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Code-Switching Elicitation Task in Standard Arabic, Dialectal Arabic, and English Among Bilingual Saudi Arabian Students in the United States

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Abstract

This study explores code-switching practices among bilingual Saudi Arabians within three language varieties: English, Standard Arabic (SA), and Dialectal Arabic (DA). While there are studies that examine the use of code-switching between SA and DA, and others that investigate Arabic-English code-switching, no study to date has examined natural code-switching into English in conversations of SA vs. DA as compared to code-switching into Arabic in English conversations. Controlling the language of the interviewer (English, SA, or DA), this study examines (1) the likelihood of code-switching relative to the language of the interview, (2) the rate of switches in each interview context, and (3) the mean duration of those switch segments. Results show that code-switching to Arabic was very rare in English interviews (only 0.89% of interview time was in Arabic with a switch rate of 1.74 switches/minute and average length of 0.59 s). However, participants in SA and DA interviews did code-switch to English 8.32% and 10.08% of the time, respectively. The mean rate of switches was about twice as frequent for participants interviewed in DA (14.18 switches/minute) than for participants interviewed in SA (7.21 switches/minute). Moreover, participants in SA interviews had significantly longer mean English segments than DA interviewees (1.21 s vs. 0.81 s, respectively). The results demonstrate that (1) English has the greatest impact on participants' tendency to code-switch, (2) SA encourages code-switching in a way that aims to preserve its formal status, and (3) DA

encourages code-switching the most, i.e., code-switching is an emblem of DA conversations.

Keywords: Code-switching, Standard Arabic, Dialectal Arabic, English, Diglossia, Bilingualism, Arabic-English bilinguals, Bilingual Saudis

1. Introduction

Linguists agree that varieties of languages are meaningful, for using a specific variety indexes not only a speaker's origin and social class but also the contexts in which this variety is usually used (Mesthrie et al., 2009). For decades, linguists have been trying to find answers for the question raised by Fishman (1967), which asks "who speaks what language to whom and when" (Mesthrie et al., 2009). The phenomenon of diglossia makes answering this question more interesting, particularly when more than two varieties are involved. This paper explores two Arabic diglossic varieties, alongside English, among bilingual Saudi Arabians.

This paper will first define diglossia, focusing in particular on diglossia in Arabic-speaking communities and the role of code-switching between standard and dialectal varieties of Arabic, including Arabic speakers' attitudes about diglossia. I then turn to the prior research on Arabic-English code-switching, primarily previous studies that examined my target group, i.e., bilingual Saudi Arabians. With this introduction in place, I extend Communication Accommodation Theory (CAT) to motivate predictions about diglossic bilingual speakers' choice of variety.

1.1 Definitions of Diglossia

Diglossia, first introduced by Charles Ferguson from French *diglossie*, is a language phenomenon that exists where two or more varieties of a language are used in a speech community (Ferguson, 1959). Varieties are historically and structurally related, though socially distinct in their values and functions. Ferguson calls these varieties High and Low based upon these distinct social statuses. The High Variety (H) is referred to as the "superimposed variety" that has more prestigious status and is often associated with formality. The Low Variety (L), on the other hand, is the "regional variety" that has a lower status and is associated with informality and everyday conversation with family and friends. Therefore, it is not surprising to see the H variety the winner when it comes to grammatical textbooks and formal education. The L variety, on the other hand, is not represented in any, or only rarely, in textbooks.

Furthermore, Ferguson's definition of diglossia draws contextual lines for each variety (1959). He asserts that each variety has its own appropriate functions and purposes, and therefore it must be used in its specific context, i.e., the H variety is for formal contexts while the L variety is for informal contexts. These contextual lines for each variety are drawn very clearly indicating that the use of more than one variety in any context is impossible. To illustrate this, he argues that speakers of a diglossic language need to shift from one variety to the other based on the context they are speaking in. For example, following this theory, one needs to use their H variety for prayers, religious talks, news broadcasts, politics, classrooms, and literature (particularly poetry) on the one hand, and must alternate to their L variety when having conversations with family, friends, restaurant waiters and shop cashiers. He contends that using

a L variety in a formal situation, say a religious discourse is "hazardous" because the formal context of religion requires a H variety to be used (Ferguson, 1959).

1.2 Diglossia in Arabic and Its Code-Switching Nature

Arabic is a diglossic language, as classified by Ferguson (1959). The H variety, believed to be more complex, is what Arabs refer to as Classical Arabic, Standard Arabic, or Fusha Arabic. Alternatively, the L variety, believed to be simpler and less formal, is what Arabs refer to as Regional Arabic, Dialectal Arabic, or Aammiyaah Arabic (Ferguson, 1959). For the purposes of this paper, the H and L varieties will be referred to as Standard Arabic (SA) and Dialectal Arabic (DA), respectively. SA is relatively similar throughout the Arabic-speaking world with mild regional differences (Sayahi, 2014); it is the language one finds in the Quran, official documentation, newspapers, and standardized works of art—especially poetry. DA, on the other hand, is different throughout the Arab world and is highly region-specific. The DA in Jeddah, Saudi Arabia is not only different from the DA spoken in Cairo, Egypt, but also from another city in Saudi Arabia, such as the DA spoken in Riyadh. Moreover, social factors, such as age, sex, race, class, education and residential area, have an influence on the individual's dialect of Arabic (Al-Tamimi, 2001; Habib, 2010; Ibrahim, 1986; Sallam, 1980).

While Ferguson's (1959) definition of diglossia established the distinction between H and L varieties in the literature, more recent work has concluded that this categorization is too simplistic for it does not accurately portray the use of SA and DA in Arabic speech communities. It assigns varieties to specific contexts based on formality, in a way that denies the possibility of a mixture of varieties. That said, when a few studies were conducted to test these boundaries in formal discourses, they concluded that multi-variety situations happen in all discourse-types, including the most formal discourse, namely religious sermons (Albirini, 2011, 2016; Bassiouney, 2013; Saeed, 1997). It is important to note that although it is true that religious sermons are mostly delivered in SA, some preachers may produce a few DA utterances in their otherwise SA speech. On that note, numerous studies have attempted to analyze not only the pragmatics behind code-switching between SA and DA in formal religious sermons but also its patterns and its frequency.

