the low frequency, and in some cases the absence, of mixing categories like prepositions and articles is that they constitute a closed class in any language and that the preferred categories for mixing belong to open class items.

(pp. 224-225)

Other phrases Sara used were “Coeo mawguuda” (Scooby is here), and “Issa’a kaam?” (What time is it?). Then she answered herself and said, “Sitta” (Six o’clock — even though it was a different time. (There is an Egyptian children’s song in which 6 o’clock is a key phrase used). The only Arabic phrase she did not say correctly was “Kuntee entee feen?” (Where were you?). In Arabic the pronoun should have been at the beginning of the sentence, i.e., “Entee kuntee feen?” (You were where?). This was an indication of a direct translation from English to Arabic where Sara transferred the grammatical structure from English into Arabic. Bader and Minnis (2000) similarly indicated that the correct word order was changed, “Clearly, here the child was influenced by English word order” (p. 394).

Sara, at three years and eight months old, was code-switching frequently. Some of her code-switched sentences included, “I want to shuuf haaga” (I want to see something); “My kursi” (My chair); looking at a glass in her hand, she said, “My glass
wiskha awee” (My glass very very dirty); and when she was eating popcorn, she said, “It is not khulus lessa” (It is not finished yet). While traveling in a plane to Albuquerque, she said, “I see tayyaara fil sama” (I see plane in the sky). Some of the Arabic phrases she said were “Min fadalak” (Please), “Wahda bass” (One only), “Niruuh el-bait bass” (Go home only — indicating she did not want to go to a store with me), and “El-kursi gaamid awee” (The chair is very hard — the chair was pushed too close to her legs). She learned in school to say “Salam aleikom” (Peace be upon you.) She also learned the letter raa` (r), the word rummaan (pomegranate), and the letter seen (s) for the words samaka (fish), saa`a (watch), and sayyaara (car). Another letter, daal (d), was introduced for the word dibaa (bear), deek (rooster), and dinosaur. Sara memorized a small chapter of the Quran (Surat el-Ikhlaas).

Depending on with whom Sara interacted, she thanked them in the appropriate language for giving her something. To me she said, “Shukran” (Thank you) and to her caregiver, she said, “Thank you.” Another example of language differentiation occurred after Sara had spent the weekend with her caregiver, I was curious about whether Sara was speaking to her in Arabic. The caregiver indicated that Sara only spoke to her in English, suggesting that Sara was able to differentiate completely between English and Arabic speakers.

In this case study, I focused on Sara’s speech patterns when she watched television. I considered television viewing as one form of observable child-environment interaction impacting the process of speech development and language learning, specifically because in American families watching television occupies a considerable
amount of family time. Rice and Woodsmall (1988) conducted a study of children’s language learning when viewing television. They referred to several researchers who found that television as a possible source of language learning was generally overlooked or dismissed (Clark & Clark, 1977; Hoff-Ginsberg & Shatz, 1982). They observed that in the home environment, when the television was on, the percentage of time children spent looking at the screen was 6% for age one, 67% for ages three and four, and 70% for five and six year olds (Anderson, Lorch, Field, Collins, & Nathan, 1986). They found that parents intuitively responded to television as a language-teaching device for their children and that parents used the medium, particularly Sesame Street, as a talking picture book for their children (Lemish & Rice, 1986). Thus, for several months, I asked Sara what cartoon characters she was watching, and from time to time I asked her about the plot (What is going on?). I found that Sara was familiar with the following cartoon characters at the age of three years and eight months: Aladdin, Gargoyles, Chuckie Cheese, Lloyd in Space, Sabrina, Sponge Bob, Bob the Builder, Mickey Mouse, and Buzz Lightyear. As far as Sara’s language development and critical thinking skills (recalling information from memory) were concerned, she was able to discuss the characters in the cartoons that she watched, what the characters purposes or objectives were in each cartoon, and how the characters interacted with each other (which character liked which character, e.g., Aladdin and Jasmine).

English phrases at this age had increased dramatically. They included teacher, teacher, teacher (trying to attract her teacher’s attention); right here too (indicating she wanted a sticker on her hand); I so hungry; Thank you very much; I already say that; Just
a minute, I busy right now; look it; Are you okay?; I want big one; I can’t find you; I too big; I don’t know; Amaya, I have folder; I show you; Me first; What you doing Mama?; I told you; I can’t do that; I can’t say that; Who did that?; I did it; Mama what do you want?; Can you see me now?; and Can you do this Mama?

Some Arabic phrases were *Kifaaya kida khalaas* (That is enough already) and *`udaam* (front). While working on her homework in the morning, she said, “Lawwin eh?” (Color what?). She wanted to know what color she should be using. She also learned a few new letters with words in Arabic. For example, she learned the letter *meem* (m) which is used for *mooza* (banana). She also learned the letter *kha’* (kh) and the words *khayma* (tent), *khiyaar* (cucumber), *khass* (lettuce), *kharuuf* (sheep), *khamsa* (five), and *khanzeer* (pig). Some code-switched phrases included “I go *kassar sireer*” (I go break bed — while Sara was jumping on the bed), “Gimme shay” (*Give me tea*), and “A pencil *wi`i`*” (A pencil fell). She previously said, “I want tea,” but this change to “Gimme tea” might have been from hearing other children ask for things in this manner or she heard it from TV. This particular code-switched phrase is considered a perlocutionary act, “My *zoory* hurt” (My throat hurt), which is the act performed by or as a result of saying.

As previously noted by Austin (1962), a speaker can perform three speech acts simultaneously: a locutionary act, which is the act of saying something in the full sense of say; an illocutionary act, which is an act performed in saying something; and a perlocutionary act, which is an act involved in uttering that produces effects on the feelings, attitudes, and subsequent behavior of the hearers (see Table 6, types of code-
switching). Therefore, not only was this a statement, an act of talking about her throat hurting, but it was also a warning for the parents, an act performed in making the statement. In addition, Sara’s utterance was intended to alarm her parents or cause them to change their minds; it was a “perlocutionary” act as well (i.e., urging them to take her to the doctor or give her some medication).

Sara, at three years and nine months, had started using fewer Arabic words or shorter phrases and more English phrases. This increased use of English began when Sara started to attend school on a regular basis. The influence of an English environment increased her vocabulary usage, and her speech patterns changed. Some of the English phrases were “How I look?,” “Read this for me,” “Mama you didn’t say Quran,” “I this many” (indicated she was four years old on her fingers), “What are you looking at?”, “Don’t look at me like that,” “Sorry about that,” “I have a Scooby Doo movie,” “I can’t eat too much like that,” “I want one like Dylan (gogurt),” and “Her keep following me.”

Some of the Arabic phrases included “Fee wahda na’sa” (There is one missing — a playing card was missing), “Fee shagara tanya fil hashesha” (There is another tree in the grass), “Fee ‘uuta wahda barra hena” (There is one tomato outside here), “Bitaa` ana doctor,” (My doctor), “Khatt ata’” (Line is dead), and “‘Ammu Wael fil tayyaara” (Uncle Wael is in the plane). In addition, she gained many new Arabic vocabulary words at the age of three years and nine months as shown in Table 9.
### Table 9

**New Arabic Vocabulary Words**

<table>
<thead>
<tr>
<th>Arabic Word</th>
<th>English Translation</th>
<th>Social Context and interlocutor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fustaan</td>
<td>Dress</td>
<td>Sara wanted to wear a new dress with her mother.</td>
</tr>
<tr>
<td>Banafsigi</td>
<td>Purple</td>
<td>Sara wanted to wear the purple dress specifically with her mother helping her.</td>
</tr>
<tr>
<td>Ra`d</td>
<td>thunder</td>
<td>At night listening to the thunder with her parents.</td>
</tr>
<tr>
<td>Khalaas</td>
<td>Enough</td>
<td>Sara was finished with writing with her mother.</td>
</tr>
<tr>
<td>Gibna</td>
<td>Cheese</td>
<td>Sara wanted to eat cheese for dinner with her parents.</td>
</tr>
<tr>
<td>Lahma</td>
<td>Meat</td>
<td>Sara wanted to eat meat for dinner with her parents.</td>
</tr>
<tr>
<td>`Aish</td>
<td>Bread</td>
<td>She wanted to eat bread for dinner with her parents.</td>
</tr>
<tr>
<td>Arabic Word</td>
<td>English Translation</td>
<td>Social Context and interlocutor</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Taba’</td>
<td>Plate</td>
<td>She wanted all of it on her special Zoo Pals plate.</td>
</tr>
<tr>
<td>Shams</td>
<td>Sun</td>
<td>The sun will be rising in eight hours after night time.</td>
</tr>
<tr>
<td>Shebbak</td>
<td>Window</td>
<td>She woke up early and looked out the window to see the sun rise.</td>
</tr>
<tr>
<td>Afakkar</td>
<td>Think</td>
<td>I asked her if she would go out with me in the garden. Sara said she would think about it.</td>
</tr>
<tr>
<td>`Ianab</td>
<td>Grapes</td>
<td>I wanted her to help me cut grape leaves from the garden.</td>
</tr>
<tr>
<td>`Ain</td>
<td>Eye</td>
<td>She indicated that she saw the grape leaves with her eye.</td>
</tr>
<tr>
<td>Ghatteeni</td>
<td>Cover me</td>
<td>Sara was cold and wanted me to cover her.</td>
</tr>
<tr>
<td>Bait</td>
<td>House</td>
<td>The house was cold and she wanted to be warm with a blanket.</td>
</tr>
<tr>
<td>Murgaiha</td>
<td>Swing</td>
<td>When Sara was sitting outside on the swing, she saw a butterfly.</td>
</tr>
</tbody>
</table>
It was worth noting that for the most part, these were words that Sara was exposed to at home, a notion that was supported by Bader (1998) when he referred to children using Arabic words to describe outdoor and indoor objects, including animals, birds, food, drink, clothing, and games that were in the home environment. She also learned in school the letter noon (n) and several words such as namla (ant), naddaara (eye glasses), nimr (tiger), and nakhla (palm tree). A few new code-switched sentences included “Ishrab your shay” (Drink your tea), “Look it nuur” (Look it light), “Look what I find taaht hena” (Look what I find under here,” and “No wara` `inab fil geneena” (No grape leaves in the garden).

Sara’s Arabic phrases when she was 3 years and 10 months were “Sharaab taany foo”’ (Another sock upstairs), “Kubaayya ganbi hena” (Cup next to me), “A`ud ganb Baba” (Sit next to Daddy), “Aakul samak” (eat fish), “Meen geh?” (Who came?), “Ana shibi’t” (I’m full), “Wahada bass” (Only one), “Kaan fil-dulaab bitaa` intee” (It was in your closet), “Fi `odet el-duyuuf” (In the guest bedroom), “Fee haaga fil shanta” (There is something in the bag), “Arabiyya bitaa’ Hosaam” (Hosaam’s car), “Feen alam?” (Where is pen?), and “Betaa` Mama ahla” (The one that belongs to Mom is prettier). Thus, Sara acquired new phrases at this stage of her speech development.

<table>
<thead>
<tr>
<th>Arabic Word</th>
<th>English Translation</th>
<th>Social Context and interlocutor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wahda</td>
<td>One</td>
<td>She said she only saw one butterfly.</td>
</tr>
<tr>
<td>Faraasha</td>
<td>Butterfly</td>
<td>She pointed at the one butterfly she saw.</td>
</tr>
</tbody>
</table>
During this stage in Sara’s speech development, she referred to words that were dual such as *tayyartain* (two planes) and *ballontain* (two balloons). Some of the English sentences included *I want to paint, Put this on, I’m going to open this, I don’t want to, sit for your spot, love you, Put it in the trash, Now I color this, I like this, You read it for me,* and *Can’t catch me.* Limited code-switching occurred during this time such as *Fee sticker tania* (There is another sticker).

Pre-trip to Cairo, December 2003

At 3 years and 11 months, Sara’s Arabic phrases had increased in length. I collected data intensively for four weeks prior the trip to Cairo (see Table 10).

<table>
<thead>
<tr>
<th>Table 10</th>
<th>Language Shift of Sara’s Speech in 2003-2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline Prior to Trip</strong></td>
<td><strong>Trip to Cairo</strong></td>
</tr>
<tr>
<td>English primarily is spoken</td>
<td>Arabic is primarily spoken within a week of arrival</td>
</tr>
</tbody>
</table>
| Sara, at 3 years and 11 months, used the following Arabic phrases: *Asfuura barra* (Bird is outside), *Walla` daffaaya* (Turn heater on), *Feen ma`ass?* (Where is scissors?),
Baba ghayyar el-qana (Daddy changed the channel), Ma`alish (That is okay/never mind), A`ud fil bialaj (Sit on the beach), Feen `alam (Where is pencil?), Dawwar`araayis heduum (Look for dolls’ clothes — reversed this sentence in the Arabic structure), Gaww shaklu helw (Weather looks nice), Fil bait el-awwal (Go to the house first), Ana sughayyara khaalis (I am so little), Iktibi bedah (Write with this), Kull sanna wa inta tayyib (Every year and you are safe – Arabic greeting used during the holidays), Khuudi (Take this), Taani (more), Fee itnain zyy ba`d (There are two like each other), and Ana helwa wi gameela (I am pretty and beautiful).

Some of the code-switching sentences at that time included You khallast? (You finished?), Yeah I know Mayya (Yeah, I know water), and Sua’ not geh, let’s kalim sua’ fee el-beit awalan (The driver did not come, let’s call driver at home first), Taita Faw`iyya not kallim `Araby (Grandmother Faw`iyya not speak Arabic — she meant that her grandmother did not speak English).

The words and phrases Sara used in a conversation with me at home in December 2003 are recorded in Appendix A. Some of the English words included What?, What’s that? and Yeah. Sara said twice in Arabic “Salam Aleikom Salam” (Peace be upon you peace). During my conversation with Sara in the car (see Appendix A), she looked at some pictures in a book. Some of the words she used in Arabic were `otta (cat), balloona (balloon), and batta (duck). Some code-switched sentences she said, “I don’t see matar” (I don’t see rain), “I don’t like puzzles fil-madrasa” (I don’t like puzzles at school), and “I’m going to play with it after I go to Madrasa.” (I’m going to play with it after I go to school). Continuing the conversation, I asked her what she would say to her grandmother
in Egypt when she saw her. Sara continued to say “What?” and “Salam aleikom Salam (Peace be upon you peace). The correct expression is Peace be upon you.

When I asked her what she wanted to take with her to Egypt in her suitcase, Sara said “heduum” (clothes), “from my `odah” (from my room), “zayy eeh?” (Like what? I asked), and she said she wanted a “book.” I told her the colors of the clothing I packed for her and asked her if she wanted me to color with her. She responded, “With you?”. Then she asked, “Are we going to al-madrasa?” (Are we going to school?). She wanted to know how close it was, and so she asked “udaam shewayya?” (Ahead a little bit?) Then she said, “Fee wahda bass madrasa” (There is only one school).

After I picked her up from school, I asked her the name of her teacher. She said, “I don’t know” and then indicated that she was “Ta’banah” (tired) because she woke up too early. When she was bored, she wanted to know where we were going so she asked, “Mama where we going?” I asked her, “Where do you think?” She guessed different places like “Tant Sahar” (Aunt Sahar), “Madrasa” (School), and “Maktaba” (Library), and then she said, “No, I’m going to see batta” (No, I’m going to see duck). She changed her mind and began guessing again, “We going to maktaba” (We going to library), “We going to `amar” (We going to moon), and “We going for bait” (We going for home). I mentioned that we were going to her caregiver and Sara listed the friends she saw there, “Destiny,” “Amaya,” and “Isako.” I asked her the names of her caregiver’s pet crab and little dog. She replied, “Roger and Smokey.”
The next chapter discusses the trip to Cairo and the data collected during that period of time. It also discusses the data obtained after returning from Cairo which showed Sara’s linguistic abilities and development in speaking more Arabic.
CHAPTER 5

THE LATE STAGE OF SARA’S LANGUAGE DEVELOPMENT

We visited Cairo, Egypt, for approximately three and one-half weeks in December 2003. During our trip, I collected most of my data by audio-taping Sara’s speech interactions with either myself or her father. My mother-in-law also audio-taped Sara’s speech when we were not present. Other data collected during this trip were mostly field notes of Sara’s comments and responses to other speakers.

It is incontrovertible that audio-taping is a reliable source of data collection. It is controllable in that the domain of conversation is known, and the preceding and following utterances can shed some light on the code-switching words. Yet audio-taping is, in a way, a contrived method if the child is aware of being recorded and the topics of conversations are limited. Thus audio-taping was supplemented by writing down examples of code-switching that Sara uttered whenever and wherever heard. Field notes were also provided in these instances. They are more naturally occurring and can include a wider range of topics and settings.

Our trip was from December 16, 2003 until January 10, 2004. At that time, Sara was 3 years and 11 months old and would have her fourth birthday party in Cairo. Sara stayed predominately with her paternal grandmother, who was able to collect data for my research study during this visit. During one lunch conversation, Sara’s paternal grandmother told her about the goat that belonged to the neighbors (see Appendix B). Sara saw the goat; she said to the goat; “You want to ’aroosa’ (You want to doll). She wanted to know if the goat wanted the doll. She continued and said, “Mi’za khudee”
(Take goat.) This was an example of language transfer from English because vocative particles are used in Arabic only and are not found in English. In Arabic they are used to call someone. Sara should have said, “Ya mi`za khudee.” To encourage her to speak more Arabic, her grandmother would tell her what to say so that Sara would repeat it. Thus, when she spoke to the goat, she said, “Ana khallsat kulluh. You want ‘aroosa?’” (I’m completely finished. You want doll?), and then she said, “Ana akalt kulluh” (I ate all of it). Her grandmother told her to ask the goat to bring the baby goat. Sara said, “Hatee bentak sughayyar” (Bring your little girl). Note that in this example she used the masculine gender rather than the feminine gender. Sara should have said, “Hatee bentek sughayyar” (Bring your little girl) and “And walad sughayyar like mi`za” (And boy small like goat). It is worth noting that the last code-switched sentence lacked the definite article “el.” Sara should have said, “And walad sughayyar like el-mi`za.” (And boy small like the goat). She continued saying “Like walad sughayyar” (Like boy small), using only part of the sentence to indicate she wanted to see a male goat.

Sara continued to imitate her grandmother, saying, “Ana abla` besura`a” (I swallow fast) as if she were explaining this to the goat. In this sentence her usage of the letter ba proceeded the present tense to indicate that the present continuous tense is absent. Sara should have said, “Ana babla` besura`a” When Sara became thirsty, she said to her grandmother, “Okay, mayya” (Okay, water). When she finished eating, she said to her grandmother “Khulus” (Finished), indicating that she did not want any more food. Note that the word “Khulus” (Finished) should have been “Khalast” (I am finished). Sara did not use the correct speech tense to show that she had finished rather than the food was
finished. Sara continued to be preoccupied with the goat and would call for her, saying “Mi`za” (Goat). She continued, “Okay mi`za want ottta” (Okay goat want cat). At this time, Sara did not use the definite article in Arabic used to describe animals such as goats. In all of her reference to the “mi`za” (goat), she should have used the proper definite article “el.” Thus, it should have been “el-mi`za” (the goat).

Sara’s attention now was focused on a cat, and she said, “Okay, you want otta and `aroosa, khudy `aroosa, okay, you want dee and otta” (Okay, you want cat and doll, take doll, okay, you want this and cat). Sara wanted to see the goat and she said, “Tant Sabah nayma” (Aunt Sabah asleep) and continued calling her “Tant Sabah” (Aunt Sabah), “Tant Sabah hatee el-mi`za” (Aunt Sabah bring the goat). Sara finally transitioned in this last sentence to using the definite article “el” to refer to the goat. Because she was not getting any response from Sabah, she called out to another person and said, “Tant Samra, hatee el-batta” (Aunt Samra, bring the duck). Sara also used the definite article “el-batta” (the duck) in this sentence. This can be attributed to her grandmother consistently correcting her in how she expressed certain phrases.

Sara’s attention again focused on the goat. When she saw the goat, she said, “El-mi`za gat” (The goat came). Then she continued and said, “Mi`za you want” (Goat you want), while continuing to call after “Mi`za” (Goat). She wanted the goat to play with her, and she said, “Nuttee, nuttee for Sara, Okay?” (Jump, jump for Sara, Okay?) Sara asked the goat, “You za`alanah?” (You upset?), indicating that the goat did not want to play with her. Her grandmother told her to offer the goat food. Sara said, “Ta`ali Taita who akkilee” (Come grandmother who feed), and then Sara said, “You who want to akul
ruzz ba’ad shuwayya” (You who want to eat rice in a little while.) Sara did not use the correct verb mode, she should have said, “You who want to takli ruzz ba’ad shuwyya” (You who want to eat rice in a little while). Sara wanted to feed the goat beans, so she said, “Fuul, fuul?” (Beans, beans?) She still wanted to play and said to the goat “Ta`ali mi`za nuttee” (Come on goat jump). This sentence again lacked the Arabic vocative particle ya. Sara should have said, “Ta`ali ya mi`za nutee” (Come on goat jump). She also wanted to feed the goat and said, “Yeah, her want batteekh, batteekh” (Yeah, her want watermelon, watermelon). She reverted to omitting the definite article of “el” (the) again in this sentence. She should have said, “Yeah, her want el-batteekh, el-batteekh” (Yeah, her want the watermelon, the watermelon) and then she continued, “You want ‘aash with batteekh? Mi`za want ‘aash belbattekh. Okay yakul husan” (You want bread with watermelon? Goat want bread with watermelon, Okay horse eats). This sentence again lacked the Arabic vocative particle ya. Sara should have said, “You want ‘aash with batteekh? Ya mi`za want ‘aash belbattekh. Okay yakul husan” (You want bread with watermelon? Goat want bread with watermelon? Okay horse eats). Her grandmother wanted her to stop standing on the chair and asked her if she should remove the chair from the window. Sara responded, “I’m going a’af tani” (I’m going to stand again.)