In general, the higher status that SA holds enables it to be employed to mark the significance of a topic at hand whereas the lower status that DA holds causes it to be used to downplay a particular message of the sermon (Albirini, 2011). For example, a preacher starts his religious sermons in SA, due to the importance religious sermons hold in the mind of both the preacher and his audience. Moreover, he employs SA for emphasis purposes. If he considers the content of the message previously expressed in DA important, he goes back stating the same message again, in SA this time, as a way of making sure the message is properly conveyed to his audience. More importantly, a preacher is more inclined to utilize SA when addressing a specific message to the whole Arab nation, to index Pan-Arab or Muslim Identity, as a means of showing unity and identity. SA is the source of Arab unity since it is "the language of their Islamic theology and tradition," and therefore it is the variety that is "intelligible throughout the Arab world" (Albirini, 2011, pp. 557–558).

On the other hand, if a preacher wants to mock a statement of someone else and to show that

it is filled with misconceptions, he shifts to DA to express how insignificant the content of the statement is. Saeed (1997) stresses that the preacher's attitude is a significant motivation for such shifting. Shifting to DA often has the connotation that the preacher is considering the content of the message "unworthy of attention" and therefore criticizing it by dint of using DA with a sarcastic tone (Albirini, 2011, pp. 549–550). Saeed (1997) summarizes the purpose of employing one variety rather than the other by stating, in his abstract, that SA is "a means of upgrading", while DA is "a means of downgrading". Interestingly, at other times, the shift to DA occurs as a means of drawing the audience's attention to the message that is previously expressed in SA (Albirini, 2011). With this function, DA gets a higher status role that is, perhaps, more expected to be for the H variety, i.e., SA.

1.3 Arabs' Attitude Towards Their Diglossic Language

Varieties of the same language that co-exist in a person's daily life might not be a problem if these varieties are similar in their social contexts, values and functions. The challenge with Arabic speech communities is that the varieties are continuously diverging from each other. As a result, many linguists regard this tangled diglossic phenomenon in Arabic language a linguistic problem. It is a problem because it creates difficulties and challenges to young children in classrooms since all the materials are in SA, a variety they are hardly exposed to at home. Conducting a study to address these challenges among young Arabs, Abu-Rabia (2000) started his abstract with: "[r]eading difficulties in Arabic in elementary school are usually attributed to diglossia of the Arabic language, whereby the spoken language is totally different from literary Arabic, the language of books and school Education." Similarly, Altoma describes diglossia in Arabic as a problem that is "too complex to lend itself to practical solution" in his book *The Problem of Diglossia in Arabic: A Comparative Study of Classical and Iraqi Arabic* (1969, p. 112).

Nevertheless, it is important to examine how Arabic speakers view the diglossic nature of their language. According to Ferguson's first article about the phenomenon, most Arabs do not actually realize the existence of these different varieties in their speech communities, and therefore claim to have only SA in their communities (Ferguson, 1959). However, recent studies show different results. Albirini (2016) conducted a survey of 76 Arabic speakers from four different countries (Egypt, Jordan, Saudi Arabia, and Morocco) to investigate how they perceive their diglossic language. The responses to this survey took shape in three distinct ways. Two-thirds of the respondents (51 interviewees; 67.1%) indicated that there is no problem with having two distinct varieties (SA and DA) co-existing in the Arab world. These respondents argue that the co-existence of two varieties has been present in Arabic for long enough that they both carry their significant meaning, which can be used to describe different people and different statuses. One third of the respondents indicated that there is a problem with diglossia, and most of this group (20 interviewees: 26.3%) blamed DA. These respondents argue that all Arabs should use one language, SA, to communicate within the Arab world. The co-existence of DA with SA not only "weakens" SA, but also "dilutes one's affiliation to the Arab and Muslim communities," which creates a barrier between them (Albirini, 2016, p. 107). Only 5 respondents (6.6%) blamed SA for the problem with diglossia. They argue that SA is used in discourse where DA should be more prominent (i.e., education and television programming).

DA, for these respondents, is the variety for everyday life and should therefore be used in these contexts rather than SA. Interestingly, there is no Saudi Arabian who holds this position. All of them saw an inexistent problem except two who attributed the problem to DA, not SA. In fact, it has been argued that Saudi Arabians are the least likely group to shift to their DA in formal settings, as an attempt to preserve SA use in these settings (Albirini, 2016; Saeed, 1997).

1.4 Arabic-English Code-Switching

It is worth noting that code-switching between two different varieties in diglossic bidialectal communities has different social functions and patterns to the code-switching between two distinct languages that exist in bilingual communities. The latter exist, based on many studies, to express different "social, political, economic, and ideological relationship" between the two languages that are being switched, and therefore take certain patterns (Albirini, 2011). To illustrate, Albirini mentioned how English, "assum[ing] the role of the FOREIGN, NEUTRAL, and PRESTIGE language," is being used in African multilingual countries as a means "to avoid the sociopolitical implication of favoring one of the local languages over the others," which is an explanation that cannot account for code-switching in bidialectal communities (2011, p. 538, emphasis in original). Therefore, he asserted that the sociolinguistic differences between the two distinct situations eventuate dissimilarities in both the functions and the patterns of their code-switching.

1.5 Arabic-English Code-Switching Among Bilingual Saudi Arabians

When examining Arabic-English code-switching among Saudi Arabians, it is important to note that they have notably increased their apprehension of English as a second language in recent years. This is particularly noticeable after the discovery of oil that strengthened the relationship between Saudi Arabia and the United States (Omar & Ilyas, 2018). Moreover, with the King Abdullah Scholarship Program that started in 2005, thousands of Saudi Arabians every year choose to study abroad in different English-speaking countries. As a result, Arabic-English code-switching has increased within the younger generations, and thus numerous studies on such new phenomena have been conducted in order to examine how Saudi Arabians employ and perceive such a change.

Omar & Ilyas (2018), for example, argued that while Saudi Arabians tended to employ their DA in informal situations that involved activities such as introducing themselves, they switched to English in formal and casual settings, especially in "elite gatherings" (p. 88). Moreover, they emphasized that it was only "elite groups" who used SA "with dignity and respect […] to discuss topics of intellectual interests" (p. 88). It was not clear how they defined "elite groups" and "elite gatherings." In terms of the overall function of code-switching among Saudi Arabians, they asserted that Saudi Arabians, regardless of their age, gender or education, used code-switching in order "to shroud their imperfections of the English language" (Omar & Ilyas, 2018, p. 86).

That being said, attitudes to code-switching in Saudi Arabia vary. For example, in the case of examining how faculty members at King Khalid University, located in Abha, Saudi Arabia,

employ and view code-switching, three out of four Arab members expressed a positive attitude towards code-switching, stating that it is a helpful phenomenon among bilinguals, especially in cases where "a speaker lacks a word or a phrase in one language" (Al-Qahtani, 2014, p. 2). However, the one Arab member who perceived code-switching negatively expressed that "it is an insult to the mother tongue if used among same language speakers like Arabs among themselves" (p. 2). On the other hand, Omar & Ilyas (2018) affirmed that although their participants (10 instructors and 40 college students majoring in English at four universities in Riyadh, Saudi Arabia), showed no "stigma" associated with code-switching, they employed it to index an "ethnic boundary" in the sense that "the use of the native language, Arabic, was an in-group exercise, signifying the 'us' code for informal occasions or personalized statements; while English was used as an out-group activity, signifying the 'them' code in more formal and objective expressions" (2018, p. 88).

1.6 Communication Accommodation Theory (CAT) to Influence a Speaker's Choice of Variety

One of the ways to investigate code-switching is to analyze whether or not the audience has any effect on the speaker's choice of language variety. One of the main audience-based theories that correlates the variety a speaker employs with both the type of audience and how close or far the speaker wants to be from this audience is Communication Accommodation Theory (CAT). CAT, presented by Howard Giles and his associates in the 1970s, analyzes how speakers change their way of speaking to accommodate "to their interlocutor" (Mesthrie et al., 2009). It is an "interdisciplinary model of relational and identity processes in communicative interaction" (Coupland & Jaworski, 2009, pp. 241–242). According to CAT, "individuals use communication, in part, in order to indicate their attitudes toward each other and, as such, is a barometer of the levels of social distance between them" by means of "movement toward and away from others" (Giles & Ogay, 2007, pp. 294–295). A speaker can either "converge" by having a similar style to their interlocutor in order to decrease the social distance between them both, or "diverge" by speaking in a different style in order not only to increase the social distance but also to emphasize these differences (Coupland & Jaworski, 2009; Giles & Ogay, 2007).

Both strategies, convergence and divergence, are motived by the speakers' desire to achieve certain goals. In the case of convergence, it is evident that its main motive is "the desire to gain approval from one another" while risking a "possible loss of personal or social identity" (Giles & Ogay, 2007, p. 296). Divergence, on the other hand, is motivated primarily to "emphasize distinctiveness from one's interlocutor, usually on the basis of group membership" in a way that may potentially "entice an interlocutor to adopt a more effective communicative stance" (2007, pp. 296–297). Interestingly, when speakers converge or imitate to show their similarity to their audience, their behavior is always positively evaluated. However, when they diverge or decide not to imitate in order to show their distinction from their audience, their behavior is always perceived as negative (Mesthrie et al., 2009).

Among Arabs, CAT explains the code-switching patterns found between different dialects of Arabic. Examining conversations between one Jordanian couple and one Egyptian couple,

Abu-Melhim (1991) found that while Egyptians did not shift, or accommodate, to Jordanian Arabic, Jordanians shifted from their Jordanian Arabic to Egyptian Arabic as a way of accommodating to the Egyptians. He reasoned:

The Jordanians are more familiar with the Egyptian dialect than the Egyptians are with the Jordanian dialect. Perhaps one of the main reasons the Jordanian speakers modified their dialect to suit the Egyptians is that Egyptian spoken Arabic, especially the urban dialect of Cairo, is more predominant throughout the Arab world, chiefly because it is used in the media, e.g., movies, television, and music. The fact that it is more widely spread gives it more prestige among the local Arabic dialects spoken throughout the Arab world. (1991, p. 236)

This indicates that different Arabic DAs are not ranked equally throughout the Arab world. Egyptian DA from Cairo possesses a higher social status than Jordanian DA from Irbid due to its prevalent presence throughout the Arab world. Moreover, it is worth noting that both couples code-switched to English in order to convey "emphasis, accuracy, and clarity" (Abu-Melhim, 1991, p. 242).

A few studies on how Arabs of different dialects behave when conversing with each other have been conducted, from CAT perspective, to demonstrate the hierarchical relationship between the dialects. Comparing dialects from *Al-Mashreq Al-Arabi* "The Arab East" (i.e., countries from Egypt eastward) and *Al-Maghreb Al-Arabi* "The Arab West" (i.e., primarily Tunisia, Algeria, Morocco), S'hiri, (2003), for instance, examined how Tunisians speak when they are conversing with other Arabs from the Mashreq. She asserted that Tunisians converged, extensively, to their interlocutors from the Mashreq, while also noting that their addressees from the Mashreq did not reciprocate, i.e., they did not converge to their Tunisian interlocutors. She attributed this to various social factors, primarily the relationship between Arabness and power. She wrote: "the notions of Arabness and native speakerness of Arabic are crucial parameters of power allocation designating linguistic dominance to the Mashreq and subordination to the Maghreb in contact situations" (2003, p. 172). She contended that "Speak Arabic please!" is the attitude with which Arabic speakers from the Mashreq approach Tunisians, as well as their fellow Arabic speakers from the Maghreb. It is so much so that she put the phrase in the title of her article.