To change the topic of the conversation, Sara’s grandmother asked what was in her stomach. Sara said “ruzz” (rice). Again, Sara’s choice of using the Arabic word for rice (ruzz) rather than choosing the English word may have resulted from her having heard it inside the home more often than outside.
However, Sara could not be dissuaded from her interest in the goat. She again indicated that she wanted to stand by the window and said, “I go a’aaf fee shebbak” (I go stand in window). This was another example of Sara not using the definite article “el” in the Arabic language to express her sentence correctly. She also did not use the correct preposition in this sentence which should have been fi or and. This had indicated a common error associated with omissions which lies in the use of the definite and indefinite articles. According to Gamal (1998),

Nouns in Arabic are classified as being definite or indefinite depending on the absence or presence of the definite article. In Arabic al is equivalent to the word the. Arabic does not have an indefinite article. Indefiniteness is expressed in Arabic by the absence of the definite article. Therefore, when an indefinite noun is used in English, an Arabic native speaker tends not to use the indefinite article a in an English phrase which requires it. (p. 329)

Sara continued to call after the goat and said, “Mi`za, ya mi`za.” In this sentence she used the vocative particle ya, but not at the beginning of the sentence which indicated that she has started processing the vocative particles usage. She should have said, “Ya mi`za, ya mi`za” (Goat, goat) to call after the goat. Then she said, “I’m going ask Tant Sabah.” She continued calling several times, “Tant Sabah, Tant Sabah, Tant Sabah, hatee mi`za, Tant Sabah, hatee mi`za. Taita meen? Taita meen Taita? (Aunt Sabah, Aunt Sabah, Aunt Sabah, bring goat, Aunt Sabah, bring goat, Grandmother who? Grandmother who, Grandmother?). This was another example of her inconsistent use of the definite article “el.” She should have used “el” (the) before the word “mi`za” (goat).
During another conversation with Sara’s father and myself at her paternal grandmother’s house (see Appendix B), Sara wanted to hold some vitamins for me. Until this time, she had expressed herself by code-switching between the two languages. She said, “Adwiya, Mama you take Adwiya?” (Medicine, Mama you take medicine?). I asked her what she wanted to do. She said, “Amsek Adwiya” (Hold medicine). Her father thought she wanted food, and he asked her “burt’aan” (an orange?) She said “burt’aana.” He said, “burt’aana, `ayza burt’aan?” (Orange, you want an orange?). Sara said “La’” (No). Her father still did not understand; he said, “Khudee burt’aana” (Take an orange). Sara insisted that was not what she wanted. I understood what she wanted and told her I would give her only one. I then asked where she wanted to hold it. Sara’s response was “uhmm, hena, hena” (Umm, here, here.) She was asked how many she had. She counted in Arabic and said, “Wahid, itnain, talata, arba`a” (One, two, three, four). She counted in Arabic several times, always repeating what she had said before. Her paternal grandfather, hearing her count, encouraged her and asked her what her father’s name was. She responded “Ahmed.” Her grandfather continued and asked her “Ahmed aih?” (Ahmed what?) Sara responded “Ahmed Hasan.” I corrected her pronunciation of her father’s last name and pronounced it for her. She imitated what I had said. Then her grandfather asked her what her mother’s name was. She answered her grandfather and said “Randa.” Then her grandfather asked her what her grandmother’s name was. Sara said, “Taita Suad” (Grandmother Suad). Her father then asked her what her grandfather’s name was. Sara said “Geddo Adel” (Grandfather Adel.) Her father was surprised by the answer and said, “Dah ismuh Geddo aih?” (His name is Grandfather who?) Sara
answered, “Geddo Hasan” (Grandfather Hasan). Her grandmother changed the subject and asked Sara, “Bithibii Taita? Bithibii Taita Fawi’yyia ad aih?” (Do you love Grandmother? How much do you love Grandmother Fawi’yyia?) Sara pointed with one finger. Then Sara counted “Wahid, itnain, talata, arba’a, khamsa” (One, two, three, four, five.) Her grandmother was happy with that response. When I was going to drink my tea, Sara asked me, “Sukhna, sukhna” (Hot? Hot?) She used the feminine gender rather than “sukhn” which would have been the correct tense. She and her father then played a game naming different types of animals. All of Sara’s answers were in Arabic; she said, “Kalba, bag’a, `aasfoora” (Dog, pelican, bird). This was a clear example of Bader’s (1998) notion that children referred to animals, birds, and food in their first language, the one spoken in the home environment. Her father asked Sara in Arabic if she ate fish and shrimp, and to both questions she answered “La'” (No). He also tried to confuse her and asked her if she ate whale. She responded “La'” (No). Sara was able to recall from memory what a whale was in Arabic and thus was able to answer her father. Thus, her vocabulary acquisition had developed, and she was able to understand her father.

We were going out, and we planned to take Sara with us. I was combing her hair, and I wanted to use a ribbon for her hair. She told me, “Mama, I’m going to take these.” This statement was very interesting because she did not code-switch any Arabic words. Realizing that her grandmother had the bag of ribbons, Sara addressed her in Arabic and said, “Dah beta’a ana, dah beta’a ana, dah ana” (This is mine, this is mine, this mine). Sara was not able to distinguish between the independent separable pronouns that occurred only in the subject position such as I, you, he or she and the suffix pronoun that
occurred in accusative or genitive cases such as *he told me (not I) and I met with them (not they)*.

On another occasion, I audio taped Sara when she and I were having breakfast at our hotel (see Appendix B). Most of our conversation related to what Sara wanted to eat for breakfast. Sara was more interested in playing with the sugar than she was in eating breakfast. To redirect her attention, I told Sara in Arabic that I was going to pour milk on her tea. She said, “Ana” (Me) indicating that she wanted to pour the milk herself. I then asked her how many spoons of sugar. She said, “Itnain” (Two). When she finished stirring the tea, she said, “Okay, ana khallast” (Okay, I’m finished). After Sara drank some of her tea, she said, “Mama, bas hena” (Mom, that is enough here). Because I did not understand what she said, I responded “Bas aih?” (What is enough?). Sara said, “No shay” (No tea) which meant that she did not want any more tea. She had not finished enough of her tea, so I told her in Arabic to drink one mouthful at a time. Sara understood what I said and responded in Arabic, thus she did not code-switch to answer my question. Sara said, “Ahh, Taita bet’uul bu’ wahid” (Yes, Grandmother says only one mouthful). I asked her why her grandmother allowed her only one mouthful at a time. She said, “because.” I told her that her grandmother was very smart; she wanted her to eat rather than fill her stomach with water. Sara understood and said “Ahh, ahh” (Yes, Yes).

Sara suddenly changed the conversation and said, “Intee istahamee fee el-banio, ana istahama fee el-banio” (You take a bath in the bathtub; I take a bath in the bathtub). She was telling me that she wanted to take a bath and wanted to make sure that I took it
with her. Sara then said, “I don’t want this anymore,” indicating that she did not want the tea. When I asked her about it, she said, “Okay, *ana khallast*” (Okay, I’m finished). When I offered her some orange juice, she said “*La*” (No). Sara was fidgeting in her chair, and I asked her where she was going. She said, “*Ana hena*” (I’m here) thus telling me she was staying where she was.

I told Sara I wanted to speak to her about something, and she replied, “*Aih, aih, Mama?*” (What is it, what is it Mama?). I asked Sara if she liked flowers and said that we were going to buy flowers for her grandmother after we had our bath. Sara said, “*Fain*” (Where), wanting to know where we could buy flowers. I replied from the man who sells the flowers in the store. She said, “*Bita’ el-ward?*” (The flower guy?), and when I responded yes, she asked, “*Fain mahal ward?*” (Where is flower shop?). I replied that he was in the street. She repeated my words, not understanding. She said, “*Fee el-shari’*” (Down the street). I told her we would take a taxi and go to the flower shop, and I wanted her to pick the colors of the flowers for her grandmother. I asked her what colors she wanted to pick. Sara said, “*Bamba*” (Pink), and then I asked what other colors she wanted, and she said, “*Wa banafsegy, iswid*” (And purple, black). I was surprised at this comment and asked black? There aren’t any black flowers. Then I said you wanted pink, red, and purple. Sara added, “How about *asfar*?” (How about yellow?). It is worth noting that Sara named all the colors of the flowers in Arabic and not in English. Because she heard the names of the colors in Arabic at home, she was able to recall them in Arabic. I proceeded by asking Sara what other colors of flowers she wanted to choose. She said, “*Banafsegy tania*” (Another purple). Then I wanted to know if she wanted to
choose large or small flowers. Sara said, “No, sughannana wahdah, wahdah kebir for Taita, wahda for dah ana, da ana sughannana, dah ana, dah ana” (No, small one, one large for Grandmother, one for me, for me small, for me, for me). Sara told me that she wanted a small one for herself. This was the longest sentence (18 words) that Sara had used until this point prior to her fourth birthday. Then she made up an imaginary story. She said, “The otta take my warda” (The cat take my flower). This statement surprised me, and I thought it would be worthwhile exploring it further and I asked whom. She replied, “otta” (Cat). Then I asked when did this happen. Sara replied, “El-sa’a sitta” (Six o’clock). I asked her if this was yesterday or today. She answered “Imbarihi” (yesterday). I wanted to hear more about this story, and I asked her if the cat took her flower yesterday. Sara said, “El-sa’a sitta” (Six o’clock). There is a popular children’s Egyptian song in which the 6 o’clock is a key phrase used. Thus, Sara was able to remember songs that she had heard before and associate them with certain phrases. I asked her if it was yesterday or today? Sara replied, “Imbarih” (Yesterday). Naturally I wanted to confirm that the cat took her flower. She said, “It was going ad kida hu, kibeera, kibeera,” (It was going, it was this, big big). Sara was referring to how large the flower was. At this age, children are not able to tell time and are not able to distinguish between fantasy and reality. Gonzalez-Mena (2005) indicated that “It is common for three-year olds to tell untruths. But rather than characterize their untruths as ‘lies,’ the adult needs to realize that understanding the difference between fantasy and reality is a cognitive task for the early years” (p. 110).
Sara then referred to the flower and said, “I mean, I mean wardah loan zay dah, zay dee” (I mean, I mean flower color like that, like this). I confirmed with her what color was it, and she replied, “loan ahmar, ahmar” (color red, red). I asked her if it was red and pretty and Sara said, “Ahh, ahmar, and bamba, and asfar and banafsegy and banefsegy, itnain banefsegy, itnain, talata, arba`a, khamsa, sitta, saba`a” (Yes, red, and pink, and yellow, and purple, and purple, two purple, two, three, four five, six, seven). Sara again named the colors in Arabic but used the conjunction and in English to join the sentence together.

I changed the discussion to another topic because Sara was making banging noises at the table. I asked her if she knew the name of honey and how it was made. I told her the story of how bees make honey. She tried to pronounce the word honey; she said “sel” instead of “`asal.” She asked repeatedly about its name and said, “aih dah?” (What is that?) She then proceeded to tell me, “Bita`a ana” (It is mine). She used the incorrect pronoun in Arabic. She should have said, “Bita`ee ” (Mine). I thought she wanted to try the honey with the yoghurt and she replied “La” (No). Then I asked her when would she be hungry because she did not eat much for breakfast. She said “khams” raising her fingers to five. Then she started to count in Arabic, “Wahid, itnain, talata, arba`a, khamsa, sitta, saba`a, tamanya, teas`a, `ashara” (One, two, three, four, five, six, seven, eight, nine, ten). At that time, I was drinking my tea. Sara asked me, “Mama, el-shay sukhnah?” (Mom, the tea is hot?). In this sentence Sara used the definite article “el,” but she used the incorrect gender (feminine) to refer to the tea rather than the
masculine form of the word “sukhn” (hot). It is worth noting that Sara at this age was inconsistent in using the correct gender.

After Sara’s fourth birthday party, we visited my Aunt Fawziyya’s house. We sat with her daughter who was in college. Sara’s language switches fascinated her. During this visit, Sara code-switched a couple of times and said, “Do it tany taht (Do it down again), “This fee aih?” (This has what in it?) and then she said, “Ayza something fadia” (I want something empty).

Sara wanted a piece of paper to write some things. She had been frequently asking for paper either to write or draw. On this occasion, she wrote two Arabic numbers, five and six. Interesting though, she wrote them from left to right as if she were writing English. She proceeded to scribble as if she was writing, and it was also from left to right. Sara recognized the letter “s,” and she has indicated “That’s my name.” She thought that the letter “s” in any word is her name. According to Ferreiro (1984), children associate a particular letter for their name and are not able to accept that a letter may belong to two different words. Ferreiro supported her finding when she stated that “A given letter could belong to two different names. This exemplifies well how complex the interplay can be between the available information and assimilation process” (p. 171).

Sara also recited letters from the Arabic alphabet twice; she said, “aliph, ba’, nuun, haa, daal,” and then she tried again and said, “aliph, ba’, nuun, haa, daal, ha” adding another letter at the end. According to Ferreiro (1978),

The process by which a child arrives at an understanding of a particular type of representation of spoken language, e.g. alphabetical writing, cannot be reduced to
the establishment of a series of habits and skills, however complex. In this learning process the child’s linguistic competence and cognitive capacities necessarily play a part. Moreover, for urban children, written language is as much part of the environment as are other cultural objects. (p. 26)

Sara also said a few Arabic sentences such as “Irsim warda kibeera gameela” (Draw big beautiful flower), “Khallas” (finished), “Ana za'alana” (I am sad), “Wahda bas” (only one), “Shayfah keda? (Can you see?), and “Istanee shuwayya” (Wait a little while).

When my husband and I were on a business trip in Sharm el-Sheikh in Egypt, Sara stayed with her paternal grandmother. When we spoke to Sara on the phone, she said, “`Ayza ruh beit” (I want go home). This was the first example of language transfer or interlanguage transfer. According to Larsen-Freeman and Long (as cited in Gamal, 1998), “Where two languages were similar, positive transfer would occur; where they were different, negative transfer or interference, would result” (p. 331). Thus, similarities between L1 (Arabic) and L2 (English) occurred. However, when transfer is classified as being negative, it interferes with the L2 speech patterns. Wode (as cited in Gamal, 1998) suggested that “Only if L1 and L2 have structures meeting a crucial similarity measure will there be interference, i.e., reliance on prior L1 knowledge” (p. 332). Therefore, Sara expressed her Arabic sentence based on the structure of the English translation.

Then she told me “Ta’aly khudeeny delwa’ty” (Come and take me now). When we returned to the United States, Sara spoke mostly Arabic sentences with me and my husband. Sara was four years and three weeks old when we returned from Cairo. Some of the Arabic sentences were “Wala` nuur” (Turn on light), “ah television” (Yes,
television), “Cartoon tany” (Another cartoon), “‘Ira kitaab, ‘ira’ kulhum, ‘Ira kulluhum wa lawwin” (Read book, read all of them, read all of them and color), “‘Ira doal kamaan” (Read these also), “Yalla iftah dee” (Come on open this one), and “Ishrab kubbayet mayya bita’ ana” (Drink cup of water mine). Although Sara’s Arabic phrases had become more complex and no code-switching had occurred, she was not able to use the correct gender when she was speaking with me. As the examples above show, she used the masculine gender to ask me to initiate activities with her. The 10-day business trip to Sharm el-Sheikh was very beneficial for Sara’s proficiency in Arabic and her language development, but her gender pronouns still were not correct.

These were other phrases that Sara used, “Yalla ua`ady” (Come on sit), “Itfee nuur awal” (Turn off lights first), “Mish mushkela” (Not a problem), and “El-shay birid” (The tea cooled off). It is worth noting that Sara was still inconsistent in using the definite article “el.” In the example listed above, “Itfee nuur awal” (Turn off lights first), she did not use the definite article “el”; however, in the second sentence, she said, “El-shay birid” (The tea cooled off) and thus used it in the correct context. It would be possible to surmise that Sara only used the definite article “el” when it was in the subject position.

A few days after observing and taking my field notes, Sara used more complex and longer sentence structures. For example, she wanted me to play with her and she said, “Ana `ayza astahamma delwa’ety” (I want to take a bath now,” “Al-`ab bila`ab bita’ty law samahaty” (Play with my toys please), “Intee `ayza shay?” (Do you want tea?), and “Akal ahu, khudee akal, sukhna” (Here is food, take food, hot). When she
described the food, she said, “Fee macarooana, ruzz, shurba, wa batatis” (There is macaroni, rice, soup, and potatoes). Again following Bader (1998), Sara’s choice of using the Arabic words for macaroni, rice, soup, and potatoes would have resulted from her having heard them inside more often than outside the home. This also might account for having heard those words when her paternal grandmother fed her. It is worth noting that although this last sentence was entirely in Arabic, the structure was in English and she used the conjunction wa (and) to complete her sentence. When I asked Sara a question, she replied, “Tayyib, mafhoum, istanee shuwayya, ah” (Okay, understood, wait a little while, yes).

On another day, Sara commented on clothes that she received as birthday presents. She said, “Hedoom shaklaha helw, bantaloon shaklu helw” (Clothes look very nice, pants look nice). This sentence is exceedingly difficult in terms of gender suffix. Sara was able to distinguish that clothes required a feminine plural suffix (ha), but a pair of pants required a singular masculine suffix (lu). When she wanted to cut the price tags off of her new clothes, she code-switched and said, “Ma’ass not foa’ hena” (Scissors not up here).

At the end of January 2004, Sara was extremely talkative, and I collected numerous field notes of her Arabic sentences. Throughout the day, she played with different objects and watched television. When she wanted to have breakfast in the morning, she commanded, “`Ayza zabady delwa’ty” (I want yoghurt now) and then she said, “Iddeenee, khudee dah” (Give me, take this). She then wanted to color, and her conversations revolved around coloring. She said, “Lawwin feen?” (Color where?),
“Lawwin ma`aya, lawwin Mama” (Color with me, color Mom), “Iddeenee dah, dah ishtaghal” (Give me this, this works). In this past sentence she should have said, “Iddeenee dah, dah biyishtaghal” (Give me this, it works). She used the incorrect mode of the word “biyishtaghal.” She continued coloring and said, “Asfar helw, tayyib asfar ahu” (Yellow pretty, okay yellow is here), and “Walaa nuur shoof dah lawwin aih” (Turn light on see what color this is). It is worth noting that the gender issue still exists in the word “lawwin” instead Sara should have said, “lawwini” to indicate a female gender. It is also worth noting that Sara only spoke Arabic in this conversation and did not code-switch. Thus, she retained her Arabic from our trip to Cairo. When she was bored with coloring, she decided to watch television. She said, “Itfarag el-televizion” (I watch television) and then she said, “Bobey ma`a cartoon” (Puppy with cartoon). In this sentence, she used the incorrect preposition and did not use a definite article. She also did not use the preposition `ala after the word “itfarrag (watch) but instead she used the English structure where a preposition is not required. She should have said, “Bobey fee el-cartoon” (Puppy in the cartoon).

Sara played with different objects and named them tayyara (plane), `aroosa (doll), and koara (ball). When she wanted me to play with her, she said, “Il`aab ma`aya bilmuka`baat” (Play with me blocks), there still exists a gender problem with the word “il`aab”, she should have said, “il`aabi” for the female gender. When she wanted me to read to her she said, “Kutb Tania taaht” (Other books downstairs). When she finally finished playing and wanted to complete her homework, Sara said, “’Amel wagib shuwayya” (I will do some homework). At this age, makeup and combing her hair and
looking pretty fascinated her. She made comments such as “Arush sha’ary” (Spray my hair), “Rooj kaman” (lipstick too), and she indicated that it “Idnia har” (It is hot), thus signifying that it would spoil her makeup. She also used two words in English, “makeup” and “nail polish,” to indicate being beautiful. It is worth noting that these are new words Sara acquired that she had not used in any previous context.

Sara started to give directives in Arabic at the age of four years and one month. During this time period after we returned from Cairo, Sara did not use any English words or code-switch. Although she returned to school two days after our arrival, she continued to speak Arabic to me most of the time. She said to me once, “Mumkin, istanee hena, duul taht wa dah” (It is possible, wait here, these downstairs and this one). She had commanded me to wait until she brought some toys and take them downstairs for her to play. She continued and said, “Kamaan taht, mafhoum yalla” (This also downstairs, understand, come on). Other commands included, “Yalla inzel taht, ila’aby bil-oda bita’ty, namee hena wara” (Let us go downstairs, play in my room, sleep behind here). Another example of the incorrect gender was when she said, “Yalla inzel,” she should have said, “Yalla inzelee” when she wanted to play with me. During other participant observation sessions, Sara said, “Ana akul zay dah, Ana akul kateera” (I eat like this, I eat a lot). She used the incorrect gender for “kateera”, she should have said, “kiteer.” “Shufee dee ila’ab izay, ideenee idek, ta’maha wihshah” (Look at this how it plays, give me your hand, it tastes bad). She also used the incorrect gender in this sentence, she should have said, “ta’maha wihsh” (it tastes bad). “Ana a’araa Quran, ana mashghulah
delwa’tee, iskut shuwayya ghedo ma’a Sara fil-genaina (I am reading Quran, I am busy now, be quiet Grandfather with Sara in the garden).

On Valentine’s Day, Sara was excited about the types of cartoons she was watching because the cartoons addressed the occasion. Sara said, “Shoufee Araby or Englizy” (See if it is Arabic or English), “Ana farrag cartoon shuwayya” (I watch cartoon a little bit). Sara used the incorrect tense, she should have said, “Ana afarrag cartoon shuwayya” (I am watching some cartoon for a little bit.” Then she said, “Dah cartoon helw ghidan!” (This cartoon is very nice!). She described an event that occurred in the cartoon and said, “Howa wi’i bila’agala” (He fell off the bicycle). Then after she had my attention, she asked, “Fee aih hasal?” (What happened?) She then answered her own question by saying, “bas lewahdoo” (By himself), “Bussi el-kaika bata’a el-booby” (Look at the cake that belong to the puppy). In this sentence also she used the wrong gender to refer to the dog. She should have said, “Bussi el-kaika bata’at el-booby” (Look at the cake that belongs to the puppy). When she was finished with the cartoon, she told me, “Ana afarrag a’alaa Baba” (I am watching Daddy).

The following day she wanted to play in the garden and wanted to show me what she could do. Sara said, “Ana ahaarack da shuwayya” (I am going to move this a little), “Ta’aly hena awareek haga, natta kibeera awy” (Come here I will show you something, a very big jump). In this sentence also she used the incorrect gender. She should have said, “Ta’aly hena awareekee haga, natta kibeera awy” (Come here I will show you something, a very big jump). At this point Sara was four years and seven weeks old, and she started to code-switch single words. “Go el-nahya dee” (Go this way), “Go ruhee
hena, Mama ta’aly hena” (Go over there, Mommy come here), “Only da bas” (Only this one), “But bussi its sughannana” (But look it’s very tiny), “Ana go warekee tany” (I go show you again), “‘Ayza duoll” (I want this) and “Anhee wahda zay ba`ad? Yalla do dawariyya” (Which one is the same? Come on do circle). Lindholm and Padilla (1977, 1979) speculated that these one-word insertions might be due to the child not knowing a direct translation equivalency in the language the child was speaking which seems likely in the case of Sara. Another possibility is the fact that she has returned to an English speaking environment. Thus one-word insertions become more common in her speech.

In March, Sara’s school went on a field trip to the zoo. I was one of the parents who drove and we took another child with us. Sara’s classmate was of Palestinian descent born in the United States. Both the girls were speaking English to each other in the car until I spoke to them in Arabic. The little girl immediately changed her language and responded to me in Arabic. At that point, Sara started speaking Arabic to her friend as well. Even though the dialects were different, they were able to understand each other well enough to be able to communicate.

Although Sara continued to speak Arabic most of the time with her father and myself, she had started again to code-switch phrasal mixes into her sentences. Sara at this point was four years and three months old and used code-switched phrases such as, “I’m going to a`ad el-awwil” (I’m going to count first) and “I’m going to ikhtar” (I’m going to choose). These examples followed Woolford’s (1983) theory that in a code-switched sentence, the fragments in each language appear phonologically, semantically, and syntactically just as they would if the entire sentence were in that language; in other
words, a code-switched sentence is an utterance or interaction in which some parts are clearly in one of the bilingual’s languages and other parts are in the other language. Another possibility is that English uses the word “I am going to” but Arabic does not have an equivalent. Arabic expresses “I am going to” by using the future particle “ha” such as “haruh” (I am going to). However, her Arabic sentence structure continued to develop linguistically.

In April, she was very talkative, and I took many field notes of what she had said. Sara said in different contexts of writing and coloring, “Idnee alam” (Give me pencil), “`Ayza akteb englizy” (I want to write English), “Mama fee asfar?” (Mom is there yellow?), “`Ayza akteb ismee” (I want to write my name), “`Ayza akteb hena” (I want to write here), and “Imskee dah liyaa” (Hold this for me). Sara continued to color her pictures and wanted my help with choosing the colors that were appropriate for her picture. She said, “Fee haga tanyya?” (Is there something else?), “Da zay da” (This one is like this one), and “Da shaklu wahish” (This one looks ugly). When she wanted me to color with her she said, “Intee ba’a, ana ba’a” (Now you, now me) and then she said “Mama `andee fekra helwa” (Mom I have a good idea). When she was tired, she asked me, “Mumkin ana anam `alaiha?” (Can I sleep on top of it?), and then she hid and said, “Mama ana lessa hena” (Mom I am still here” and “Baba mish ganbee” (Daddy isn’t next to me). The coloring sequence described above showed that Sara contributed to a meaningful conversation for a longer period of time. Thus, her attention span had increased along with the Arabic sentences she used to express herself.
Sara, at four years and five months, wanted to watch television. The program was scary and Sara said, “Humma mish nas, humma monsters.” This was a type of borrowing considered to be lexical borrowing because Sara inserted one word that could express her thought, and she used it correctly both phonologically and morphologically to adhere to both languages. Poplack et al. (1988) offered a more comprehensive definition of *lexical borrowing*:

The incorporation of individual’s words (or compounds functioning as single words) into discourse of L1, the host or recipient language, usually phonologically and morphologically adapted to conform with the patterns of that language, and occupying a sentence slot dictated by its syntax. (p. 52)

Sara continued and said, “‘Ayza kartoon ba’a’” (I want cartoon come on) and then she code-switched and said, “Let’s see aih da” (Let’s see what this is) wondering if in fact it was a cartoon, and then when she did not like it, she said, “Gebee wahda tanyya” (Get another one). She did not like that particular cartoon and wanted another one.

Sara, at four years and six months, continued to speak mostly Arabic with a few English words such as “*Da il’ab game izzay?*” (This plays game how?) and “*Ana go warreekee*” (I go show you). Again, this was a single word switch as indicated previously by Lindholm and Padilla (1977, 1979). The other phrases I noted were all in Arabic and concerned Sara’s getting ready to go out with us after she had combed her hair. On this occasion we had a female Egyptian friend over at our house, and Sara said to both of us, “Mama ’aud henna, Tant Shushu tuaka abyaad.” (Mom sit here, Aunt Shushu white ribbon). Sara is continuing to use the incorrect gender. In the previous
sentence she should have said, “Mama `audi henna, Tant Shushu tuaka abyaad” (Mom sit here, Aunt Shushu white ribbon). “Mama gebee el-rush kamaan” (Mom bring the spray as well). Sara wanted our friend to use a white ribbon and spray her hair so that she would be ready to go out. After our friend finished her hair, Sara said to me, “Mama shufee shaklee aih” (Mom see what I look like) and when she wanted something else, she said, “Mumkin intee ilitedeeny?” (Can you give me please?) When I was ready to leave, Sara said, “Intee rayha feen?” (Where are you going?).

Sara, at four years and seven months, continued to speak mostly Arabic; however, her speech in English re-emerged. She also started to give directives in English (Note: Her Arabic directives were given at the age of four years and one month.) She said, “Give me that” and “Don’t say that word.” She also said a few Arabic phrases, “`Ayza aruh el-belaj” (I want to go to the beach), “`Ayza ashoof fee aih” (I want to see what that is), “Ana bas hashoof el-sa`a kaam” (I am just going to see what time it is), and “El-sa`a kaam?” (What time is it?).

In a phone conversation between me and Sara she said, “Ana kuwayas, mumkin intee teagee ma`ana el-tayyara, ana ma`a mama wa baba.” (I am fine, can you come with us on the plane, I am with Mom and Dad). She used the incorrect gender to refer to herself in the previous sentence. She should have said, “Ana kuwayyisa…” There were also a few one-word insertions of code-switching that occurred such as, “Only `ayza farag da” (Only want to watch that), “Ana farag wa ana done” (I watch and I am done). She used the incorrect tense both times in these two sentences. She should have said, “Only `ayza attfarag da” (Only I want to watch that) and she should have said, “Ana
attfarag wa ana done” (I am watching and I am done). “Ana going I’felha” (I’m going to close it), “Kalna izzayak ya monster, inta good? Ana Sara, inta monster, bita’tee sah? Inta kalm ‘Araby?” (We ate, how are you monster, are you good? I am Sara, you are monster, that is mine correct? You speak Arabic?). The frequency of Sara speaking English increased at this time. Sara wanted to eat and said to the pizza deliveryman, “Hello pizza man, how’s the pizza?” and “Oh, I forgot one thing.” She spoke English to him because Sara realized that he does not speak Arabic. When she wanted to eat the pizza, she gave me another directive but this time in Arabic. Sara said, “Idenee pizza fil-’arabia, helwa” (Give me pizza in the car, good). The word pizza as previously stated in Chapter 4 is a borrowed word that does not have an equivalency in Arabic and has been adapted by native Arabic speakers throughout the Middle East. Sara borrowed an English word and used it in an Arabic sentence phonologically and morphologically to convey her meaning. Hamers and Blanc (1989) pointed out that borrowings are well assimilated phonologically and morphologically into the borrowing language. In many cases, borrowings cannot be differentiated from the original words because they are well integrated in the language.

Sara, at four years and eight months, had been back in school for seven months since our trip. English now re-emerged as the dominant language. One such occasion that demonstrated that this was true was when a friend of Sara from Yemen was over at our house for a few days. Her Yemeni friend was born in the United States and spoke only Arabic at home. Her mother did not speak English, and the only means of communication was to speak to the mother in Arabic. I told Sara several times to speak
to her friend in Arabic. Sara could not maintain or even want to try to speak in Arabic. Sometimes Sara also had a difficult time understanding what her friend said to her in Arabic. This was possibly due to the two Arabic dialects being very different from each other.

A month later, on a field trip to a pumpkin patch, another of Sara’s friends rode with us. This particular little girl was also of Egyptian descent. I asked Sara to speak to her friend in Arabic, but Sara code-switched mostly in English. Sara was having a difficult time expressing herself and maintaining a conversation in Arabic. I thought about the previous month’s interaction and lack of conversation in Arabic with her young Yemeni friend was due to the differences in the dialect, but now I thought with Sara’s language development and trying to express her thoughts, she was unable to do so. In addition, when she told stories to her Egyptian friend, she said them in English because she was able to express herself better.

In my last few weeks of data collection in October 2004, Sara’s English dominated her conversation, and I recorded data that included either a few Arabic sentences or sentences that contained code-switching between Arabic and English. For example, Sara on a rare occasion spoke to me in Arabic and said, “Intee ikhtary haga” (You choose something) and then said, “Ikhtary haga mukhtalifa” (Choose something different). She was curious that I was writing something (I was taking field notes of what she said) so she code-switched and said, “Intee writing aih?” (You are writing what?) and then said, “Come on ikhtary haga” (Come on choose something). At the end of the day she also used a borrowed word to complete her Arabic sentence. Sara said, “Mafeesh
Halloween *idrab `ala gars laih*” (No one Halloween is ringing on the door why?). This example signified an extremely important development. Language transfer was predominately the way Sara now spoke Arabic. She borrowed from the structure of an English sentence and used it in an Arabic sentence phonologically and morphologically to convey her meaning. This was demonstrated with her lexical code-switching. I have listed the frequency of each lexical category in the data. Distribution of English and Arabic morphemes of categorically code-switched sentences are presented in Table 11.

Table 11

_Categorical Code-Switched Sentences_

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Lexical</th>
<th>Morphology</th>
<th>Phonology</th>
<th>Syntactic</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t want to, my <em>regly</em> (leg) hurt me.</td>
<td></td>
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<tr>
<td><em>I hutt you barra oda</em> (I put you outside room)</td>
<td>x</td>
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<tr>
<td>I want <em>mayya bass</em> (I want water only)</td>
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<tr>
<td><em>Kul shuwayya her wa`aa</em> (Every while her fall)</td>
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<td>x</td>
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<tr>
<td><em>Ana atfarraag cartoon ana intee</em> (I watch cartoon you me)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentence</td>
<td>Lexical</td>
<td>Morphology</td>
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<td>Syntactic</td>
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<tr>
<td><em>Ifil shebbak, hawa not daffi me</em></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>(Close window, air not warm me)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>I give `uuta to Auntie (I give tomato</td>
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<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to Auntie)</td>
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<tr>
<td>My <em>batni</em> hurt me (My stomach hurt</td>
<td>x</td>
<td>x</td>
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<tr>
<td>me)</td>
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<tr>
<td>I want <em>shay</em> (I want tea)</td>
<td></td>
<td>x</td>
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<td></td>
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<tr>
<td><em>Ana not khallas my shay</em> (I not finish</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
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<tr>
<td>my tea)</td>
<td></td>
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<tr>
<td><em>Mayya</em> for my mouth (Water for my mouth)</td>
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<td>x</td>
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<tr>
<td><em>Sursaar</em> in the <em>bait</em> (Cockroach in the</td>
<td></td>
<td>x</td>
<td></td>
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<tr>
<td>house)</td>
<td></td>
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<tr>
<td><em>Beshwaish, duusi di, where I duus?</em></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>(Slowly, press this, where I press?)</td>
<td></td>
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<td></td>
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<tr>
<td>I can’t find <em>soat</em> (I can’t find sound)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I <em>nuur</em> go <em>itfi</em> (I light go off)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(language interference)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I told you, <em>Baba mishee</em> (I told you,</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentence</td>
<td>Lexical</td>
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<td>Phonology</td>
<td>Syntactic</td>
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<tr>
<td>Daddy left)</td>
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<tr>
<td>My <em>regly hena</em> do this (My leg here do this)</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Baby Dylon <em>sughayyar awee</em>; I</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>kibeera awee</em> (Baby Dylon very small, I very big)</td>
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<td></td>
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<tr>
<td>I go <em>kallim Tant Sahar</em> (I go talk Aunt Sahar)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Fee haaga fi saama</em> scare me (There is something in sky scare me)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><em>Burtu’aan</em> not <em>khulus</em> (Orange not finish)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My <em>kursi</em> (My chair)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My glass <em>wiskha awee awwe</em> (My glass very very dirty)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is not <em>khulus lessa</em> (It is not finish yet)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I see <em>tayyaara fil sama</em> (I see plane in the sky)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I go <em>kassar sireer</em> (I go break bed)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentence</td>
<td>Lexical</td>
<td>Morphology</td>
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<tr>
<td>Gimme <em>shay</em> (Give me tea)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>A pencil <em>wi`</em> (A pencil fell)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My <em>zoory</em> hurt (My throat hurt)</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td><em>Ishrab</em> your <em>shay</em> (Drink your tea)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look it <em>nuur</em> (Look it light)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look what I find <em>taaht hena</em> (Look what I find under here)</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>No wara<code> </code><em>inab fil geneena</em> (No grape leave in the garden)</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td><em>Fee</em> sticker <em>tania</em> (There is another sticker)</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
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<tr>
<td>You <em>khallas?</em> (You finished?)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Yeah I know <em>mayya</em> (Yeah I know water)</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td><em>Sua<code>* not *geh,* let’s *kalim sua</code> fee el-beit awalan</em> (Driver not come, let’s call driver at the house first)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td><em>Taita Faw<code>iyya not kallim </code>Araby</em> (Grandmother Faw`iyya not speak Arabic)</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>Sentence</td>
<td>Lexical</td>
<td>Morphology</td>
<td>Phonology</td>
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<tr>
<td>I don’t see <em>matar</em> (I don’t see rain)</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>I don’t like puzzles <em>fil-madrasa</em> (I don’t like puzzles in the school)</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Are we going to <em>el-madrasa</em>? (Are we going to school?)</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>No, I’m going to see <em>batta</em> (No, I’m going to see duck)</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>We going to <em>maktaba</em>? (We going to library?)</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>We going to ˈamar? (We going to moon?)</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>You want to ˈaroosa? (You want doll?)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ana khalsat kulluh</em>, You want ˈaroosa?” (I finish everything, you want doll?)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>And <em>walad sughayyar</em> like miʿza</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(And boy small like goat)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like <em>walad sughayyar</em> (Like small boy)</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>Sentence</td>
<td>Lexical</td>
<td>Morphology</td>
<td>Phonology</td>
<td>Syntactic</td>
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<td>-------------------------------------------------------------------------</td>
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<tr>
<td>Okay, <em>mayya</em> (Okay, water)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Okay <em>mi`za</em> want <em>otta</em> (Okay goat want cat)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Okay, you want <em>otta</em> and <em><code>aroosa*, *khudy *</code>aroosa</em>, Okay, you want <em>dee</em> and <em>otta</em>? (Okay, you want cat and doll, take doll, okay you want this and cat?)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Nuttee, nuttee</em> for Sara, Okay? (Jump, jump for Sara, Okay?)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>You <em>za`alanah</em>? (You upset?)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><em>Ta`aly Taita</em> who <em>aklee</em> (Come Grandmother who feed)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You who want to <em>akul ruzz ba`ad shuwayya</em> (You who want to eat rice after a while)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yeah, her want <em>battekh, battekh</em> (Yeah, her want watermelon, watermelon)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentence</td>
<td>Lexical</td>
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<tr>
<td>You want ‘aish with <em>bateetkh</em>?</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Mi`za</em> want ‘aish <em>belbatekh</em>. (You want bread with watermelon? Goat want bread with watermelon)*</td>
<td></td>
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<tr>
<td>I’m going <em>a’af tany</em> (I’m going stand again)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I go <em>a’af fee shebbak</em> (I go stand at window)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Adwiya, Mama</em> you take <em>Adwiya</em>?</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(Medicine, Mama you take medicine?)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No <em>shay</em> (No tea)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>How about <em>asfar</em>? (How about yellow?)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>Sentence</td>
<td>Lexical</td>
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<tr>
<td>No, sughanana wahdah, wahdah</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>kebir for Taita, wahda for dah ana,</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>da ana sughanana, dah ana, dah ana</td>
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<td></td>
<td></td>
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<tr>
<td>(No small one, one big for</td>
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<tr>
<td>Grandmother, one for me, one small,</td>
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<tr>
<td>one me, one me)</td>
<td></td>
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<td></td>
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<tr>
<td>The otta take my warda (The cat take my flower)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>It was going ad kedah hu, kebeirah,</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>kebeera (It was going like this, big, big)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I mean, I mean warda loan zay dah, zay dee (I mean flower like what</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>color, like this)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ahh, ahmar, and bamba, and asfar</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
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<tr>
<td>and banafsegy and banafsegy, itnein</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>banafsegy, itnein, talata, arba<code>a, khamsa, settah, saba</code>a (Yes, red and</td>
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</tbody>
</table>
At the end of the study, Sara was 4 years and 11 months old, and it was very rare to hear Sara speak any Arabic. The only two sentences I recorded in this last month was Sara telling me “Ana hatat el-hezam ableeky” (I put belt on before you). She should have used the correct form of the word “hattait” rather than the word “hatat” which was in the past tense. Then Sara said, “Ana khallast kull haga” (I finished everything) which was a common phrase she had heard from her paternal grandmother and that she repeated during her visit to Cairo.

In this chapter, I have presented my findings pertinent to Sara’s language development and retention of Arabic as she has progressed in age, my description of the

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Lexical</th>
<th>Morphology</th>
<th>Phonology</th>
<th>Syntactic</th>
</tr>
</thead>
<tbody>
<tr>
<td>pink, and yellow and purple and purple, two purple, two, three, four, five, six, seven</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Do it <em>tany taaht</em> (Do it again downstairs)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td><em>This fee aih?</em> (This has what?)</td>
<td></td>
<td></td>
<td>x</td>
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<tr>
<td>‘<em>Aiza something fadia</em> (I want something empty)</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td><em>Ma’ass not fook hena</em> (Scissors not up here)</td>
<td></td>
<td></td>
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</tbody>
</table>
language transfer that occurred from English to Arabic, her strategies of code-switching between the two languages, and the social settings and contexts of the trip to Egypt and how beneficial it was for her Arabic language to develop. Finally, I have described the lexical switches and frequency of her use of specific speech patterns during the period of my research. A summary of the present case study and a discussion of its results in conjunction with the research questions are presented in Chapter 6.
CHAPTER 6
DISCUSSION

This chapter summarizes the findings and theoretical interpretations generated by the analysis of observational and audio recordings of data. Results relevant to the three research questions guiding the study are discussed. In addition, this chapter includes pedagogical implications of the research conducted in this case study and suggestions regarding future work.

Summary

I have explored the bilingual acquisition of my daughter Sara, a four-year-old Egyptian Arabic-English speaker born in Albuquerque, New Mexico, who experienced spoken English and Arabic simultaneously from the age of nine months. I chose to conduct the study because an inadequate (or insufficient) amount of research investigated the process of infant bilingualism in Egyptian-American children and because a sociolinguistic study of child dual language acquisition may assist and provide some insight into the language development of these Arab-American children.

I observed, documented, and examined Sara’s speech acts in each language in her family environment beginning when she was two years old until the age of five. Personal observations were made on a daily or weekly basis. Participant and informal observations were also conducted with Sara and other adults.