1.7 Problem of the Study

This paper explores Arabic-English code-switching in relation to three language varieties: Standard Arabic (SA), Dialectal Arabic (DA), and English, among bilingual Saudi Arabians. Previous studies were mainly concerned with Saudi Arabians' attitudes towards the different uses of SA and DA on the one hand, and Arabic and English on the other. Although I recognize the significance of studying Saudi Arabians' attitude towards code-switching (SA-DA code-switching as well as Arabic-English code-switching), there is a gap in the literature related to code-switching practices among the three language varieties (SA, DA, and English). Examining how each language variety, controlled by the interviewer, yields code-switching is worth investigating. In this study, I aim to investigate how Saudi Arabians blend their use of SA and DA with English, a language that is remotely different from Arabic

yet seems to be integrated into the lives of so many Saudi Arabians today, especially the ones pursuing various degrees in Western universities.

1.8 Present Study

This study aims to observe code-switching behaviors between English, SA, and DA among bilingual Saudi Arabian students studying in the U.S. The method is an elicitation task in the form of an interview consisting of a set of questions (see Appendix) being asked of each participant. Participants were interviewed in one of three language varieties: English, SA or DA.

It is important to note that although it is true that English, like all languages, has dialectal variation, studies to date have not distinguished what variety of English was selected by Arabic-English bilinguals engaged in code-switching. Further, the sociolinguistic relationship of varieties in English and Arabic are not quite the same. What makes Arabic different from English is the fact that Arabic is a diglossic language whereas English is not. For the purposes of this paper, I use the label "English" without specifying dialectal varieties to track when bilingual Saudi Arabians switched from Arabic to any variety of English. Moreover, while this study distinguishes between SA and DA in relation to the interview settings (i.e., the language of the interviewer), it groups participants' SA and DA responses as Arabic without coding them as SA or DA due to the overlapping features of SA and DA, which make it impossible to assign each syllable to only one variety using the methodology of this experiment.

My research questions are:

1) How is code-switching behavior different in response to each language variety: English, SA, and DA?

2) When are speakers most likely to code-switch? When are they most likely to maintain the language of the interview?

3) How frequently do speakers switch in each language variety?

4) How long are the switches from the language of the interview?

Knowing that the participants are aware that the interviewer is an Arabic-English bilingual speaker from Saudi Arabia like themselves, participants are expected to be comfortable switching languages. Moreover, the consent form instructs the participants to answer interview questions in whichever language they see fit, and as naturally as possible.

If shifting to Arabic in English settings is perceived as a sign of lack of English fluency (Omar & Ilyas, 2018) and shifting to English in Arabic formal settings is "an insult" to the Arabic language (Al-Qahtani, 2014, p. 2), then I hypothesize that both English and SA (with SA being perceived as the most formal variety of Arabic) will be maintained the most throughout the interview and have lower rates of language switching. Moreover, when shifting occurs, I predict that the switches will be long, as a way of keeping the interview as formal as possible. This also aligns with CAT theory; participants are expected to "converge" by maintaining the language of the interview (English for English interviews, and Arabic for SA interviews), in an

attempt to keep the formal status of the interview (Coupland & Jaworski, 2009; Giles & Ogay, 2007).

On the other hand, because DA is perceived as the most casual, informal variety, it is expected to cause less pressure on the participants to maintain formality in the interview. However, considering that the interviews are conducted on a US university campus and the questions are about the participant's education and their journey of studying abroad (see Appendix for interview questions), it is likely that the contextual settings of the interviews will be perceived as formal by the participants, despite the interviewer's use of DA for the interview. Moreover, given that code-switching is a linguistic phenomenon that occurs more frequently in informal conversations (Zakaria & Stephen Kalong, 2010), participants are expected to be highly practiced at code-switching in DA conversations. As a result, I hypothesize that DA interviews will generate the most switches to English at a higher rate of language switching, primarily to convey a perceived formality of the setting, since both the topics of the questions and the place of the interviews denote a formal setting. These switches are expected to be short in length, due to participants' intense familiarity with code-switching in their everyday conversations. This aligns with CAT theory; participants are expected to "diverge" by shifting from the language of the interview (from DA to English), as an attempt to show their disassociation with the interviewer who is employing an informal language variety in a formal contextual setting (Coupland & Jaworski, 2009; Giles & Ogay, 2007). Their use of English is, in a way, an attempt to establish a formal linguistic setting that matches the formal context of the interview. This is to say that although the interviewer's use of DA may have changed the formality of the interview (to become informal), the participants are predicted to employ English, throughout the interview, as a way of creating a formal setting that fits the nature of the interview.

2. Methodology

This study sought to determine Saudi Arabians' use of Arabic and English in three different language variety contexts: English, Standard Arabic (SA), and Dialectal Arabic (DA). While the participants are given the instruction to use whichever language they prefer (i.e., English or Arabic), the language used by the interviewer remained consistent throughout the interview (2 English interviews, 2 SA interviews, and 3 DA interviews). In fact, to control the language being used by the interviewer, the language of the consent forms matched the language of the interview, i.e., consent forms were available in three language varieties (English, SA, and DA) depending on the language of the interview. This is to help control for language effects that may arise from the variety used by the interviewer. The goal of this study is to determine how each language variety used by the interviewer encourages certain code-switching behaviors.

Because DA has numerous varieties, it is important to note that the DA interviews in this study were carried out, by the interviewer, in Modern Hijazi DA. However, if participants were to respond in DA, they were expected to respond in their own DA variety, or the variety they feel comfortable using. According to Abu-Melhim (1991), S'hiri (2003) and Soliman (2014), it is common for Arabs of different dialects to converge to their interlocutor(s) by changing the dialect they speak in to a dialect they perceive as more accessible and/or more prestigious.

This study had one independent variable, Language of Interview (LoI), with three levels, English, SA, and DA, and three dependent variables: (1) percentage of language used, (2) rate of language switching, and (3) switch length. Each of these variables measure different characteristics of the participants' code-switching behavior. In order to capture these dependent variables, I coded participants' speech as either Arabic (SA and DA) or English.

2.1 Participants

My target population consisted of full-time Saudi Arabian university students who have lived in the United States for at least three years. The criteria ensure that all participants hold a high level of English proficiency and a familiarity with American lifestyles, as well as a high proficiency in SA and DA. Seven participants (5 male, 4 graduate and 1 undergraduate; 2 female, both undergraduate; aged 20-35; have lived in the US 4-8 years) who fit the aforementioned criteria completed interviews. The participants came from different regions of Saudi Arabia, and thus their DAs varied. Participants were randomly assigned to one of three conditions (2 to English interviews, 2 to SA interviews and 3 to DA interviews).