At the age of four, Sara’s speech system developed considerably, and her bilingual code-switching was clear and could be interpreted. I chose the family as the primary setting for observing Sara’s language development because it was in the home
environment that Sara acquired language through her multiple interactions with her parents, grandparents, and relatives. I also explored Sara’s social and cultural behaviors to conduct an inquiry into the impact of biculturalism on her dual language acquisition.

In my effort to gather and analyze observational data, my primary research focus was on Sara’s code-switching patterns which emerged from Sara’s bilingual interactions with the various aspects of her environment. I was convinced that a naturalistic inquiry into simultaneous child language acquisition would provide important information for language learning and bilingualism.

Coding Procedure

The distinction between code-switching and borrowing was at times difficult; however, the determining factor was the degree of integration of the code-switched words into the embedded language. According to Haugen (1956) and Poplack (1980), for a word to be considered as a code-switch, it must not have been phonologically, morphologically, or syntactically changed into the embedded language. In this study, Sara switched to English to insert words that were from the American culture or words that were well known in English. Thus, all instances of language alternation were coded and given the title of code-switching or borrowing. I counted as borrowings all items that either did not exist in the Arabic language or were felt to be part of Arabic. For example, names of cities and states (Arizona, New Mexico, California), names of people, names of holidays (Ramadan, El-Eid, Christmas, and Halloween), names of toys (Legos), names of cartoons (Aladdin, Gargoyles, Chuckie Cheese, Lloyd in Space, Sabrina, Sponge Bob, Bob the Builder, Mickey Mouse, and Buzz Lightyear), and names of American foods
(hamburger, chicken nuggets, hot dog). In the case of English terms such as computer and video-games, it was confusing whether Sara integrated these terms into her dominant language. While speaking, Sara inserted these words into the conversation. It was difficult to decide whether she code-switched or borrowed. Therefore, I considered items such as computers and video games as borrowings or loan words from English. Phonology and morphology were not used here as criteria to distinguish borrowings from other types of code-switches. Sara had a clearly distinct phonological system for Arabic and English. Therefore, borrowing of English words into Arabic or vice versa could be noted by its adaptation to the receiving languages phonological system.

Overview of the Findings

There were nearly twice as many English as Arabic nominal words in Sara’s vocabulary. This was also the case for action words. There were nominal English and Arabic sentences; however, there were no equational sentences in English. There were only equational sentences in Arabic. The infrequent use of the definite article is addressed in the findings as well as the frequency of lexical code-switches. Sara’s Arabic utterances were acceptable speech acts, speech acts normally produced and understood by Arabic speakers. (I have provided literal translations of Arabic speech items in English to demonstrate the way the related idea was expressed in spoken Arabic.)

This part of the chapter presents the major findings of this study as they relate to lexical code-switching. Table 11 summarized the number of these categories. I analyzed my data according to Jake and Myers-Scotton (2002) using the CP (complementizer phrase) as the unit of analysis “because it is more precise than sentence or clause.” A CP
refers to a subordinate clause which is a more accurate term than using a sentence. They also contended “Analyzing CS in terms of sentences or turns masks structural differences because a sentence may contain more than one CP” (p. 318). This assisted in distinguishing between instances of code-switching between CPs and within CPs. Jake and Myers-Scotton elaborated further that “Intrasentential CS may classify some instances of switching between CPs together with switches within CPs” (p. 318). I have presented the frequency of all lexical categories switched based on the type of CPs for Sara. Myers-Scotton (1998) contended that if two languages are code-switched by a bilingual speaker, one of those languages is more dominant. Thus, one of the languages is referred to as the “matrix” language and the other is referred to as the “embedded” language. According to Bassiouney (2006),

The matrix language supplies the grammatical frame of constituents, while morphemes are supplied by both languages. That is to say, in code-switching, content morphemes from another language, the embedded language (EL), may appear in this grammatical frame, as well as matrix language (ML) system and content morphemes. (p. 55)

In this case, the distribution of the matrix language (English) and the embedded language (Arabic) morphemes are presented. The matrix language is the language that organizes the structure of the sentences. This type of constraint allows changing from the matrix language to the embedded language. At the end of each section, I have given one or two examples from the data. As can be observed in the data, Sara facilitated her natural communicative abilities by code-switching lexical items between Arabic and
English and vice versa to complete her sentences. As predicted, the lexical switches including nouns, verbs, and adjectives were the most susceptible to code-switching. In addition, nouns and adjectives were code-switched more than verbs because of the incongruence in verbs between Arabic and English. Myers-Scotton (2002) stated that the occurrence of nouns more than verbs and adjectives is supported by the pragmatic evidence that proves that nouns are the first and most frequent lexical category in the code-switching data. As was demonstrated in Table 11, the number of lexical category switches surpassed the morphological, phonological, and syntactical switches. This finding is similar to what has been found in other studies, such as Bentahilla and Davies (1983), McClure (1981), Myers-Scotton (1993), and Poplack (1980). Below are some examples of lexical switches from the data (the italicized words mark the code-switch).

"Kul shuwayya her wa`aa"

(Every while her fall)

`Aiza something fadia

(I want something empty)

These were two examples of Arabic sentences that were one-word English lexical switches. The more common switches were the English sentences that also had one-word lexical switches, but the code-switch was in Arabic. Note the following two examples.

"You want to `aroosaa?"

(You want to doll?)

How about asfar?

(How about yellow?)
There were a composite of 70 lexically code-switched sentences, 20 of these sentences were in Arabic (the embedded language) and 50 were in English (the matrix language). There were 22 sentences with morphological switches contained within the lexical switches. There were 9 morphological switches in Arabic as shown below.

Ta`aly Taita who aklee
(Come on Grandmother who feed)
Ma`ass not fook hena
(Scissors not upstairs here)

There were also 13 examples of morphological switches that started with an English sentence. Two examples of an English morphological switch are shown below.

You who want to akul ruz ba`ad shuwayya
(You who want to eat rice after a little while)
My zoory hurt
(My throat hurt)

Syntactic switches represented nine sentences. There were four syntactic switches in Arabic. Two examples are shown below.

Ana not khallas my shay
(I have not finished my tea)

Ahh, ahmar, and bamba, and asfar and banafsegy and banefsegy, itnein
banefsegy, itnein, talata, arba`a, khamsa, settah, saba`a
(Yes, red and pink, and yellow and purple and purple, two purple, two, three, four five, six, seven)
There were five syntactic switches in English. An example is shown below.

My *regly hena* do this

(My foot here do this)

We going to `amar?

(We going to moon?)

Phonology constituted the fewest switches in both languages. Phonological sentences accounted for only two switches, one in each language. An example of the Arabic phonology switch was

Ifil shebbak, hawa *not daffi me*

(Close the window, air not keep me warm)

An example of the phonology of the English sentence is shown below.

I don’t want to, my *regly* hurt me)

(I don’t want to, my leg hurt me)

As can be demonstrated from these examples, lexical code-switches constituted the most switches, more than morphological, phonological, or syntactic switches (see Table 12 in Appendix C). This notion was supported by Al-Khatib (2003) when she stated, "In such exchanges, interpersonal and social concerns, manifested in the lexical choices made take precedence over other grammatical and morphological concerns" (p. 417). Figure 5 is a graphic representation of the percentages of different types of code-switches.

*Nouns*

The number of examples of switched nouns is the largest in the data. Proper nouns such as names of persons, places, and countries were excluded from the number of
nouns. The total number of nouns in mixed constituents was 108 (see Table 11). English nouns occurred 54 times in mixed constituents and 18 times in the embedded language. Because English was the matrix language for Sara, the number of English nouns was more than Arabic nouns. English nouns occurred 36 times in mixed constituents. English nouns occurred in different grammatical positions such as subjects, objects, and indirect objects as in the following examples (the italicized words mark the code-switch).

![Bar chart showing the percentage of different types of code-switches.](image)

**Figure 5. The Percentage of Different Types of Code-Switches.**

Okay *mi`za* want *outa*

(Okay goat want tomato)

The *otta* take my *warda*
(The cat take my flower)

Verbs

Results indicated that the total number of verbs in mixed constituents was 62. Arabic verbs occurred 10 times in mixed constituents and 7 times in the embedded language. English verbs occurred 30 times in mixed constituents and 15 times in the embedded language. The following example illustrates the occurrence of the Arabic verb (nuttee).

Nuttee, nuttee for Sara, Okay?

(Jump, jump for Sara, Okay?)

This example illustrates the occurrence of the English verb (see).

I see tayyaara fil sama

(I see a plane in sky)

Definite Articles

Before providing examples, I will discuss briefly the definite article in Arabic and its assimilation to the following consonant. In Modern Standard Arabic (MSA), definiteness is expressed by *al*, which is used with nouns and adjectives that modify them. In the Egyptian dialect, this definite article is pronounced *el* or *il*. I have used *el* because it is more commonly used in the literature to denote the definite article in Sara’s speech utterances (Atawneh, 1992; Okasha, 1999). The code-switching data suggested that Sara used the Arabic definite article (el) twice in an Arabic sentence and three times in an English sentence. The frequency of her not using the definite article was more significant. The data indicated that she did not use the definite article approximately 20
times in her conversations. In Sara’s sentences, she switched between the Arabic definite article “el,” which is a bound morpheme equivalence to the English, *the*, and the Arabic nouns. Switching between the definite article and the noun is common among Arabic-English code-switching (Al-Mansour, 1998). In addition, it is also common to switch between the definite article and the noun regardless of the position of the noun or whether it was an object or subject (Al-Mansour, 1998). The following examples are a small portion of the use of the Arabic definite article (el), *the*, that she used in her speech. This example demonstrates how she started an English sentence with an Arabic noun at the end.

Are we going to *el-madrasa*?

(Are we going to the school?)

The following examples illustrate the use of the Arabic definite article at the beginning of an Arabic sentence.

*Sawwa’* not *geh*, let’s *kallim sawwa’ fee el-beit awwil*

(Driver not home, let’s call driver at the house first)

The following examples demonstrate the definite article (el), *the*, missing from the sentences.

No, I’m going to see *batta*

(No, I’m going to see duck)

I go *a’af fee shebbak*

(I go stand at window)
In a study of Egyptian Arabic code-switching data conducted by El-Noory (1985), he reported that the speakers often omitted the definite and indefinite articles and used incorrect word order. El-Noory also found that the English nouns were frequently switched with the Arabic definite article.

Various Types of Speech Patterns

Sara’s speech patterns of questioning were particularly well developed. She was fully able to utilize all the basic functions of questioning as conducted by an adult English speaker, probably through her intense verbal interaction with her caregiver and her peers. Her use of intonation to ask yes/no questions in Arabic was an example of the influence of English ways of expression upon her Arabic ways of communication. This is not the usual way of asking a yes/no question in Arabic discourse. Yes/no questions are made by intonation in Arabic; however, in English an interrogative particle is used, such as the word *did*. An example of a sentence would be “Did you drink tea?” In some cases, Sara tried to identify words or actions consecutively in both Arabic and English.

Requesting or demanding was also one of Sara’s basic language functions. She used it to ask for her parents’ or her grandparents’ fulfillment of her need for food, drink, toys, during play time, or to have fun. A typical day for Sara was filled with requests or demands expressed in each language and occasionally in code-switched languages. Requests were patterned in interactions both with her parents and others.

Sara made her requests by using the imperative mood. As the only child in the family, Sara fully enjoyed exercising her exclusive right of demanding her parents and grandparents to satisfy a variety of her needs. Halliday’s (1973) instrumental function (I
want) appeared in Sara’s conversations in both languages at different stages of language development. For example, she said, “I want mayya bas” (I want water only) at the age of three years and five months, and then at the age of four years, she said, “’Aiza something fadia (I want something empty). From Halliday’s sociolinguistic viewpoint, language is understood as meaning potential. When children begin to learn their native language, they are learning new ways and situations of learning, and progress consists of mastering one by one a small set of simple functions of language, such as the interactional (me and you) function. A functional approach to language requires examining how language is used, ascertaining what are the purposes that language serves, and how we are able to accomplish these purposes through speaking and listening, reading, and writing. It also means seeking to describe the nature of language in functional terms such as observing whether language itself has been formed by use, and if so, in what ways; how the form of language has been determined by the functions it has evolved to serve (Halliday, 1973). From a functional viewpoint, children are learning how to make meaning and what they can do with language. This semantic association is a requirement of language learning. It is a hypothesis about patterns of meaning.

According to Halliday (1973), this linguistic awareness of patterns of behavior or social meaning is unlimited. In the sociological context, the extralinguistic components are the behavior patterns that discover expression in language. There are types of personal interaction (social) and types of situations or settings (situational) in which language functions. The function of the semantic association is to show how these social meanings are organized into linguistic meaning. Social meanings or behavior patterns
are specific to their contexts or settings. The input to the semantic associations is sociological and specific, but the output is linguistic and general. In this case study, I examined the functional purposes of Sara’s language through speaking and listening. Sara also used the imperative mood to give orders in both languages. An example would be when she said, “Ifil shebbak, hawa not daffi me” (Close the window, air not keep me warm).

Developmental Aspects of Findings

Sara’s parents spoke to her in Arabic in the home and occasionally code-switched. Sara’s exposure to English was delayed until the age of nine months but was fairly consistent thereafter. During some periods of time, her exposure to English was equal to or slightly more than her exposure to Arabic but only for a short period of time. English was never the only language she was exposed to for a long period of time, whereas Arabic was the only language she was exposed to for a long period of time on several occasions for several weeks at a time (the trip to Cairo). The number of hours in Arabic was, therefore, greater than in English.

At the age of 1 year and then at 3 years and 11 months, there were frequent changes of the environment with emphasis on one language. With this change, however, each language was used consistently in each environment and with each person with whom she interacted. Arabic was always used at home and during trips taken to Cairo and Tucson, where Sara spent several weeks. English was used at her caregiver’s home and at preschool. Bilingual people with whom Sara came in contact always used the same language with her, and there was some code-switching between the languages. Sara’s
exposure to each language was, therefore, very consistent. With this type of consistency, Sara became highly competent in manipulating the structure of the two languages, but she also perceived and reacted to the system of language use in social situations. Exposure to language in different social situations helped her learn the intricacies of language use.

Sara’s code-switching became more apparent and more frequent at the age of three years and eight months when she used an English matrix sentence and inserted an Arabic morpheme. According to El-Enazi (2002), children insert bound morphemes in their intrasentential code-switching; thus, children are bidirectional code-switchers. “They frequently use bound morphemes with nouns and verbs in both languages. For example, they insert the English inflection —ing as a suffix to Arabic verbs, such as ‘yetherb-ing’ which means ‘hitting’ and ‘yaalab-ing’ which means ‘playing’” (p. 168). Dworin (2003) agreed that children are bidirectional code-switchers when he offered this definition, “Children’s learning is mediated through the use of two languages, and what is learned in either language may ‘transfer’ to the other language” (p. 179). As cited in Dworin (2003), Reyes and Costanzo described the bidirectional transfer from one language to another and suggested that bilinguals’ learning is a circular process rather a linear one.

As Sara’s sentence structure became more complex, the frequency of one-word insertions increased. Most of these code-switched words were nouns as indicated in Sara’s lexical switches in Table 11. Atawneh (1992) contended that “Among the one-word categories, nouns are ranked as first highest in frequency followed by verbs, adjectives and adverbs” (pp. 238-239).
By the age of five, Sara was competent in both languages, and she could understand and express herself in both languages by code-switching. However, she was more fluent in certain kinds of English vocabulary because she was cared for by an English speaker. Furthermore, as stated previously, at her caregivers and at home she watched English television cartoons and shows, a pastime activity that might have contributed to her fluency in English. Thus, she might be considered English dominant (Grosjean, 1982; Preston, 1989). This agreed with Grojean’s assertion that bilingual children are rarely fluent in both languages.

Similar Findings of Other Language Acquisition and Code-Switching Studies

The findings generated from my observation of Sara’s bilingual language acquisition are consistent with the primary results of several other studies of simultaneous acquisition. Similar to Leopold’s comprehensive study (1939-1949) of his daughter, Hildegaard, Sara’s process of acquiring Arabic and English functioned as two separate systems. In Burling’s (1959) study, his son, Stephen, learned Garo and English at the same time. Sara evidenced an unevenness of development of her two languages. This is also similar to Basena’s son (1996) learning Lusoga and English. The infant subjects in several other dual language studies also exhibited uneven acquisition of their two languages (Bader, 1998; Celce-Murcia, 1975; Fantini, 1974; Jong, 1986; Leopold, 1939-1949; McLaughlin, 1978, Valerio, 1980).

Leopold’s (1945) study documented the rate of vocabulary acquisition. Leopold found that imitation of words comes only after hearing them for several months and that it takes a child two to seven months to use words meaningfully. Like Hildegard in
Leopold’s study, Sara acquired her knowledge of Arabic vocabulary from her parents and from her paternal grandparents. Her paternal grandmother was skillful at having Sara imitate new words her grandmother had said that Sara had not heard before. In addition, similar to Yoshida (1977) and Pham (1989) who studied the acquisition of English vocabulary by Mikihide (Japanese) and Linh (Vietnamese), three-year old children, I found that Sara’s nominal words were, by far, the most frequent type in her English lexicon, and some were present in the Arabic lexicon.

Similar to Imedadze (as cited in Pham, 1989), Valerio (1980), and Bader (1998), I discovered that on several occasions, Sara used bilingual lexical equivalents side by side. Sara was able to produce several Arabic-English equivalents which occurred in a speech act as synonyms. Sara learned to use Arabic and English labels for the same referents which showed that the acquisition of synonyms is a developmental process that requires time. Sara did not acquire the Arabic and English labels for any one referent at the same time, even though she was exposed to both. She developed receptive use for both labels and then continued to use either the Arabic or English label months before she began to use its equivalent in the other language. Her exposure to two languages simultaneously over time assisted her in becoming consciously aware that any one referent can have one or more labels in each language. She demonstrated this ability when she became curious and asked for Arabic or English equivalents for the same referent. An example was when Sara counted her numbers in both Arabic and in English on her fingers.
Similar to El-Enazi’s (2002) study of children code-switching to Arabic to ask about words they did not understand, Sara also spoke in English and would code-switch to Arabic to ask about the meaning of an Arabic word.

In a similar case study, Celce-Murcia’s (1975) daughter, Caroline, learned English and French at the same time, as did Sara, from the age of eight months. Both Caroline and Sara showed a tendency to avoid phonologically difficult words in each language. In Sara’s case, she code-switched to either language to find a less phonologically difficult word to insert and finish her sentence. In addition, in Bader’s (1998) study, he found that William, his three and one-half year old boy, also avoided phonologically difficult words. Sara, for example, avoided using the English word for fork (the letter r was a difficult sound for Sara at three and one-half-years old) and preferred the Arabic word, Shooka. Sara also preferred to use the word sekena in Arabic rather than using the word knife in English.

Similar to Bader’s (1998) study, Sara used various strategies like translation, repetition of words, blending, and avoidance when she code-switched between languages. Harris and Sherwood as (cited in Harding & Riley, 1986) also confirmed the idea of children using translation and repetition as a strategy for code-switching. Another similarity with Bader’s study was when Sara used Arabic words she heard at home such as flower, sun, pigeon, rice, potatoes, bird, and ball in her English sentences.

El-Enazi’s (2002) study also found that children who used English as the dominant or matrix language code-switched between languages less often than adults. Sara was English dominant which indicated that her matrix language was the one she used more
readily, and she code-switched between English and Arabic less often than adults. In addition, El-Enazi found that adults code-switched into English within an Arabic sentence; however, children code-switched between Arabic and English using both structures. “They code-switch into English within the Arabic sentence structure, and they code-switch into Arabic within the English sentence structure” (p. 74). Sara also used both the English matrix language within an Arabic sentence and alternatively used the embedded language Arabic within an English sentence (refer to Table 15).

In a study conducted by Wells (1981), he found that children’s language developed primarily though participation in linguistic interaction and was influenced by the quality of adult-child discourse. I found this to be true in Sara’s case. Her development in two languages was primarily effected through the constant efforts of her immediate family, her relatives, and her caregiver.

Contradictory Findings

Fantini’s (1974) case study of his son, Mario, had some similarities to my case study of Sara. Fantini’s case study was primarily a sociolinguistic study in which he studied Mario’s sensitivity and responsiveness to the functions of language in different settings and his language use with different interlocutors and for different functions. It was a comprehensive study that showed how a child from birth to the age of five became aware and responsive to the organization of language functions in different social situations. Although my case study includes some sociolinguistic data, it does not have the depth of Fantini’s case study. I considered a sociolinguistic approach very important, especially after reading Fantini’s work because it examined the pedagogical approach to
language learning in a naturalistic environment. Fantini’s study also demonstrated the strong influence of Sara’s friends on her speech development.

Itoh and Hatch (1972) published a case study of Takashiro, a two and one-half year old Japanese boy. Unlike Takashiro, Sara did not display any difficulty in simultaneous acquisition, possibly because she was younger than Takashiro when she was exposed to English for the first time at nine months. Takashiro experienced an initial rejection phase, but Sara did not demonstrate avoidance of anyone who spoke English within or outside her home. In Takashiro’s case, vocabulary words were taught by picture references, by giving answer prompts, and by translation. In Sara’s case, lexical words were acquired by active interaction with the environment. Sara’s parents and relatives provided partial prompting in her learning of new words; however, she improved her syntactical skill by utilizing her well-developed asking functions in both languages. This experience of language acquisition was consistent with Ervin-Tripp’s (1974) concept that adults teach nominals and children develop syntax.