2.2 Materials

I conducted the interviews in a quiet meeting room of a US university library. I used an iPhone to record each interview. Each interview consisted of a set of predetermined general questions pertaining to the participant's life in Saudi Arabia and the United States. The topics of these questions varied from education, profession, future career aspiration, life in the US, and their transition from Saudi Arabia to the US (see Appendix). To maintain the language being used by the interviewer before the interview took place, participants were given consent forms in the language variety of their interview: English, SA, and DA.

The interview questions, 24 in all, were numbered and translated into corresponding English, SA and DA versions, and evaluated for comprehensibility by four people: two Americans reviewed the English questions, and two Saudi Arabians reviewed the SA and DA questions. One proficient bilingual Saudi Arabian reviewed all interview questions to make sure they were equivalent in meaning across the different language varieties.

2.3 Procedure

The order and content of questions was kept consistent throughout all participants, i.e., the interview started with questions about the participant's move from Saudi Arabia to the US, then transitioned to questions about their university experience in the US, and comparing that to their academic experience in Saudi Arabia. Five of the 24 questions (#1, 2, 13, 14, and 15), being introduction and transition questions with consistently perfunctory responses, were excluded from the analyses, leaving 19 questions in all per participant.

Once the interviews were completed, each audio recording was imported into Praat (Boersma & van Heuven, 2001; Boersma & Weenink, 2019), where each segment of participant speech was annotated according to the interview question, and the response language — either Arabic or English. Interviewer speech segments were also annotated for which question they were.

After transcription, the absolute duration of each segment of participant speech was measured as a data set, according to the language it was in, that is English or Arabic. Pauses, *hmm*s, fillers and proper nouns (unless the proper noun is different in the two languages like the proper name of the country "Saudi Arabia") were excluded from the data. All the data sets, that is all intervals of participant speech, were grouped together without being divided by questions. From there, the dependent variables, percent of language used, rate of language switching, and switch length, were calculated with respect to the independent variable, Language of Interview (LoI).

Percent of language used was generated by calculating the percentages of LoI in each minute of participant speech for each language variety. For the analysis of percent of language used, I report %LoI, that is, % English used in the English interviews compared to % Arabic used in the SA and DA interviews.

Similarly, the rate of language switching in each interview was generated by calculating the amount of language switches made by a participant per minute. For example, a switch from English to Arabic and back would count as two switches. If then, those switches occurred over 10 seconds of elapsed speech time, that would result in a rate of 0.2 switches per second, or 12 switches per minute. Thus, this is a measure of how often a speaker was switching languages.

Finally, in order to measure switch length, the duration of each utterance in the non-LoI language (i.e., English for SA and DA interviews, Arabic for English interviews) was calculated for each interview language. If a switched utterance has pauses, *hmms*, or fillers in between that have been excluded from the data, then this utterance is calculated as two different segments and thus generated two units of duration.

3. Results

The purpose of this study is to examine the Arabic-English code-switching patterns among bilingual Saudi Arabians in response to each language variety: English, SA, and DA. It explores which language variety is most likely to be maintained throughout the interview and which one is most likely to switch between languages (Arabic and English). It also looks at the frequency of code-switches in response to each language variety as well as the mean length of these code-switching instances.

The study analyzed a total of 163 minutes 20 seconds of audio recordings (29m28s for English interviews, 70m19s for SA interviews, and 63m33s for DA interviews). Each recording varied in length: the two English interviews were 13m50s and 15m38s; the two SA interviews were 22m23s and 47m56s; and the three DA interviews were 10m33s, 24m41s, and 28m19s. For each interview, I analyzed the responses to the 19 questions, noting which language (Arabic or English) was spoken by the participant.

The data revealed significant differences in code-switching behavior in response to each language variety: English, SA, and DA. At first glance, the results of the interviews where English was the LoI were intriguing. In both interviews, speakers almost never code-switched. Notably, in one case, the participant switched to Arabic to name *Saudi Arabia*, to say *religion*, and to say *Arabic*, but used English exclusively otherwise. On the other hand, Arabic

interviews, both SA and DA, had many shifts to English. The results of these interviews show that English has a much greater impact and dominance on language variety use among bilingual Saudi Arabians than I initially expected.

3.1 Percent of Language Used

In English interviews, participants maintained English as the LoI on average for 99.11% of the time (*SD* = 1.21%), with one participant responding in English 98.11% of the time (*SD* = 1.08) while the other never switched. On the other hand, both SA and DA interviews contained a lot of switches. Responses in SA interviews contained on average 91.68% (*SD* = 8.85%) Arabic, with the two participants maintaining the LoI for 93.99% (*SD* = 4.34) and 90.60% (*SD* = 10.20) on average. In DA interviews, responses contained on average 89.92% (*SD* = 9.20%) Arabic, with the three participants maintaining the LoI for 70.36% (*SD* = 6.46), 94.85% (*SD* = 3.63) and 91.37% (*SD* = 4.98). These results indicate that the language of the interview was maintained the most in English interviews, followed by SA interviews then DA interviews.

A one-way ANOVA was performed to evaluate the effect of LoI on percent of language used. It revealed that there was a statistically significant difference in how often participants responded in their LoI, $F(2,99) = 7.47$, $p < 0.001$. A post hoc Tukey's HSD test for multiple comparisons showed that participants responded in English for a significantly larger percentage of the English interviews than in Arabic in the SA interviews, $p < .01$, or in Arabic in the DA interviews, $p < .01$. However, no significant difference was found for percent of Arabic used between SA interviews and DA interviews. The findings suggest that bilingual Saudi Arabians are significantly less likely to code-switch between Arabic and English in English conversations compared to SA and DA conversations.

Figure 1 presents a box plot showing the percent of language maintenance for each Language of Interview (LoI).

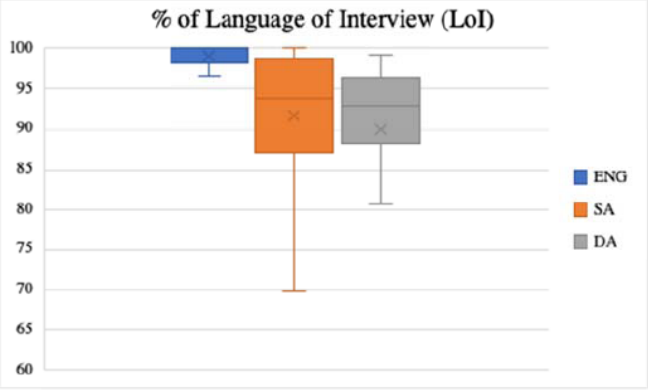

Figure 1. Percent language maintenance for each Language of Interview (LoI)

3.2 Rate of Language Switching

For English interviews, the average switch rate was 1.76 switches per minute (*SD* = 2.44), with one participant never switching from English and the other having an average switch rate of

3.75 switches/minute (*SD* = 2.25). For SA interviews, the average switch rate was 7.21 switches/minute (*SD* = 6.78), with the two SA participants having average switch rates of 7.47 (*SD* = 5.66) and 7.09 (*SD* = 7.33). As for DA interviews, the average switch rate was 14.18 switches/minute (*SD* = 11.05), with the three DA participants having average switch rates of 34.8 (*SD* = 9.28), 7.08 (*SD* = 4.52), and 13.60 (*SD* = 6.83). As previously discussed, code-switching was generally avoided during interviews where English was the LoI, and thus interviewees switched languages the least frequently in those interviews. SA interviewees had the median rate of language switching, while DA interviewees had the highest rate of language switching.

A one-way ANOVA was performed to evaluate the effect of LoI on rate of language switching. It revealed that there was a statistically significant difference in how often participants switched between Arabic and English in the interviews, $F(2,99) = 15.16$, $p < .0001$. A post hoc Tukey's HSD test for multiple comparisons showed that the mean rate of language switching per minute was significantly different between English interviews and SA interviews, $p < .05$, between English interviews and DA interviews, $p < .01$, and between SA interviews and DA interviews, $p < .01$. The findings suggest that bilingual Saudi Arabians code-switch between Arabic and English at significantly different rates in English conversations, SA conversations, and DA conversations.

Figure 2 presents a bar plot showing the rate of language switching per minute for each Language of Interview (LoI).

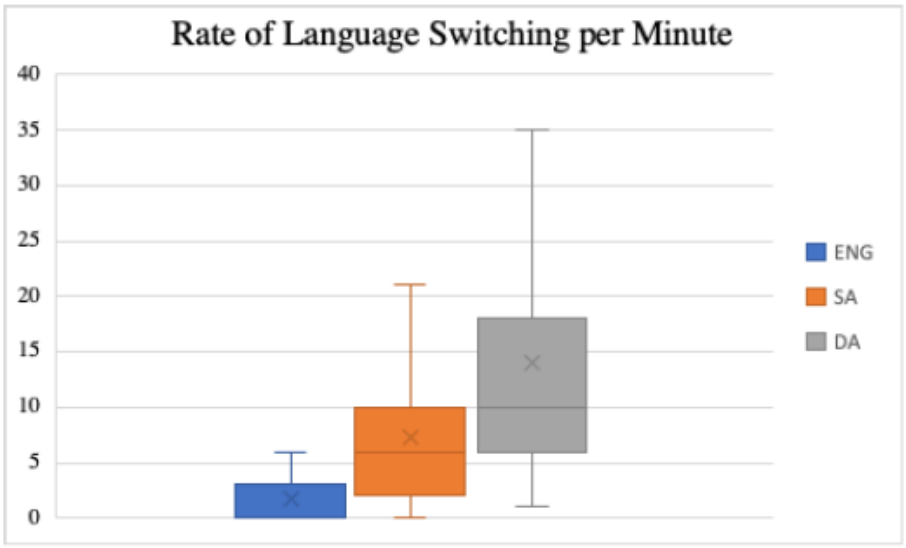

Figure 2. Rate of language switching per minute for each Language of Interview (LoI)

3.3 Switch Length

In English interviews, the mean switch length was 0.59 s (*SD* = 0.22), coming from one participant since the other never switched. For SA interviews, the mean switch length was 1.21 s (*SD* = 1), with the two participants having average lengths of 0.91 s (*SD* = 0.39) and 1.34 s (*SD* = 1.15). As for DA interviews, the mean switch length was 0.81 s (*SD* = 0.54), with the

three participants having average switch lengths of 0.97 s (*SD* = 0.62), 0.79 s (*SD* = 0.46), and 0.71 s (*SD* = 0.48). This is to say that SA interviews had the longest mean switches whereas English interviews had the shortest mean switches.

A one-way ANOVA was performed to evaluate the effect of LoI on switch length. It revealed that there was a statistically significant difference in the length of switches participants produced in the interviews, $F(2,490) = 18.21$, $p < .0001$. A post hoc Tukey's HSD test for multiple comparisons showed that the mean switch length was significantly different between English interviews and SA interviews, $p < .01$, and between SA interviews and DA interviews, $p < .05$. However, no significant difference was found for switch length between English interviews and DA interviews. The findings suggest that when bilingual Saudi Arabians code-switch in SA conversations, they produce a longer utterance in English relative to switches in DA conversations or Arabic switches in English conversations. Their switches to English during DA conversations and to Arabic during English conversations are significantly shorter by comparison.

Figure 3 presents a box plot showing the mean switch length in seconds for each Language of Interview (LoI).