Unlike Mikihide, in Yoshida’s (1977) study of a three year and five month old Japanese boy, Sara never experienced loan words in her speech because there were not as many loan words from English to the Arabic lexicon as there were in Yoshida’s subject’s Japanese Lexicon. Sara used a few English words in her mixed language statements that were considered to be borrowed words such as computer, pizza, hamburger, and hot dog. These words were acquired from speaking with adults. Arabic speakers do not have direct equivalencies of these words.
In El-Enazi’s (2002) study of children intrasententially code-switching, he found that they code-switched intrasententially less often than adults. However, this was not true in Sara’s speech patterns. Sara code-switched intrasententially more often than intersententially (see Figure 6). El-Enazi noted that both adults and children avoided using code-switched verbs from Arabic to English. Sara did not demonstrate this tendency; she code-switched the verbs in both languages, alternating within each sentence whether it was the matrix language or the embedded language.

Discussion of Research Questions

The results presented in Chapters 4 and 5 showed that Sara code-switched depending on the language abilities of the interlocutor. However, there was no association between Sara’s code-switching and the topics of conversation. It was found that the proportion of intersentential code-switching decreased over time, and that of intrasentential code-switching increased during the three-year study, perhaps an indication of her developing fluency in both languages.

The research questions are elaborated upon based on how they relate to the literature reviewed in Chapter 2. The limitations of the study are then discussed. The chapter ends with implications for parents and educators, recommendations for future research, and a conclusion. The results for each research question are discussed under the respective research question.

Research Question 1. How did Sara develop her complex language abilities in Arabic and English?
This question was examined through observations, field notes collected, and audio and video recordings of Sara’s code-switching between two languages. In answering this question, the data collected led to a somewhat different conclusion than that made by Weinreich (1953) who stated, “The ideal bilingual switches from one language to the other according to [reflecting] appropriate changes in the speech situation (interlocutors, topics, etc.) but not in an unchanged speech situation, and most of the time not within a single sentence” (p. 73). In this case study, Sara code-switched in the same speech situation and within a single sentence, thus the term intrasentential code-switching. The proportion of intrasentential code-switching increased over time (see Table 13 in Appendix C).

Researchers such as Joshi (1985), Myers-Scotton (1993), and Sridhar and Sridhar (1980), who investigated the function of code-switching, have suggested that two languages involved in code-switching are not equal. One language contributes more words (morphemes) to the sentence, and the other language is inserted into the structure of the first language. These findings concurred with Poplack’s (1980) study in which she found that less balanced bilinguals tended to use intersentential code-switches more than intrasentential code-switches. The total number of intersentential code-switches produced by Sara was three, a figure which represents only 4.3% of the total switches. These code-switches were not considered in the linguistic limitations on code-switching because the linguistic limitations deal with switches within a sentence. As shown in Table 14 in Appendix C, the total of code-switching examples within the sentence was 67 occurrences. Table 14 demonstrates overall occurrences in Sara’s code-switching
divided into two general types. Figure 6 demonstrates the percentage difference between intersentential and intrasentential code-switches. It visually represents the significant gap between both types of code-switches.

Figure 6. Graphic representation for Table 13 (Appendix C) — Distribution of Intersentential versus Intrasentential Code-Switching.

Sara code-switched into English within an Arabic sentence 16 times which represented 23.8% of the total for intrasentential code-switching. On the other hand, Sara code-switched into Arabic within an English sentence 31 times which represented 46.2% of the total for intrasentential code-switching (see Table 14 in Appendix C). As noted earlier on code-switching, the more frequent matrix language or the dominant language of the conversation is English. Myers-Scotton (1993) confirmed that the matrix language
is “the language of more morphemes in interaction types including [in] intra-sentential code-switching” (p. 68). Therefore, Sara code-switched between English and Arabic using structures of each language. She code-switched into English within the Arabic sentence structure, and she code-switched into Arabic within the English sentence structure. Table 14 in Appendix C shows the distribution of intrasentential code-switching according to the Matrix Language.

It is interesting to note the similarity in the findings obtained in Poplack’s (1980) study because of the age differences of her subjects. Poplack’s subjects were adults; most of them lived and spent a considerable amount of time with Spanish/English bilinguals. Sara, on the other hand, was only eight months old when she started hearing English being spoken and was two years old when she started communicating in English. The significance lies in Sara’s ability to use the two languages in ways syntactically similar to adults who had more exposure to a second language (English).

Two interpretations could be made. First, Poplack’s (1980) prediction that code-switching skills developed sequentially from intersentential to intrasentential was confirmed. Second, Sara’s case proposed that a child who was three years old was capable of acquiring a second language after a relatively short period of time. A possibility might be that children who are fewer than three years old are capable of producing similar adult-like results in their development of code-switching. If data from other children confirmed these results, it is likely that the difference between child and adult code-switching is a matter of degree rather than type. Degree would indicate the level of competence and experience of adults whose code-switching is more diverse than
that of children. As for types, the indication is that there is enough similarity to suggest that there is no difference between the types of code-switching used by children and adults, at least morphologically and syntactically.

The primary function of code-switching was not related to grammatical complexities or phonology in either language, but it was related to metaphorical or situational switching (Gumperz, 1982); code-switching was often used as a method of communication and interaction between Sara and her family members. Valdis-Fallis (1978) confirmed what Gumperz stated; he indicated that “Code-switching has been found to be neither random nor meaningless. Rather it is a device that conveys important social information, ranging from rule relationships between speakers to feelings of solidarity, intimacy, and so forth” (p. 8).

Sara’s code-switching patterns often seemed to reflect her language preference, i.e., the language in which she possessed the lexical equivalent in both languages. Bilingual learners tend to acquire content lexical categories before they acquire function lexical categories. Content lexical categories include verbs, nouns, and adjectives, and function categories include conjunctions, prepositions, and adverbs. In other instances, the code-switching was the result of not knowing the Arabic equivalences of certain words. Therefore, her code-switching at this age was associated with social and linguistic functions. This was confirmed by Tarone, Cohen, and Thomas (1983) who considered code-switching a phenomenon that was linguistically motivated as a positive avoidance strategy. They divided the motivation for code-switching into two main categories. First, they identified a linguistic motivation that assisted in compensating for any deficiency in
the language. Second, they contended that a social motivation also exists, i.e., the desire to fit in with one’s peers.

Research Question 2. What was the role of multiple settings in Sara’s language choice?

Sara demonstrated that when she used Arabic, English, or code-switched, she was using both languages systematically according to the linguistic abilities of her interlocutor and attitudes toward linguistic varieties. If Sara decided to code-switch intrasentential, she used English as the matrix language to structure her bilingual CPs. According to Genesee (1989) and McClure (1981), the interlocutor has been shown in this case study to be one of the most important factors that influence children’s code-switching. It is only possible to speculate about whether the interlocutor is one of the earliest factors that children use to determine whether to code-switch, as suggested by Genesee and McClure. To determine what factors have the earliest influence on children’s code-switching, it would be necessary to examine different factors using longitudinal data collected from the initial point of exposure to two languages over a longer period of time, more than the three years used in this case study.

One other factor examined using Sara’s data was topic of conversation. McClure (1981) and Poplack (1981) suggested that the topic of conversation was a major factor that influenced a bilingual’s choice of code-switching. As seen in Sara’s code-switching in Chapters 4 and 5, this was not the case in the data collected. The results indicated that Sara’s code-switching was not associated with the type of topic, irrespective of whether
the topic was general or specific. This independence from topic was not associated with
the data being recorded in various settings such as at home or with her grandparents.

The interlocutor and the surroundings, more than the topic of conversation, might
have influenced Sara’s decision to code-switch or not. The knowledge that at least one of
her parents was present and knowing that the conversation was audio-taped at home or at
Sara’s paternal grandparents home on a regular basis could have influenced Sara’s code-
switching behavior more than the topic of conversation. It is also possible to conclude
that the data collected from Sara suggested that topics were too abstract as clues to guide
the code-switching of a child at her age. Compared to interlocutor, topics were more
salient for the child. The interlocutor is a more concrete characteristic of language
behavior and thus signals to the child whether to code-switch or use one of the languages.

Another premise Al-Khatib (2003) argued is that some children "defy their interlocutors
by opting for another code than that initiated by the speaker, to signal independence and
detachment, again using language to impart extra linguistic messages and project new
micro-social situations" (p. 417).

Research Question 3. What was the role of code-switching in Sara’s bilingual
development?

The literature reviewed in Chapter 2 showed varied findings on the issue of
whether children exposed to two languages have the ability to code-switch or are simply
mixing the two languages randomly (Genesee, 1989; Jusczyk, 1981; Kwan-Terry, 1992;
Some believed that children were capable of perceiving differences between their first
language and their second language even before they were able to speak (Genesee, 1989; Juscyzk, 1981).

The finding that Sara was able to code-switch according to her interlocutor supported the view that at Sara’s age (four years old), she could code-switch between the two languages appropriately. Because children who are four years old have greater cognitive and linguistic maturity than two and three year olds, the issue of whether a child of four can maintain the two languages separately has not been as crucial as it has been for younger children. However, the mixed finding cited above and Sara having been exposed to the second language (English) at the age of eight months made my research critical in ascertaining that she was able to code-switch when she deemed necessary.

Lanza (1992) and Kwan-Terry (1992) found evidence of code-switching in the speech of their subjects who were two years and three years old, respectively, but they had been exposed to two languages since birth. Boeschoten and Verhoeven (1987) also studied code-switching among children who were four years old to seven years old. These children had lived in a dual language environment for at least two years. In this respect, Sara’s situation of listening to English at the age of eight months and beginning to speak English at the age of two years showed that she could code-switch between the two languages systematically as her speech patterns became more complex at the age of three years and five months.

One of the questions that could be raised in a study such as this is whether age makes a difference in the code-switching behavior of a child. The answer is a definitive
“no.” It was not age that made the difference between the early stage and the late stage of language development. It was the interaction of dominance and two kinds of bilingualism, subordinate bilingualism and coordinate bilingualism.

In the early stage, Sara’s dominant language at home was Arabic (the language she learned first until she was eight months old). English was her second language and did not become the dominant language until the age of three and one-half when she started to attend preschool. The current finding on linguistic limitations of code-switching in adults and children concurs with Halmari’s (1997) explanation of bilingualism when she stated, “Bilingualism is not a stable state of affairs: one of the two languages is usually more dominant or gradually gaining more dominance, while the other is loosing [sic] footing” (p. 21). Thus, in the later stage, Sara’s coordinate bilingualism appeared in her code-switching behavior. Thus, contrary to the impression that code-switching is a random mixing of two languages that leads to the deterioration of one or both languages, the results of this study proved overwhelmingly that the majority of the switched sentences were well formed in both languages. Undoubtedly, the similarity between English and colloquial Arabic grammatical structures facilitated Sara’s appropriate separation and code-switching between the two languages.

To summarize the discussion of the results, it has been argued that children can acquire two language simultaneously and that they code-switch in ways that are syntactically and morphologically similar to adults. In addition, the developmental tendency of code-switching has been shown to be similar to that of adults (Pfaff, 1979; Poplack, 1980). Thus, the results from this case study indicate that there are many
similarities between the code-switching of three to five year old children and adults (Bokamba, 1988; Pfaff, 1979; Poplack, 1980, 1981; Volterra & Taeschner, 1978). This is not to propose that there are no differences between adult and child code-switching. However, the differences might depend on the degree of code-switching and the sociolinguistic constraints affecting children versus adults, rather than the types of code-switching.

Sociolinguistic Perspective

It is apparent that the two languages were weighted differently for Sara. English was her dominant language. With this in mind, it is worth mentioning that when Sara code-switched or inserted a phrase from either language into the other, it served a specific function. She code-switched into Arabic to insert a word that she viewed as relevant to the Egyptian culture or that she was unable to express in English. She also code-switched into English to continue her conversation.

Often times she might also code-switch into English to ask about the meaning of a word in Arabic. This is a natural process of language development. It is also noticeable that her sentence structure in Arabic was impacted by the English language. According to El-Enazi (2002) “Syntactic and lexical transfer are the most common forms for influence of one language over the other. Although the presence of words from another language is easily detected, the more subtle influence on syntax may be something overlooked” (pp. 159-160). El-Enazi cited an example of a child who used an English structure for her Arabic noun phrase. His example was similar to the structure of Sara’s sentences. For example, when Sara said “And walad sughayyar like mi’za” (And boy
small like goat), she followed the English structure by using the adjective before the noun. It also lacked the definite article “el.” Sara should have said, “And *walad sughayyar* like *el-mi`za.*” (And the small boy like the goat).

Social Functions

Examining the social functions of children’s code-switching confirmed that children code-switch between one language and another for various social and psychological reasons, although the children share the same language, religion, culture, and values as their parents. Differentiating between the social functions of certain code-switching is a difficult task because speakers have different topics of conversations and discourse as well as various interlocutors. In this case study, the interlocutors remained relatively stable; however, the topic of conversations differed significantly.

The analysis of Sara’s social functions indicated that she code-switched or inserted certain words from one language into another for specific reasons. In other words, Sara shared the same language and culture as her parents; however, her dominant language was not the same as her parents. Therefore, her code-switching served a different purpose.

Sara, whose dominant language was English, code-switched into Arabic to insert words that related to religion or culture that she had learned from her parents. She also code-switched into Arabic to insert religious terms that she learned from school such as the words *wudu* (abulation), *salat* (prayer), *haraam* (forbidden).
Acculturation Data

Acculturation accompanied the process of second language acquisition. Sara went shopping with her parents on the weekends, so she acquired many of the names of shopping centers symbolically. “McDonald’s” became a symbol of food (chicken nuggets) and a play place. “Walmart” and “Target” were the names of specific supermarkets which became familiar words associated with food and clothing and were a visual representation of a place that also contained household items. “Toys-R-Us” was definitely an automatic association of toys or a toy store.

As stated earlier in Chapter 4, television played a significant role in developing Sara’s knowledge of new English words because she seldom had a chance to play with Arabic-speaking children, and her parents used Arabic to communicate with her. “Delicious” (yummy for my tummy was Sara’s response), normally a difficult word to pronounce for children, was easy when heard on television and became associated for Sara with the description of food or drink because of its use in TV commercials. Even though Sara had not even a slight indication of the idea of saving money, a television commercial advertising a double boiler enabled her to mimic the phrase “for free” with surprising simplicity. Sara had heard it many times while viewing with delight the many pieces of the double boiler and the advertiser insisting on it being “for free.” The “word” game became associated with the term “computer” because Sara understood that the computer was used for games. It could also imply “video games” because Sara had become familiar with video games that her mother had purchased for her, and she became familiar with video game machines at video game centers such as “Chuckie Cheese.”
In addition, I found that by watching television every day, Sara acquired rather phonologically complicated words at an early age. Sara’s parents’ involvement in her language acquisition played a vital role in her early childhood education. Parents are usually the child’s first tutors and teachers, mentoring or facilitating their first stages of speaking a language or two correctly. If parents are fluent bilinguals, they are in a better position to assist the child’s bilingualism develop than if they were monolingual. A parent’s oral proficiency and preferred use of one of the languages spoken in a bilingual family can facilitate a child’s acquisition of that language. In other words, adults can use their own resources and abilities to prompt, extend, nurture, and guide the process of dual language acquisition of their children. In Sara’s case, both parents spoke to her in Arabic and occasionally code-switched. Her verbal practice with her parents allowed the emergence of the Arabic language. Family members and their friends can also assist the child’s vocabulary develop by orally interacting with him/her. Environmental interaction enhances the development and enrichment of language patterns for interpersonal communication. In Sara’s case, she was orally fluent in speaking both languages prior to attending pre-school.

One of the sociolinguist’s concerns is to investigate the natural social settings in which speech occurs and relate the patterns acquired, processed, and produced by a child. Observations revealed that Sara’s use of each language was associated with an extensive array of sociocultural contexts in her environment. From a sociolinguistic perspective, I viewed Sara’s process of dual language learning as having a major environmental and cultural influence. I found that despite my family’s attempt to preserve the Egyptian
culture and promote Middle Eastern values and traditions, Western culture and civilization had exerted a marked effect on Sara, as evidenced in her style of living and pattern of adopting established institutions of the American way of life at the early age of three. Sara recognized the golden arches of McDonald’s as a place to eat and became ecstatic at acquiring her food through the drive thru.

In the dimension of time, Sara’s cultural awareness was enhanced and enriched by social and traditional events representing the cultures of both the English-speaking and the Arabic-speaking communities: The New Year, Ramadan, Eid el-Fitr, and Eid el-Adha were all festive occasions originating from the cultures of the West and the East, family and community feasts as well as religious rituals.

The data suggested that a bilingual child such as Sara was subject to biculturalism which she could process without inhibitions. In addition, whether either of the two cultures was dominant depended upon the environmental influences and education of her family and her socialization.

Connotation to Dual Language Acquisition

Studying children’s acquisition of languages encompasses various stages of development. Dramatic changes can be recognized not only in language but also in the critical thinking of children. At a particular stage, children will think in one way, and in a few months, with increased maturity and experience, children will think in a different way. Therefore, it is easy to understand why it is so complicated for an adult to reconstruct his or her own path of cognitive and linguistic development and thus to appreciate that of a child.
Sara being brought up bilingually encompassed these various stages of critical thinking just as a monolingual child does and expressed her thinking in two languages. Her dual language acquisition also followed the creative discovery of each language. She learned receptively and productively of the significance of the meaning of each language. She also learned to ignore certain aspects of each language that did not contribute to meaning. In this search for meaning, she became sensitive and responsive not only to languages as linguistic systems but also to their functioning in the social environment. She learned to associate each language with certain people and at different social functions.

At the age of two, Sara had the potential of acquiring and speaking two languages at the same time. She achieved comprehensible verbal communication in each language. The more verbal interactions Sara had, the faster her rate of developing and processing various speech acts. She frequently code-switched between the two languages to facilitate her communication. Sara’s rate of acquiring either language primarily depended upon the frequency and extent of exposure to both languages. The naturalistic environment at home, with both sets of grandparents, other relatives, and Middle Eastern friends provided the opportunity for the Arabic language to further increase. Sara’s dual language acquisition did not have any detrimental effects on her language development or on her cognitive development. Her development seemed comparable to other children of her age in language and in critical thinking. Her knowledge of two languages stimulated her curiosity about the symbolic function of languages. Her use of both languages also
enabled her to realize that languages have social functions. Therefore, she learned the linguistic as well as the social meaning of languages.

Sara was exposed to biculturalism at an early age. This tendency might be strengthened mainly by the intention of her family and the impact of her environment. Her home and her school are the primary settings for language use. Interaction with multi-faceted environments is vital to successful language acquisition. The study showed that the linguistic and cultural factors within multiple settings provided Sara with the opportunity to interact receptively and be productive in her language repertoire based on the sociocultural environment and her speech community (see Figure 7).

Figure 7. Child Dual Language Acquisition Through Interactions with the Environment.
As can be seen in Figure 7, dual language learning can be used effectively if it is practiced consistently. According to Gurnah (2000), children need to “learn the languages and literacies of their cultural inheritance, parents from minority groups often engage in difficult struggles of an educational, political and economic nature” (p. 235).

I hope that this case study will encourage other parents to expose their children to their native language. Even though this study is based on only one child, it can be indicative of what children are able to learn. Early childhood is the perfect age for language learning, and with consistent exposure to Arabic and English, children can develop two separate but complementary linguistic systems. It takes a conscious and determined effort to provide children with a consistent language environment; however, with practice it can be achieved. Grandparents and other relatives can play a vital role in this process; however, a concerted effort must be made to reverse the inclination of addressing the children in English.

Limitations of the Study

There are merits and limitations of case study research. One of the strengths of this approach is the opportunity to conduct an in-depth analysis that may not be possible with multiples subjects (Kennedy, 1979). According to Hoffman (1991), bilingual child case studies are important because “They provide a wealth of linguistic and other detail, and also many insights about cognitive development and family life of the bilingual child” (p. 48). It has been common practice for researchers interested in the acquisition and development of language among children to use the single case study approach. Ervin-Tripp (1978) agreed when she stated, “Child language research, for nearly a century, has
used the case study as its primary method” (p. 191). Johnson (1992) also stated that case study research has enjoyed “a strong tradition in child language research and a solid place in second language acquisition research” (p. 99). It is accurate to state that research on child language is often based on naturally occurring data (Hoffman, 1991). Because studies that analyze naturally occurring language are not quite controlled, research conducted on more than one subject may be an enormous undertaking. Thus, the data for this study were collected from a single subject and relied on informal and participant observations over approximately two years.

Furthermore, a single case study such as this one makes it possible to examine various aspects of interest, recognizing the child as an individual with her own personality and who does not always behave in stereotypical or predictable ways. Research studies that undertake several subjects tend to abandon the individual characteristics of the subjects. In other words, using several subjects does not regard individual characteristics as being of great significance unless they are shared by all the subjects in the research study. Thus, individuals use language in interesting and different ways. Those unique characteristics are forsaken when several subjects are used in a research study.