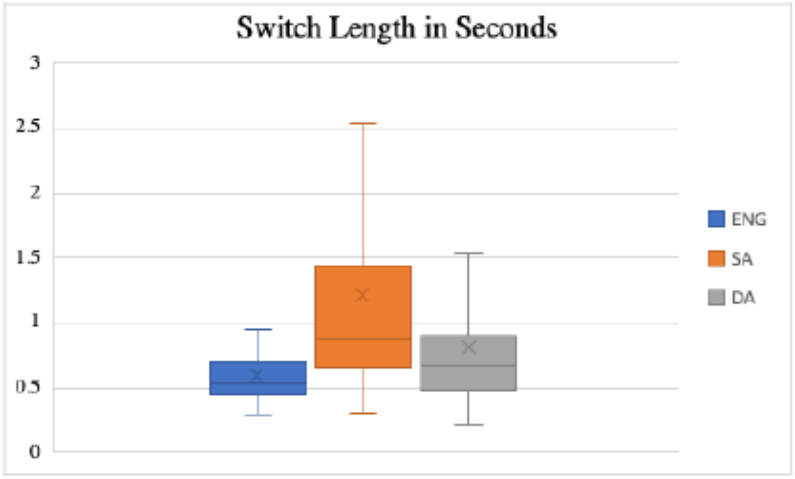

Figure 3. Mean switch length in seconds for each Language of Interview (LoI)

4. Discussion

To recap the results, I found that the language of interview (LoI) as a whole did have a significant effect on the likelihood of code-switching, the rate of language switching, and the length of language switches. Between the three language varieties (English, SA, and DA), this study hypothesized that because English and SA are both perceived as formal varieties, they would have similar results. However, the results of the current study show that English and SA behave differently.

In interviews where English was used as the LoI, participants only rarely switched away from the LoI (i.e., the two participants mostly carried out the whole interview in English with no code-switching except for one participant who shifted to Arabic to say "Saudi Arabia,"

"religion," and "Arabic"), and this is reflected in percent of language used, rate of language switching, and switch length being significantly different from those of both SA interviews. On the other hand, SA interviews, acting differently from their English counterparts, yield similar results to DA interviews. Between SA and DA interviews, there was no significant difference in percent of language used, but DA participants did switch languages at a higher rate and have shorter switches to English than SA participants.

4.1 English Interviews

The study hypothesized that, in English interviews, the LoI would be highly maintained, which would result in shifting languages at a lower rate with longer switches. The results indicate that the LoI was maintained 99.11% of the time, and had the lowest rate of language switches (1.76 switches/minute). The question why English was maintained heavily in the interview could be explained by the Communication Accommodation Theory (CAT) (Coupland & Jaworski, 2009; Giles & Ogay, 2007). Aligning with the predictions, English interviews in the English-speaking institutional context of a US university were perceived as formal, and therefore the participants felt pressured to "converge" and accommodate to the LoI as a way of keeping the formal status of the conversation. Moreover, to avoid showing lack of English fluency, it is plausible that the participants felt the need to carry out the entire conversation in English as a way of showing their mastery of the English language, against the argument that Saudi Arabians, regardless of their age, gender or education, employ code-switching as a way "to shroud their imperfections of the English language" (Omar & Ilyas, 2018, p. 86).

However, in one interview, the participant carried out the whole conversation in English except for "Saudi Arabia," "religion," and "Arabic." While she said "Saudi Arabia" and "religion" in Arabic every time they came up in the conversation (15 times for "Saudi Arabia" and 1 time for "religion"), she said the word "Arabic" once in English and once in Arabic: in English when it was part of the noun phrase "Arabic food" (as she was talking about having access to "Arabic food" in the US), and in Arabic when it was referred to as a subject in Saudi Arabian primary schools. It is also worth noting that the noun phrase "Arabic food" is constructed differently in the two languages: English's adjective comes in the attributive position (i.e., the adjective comes before the noun: Arabic food) whereas Arabic's adjective comes in the predicative position (i.e., the adjective comes after the noun: food Arabic). Moreover, for the one time the word "religion" came up in the conversation, it was mentioned as a subject in Saudi Arabian primary schools. In the case of this participant, it seems that she was either reluctant to fully relinquish her Saudi Arabian social identity for these culturally specific words in a US/English language setting or geographically contextualizing these words in the conversation. Another possible explanation for having code-switching in her interview is linked to the fact that she is a female. Both Omar & Ilyas (2018) and Ismail (2015) declared that Saudi Arabian women tend to code-switch significantly more than their male counterparts. In fact, Ismail (2015) asserted that code-switching is "an emblematic part of Saudi female speech style" (2015, p. 107). All the instances of shifting to Arabic in an English language setting occurred in her interview; the other English interview was with a male and it had no shifting to Arabic.

4.2 Standard Arabic (SA) Interviews

The study hypothesized that SA interviews would behave similarly to English interviews, i.e., the LoI would be highly maintained, which would result in shifting languages at a lower rate with longer switches. However, SA interviews yield different results. While participants maintained the LoI in English interviews 99.11% of the time, they did not maintain SA as the LoI as consistently as their English interview counterparts did; SA was maintained 91.68% of the time. Despite not being maintained as heavily as the English interviews, SA interviews had a significantly lower rate of switching compared to their DA counterparts (7.21 switches/minute and 14.18 switches/minute, respectively). That is to say, while the participants shifted to English 8.7% of the time, they nevertheless tended to maintain one language at a time. Moreover, SA interviews had a significantly longer duration of switches in comparison to DA interviews (1.21 seconds and 0.81 seconds, respectively).

Aligning with CAT predictions, the participants aimed to "converge" and accommodate to the formal status of SA interviews, however by employing English, another formal language variety. One explanation of the participants' tendency to code-switch to English in SA interviews is their loss of fluency in SA. According to Albirini (2011, 2016) and Saeed (1997), the shift to DA in formal religious ceremonies in different Arab countries happens due to linguistic incompetence of SA. Albirini (2011, 2016) contends that a preacher shifts to DA when he is faced with a proficiency gap that needs to be filled in, as a result of trying to communicate words and phrases that he lacks knowledge of in SA.

One of the criteria of the present study is for the participants to have lived in the United States for more than 3 years. This means their exposure to SA is highly limited due to the restricted availability of SA contexts in the United States, that are mostly minimally present in certain religious contexts as well as some online media. The participants' everyday use of Arabic in the United States is most likely to be in their own respective DA. As a result, their fluency in SA is most likely compromised. Knowing that SA holds a formal status among Arabs, it is plausible that when the participants were faced with a proficiency gap in SA interviews, they shifted to English, another language variety that is perceived as formal. Due to their living status in the US for more than 3 years, it is likely that they are more highly competent in English than the religious preachers in previous studies living in different Arab countries. This gives them an advantage of having access to another formal language variety (i.e., English) when in need to fill in a proficiency gap. Moreover, given that they are aware of their audience (the interviewer) being a proficient bilingual of both languages, they "converge" and accommodate to the formality of the interview by relying on English to fill in their SA proficiency gaps. This is not the case with the preachers in previous studies, i.e., given the geographical locations of the religious ceremonies in Arab countries, there is no clear indication of the audience's proficiency in English even if the preachers were competent in it, hence the use of DA as a filler for SA incompetence.