However, the single case study approach is not without its own limitations. The failure to record video and audio data on a day-to-day basis during this period may have resulted in the loss of valuable and meaningful data. Also, as the mother of the child, the researcher’s personal bias may have influenced the research, although this was minimized to the extent possible. Measures for checking the validity and reliability of observational
data were taken to ensure the trustworthiness of research. I checked the accuracy of the
data by consulting with two linguists at different universities in the area of code-
switching who were both fluent in Arabic and English and were not participants in this
study to review and verify the reliability and authenticity of the transcribed data. I also
double-checked certain phrases with Sara’s father and maternal grandfather. I questioned
Sara’s paternal grandmother during our trip to Cairo, I compared my field notes with
transcriptions of recordings, and I played and spoke with Sara to ensure the accuracy of
my data. Verification of the data was necessary to prevent potential problems.

The findings generated from a single case study cannot be generalized to a larger
Middle Eastern population because the Egyptian dialect differs from other Arabic
dialects; however, suggestions for further research are addressed in this chapter.

Implications

It is important to remember that code-switching has been viewed in this case study
as an aspect of bilingualism. This section focuses on bilingualism overall rather than
code-switching. After demonstrating that Sara code-switched and that code-switching is
an aspect of bilingualism, one can examine the role of code-switching from a larger
perspective. Code-switching has been shown in this dissertation to be a part of a larger
concern for parents and educators. The main focus of the implications is on what parents
of a bilingual child can learn from Sara’s case with some emphasis placed on the benefit
for educators as well. The decision to emphasize the inherent benefits for parents and
family members is based on the limited number of studies that have addressed the
essential role the immediate family plays in a bilingual child’s life. This is not to
undermine the intrinsic value that a study on code-switching has for educators and linguists or the social value it has for all bilinguals. Thus, code-switching is more relevant in the larger context of bilingualism and dual language learning.

Implications for Parents

Decisions made by parents with regard to their child’s bilingualism are of vital importance to the family’s culture, keeping in mind that a child has very little choice as to whether he or she is born or grows up in a bilingual society. In fact, in some situations, neither do the parents (Harding & Riley, 1986). Regardless of their reasons for being in a bilingual environment, parents have choices to make. The objective of using Sara’s case study is to provide information that will enable parents of bilingual children to make the appropriate decision regarding bilingualism and dual language learning.

Parents often ask if bilingualism is beneficial or a hinderance to their child. Saunders (1988) acknowledged that if one or both parents grew up in a bilingual society, they are likely to view it as beneficial for their children. The decision may not be as easy to make for parents who have no prior experience with bilingualism. This latter group of parents relies exclusively on public opinion or friends for guidance, and they are often misguided by educators and other experts (Saunders, 1988). Dopke (1992) noted that some educators and parents have come to appreciate bilingualism; however, skepticism based on earlier findings of the negative effects of bilingualism often lead them to “abandon the minority language at the slightest sign of what they perceive as a developmental irregularity” (p. 5). Until recently, it was widely accepted that bilingual children were at a disadvantage in terms of development of thinking skills. Although this
notion has changed (see Implications for Educators below), there are still many uninformed educators and parents. McLaughlin (as cited in Harding & Riley, 1986) stated that bilingualism has not been proven to have negative or positive effects on children’s linguistic abilities, intelligence, emotional stability, cognitive thinking, or educational achievements. Cummins (1991) and Peal and Lambert (1962) have confirmed the positive effect of bilingualism. These researchers indicated that being bilingual has no adverse effect on children; instead, it is enriching.

In addition to cognitive skills, another area of apprehension for parents is the social development of their children. The impact of bilingualism on the child’s social development has been widely examined (Dopke, 1992; Saunders, 1988; Shuy, 1981). When children grow up in a bilingual environment such as in Sara’s case, the home represents the close family bonds and cultural values. Furthermore, the general community represents the wider social ties that will eventually constitute a large part of Sara’s everyday life. Sara has been able to adapt to the coexistence of two different cultures and has maintained an understanding of the two languages as used in their respective contexts. Al-Katib (2003) summarized this concept empathetically when she stated, “Bilingual performance takes on more social, interpersonal and pragmatic concerns that are geared towards constructing new micro-situations with challenged interpersonal realities and new projected power relations, within the macro-social contexts” (p. 412).

Therefore, a child needs the two languages in order to function effectively in both environments. Though it may not seem as critical to the parents that children should
maintain the first language, if the child returns to their family’s home country, he or she would need the first language to communicate with members of the extended family. In Sara’s situation, she has gained the receptive skills of understanding Arabic; however, linguistically she does not have the oral productive skills to maintain a conversation in Arabic. Thus, in the future, I hope that with visits to Cairo, she will attain a more productive oral language of Arabic. Harding and Riley (1986) affirmed that “If bilingualism is not maintained, it means that somewhere along the line, someone will lose their linguistic identity” (p. 25). Some parents have abandoned their first language with their child either because they feel it is not worth the effort, or perhaps they think that continued use of the first language will delay the child’s development of the second language which is usually also the school’s language (Saunders, 1988). Even though the first language is not as prominent as the second language of the child, Harding and Riley contended that “in terms of the individual family’s social life and the bilingual child’s cultural inheritance” (p. 77), it may be valuable to maintain it as long as possible.

The early exposure to English as a second language was reflected in Sara’s case when she was able to correctly manipulate both languages morphologically and syntactically in ways similar to bilingual adults. It is significant to observe that after speaking English for three years, Arabic was used less frequently. It is possible that the decline in Arabic was because Sara was conscious that both of her parents spoke English. There was no absolute necessity for Sara to speak Arabic even though some of her friends’ parents spoke Arabic only. In Sara’s case there was an asymmetrical setting
which favored the eventual dominance of speaking English and the infrequent use of Arabic. Nonetheless, Sara can still comprehend Arabic speech.

Several environmental factors have influenced Sara’s use of English and the attrition of Arabic. In addition to the minimum exposure to Arabic, the comparative social status between Arabic and English is a distinct explanation for Sara’s language attrition. It is a reasonable assessment that if at the social level Arabic commanded as much prestige in the United States and around the world, it is possible that Arabic would be equivalent to English in its social status and in the amount of use in the local community, and Sara would have retained her Arabic speaking ability more willingly.

Another aspect of Sara’s sociolinguistic environment was the absence of any negative consequences from the general public toward her speaking Arabic. If Sara had experienced any type of animosity from speaking Arabic or code-switching between the two languages, it is conceivable that she could have been discouraged from learning Arabic, encouraging her to retain English. The lack of any negative consequences from Sara speaking Arabic may have been due to the insignificant number of Arabic speakers in the community. In that type of social setting, Arabic would not be even recognized as a dominant second language (as compared to speakers of Spanish in the Southwest). However, the lack of negative consequences might be an indication of the accommodating nature of the state in which Sara lived. Therefore, these sociolinguistic influences along with the support Sara got from her parents facilitated the process of acquiring English more readily.
Implications for Educators

Sara’s case study has implications for research related to language acquisition, bilingualism, and code-switching. The results propose that code-switching is a “natural” language development occurrence that is an integral function of acquiring more than one language and using them concurrently (DeBose, 1992; Farris, 1992; Reyes, 2001; Reyes & Ervin-Tripp, 2004). Code-switching can be viewed as a distinguishable characteristic in which people are at distinctive stages of fluency in two languages rather than as a stigma (Cummins, 1989). Cummins discussed the role of code-switching in a bilingual education environment. He acknowledged that previously students who code-switched at school were discouraged from that behavior and were mocked by their teachers. The response of administrators worked to inhibit the overall performance and academic as well as cognitive development of bilingual students.

Although attitudes of administrators have changed recently, more information is needed to ascertain why children code-switch. An indicator of fluency is appropriate, and numerous code-switching might be examined as an objective to achieving bilingual fluency in a bilingual education program which relies on informal speech. Faltis (1989) and Jacobson (1982) proposed the New Concurrent Approach, a type of teaching methodology focused heavily on the use of intersentential code-switching. Since it was first implemented, the New Concurrent Approach was criticized for its practical applicability and because of the inherent problems it poses for professionals who may want to use it (Swain, 1983; Wong Fillmore & Valadez, 1986). However, considering
code-switching as a possible instructional technique signifies its potential in the analysis of language teaching.

If the first language is not the language taught in school, it is likely to be neglected by teachers. Preschool children are directly affected because they tend to forget a language as fast as they learn one (Harding & Riley, 1986). The role of the family in maintaining that language is vital for its survival. According to Genesee, Holobow, Lambert, and Chartrand (1989) and Cummins (1989), the loss of the first language is subtractive bilingualism which occurs when schools oppose teaching of children’s first languages. Cummins emphasized that the “reinforcement of children’s L1 [the nonschool language] through intensive bilingual programmes appears to lead to considerably better English skills than all English instruction” (p. 22). Although this interdependency might not be possible in all cases, verification to reinforce the negative influence of bilingualism to a preschooler’s cognitive development has not been imminent (Saunders, 1988).

Researchers concerned with the possibility of bilingualism have contended that lack of early instruction in children’s first language negatively affects their development in both languages and is consequently detrimental to their academic achievement (Cummins, 1979; Skutnubb-Kangas, 1979). Skutnubb-Kangas maintained that bilingualism has been sufficiently researched and has contended that L1 instruction will create educational and social equality. Faltis (1989) evaluated over 100 first and second graders on the outcome of the students’ transfer of their reading skills from their L1 to their L2 and its effect on reading achievement. The results indicated that the students
who were taught decoding skills in Spanish were able to transfer those skills while reading in English. In addition, the students who were able to transfer their skills were quite proficient in English.

One complexity with exclusive emphasis on teaching children two languages is its impracticality in many settings. Only a limited number of bilingual children attend schools in which both their languages are part of the official school curriculum. Sara was fortunate because the Islamic school she attended attempted to maintain her Arabic with their curriculum in language instruction and religious teachings.

It is unfortunate that many bilingual students are in situations where they are not able to receive instruction in two languages, and their first language may not be spoken by anyone else except their parents and immediate community. Although bilingual education is an ideal method of instruction, this case study and general observation of Sara’s language development did not demonstrate in any significant way that the limited instruction she received in Arabic at school or her continued use of Arabic impacted her educational development. To a certain extent, this might be because Sara did not dismiss speaking Arabic entirely, and she continues to understand it completely. As far as teaching bilingual students is concerned, the study of linguistic constraints provides the opportunity for a speaker to be considered dominant in one language over another. Furthermore, bilingual educators might benefit from the natural occurrence of code-switching in the speech of their students. The critical issue is for bilingual children to be exposed to as much of each language as possible and to have frequent opportunities to speak both. Sara was exposed to English by her caregiver and from the English-speaking
community and was supported at home by her parents in Arabic. However, the exposure
to Arabic that Sara received from her parents and consequently with the trip to Cairo,
without active instruction in the language, was not enough for Sara to excel in her
abilities to speak Arabic more fluently. Sara’s age and environment allowed her to
acquire English rapidly like other children whose first language was English. Thus,
through gradual exposure and active use proved to be the ideal method of acquisition.

This case study has educational implications for teachers of children who begin
school with the ability to code-switch. One of the implications is that children who code-
switch are not confusing two languages but are utilizing their linguistic aptitudes to
enhance their communication skills (Genesee, 1989). As indicated in this case study and
supported by Volterra and Taeschner (1978), preschool children have structural fluency
in code-switching between two languages.

Recommendation for Future Research

In addition to replicating this case study to validate or invalidate these results, three
concepts could be researched further. The first concept is pertinent to the deficient
association between topics of conversation and code-switching. Some topics are easier to
express in one language than another because bilingual children have learned to speak
about a certain topic in a particular language. More research studies are needed to prove
whether this is valid for all bilingual children. The second concept concerns how early
children can be exposed to two languages and show morphological and syntactic
functioning skills, as shown in Sara’s case at the age of four. Kwan-Terry (1992) and
Lanza (1992) demonstrated that two and three year old children were able to code-switch.
Further research to show how children code-switch at a younger age would be informative. The third concept is why intrasentential code-switching seems to be more dominant in children’s speech than intersentential code-switching. Myers-Scotton and Jake (1995) speculated that the constraints on intrasentential code-switching patterns rely on the both the matrix language and the embedded language. If the two languages occur within the same sentence, then “one of the languages sets the grammatical frame and is the ML, the other language is the EL (embedded language)” (p. 983).

Research on the concepts stated above is imperative in resolving some of the factors associated with Sara’s case study. This type of research would assist parents, educators, and linguists concerned with accurate age-appropriate depiction of children’s development in bilingualism in different environments.

Conclusions

Three major conclusions can be attained based on the observations made from this case study. The first is if a child is placed in an environment where a different language is spoken than in the home environment, the child will effectively learn the second language in a very short time period. Sara’s friends and peers both at her caregiver’s home and at school seemed to have contributed to her rapidly acquiring English. For a child of Sara’s age, it appears that learning a second language transpired without any problems just as acquiring a first language.

The second is with the rapid rate of acquiring a second language, code-switching occurs naturally, an intricate language skill that involves a reasonable amount of knowledge of both languages. Code-switching and bilingualism are two appropriate
language functions without any recognized negative effects on the linguistic development of children. After five years of exposure to English and Arabic, Sara continued to advance normally. Her emotional, social, and cognitive developments were not a concern for her parents, her teachers, or her friends and peers.

The third is the length of exposure to English. This is noteworthy because in Sara’s case, it was less than other earlier studies cited (see Discussion section). It is feasible that Sara’s age had an impact on the rate of her bilingual development. It is also possible that her linguistic environment, especially the support of her parents, who often code-switched while speaking to Sara and each other, assisted in developing both languages.

Finally, it is possible to conclude that code-switching by a five year old who had been exposed to English since she was eight months old was comparable to fluent adults who code-switched in terms of syntax and morphology. It is also accurate to surmise that code-switching is a bilingual developmental competence and the type of code-switching that occurred from intersentential in the early stages of bilingualism to intrasentential in the later stages (Poplack, 1980) is a natural process of language development. The generalizability of these conclusions would have to be tested further using similar data collected from other children.

To my knowledge, this is the first case study of Egyptian Arabic-English code-switching conducted on a child from age two to age five. It is also the first sociolinguistical and longitudinal study. The results of the study suggest some similar characteristics of Arabic-English code-switching. However, it is not my intention to state
that these results are conclusive of all Arabic-English code-switching. Without further investigation of the various Arabic dialects, it is not feasible to conclude whether these code-switches are also included in the lexicons of other Arabic-English bilinguals.
APPENDIX A – PRIOR TO TRIP TO CAIRO

CONVERSATION BETWEEN SARA AND MOTHER

Researcher (R): Bakulak aih.

(I want to tell you something.)

Sara (S): What?

R: Aih el-kelma el-intee lessa kulteha dee?

(What was the word you just said?)

S: What? What?

R: Ehna binkul aih bilarabi?

(What do we say in Arabic?)

S: What?

R: Ehna mabenkulsh el-kalma dee bilarabi.

(We do not say that word in Arabic.)

S: What? What?

R: Binkul “naam.”

(We say “yes.”)

S: What? [Sara laughs.]

R: Binkul nam alashan lama neshoof Taita Faw’iyya nukulaha naam ya Taita. Intee mish aatee tukuleely in intee aayza teruhy ala al-taira?

(We say “yes” so that when we see Grandmother Faw’iyya, we will say to her “yes” Grandmother. Did you tell me you wanted to go on the plane?)

S: Yeah. [Continues to laugh.]
R: Taib, intee mish kultee aayza turuhee ala al-taira? Taib ihna lama nuruh leTaita Faw’iyya ala alta'aira mish hankalam Arabi alashan heya mabtefhamsh Englizy?
(Okay, didn’t you tell me that you wanted to go on the plane? Okay, so when we go to Grandmother Faw’iyya on the plane, won’t we talk in Arabic because she doesn’t understand English?)

S: [She squeals making sounds.]

(Sara has a gift [talent]: you can speak two languages, right? And the people in Egypt don’t understand two languages. They only understand one, right? Leave this alone.)

S: What’s that?

R: Taaly hena, habka ahshoofu baadan. Bakulek aih, intee mish kultee aayza teshoofy Taita Faw’iyya, kultee ah wala laa?
(Come here, I’ll look at it later. Let me tell you something, didn’t you say you wanted to see Grandmother Faw’iyya, what do you say yes or no?)

S: Yeah.

R: Taib, taaly hena, walma teshoofy Taita Faw’iyya hatkulelha aih?
(Okay, come here, when you see Grandmother Faw’iyya, what are you go to say to her?)

S: What?

R: Ayy itnataty aalia wagaateny.
(Ouch, you jumped on me and hurt me.)

S: [Laughing]

R: Lama teshoofi Taita Fawyyia, hatkulilha aih?

(When you see Grandmother Fawyyia, what are you going to say to her?)

S: What?

R: La, mish hatkulilha what hatkulilaha aih?

(No, we are not going to say to her what. What are we going to say?)

S: Salam aleikom, Salam, [incomprehensible language, laughing]

(Peace be upon you, peace.)

R: Auly tany keda

(Say that again.)

S: [Incoherent language], Salam aleikom Salam

(Peace be upon you, peace.)

R: Hatkulilha keda wa heya maanaha aih? Maftekersh hatefhamik kuish. Ha hatkulilha aih? Hatkulilha aih?

(You are going to tell her that and what does this mean? I don’t think she’ll understand you very well. Come on, what are you going to tell her? What are you going to tell her?)

S: [Screaming]

R: Hatkhbateeny wahigelak awy.

(You are going to hit me, and you will get hurt.)
A CONVERSATION WITH SARA IN THE CAR

Researcher (R): Betbusie alaa ya aih ya Sara?

(What are you looking at Sara?)

Sara (S): Otta, balloona, tabla, wa bata.

(Cat, balloon, drum, and cat.)


(And what else? And a duck, there are a lot of things, and what are you going to do with them? The bus stopped; it stopped over there. I don’t know what the problem is. The bus usually [not audible]. It stopped over there, that one, the orange one. The one that takes the children to school. Most of the time it races me, and I have to stop behind it and wait until the children go, and most of the time the children are picked up in different places, right? Ahh, and today we were able to go before it. Today they say it will rain, but the weather looks good. Sura [Sara’s nickname] is a lot of clouds over there, but only there on the left side; do
you see it in front of us, it is a black color. Some of it is over the mountains. Do you know that for sure it is raining on the mountain; maybe it is raining because of the clouds over there on that mountain.)

S: I don’t see matar.

(I don’t see rain.)

R: `Andak hak maintee mish hatshoofy fee matar min hena da sahih bas `ala el-akal el-sehab mish katheer wa in el-shams tala` sah ya Sura? Sura, hatela`by maa meen fee el-madra el-naharda? Ahh Sara betfakar, betfakar, betfakar.

(You are right. You are not going to see the rain from here, that is correct, but at least the clouds aren’t too many and that the sun is out, right Sura? Sura who are you going to play with at school today sweetheart? Who, Tutu? Tuta, who are you going to play with at school today. Ahh Sara is thinking, thinking, thinking).

S: Walahad.

(Nobody.)


(Nobody, how come? Don’t you always play with someone? Who do you like to play with? With Marwa? No, then who? With who? I can’t hear you
sweetheart, come on cars, come on. Sara is singing? I don’t understand you.

Sura my sweety, you didn’t tell me who you want to play with at school. I can’t hear you, I can’t hear you at all. Sara who are you talking about? Sara doesn’t want to talk to her mother at all. Ah, kitty, you little kitty Sura.)

S: What?

R: Lama had bekulana hagga benkuluhum aih besout helw benkuluhum aih? Binoul aih? Mabenkulsh what, benoul aih?

(When someone says something, what do we say to them in a nice voice ha?, what do we say? What do we say? We don’t say what, what do we say, ha?)

S: Um, um, what?

R: La, hatkuly aih ligadatak Taita Faw’iyya lama tasalek ala` haga?

(No, what are you going to say to your grandmother Faw’iyya when she asks about something?)

S: Salam aleikom salam.

(Peace be upon you peace.)

R: La, mish bezapat ilaana kunt bafakar fee. Ana kunt bafakar fee haga zay aih, kunt bafakar fee.

(No, not exactly what I was thinking of. I was thinking of something like what, I was thinking of.)

S: Zay burtkany.

(Like orange.)

R: Aih?
(What?)

S: Zay burtkany.

(Like orange.)

R: Zay burtkany? Meen el-burtkany?

(Like orange? Who is orange?)

S: You

R: Ana el-burtkany?

(I’m orange?)

S: Yeah, Mama. I’m going to take this puzzle fee madrasa.

Yeah, Mama. I’m going to take this puzzle in school.)

R: Na`m, laih? Alashan tadeaa fee el-madrasa

(Yes, why? Because so it can be lost in school.)

S: Ha?

R: Alashan tadea` fee el-madrasa? Antum a`ndukum puzzles fee el-madrasa.

(So it can be lost in school? You have puzzles in school.)

S: I don’t like puzzles fee el-madrasa.

(I don’t like puzzles in the school.)

R: Mabthabeesh puzzles fee el-madra? Bas dee ahna oulna hanakhudha ma`na ala` el-taira, sah? Hanala`b beeha ala` el-taira. Mish kulna hanala`b beeha ala` el-taira ya Sura? Taib akulek haga takhdeha ma`ky wa traga`eha ma`ky ba`d el-duhur. Khallasas, a`lashan ihna inshallah nakhuda al-taira bukra el-subh rabena
yesahel. Wa hattlek aih tany fee el-shanta betahtek. Ahutalek el-’aroosa bilheedoom betahetha wala aih?

(You don’t like the puzzles in school? But this one we were going to take it with us on the plane, right? We are going to play with it on the plane. Didn’t we say we were going to play with it on the plane, Sura? Alright I will tell you something, you can take it with you and return it with you in the afternoon. Okay, so that we can take it with us on the plane tomorrow morning God willing. What else should I put for you in your bag? Should I put your doll with her clothes, or not?)

S: La’

(No)

R: Umal aih? Umah ihna ishtarana el-’aroosa leh?

(Or what? So why did we buy the doll then?)

S: I’m going to leave it for bait.

(I’m going to leave it for home.)

R: Umah ihna ishtarana leh?

(So why did we buy her.)

S: I’m going to play with it after I go madrasa.

(I’m going to play with it after I go school).

R: Ahh, lama taga’ee b’ad el-duhur hatel’abee beeha. Ahh ulteely taib. Taib ’aiza taghdy eh tany ma’aky ’alaa el-taira?
(Ahh, when you come back in the afternoon you’ll play with it. Ahh, now you’ve
told me. Okay so what else do you want to take with you on the airplane.)

S:  Uhm, uhm.

R:  Takhdy aih tany?

(What else do you want to take?)

S:  Hedoom

(Clothes)

R:  Na’am, hedoom leeky intee ya’nee? Okay, mashee ‘alsahan law hasal haga tab’e
’andak hedoom. Aih tany? Aih hagaat el-la’ab el-intee ‘ayza taghdeha ma’aky
’ala el-tayyara.

(Yes, clothes for you? Okay, alright because if something happens so that you
will have clothes. OK, what else? What toys do you want to take with us on the
plane?)

S:  Umm, from my uda’.

(Umm, from my room.)

R:  Aalek ana wakhda aih, wa intee tualy intee ‘aiza takhdee aih tany? Khat ma’aea,
ah, ana khat aih?

(I’ll tell you what I do with me, and you tell me what else you want me to take? I
took with me, I took what?)

S:  Ahda, ahh zay aih? Book

(What? Yeah like what? Book?)
R: Kitab, ana hattelek fil shantah kitab bil-inglizy wa kitab bil-`araby hahutalk itnan wa hahutalk alwan wa kitab el-rasm bet`ak wa hahutalk el-wageb bet`ak `alashan na`amalu fee el-tayyara. Wa hahutalk aih fakery ma`aea wa ahut a tany la Sara? Ahh, intee khallas `amalty Dora, khallasnaha, taib yab`a `andana aih tany? `Andanah alwan mukhtalefah telwany hasab intee aiza telwany beah, sah?

(Book, I put in the bag a book in English and a book in Arabic. I will put two books, and I’m going to put your markers and your art book, and I’m going to put your homework so we can do it on the plane. And I’ll put what else, think with me, what else will I put for you Sara? Ahh, you are finished with Dora, you finished it, Okay so now what else do we have? We have different colors so you can color with what you like, right?)

S: With you.

R: Alwan ma`aky?

(I color with you?)

S: [Incomprehensible speech]

R: Na`am, betuly aih ya Sara? Ahh ana `arfah.

(Yes, what are you saying Sara? Yes, I know.)

S: Puzzle

R: Ahh Sahih ihna khadna el-puzzle ma`ana. Intee raiha feen? Mish shayfany intee? Taib istanee lama `adee wabeky e`amaly el-intee `ayzah, taib yalla. El-sahab khamek awee henak, aih ya sukur?
(Oh, right we already took the puzzle with us. Where are you going? You can’t see me? Okay, so wait until I cross and then you can do what you want, okay come on. The clouds are really dark over there, right sugar?)

S: What?

R: Shakla ha henak betmatar.

(It looks like it is running over there.)

S: Mama

(Mom)

R: Na’am, habib Mama.

(Yes, my love Mom.)

S: Are we going to madrasa?

(Are we going to school?)
APPENDIX B - TRIP TO CAIRO

A CONVERSATION BETWEEN SARA AND PATERNAL GRADMOTHER

Grandmother (GM): Yallah ya Sara, yallah ully lilmi`za “ana bakul ahu.”

(Come on Sara, Come say to the goat “I am eating.”)

Sara (S): You want to `aroosa.

(You want to doll.)

GM: Ana bakul ya mi`za.

(I’m eating goat.)

S: Mi`za khudee.

(Goat take this.)

GM: Khudee yallah fee bu’ek, hia betabla`a besura`a. Hia ya mi`za ha, hia khallassat el-tabak kuluh ya mi`za al’ashan tu`uad fil shebak. Ulilha “ana khallassat kuluh.”

(Come on, here take this in your mouth, she is swallowing fast. She is goat, huh, she finished all of her plate goat because she wants to sit in the window. Tell her “I finished all of it.”)

S: Ana khallassat kuluh. You want `aroosa?

(I finish it all. You want doll?)

GM: Ana kalt kuluh.

(I finished all of it.)

S: Ana kalt kuluh.

(I finished all of it.)
   ‘Ulee “hatee bentek el-sughera.”
   (She ate all of it. Tell her does she want the doll? Tell her to bring her small
daughter. Tell her to bring her small daughter.)
S: Haty bentek sugher.
   (Bring your small daughter.)
GM: Humma
   (Them)
S: And walad sagheer like mi’za.
   (And small boy like goat.)
GM: ‘Uliilha “ana babla’a besura’a.”
   (Tell her “I swallow fast.”)
S: Ana abla’a besura’a.
   (I eat fast.)
GM: Ana akalt el-ruz kulu. Ana akalt el-ruz kulu.
   (I ate all the rice. I ate all the rice.)
S: Okay, miah.
   (Okay, water.)
   (One sip only, just a tiny bit, that is it. She don’t make a sound Sara when she are
drinking. Yes, that is it.)
S: Khulus
(Finished)

GM: Khallas shatra, yalla kalmy el-mi’za baka. Ulillha “ana kalt kuluh” baka yalla.
(Finished good girl, come on talk to the goat. Tell her “I finished all of it” come on.)

S: Mi’za
(Goat)

GM: Yalla, indahee.
(Come on, call.)

S: Okay, mi’za want `uta?
(Okay, goat want cat?)

GM: Taib indahee `alaha wa kalmeeha baka yallah.
(Okay, call her and talk to her, come on.)

S: Okay

GM: Khalmeeha
(Talk to her.)

S: `Uta hena, `Uta hena, okay you want `uta and `aroosa? Khudee `aroosa, Okay you want dee and `uta.
(Cat here, cat here. Okay you want cat and doll? Take doll, okay you want this and cat.)

GM: Yallah kalmeeha, Indahee a’laha. Indahee `ulillha ya Tant Sabah haty el-mi’za.
Yalla indahee. Indahee yalla haty el-mi’za ya Tant Sabah.
(Come on, talk to her, call her. Call her, tell her “Aunt Sabah [person’s name] bring out the goat.” Come on call her. Call her, bring out the goat Aunt Sabah.)

S: Tant Sabah nayma.

(Aunt Sabah is asleep.)

GM: La`, mish nayma, `ulliha “hatee el-mi`za.”

(No, she isn’t asleep, tell her “bring the goat.”)

S: Tant Sabah

(Aunt Sabah)

GM: Hatee el-mi`za.

(Bring the goat.)

S: Tant Sabah, hatee el-mi`za.

(Aunt Sabah, bring the goat.)

GM: Ya Samrah hatee el-batta.

(Samrah [name of a girl] bring the duck.)

S: Tant Samrah hatee el-batta.

(Aunt Samrah bring the duck.)

GM: Intee bethaby Tant Samrah?

(Do you like Aunt Samrah?)

S: Hmm

GM: Ulilha “ana bahabak ya Tant Samrah.” Yalla bahabek awee ya Tant Samrah.

Ulilha Ana akalt el-ruz kul. Yalla ulilha kuhl kuhl.
Tell her “I like you Aunt Samrah” Come on I like you Aunt Samrah. Tell her “I ate all of my rice. All of it.”

S: El-mi’za gat.
(The goat came.)

(The goat came. Come on, get down and play with her. She’s over there, she’s over there. Call her.)

S: Mi’za you want.
(Goat you want.)

(Come on, no, talk to her in Arabic because she only knows Arabic.)

S: Mi’za
(Goat)

GM: Uliha “ta’aly ya Mi’za.”
(Tell her “Goat come.”)

S: Ta’aly m’za.
(Goat come.)

GM: Ta’aly intee ’and Sara.
(Come here to Sara.)

S: Intee, intee for Sara, Okay.
(You, you for Sara, Okay.)

GM: Ta’aly Taita ta’akelk.
(Come, Grandmother wants to feed you.)

S: Za`alanah, you?
(You are sad?)

GM: Za`alanah, no, mat`abtesh hanetkalm, hanetkalm khallas. Ulilha “ta`aly Taita 
ta`aklek ruzz.
(Sad, no, I’m not tired, we will talk. We will talk Okay. Tell her “come, 
grandmother will feed you rice.)

S: Ta`aly, Taita who akelee.
(Come, Grandmother who feed.)

GM: Ulilha, Ta`aly Teta ta`aklek ruz.
(Tell her “Grandmother will feed you rice.)

S: You want to Akul ruz ba`ad shuwyya?
(You want to eat rice after a while?)

GM: Ta`akelek fuul.
(Feed you beans.)

S: Fuul, fuul?
(Beans, beans?)

GM: Ta`akelek Fatta?? Taita ta`akelek fatta? Ahh, fatta 
(I’ll feed you rice and bread? Grandmother will feed you rice and bread? Yes, 
rice and bread.)

S: Ta`aly mi`iza nooty.
(Come goat jump.)
GM: Ulilha “ageblek batekh”?  
(Tell her “Should I bring you watermelon?”)

S: Batekh, Yeah her want batekh.  
(Watermelon, yeah her want watermelon.)

GM: Ulilha “agbelak `aish?”  
Tell her “should I get you bread?”

S: You want `aish with batekh? Mi`za want `aish with batekh. Okay yakul hussan.)  
(You want bread with watermelon? Goat want bread with watermelon, Okay horse eats.) [Making sounds of horses neighing.]

GM: Yalla ta`aly neghsel bu`ana baka matrah maklna mashee? Yalla hatee el-`aroosa.  
Seeby el-`aroosa hena `abel mategee.  
(Come on wash your mouth after eating, Okay? Come on bring your doll. Leave the doll her before you come.)

S: No.

GM: Asheel ba`a el-kursee wala hatafy tany?  
(Should I remove the chair or are you going to stand again?)

S: I’m going to uaaf tany.  
(I’m going to stand again.)

GM: Taib, hatafy tany, ikhsely bu`ek. Waba`aden `aiza hatuafy tany limi`za, ta`aly, ta`aly, feeha aih? Feeha aih?  
(Okay, you are going stand again, then wash your mouth. And then you are going to stand, come on, come on, what is there? What is there?)
S: Husasn.
Horse

GM: Batnek feeha aih ya Sara? Batnek feeha aih?
(What do your stomach have in it Sara? What does your stomach have?)

S: Umm

GM: Batnek feeha aih?
(What does your stomach have in it?)

S: Ruzz
(Rice)

GM: Fasulia wa farakh, yalla hatu`afy fil shebak wa hatkushy?
(Green beans and chicken, come on are you going to stand in the window or come inside?)

S: I go aa`f fee shebak.
(I go stand in window.)

GM: Taib, seebee guwa el-`aroosa lahsan tua`a minak taaht, mashee? Sebeeha hena ba`a alashan matu`ash taahat. Yalla indahee `ala el-mi`za `alashan tegeelek.
(Okay, leave inside the doll so that it doesn’t fall downstairs, okay? Leave it here so that it doesn’t fall downstairs. Come on call the goat so that it comes to you.)

S: Mi`za, mi`za.
(Goat, Goat.)

GM: Ta`aly `alashan Taita hatza`alik.
(Come on because Grandmother will shout at her.)
S: I’m going to ask Tant Sabah.

(I’m going to ask Aunt Sabah.)

GM: Indahee ‘alaha wa hia teghalek. Indahee ‘alaha.

(Call her and she’ll bring her to you. Call her.)

S: Tant Sabah.

(Aunt Sabah)

GM: Ahh, indahee ‘alaha.

(Yes, call her.)

S: Tant Sabah

(Aunt Sabah)

GM: Hatee el-mi`za.

(Bring the goat.)

S: Tant Sabah hatee mi`za. Tant Sabah hatee mi`za. Taita meen? Taita meen?

Taita.

(Aunt Sabah bring goat. Aunt Sabah bring goat. Who Grandmother? Who Grandmother?)

GM: Beta`a meen?

(Whose is it?)
CONVERSATION WITH MOTHER AND FATHER AT GRANDMOTHER’S HOUSE

Sara (S): Aduwyah, Mama you take aduwyah?
(Medicine, Mama you take medicine?)

Randa (R): ‘Aiza ta`amely aih?
(What do you want to do?)

S: Amsek aduwyah.
(I want to hold the medicine.)

R: ‘Aiza temseekee el-aduwyah?
(You want to hold the medicine?)

S: Ahh
(Yes)

R: Taib, istanee hagebhalek.
(OK, wait I’ll bring it for you)

Ahmed (A): Burta`an
(Orange)

S: Burta`ana
(Orange)

R: Burta`ana
(Orange)

A: ‘Aiza burta`an?
(You want orange?)

S: La’
R: Ba`ad el-shay, hatemskee kaam wahid? `Aiza temsakee kaam wahid?
Ulee `aiza tamsakee kam wahid, wahid bas? `Aiza temsakee kaam wahid?
(After the tea, how many are you going to hold? How many do you want
to hold? Tell me how many you want to hold, one only? How many do
you want to hold?)

S: Umm, hena, hena.
(Umm, here, here.)

R: Hena wa hena, taib. Ahu wahid.
(Here and here, okay. Here is one.)

A: `ady ma`aha.
(Count with her.)

R: Waady akheir wahid ahu. `Ady dul kam.
(And this is the last one here. Count how many those are.)

S: Okay, umm, wahid, itnain, talata, arba`a.
(Okay, umm, one, two, three, four.)

Grandfather (GF): Shatoura, Shatoura
(Good job, good job- no direct translation available)

R: Idnee wahid, wahid `alashan akhudhum.
(Give me one, one so that I can take it.)

S: Khudy
(Take it)
R: Shukrun, khudy, shukrun.
(Thank you, take it, thank you.)

S: Wahid, itnain, talata.
(One, two, three.)

GF: Shatra, Shatra
(no direct translation available - Good job, Good job)

S: Wahid, itnain, okay.
(One, two, okay.)

A: `Antak kaam sanna delwa’ty?
(How old are you now?)

S: Wahid, itnain, talata, arba`a.
(One, two, three, four)

A: Kaam doul? Arba`a seneen?
(How many are those? Four years?)

S: Umm

GF: Abuukey ismuh aih?
(What is your father’s name?)

S: Umm

GF: Abuukey ismuh aih?
(What is your father’s name?)

S: Ahmed

GF: Ahmed
R: Shatra

(Good job – no direct translation available)

GF: Ahmed aih?

(Ahmed what?)

S: Ahmed Hasan [American pronunciation of Hasan]

GF: Hmm

R: Ismuh Hasan, Hasan [pronouncing it in Arabic correctly]

(His name is Hasan, Hasan)

S: Hasan, Hasan

R: Mish Hassaan, Hasan. Idenee akheir wahid, yalla.

(Not Hassaan, Hasan. Give me the last one, come on.)

GF: Mama ismaha aih? Mama ismaha aih?

(Mom’s name is what? Mom’s name is what?)

S: Randa

GM: `Alemaha tuul Ahmed Ali

(Teach her to say Ahmed Ali.)

GF: Ahmed Ali

GM: Mata`alimhash ism Abuuk `alaa tuul keda.

(Teach her your father’s name straight away.)

A: Muguud dayman `andy middle name.

(I always have a middle name.)

GM: Laa, khallate, ma`alashy hia tetla`a teb`a fahma.
(No, wrong, but she needs to grow up understanding)

GF: Hia

(She)


(Wait Ali, but she needs to know that over there they said that. But she will grows up knowing the difference. Ahh Sara Ahmed Ali, not Hasan.)

A: Dee ismaha Taita aih?

(This is grandmother’s name is what?)

GM: Tatla`a ism gedaha aih?

A: Ismaha Taita aih? Ismaha Taita aih?

(What is grandmother’s name? What is grandmother’s name?)

S: Taita Suad

(Grandmother Suad)

A: Wa dah ismuh gedo aih?

(And his name is grandfather what?)

S: Gedo, Gedo Taita

(Grandfather, Grandfather Grandmother)

A: Gedo ismuh gedo aih?

(Grandfather’s name is gradfather what?)

S: Gedo Adel

(Grandfather Adel)
A: Dah ismuh gedo aih?

(What is grandfather’s name?)

S: Gedo Hasan

(Grandfather Hasan)

GM: Bethaby Tat? Bethaby Taita Faw’iyya ad aih?

(How much do you love Grandmother? How much do you love Grandmother Faw’iyya?)

S: [Motioning with her hands]

GM: Bas keda, bas keda. Taib mish ’amlek akel ba’a.

(Only that, only that. Okay I’m not going to make you any food.)

R: Bethaby Taita wahid bas, mish ma’akul.

(You love Grandmother only one, impossible.)

S: Dah

(This)

GM: Dah

(This)

S: Dah

(This)

GM: Dah, mashy keda ma‘aul.

(This, okay that is more reasonable.)

GF: Zaudy, zaudy ba’aet khamsah delwaeti.

(Add, add now it is five.)
GM: Ma`aul
(Better)
S: Wahid, itnein, talata, arba`a, khamsa.
(One, two, three, four, five.)
R: Anhee wahid beta`ay?
(Which one is mine?)
GM: El-filnus dee betahtek intee.
(The one in the middle is yours.)
R: Dee betahty ana?
(This is mine?)
GM: Ahh
(Yes)
R: Shukrun, ahh da ana kunt guybalik el-beta`adah el-shay bas akeed el-nas hatkuun
`aiza teshrab minuh el-shay `andahom.
(Thank you, yes, this I brought you for the tea, but I think people will want to
drink the tea at their place.)
S: Sukhnah? Sukhnah?
(Hot? Hot?)
A: Ahh ya Sara, u`ady.
(Yes, Sara, sit.)
S: Intee kunfasa.
(You are a skunk.)
A: Intee kalbah.
    (You are a dog.)

R: Inta haTaital’aly dah ala’a el-shereet?
    (You are going to have that be on the tape?)

S: Intee baga’a.
    (You are a swan.)

A: Intee otta.
    (You are a cat.)

S: Intee kunfasha.
    (You are a skunk.)

A: Intee kalbah.
    (You are a dog.)

S: Intee, intee.
    (You are, you are.)

A: I said that.

S: Intee ’asfoora.
    (You are a bird.)

A: (Intee babaghan.)
    (You are a parrot)

S: Intee ’asfoora.
    (You are a bird.)

A: You said that.
GM: Belhak matakulsh baid?

(Does she not eat eggs?)

S: [Singing not audible]

GM: Mabetakulsh samak khalis el-bent dee? Khalis?

(She doesn’t eat fish at all this girl? At all?)

A: Ahh

(Yes)

R: Habibat umahah dee, habibat umaha [laughing]

(She’s her mother’s love, she’s her mother’s love, laughing.)


(I told her okay try a little piece. Taste and see what you think? Bad, bad, bad.)

A: Leh dee sa`at betakul gambary.

(Why, she sometimes eats shrimp.)

R: Sa`at takul gambary ma`ah, sah?

(Sometimes she eats shrimp with him, right?)

GF: Gambary min gheir el-samak.

(Shrimp without the fish.)

A: Mish intee betakly gambary ya Sara?

Don’t you eat shrimp, Sara?

S: La’, la’

(No, no)

A: Betakly gambary?
(Do you eat shrimp?)

S: La’

(No)

GF: Mabetakleesh gambary?

(You don’t eat shrimp?)

R: La’, mabakulsh ay haga tegy min el-bahr.

(No, I don’t eat anything that comes from the ocean.)

GF: Leh?

(Why?)

R: Mabhabahash.

(I don’t like it)

A: Betakly huut [speaking to Sara]

(Do you eat whale?)

S: La’

(No)

GF: Nafesy tagaraby. Balash el-samak, kully gambary helu ’auy.

(I wish you would try. Don’t eat fish, try the shrimp it is very good.)

A: Takly, takly.

(You want to eat, you want to eat.)

R: Ahuan ali’a in akul samak ‘an gambary.

(I would prefer to eat fish than shrimp.)

S: Mama, yalla, yalla, yalla, yalla.
(Mom, come on, come on, come on, come on.)

A: Betedraby Baba leh?

(Why are you hitting daddy?)

S: Because you stink.

A: Hatetargemy?

(Are you going to translate?)

R: It is already there, it is already translated, it doesn’t need to be translated.

A: Ana stink?

(I stink)

R: Matensaash inta terud ’alaha beh?

(Don’t forget how to answer her with what?)

A: Ana stink, imshee, ayy, bint, bint.

(I stink, go away, ouch, girl, girl.)

S: [Laughing]

A: Khunfasa

(Skunk)

S: Khunfasa, inta

(Skunk, you)

A: Ar’aa

(Bald)

S: Ar’aa inta.

(Bald, you.)
R: Mumkin teseeb y dah mish la’aba.
(Could you leave this alone, it isn’t a toy.)

S: Aih? Aih?
(What, what? - Jumping, wanting to be carried)

R: El-gara el-taaht dee akeed bethebak awy.
(The neighbor downstairs probably loves you.)

S: Ha
(What?)

R: Gartukum el-taaht akeed bethabek awy, mish kedah?
(Your neighbor downstairs probably loves you, don’t you think?)

S: [Continues jumping]

A: Bas, bas.
(Stop, stop.)

GM: Wahia nazla min fouk. Wahia nalza, itla’ay khabaty `alaha, tetla` tekhabat `alaha, tulaha “fee telephon.”
(When she is going downstairs. When she is going, go knock on her door, she goes upstairs and knocks and says to her, “There is a phone call.”)

R: El-nas el-fuekom?
(The people upstairs?)

(She knows how to knock, and she knows Nadia upstairs. Open up Nuha [name])

R: Nuha [Name of a neighbor]
GM: Ya Nuha

Nuha [calling the neighbors name]

S: Ya Nuha [imitating grandmother]

GM: Watuaf “iziak ya Tant Samrah? Iziak ya Tant Sabah? Hatee el-mi`za”.

(And she stands, “how are you Aunt Samrah? How are you Aunt Sabah? Bring the goat.)

R: Akhbar Nuha aih?

(How is Nuha?)

S: Hey what you do?

GM: Beulu inaha italaet.

(They say she got divorced.)

S: 1 and 2, and 1 and 2, upah

R: Baulik aih, la` matitla’esh `alaa ghedo, la’

(Let me tell you, no don’t climb on top of your grandfather, no.)

A: Yalla ighazoo. Intee lesa betshraby el-shay?

(Come on get ready. You are still drinking the tea?)

R: `Andek tukah lunha bamba temshy ma`a el-fustan beta`ha badel mahutelha tukah banfsegy?

(Do you have pink ribbon to go along with her dress instead of her wearing a purple ribbon.)

GM: Ashoof.

(I’ll see.)
R: Ta`aly hena, ta`aly hena, ta`aly ua`afy hena, ta`aly ana `aiza astelfhum menk `alaa el-`aumum. Au`ady, shukrun.

(Come here, come here, come and stand here, come I want to borrow these from you. Sit, thank you.)

S: Mama, I’m going to take these.

GM: Dah lu ana makuntesh mahfthah `alaa el-kees dah, kan zamanuh maeba`sh fee wa tukah fee el-bait.

(If I had taken care of these in the purse, there wouldn’t be any ribbons in the house.)

S: Dah beta`a ana, beta`a ana, ana, dah ana.

(This is mine, that is mine, me, this me)

GM: Belhak ya Randa, ana `ayzaki el-`aroosa dee marah tekuny hena wa masheah, takhedeha wa tahmehalha wa ta`amaly sha`araha belistshwar.

(By the way Randa, I want to take this doll once when you are leaving, take her and give her a bath and dry her hair with a blowdryer.).

R: Taib ideeny el-`aroosa el-nahrda wa ihna tahmeha bukra inshallah.

(Fine, give me the doll and tomorrow he will give her a bath god willing.)

GM: Ibarah sheltaha beleyl. Nakashet sha`araha, nakashetu kulh, taib haty `alashan Mama teshoof sha`araha wa teshed wa ta`ta`a fee wa teshed wa ta`ta`a fee.

(Yesterday, I put her away. She destroyed her name, destroyed all of it, fine give it to me so I can show it to your mother. She destroyed it and she would pull it and pull it.)
R: El-kees da haeta’a ikhtar min keda.
(That purse is going to rip that way.)

GM: Maskaha el-arnah bardooh el-naharda min el-gazara guah udamuh dee
wa`amalaha teshed feeh wa temsek regluh kedah wa ta`amel be`aunf kedah.
(She held the rabbit today and she also held him from the carrot in front and she
kept pulling and held it from its leg and pulled on it violently.)

R: La’, la’, la’, la’

A: Intee, intee beta`ameleh fee el-`aroosa kedah leh?
(You, you why are you doing that to the doll?)

S: Give me tukah.
(Give me ribbon.)

R: Taib mumkin testany lahd matal’a bakeet el-tuak? Eh dah?
(Okay, can you wait until I take out all the ribbons? What is that?)

A: Irmee ba’a ya Faw’iyya.
(Throw it away Faw’iyya.)

GM: Setta wa`ashreen senna mahfetha `alaa el-`aroosa dee.
(Twenty-six years and I’ve been taking care of this doll.)

R: Setta wa`ashreen senna?
(Twenty-six years?)

GM: Setta wa`ashreen senna.
(Twenty-six years.)

R: el-`aroosa dee?
(This doll?)

GM:  Beto`a Amany.

(It was Amany’s - daughters name)

R:  Beta`at Amany.

(It was Amany’s.)

GM:  Ult adeehom le Sara.

(I thought to give them to Sara.)

A:  Dee mafroud tekoon collectible.

(This should be a collectible.)

GM:  Setta wa`ashreen senna, shufy ba’a, bethafeth `alehom. Da ina el-labstaha dee
imbareh wa la`abtaha wa bahadeletha.

(Twenty-six years, look at it, she took care of them. Yesterday I dressed her and I
played with her and she destroyed it.)

S:  [Squeaking and laughing]

R:  Bahdeletha?

(She destroyed her?)

GM:  Ruht mazralilha dah, taib haty nuhutaha `alaa el-dulaab. Utelha haram `alaky.
Sebeeha Mama ta`amalaha sha`araha.

(I closed the buttons, told her let us put her on the closet. I told her don’t do that
and leave her alone. Your mother will do her hair.)

A:  Ana `andee bent damawia awaye fee el-moudo`a dah.

(I have a destroyer for a daughter on this topic.)
GM: Naeltha beneela wa buazet `anaha wakhala`atha wa`amlaha bel-alam bes el-alam
dahu beta`a el-alam el-sham`a.

(She completely destroyed her and pulled her and marked her with a pen, that
kind of crayon.)

[Conversation interrupted by home and cell phone]
RANDA AND SARA DURING BREAKFAST AT THE CONRAD HOTEL


(You hungry? What would you like to eat? Do you want to eat something in particular? What? You are eating sugar? So if you are not hungry why are you eating sugar? You are making just a mess, that’s all.)

S: Ahh.

(Yes.)


(Yes, okay, here is your tea so that you can put sugar. Do you want me to put milk? Do you want me to put milk? Take your finger out of your mouth.)

S: Ana.

(Me.)


(You want to put the milk? Me, here take it. Hold it good so that it doesn’t spill. Wait I’ll put it on the table, here, come on sweetheart. Bravo, you did a good job.)
That is enough. Now put the sugar. I will take some so that I. Yes put some sugar. How many spoons are you going to put?)

S: Innaain.

(Two.)

R: Innaain, kuwayas alebee ba’a.

(Two, good now stir.)

S: Okay, ana khallast.

(Okay, I’m finished.)


(Okay, go ahead drink. Don’t play. Can you hold the cup? Could I help you drink? Help you drink? Good, drink the orange. Is the orange good? Can I help you hold the cup? No that is not put in the sugar container. What is that? You are completely soaked my daughter. Could I help you hold the cup, the tea cup? Go ahead drink. Drink them both. Good job.)

S: Mama

(Mom)

R: Na’am

(Yes)
S: Bas hena.

(Only here.)

R: Bas aih?

(Only this?)

S: Bas hena.

(Only here.)

R: La, el-tabā’ ba’ malyaan mayya.

(No, the plate is full of water.)

S: No, shay.

(No, tea.)


(It is full of tea, right, let me ask you this, can you put two spoons of sugar here? Stop eating sugar, it is bad for your teeth. Put two spoons here please. Hold this, put two spoons of sugar because you put sugar really well. Come on, yes, one, two, come on three. Good job, that is enough. Come on stir, stir slowly, so that it doesn’t spill, slow, slow, yes, thank you, thank you Sura.)

S: Ahh, Taita betuul bu’ wahid.
(Yes, Grandmother says only one mouthful.)

R: Taita bet’ul bu’ wahid leh?

(Grandmother says only one mouthful why?)

S: Because

R: `Alashan `ayzakee taklee kawayas eh, leh, because.

(Because she wants you to eat good, what, why, because.)

S: La’

(No)

R: Eh? La’.

(What? No.)

S: Ahh, ahh.

(Yes, Yes.)

R: Taita shatra. Taita `ayza Sura takul kuwyas badal ma Sura bet’ud tesif fee el-sukar, mish keda?

(Grandmother is smart. Grandmother wants Sura to eat instead of Sura sits and eat the sugar, right?)

S: Intee istahmee fee el-banyo, ana istahma fee el-banyo.

(You take a bath in the bathtub, I take bath in the bathtub.)

R: Hadir

(Fine)

S: Mama

(Mom)
R: Naam
   (Yes)
S: I don’t want this anymore.
R: Mish 'ayza el-shay?
   (You don’t want any more tea?)
S: Okay, ana khalst.
   (Okay, I’m finished.)
R: Khalstee akl? Taib tehbee teshrabee shuwyat 'aseer burtaan?
   (You finished eating? Okay do you want to drink some orange juice?)
S: La'
   (No)
R: Beshwash 'alashan maydel'sh. Hutee el-kubaya udamik, hutee el-kubaya udamik.
   (Slowly so that it doesn’t spill. Put the cup in front of you, put the cup in front of you.)
S: Khalsit.
   (Finished.)
R: Intee rayha feen delwa’t?
   (Where are you going now?)
S: Ana hena.
   (I am here.)
R: Ba’ulik aih ta’aly. U’adee ’alaa el-kursee 'ayza aklemik fee hagaa, ta’aly.
(Let me tell you something, come on. Sit here on the chair, I want to tell you something, come on.)

S: Aih, aih Mama?

(What, what Mom?)

R: Intee bethaby el-ward?

(Do you like flowers?)

S: Hmm

R: Bethaby el-ward?

(You like flowers?)

S: Hmm

R: El-nahrda el-subhyaa ba’d manestahama nuruh ana wa intee nenaee ward letaita.

(Today, this morning after we take a bath we’re going me and you to pick flowers for your grandmother.)

S: Taita?

(Grandmother?)

R: Ahh

(Yes)

S: Feen?

(Where?)

R: Feen? `And el-ragel bet’a el-ward, `and el-mahel el-ward.

(Where? At the man who sells flowers, at the flower store.)

S: Beta` el-ward?
(The flower guy?)

R: Ahh
(Yes)

S: Feen mahel ward?
(Where is flower shop?)

R: Feen el-mahel beta` el-ward?
(Where is the flower shop?)

S: Ahh
(Yes)

R: Taht fee el-shar`a.
(Down in the street.)

S: Fee el-shar`a?
(In the street?)

R: Ahh, ihna nakhud el-`Arabia, nakhud el-taxi nuruh eh lil-mahel beta` el-ward wa negeeb ward. Tahabee intee tegbelha alwaan eh? Ana bas’alik `alashan `ayzakee intee el-tena’e el-ward. Tahabee tegbelha alwaan eh ba”?
(Yes, we will take the car, we take the taxi and go to the flower shop and get flowers. What colors what you like to get? I am asking you so because I want you to pick out the flowers. What colors do you want to get now?)

S: Bamba
(Pink)

R: Bamba wa eh tany?
(Pink and what else?)

S: Wa banefesgy, iswid.

(And purple, black.)

R: Iswid? La’ mafeesh ward lunuh iswid ya Sara. Intee ‘ultee bamba wa ahmar, wa banefesgy.

(Black? No, there are no flowers colored black, Sara. You said pink and red, and purple.)

S: How about asfar?

(How about yellow?)

R: Asfar helu.

(Yellow is pretty.)

S: Okay, last one.

R: Haga Tania? Gheir el-asfar?

(Something else? Something beside the yellow?)

S: Banafesgy tania.

(Another purple.)

R: Na’melha tashkeela bel-banafesgy kateer, ahh?

(We will make a mix with a lot of purple, yes?)

S: Ahh

(Yes)

R: Taib tahebee ward sukheir walla kebeer? Tahebee ward sukheir walla kebeer? Kebeer?
(Okay, do you want small or large flowers? Do you want small or large flowers? Large?)

S: No, sughanana, wahda, wahda kebeer for Taita, wahda for da ana, da ana sughanana, da ana, da ana.

(No, small, one, one large for Grandmother, one for me, for me small, for me, for me.)

R: Intee `ayza warda intee kaman?

(You want a flower you too?)

S: The otta take my warda.

(The cat take my flower).

R: Meen?

(Who?)

S: Otta

(Cat)

R: Da imta el-kalam dah? Imta da hasil?

(When did this happen? When did it happen?)

S: El-sa`a setta.

(Six o’clock.)

R: El-sa`a setta? El-sa`a setta imbareh.

(Six o’clock? Six o’clock yesterday.)

S: Ahh

(Yes)
R: Walla el-nahrda?
   (Or was it today?)

S: Imbareh
   (Yesterday)

R: Imbarek khadet el-warda betahtek el-otta?
   (Yesterday the cat she took your flower?)

S: It was going kebeera kabeera ad keda hu.
   (It was going very very big this much.)

R: Ad keda hu?
   (This much?)

S: I mean, I mean, warda luan zay da, zay dee.
   (I mean, I mean, flower color like this, like this.)

R: Lunha zay dee? Lunha eh zay dee?
   (Luwan like what? What color is that?)

S: Luan ahmar, ahmar.
   (Color red, red.)

R: Ahmar? Hiya heluwa.
   (Red? That is nice.)

S: Ahh, ahmar and bamba and asfar and banefesgy and banefesgy. Itnain, talata, arba’a, khamsa, setta, sab’a.
   (Yes, red, and pink and yellow and purple and purple. Two, three, four, five, six, seven, ladies).
R: Aih?

(What?)

S: Ladies

R: La’ La’ khabatee keda mish hasma’ek lema akilmik. Ta’arafee da ismu aih? Da ismu aih ta’arafee el-batraman el-sugheir da? Ismu aih ta’arfee?

(No, No, don’t hit the table I won’t be able to talk to you. Do you know what this is? Do you know what is in this small jar?)

S: [Inaudible]

R: La’, ihna binikalma `ala aih abl keda. Ulna eh? El-Nahl beruh beshem el-ward sah? Wa bemus haga min el-warda wa ba’deen beruuh beituh wa yeruuh ’amel da. Fakra da ismu eh?

(No, what are we talking about before. What did we say? The bee goes and smells the flower, right? And it takes something from the flower and then it goes to its house and then it goes to make this. Do you remember what this is called?)

S: [Incomprehensible]

R: Aih?

(What?)

S: [Incomprehensible]

R: Mish fahma ya habibi el-kelma dee.

(I don’t understand this word sweetheart.)

S: khalil, incomprehensible words.

R: Khalil, ya’anee eh khalil?
(Khalil, what does khalil mean?)

S: Selil

R: Kelma mish ma`aroofa. Busee da ismu `asal.

(That word is not known. Look this is called honey.)

S: La`

(No)

R: La`, da ismu `asal.

(No, that is called honey.)

S: Aih da?


(What is that? It is called honey).

S: `Asal, la, la

(Honey, no, no)

R: Ihna mish ulna el-nahel be`amel el-`asal.

(Didn’t we say that the bee makes honey.)

S: No, nahel make.

(No, bee make.)

R: La`, izay el-nahla betba’ helwa betshim el-warda el-gamela el-zay dee wa betruuh `amala beta` da wa truh `amala `asal.

(La, how the bee is nice and she smells the beautufll flower like this and then she goes and makes honey.)

S: Beta` ana.
(It is mine.)

R: Intee ma`ake ma`laktain. Akhud wahda minhum?

(You have two spoons. Can I take one of them?)

S: Da

(This)

R: Taib, ishma`na? El-itnain zay ba`d. Tehaby tegarbee el-zabady bil`asal?

(Okay, but how come? The two are the same. Do you want to try honey with yoghurt?)

S: La`

(No)

R: Da fee fakha helwa.

(This has nice fruit.)

S: La` [shouting]

(No) [shouting]

R: Khallas khalekee keda. Hakul haga helwa. Sara teftekry hatgu`ey ba`d ad aih ya Sura?

(Fine, stay that way. I am going to eat something nice. Sara when do you think you will be hungry again Sura?)

S: Khams

(Five)

R: Khamsa aih?

(Five what?)
S: Wahid, itnain, talata, arba`a, khamsa.
(One, two, three, four, five.)

R: Betshawry khamsa, khamsa aih?
(You are pointing five, five what?)

S: Wahid, itnain, talata, arba`a, khamsa, setta, sab`a, tamania, tisa`, `ashara.
(One, two, three, four, five, six, seven eight, nine, ten – making kissing noises).

R: Bitbusee aih? Berad el-shay? Shaefa nafsek fee berad el-shay? Bitbusee nafsek?
(What are you kissing? The tea pot? Do you see yourself in the teapot? Are you kissing yourself?)

S: Mama, el-shay sukha? 
(Mom is the tea hot?)

R: Ahh, el-shay sukhen.
(Yes, it is hot).

S: [Making sounds]

R: Intee `ayza tehrae bu`ek fee el-shay ya`anee?
(Do you want to burn your mouth with the tea?)

S: Ya batnee.
(My stomach.)

(My stomach, because your stomach didn’t eat enough, right? By the way, your stomach will hurt you more if you continue eating that sugar. Thank you).
S: Ahmed beta’ ana.

(Ahmed mine.)


(Ahmed is yours? Ahmed is a famous name. A lot of people are called that name. The man over there that she is talking to his name also is Ahmed, isn’t that right? That is why she called him Ahmed.)

S: [Making sounds, singing], Mama zamenha gayya feeha shantaa feeha wiza wa batta, wak, wak, wak.

(Singing -Mom is on her way, she has a bag and it has a swan and a duck, wak, wak, wak.)

R: Shatra, tanee?

(Good job, again?)

S: Mama zamenha gayya, gayya feeha.

(Mom is on her way, her way in it.)

R: Gayya ba’d shuwyya.

(She is coming in a little while.)

S: Gayya ba’d shuwyya.

(She is coming in a little while.)

R: Gayba

( Bringing)
S: Gayba
(Bringing)

R: Gayba ma`aha shanta.
(She is bringing with her a bag.)

S: Ma`aha shanta feeha waza wa batta wak wak wak wak.
(She has a bag that has a swan and a duck, wak wak wak.)

R: Sah, bitul wak wak wak. Ta`arfee el-ughnia beta`et ismu aih? Baba giy imta?
(Right and she says wak wak wak. Do you know the song that has the name? Daddy is coming when?)

S: Baba, baba giy, mama.
(Daddy, daddy coming, mom.)

R: Baba
(Daddy)

S: Baba giy imta? Giy el-sa`a setta, rakib setta.
(Singing - Daddy coming when? He is coming at six o’clock, riding six o’clock.)

R: Rakib walla mashee?
(singing - Riding or walking?)

S: Ayy batnee.
(Ouch, my stomach.)

R: Rakib biskelta, nakhud dawwa?
(Riding a bicycle, should we take medicine?)

S: Huh?
R: Dawwa? Rakib biskelta bada walla hamra.

(Medicine? He is riding a bicycle, white or red.)

S: Don’t you going.

R: Bada zay el-ishta.

(Singing - White as cream.)

S: Don’t

R: Leh?

(Why?)

S: You going to hurt my stomach.

R: Taib, stomach, taklee lahma aw kebda? Taklee lahma?

(Fine, stomach, do you want to eat meat or liver? Do you want to eat meat?)

S: [Making noises with spoon.]

R: Intee khallaste akil ya sukar?

(Are you finished eating, sugar?)

S: Hmm [inaudible singing.]
Table 12

*Number and Percentage of Occurrence Between Categorical Code-Switching*

<table>
<thead>
<tr>
<th>Types of Code-Switching</th>
<th>Number</th>
<th>Percentage</th>
<th>English</th>
<th>Arabic</th>
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<th>Percent of Arabic</th>
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<tr>
<td>Lexical</td>
<td>70</td>
<td>68.0</td>
<td>50</td>
<td>20</td>
<td>71.4</td>
<td>28.6</td>
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<tr>
<td>Morphological</td>
<td>22</td>
<td>21.4</td>
<td>13</td>
<td>9</td>
<td>59.1</td>
<td>40.9</td>
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<tr>
<td>Syntactic</td>
<td>9</td>
<td>8.7</td>
<td>5</td>
<td>4</td>
<td>55.6</td>
<td>44.4</td>
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<tr>
<td>Phonology</td>
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<td>1.9</td>
<td>1</td>
<td>1</td>
<td>50.0</td>
<td>50.0</td>
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<tr>
<td>Total</td>
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<td>100</td>
<td>69</td>
<td>34</td>
<td>236.1</td>
<td>163.9</td>
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</tbody>
</table>

Table 13

*Distribution of Intersentential versus Intrasentential Code-Switching*

<table>
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<tr>
<th>Grammatical Feature</th>
<th>Number of Code-Switching</th>
<th>Percentage of Code-Switching</th>
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<tr>
<td>Intersentential</td>
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<td>Intrasentential</td>
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<td>Total</td>
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Table 14

Matrix of Intersentential versus Intrasentential Code-Switching

<table>
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<th>The Matrix Language</th>
<th>Number of Code-Switching</th>
<th>Percentage of Code-Switching</th>
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<td>46.2</td>
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<tr>
<td>Switching to English within Arabic ML</td>
<td>16</td>
<td>23.8</td>
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