Secondly, although SA interviews and DA interviews had similar percent of language used (the LoI was maintained 91.68% and 89.92%, respectively), SA generated different code-switching outcomes from DA. To be specific, SA interviews had a significantly lower rate of language

switching as well as a significantly longer mean of switches than their DA counterparts (7.21 vs. 14.18 switches/minute and 1.21 vs. 0.81 seconds, respectively). The literature had established how SA variety is perceived as the formal variety and how switching to English is viewed not only as a sign of informality but also as an insult to Arabic. This could explain why participants in SA interviews felt reluctant to switch languages as often as their DA counterparts, which then resulted in having a significantly lower rate of switches.

Looking at the instances of English switches in SA interviews, it is apparent that there was a tendency to use English for not only long academic words but also full phrases and, sometimes, full sentences. Although many of these English utterances are concerned with the participants' English mediated experiences, such as talking about academic-related tasks, quoting someone in the US, or filling in the gap where academic words are oftentimes said in English as a result of their schooling at a US university, some of these utterances have functions outside of their experiences in the United States, such as elaborating on things previously mentioned in Arabic. Examples of English utterances in SA interviews are "class-related activities," "publications," "scholarship," "plagiarism," "convey meaning," "typical American families," "talk to the person next to you," "to implement it back home," "make it easier for me to pinpoint," "native speakers versus non-native speakers," "you can't blame them for that," "that state of mind was to comply with the requirements of my own university, of my own employer," and "can we be friends, that's acceptable, but for adults I don't really know if you can approach someone and say can we be friends."

Having these long English switches in SA interviews could be another indicator of participants' compromised language proficiency in SA. Although one might argue that the participants might have learned certain academic terms in English first, before learning them in Arabic, due to their pursuit of various degrees in the United States, I contend that the English instances found in SA interviews do not necessarily support this view. Some of the academic words mentioned in English, such as "scholarship," "plagiarism," and "publications," are words that must have been acquired in Arabic first, particularly because the participants had to apply for "scholarship" support in Arabic documents in Saudi Arabia before coming to the United States. The possibility that they did not know what they were applying for is called in Arabic as they were filling in documents in Arabic is highly unlikely. In this case, the participants must have learned the word "scholarship" in Arabic before coming to the United States, yet the interviews had instances of this word in English. Moreover, looking at the structures of the code-switching instances, it is evident that the participants were mostly engaged in what Poplack (1980) described as extra-sentential and inter-sentential types of code-switching, which indicates inequal competence of the languages involved.

According to Poplack (1980), the type of code-switching produced by a bilingual gives insight into the speaker's competence level of the languages they speak. She lays out three types of code-switching, according to their level of grammatical complexity. First, extra-sentential code-switching, referred to as emblematic, involves inserting short words and phrases from language A in sentences that are in language B. Examples of emblematic codes are tag questions and fillers. This type of code-switching requires the least fluency in the languages involved, because it "has few, if any, ramifications for the remainder of the sentence" (p. 589).

Second, inter-sentential code-switching occurs outside the sentence boundary at the clause level. In this type, a speaker may say one thought in one language and shift to the other language for the next thought. This type of code-switching requires a higher level of fluency than extra-sentential code-switching because it involves a greater level of grammatical competence. Third, intra-sentential code-switching, referred to as the intimate type, occurs at the clause, phrase, word level within the same sentence. It requires the highest level of fluency in both languages, for "it must conform to the underlying syntactic rules of two languages which bridge constituents and link them together grammatically" (p. 589). She contends that intra-sentential code-switching is evidence of the high competence of the languages involved. A quick look at the instances of code-switching in SA interviews shows that participants mostly engaged in extra-sentential and inter-sentential types of code-switching; an indication that the participants' competence of SA and English at the time of the interview were most likely not comparable.

4.3 Dialectal Arabic (DA) Interview

The study hypothesized that, in DA interviews, the LoI would be the least maintained, which would result in shifting languages at a higher rate with short switches. DA interviews were consistent with the hypothesis.

Although DA interviewees maintained the LoI to the same extent as their SA counterparts (89.92% and 91.68%, respectively), it seems that their motivations for language switching are different. While participants switched to English in SA interviews mainly to fill in the gaps of language incompetence of SA while maintaining the formal status of the interview (discussed above), participants in DA interviews switched to English for different reasons which could be attributed to a few factors. First, the formal contextual setting of interviews (i.e., the interviews were conducted on a US university campus and were concerned with participants' journey of pursing academic degrees in the US) might have pressured the participants to diverge from the perceived informal LoI variety to a formal variety (i.e., English) in order to convey the appropriate formal status of the interview, which the interviewer failed to provide. Alternatively, knowing that code-switching is commonly found in informal conversations (Zakaria & Stephen Kalong, 2010), it is possible that because of the informal nature of DA, participants felt less pressured to maintain the LoI, and thus code-switched significantly more often than their counterparts in both English and SA interviews. They also produced significantly shorter English switches than their counterparts in SA interviews.

Second, looking at the instances of English switches in DA interviews, it is apparent that there was a tendency to integrate English words within single Arabic words and phrases. There were numerous instances of language switching within a single Arabic word, such as "*el*-freedom," "*el*-lifestyle," "*el*-compliment," "*el*-chocolate," "*el*-credits," and even the word "*el*-English" (italic marks Arabic; *el* is a definite article in Arabic). Other instances have an Arabic plural marker, such as "*el*-class-*aat*" and "*el*-project-*aat*" (*-aat* is an Arabic suffix that marks plural to a feminine noun). It is intriguing to note that the Arabic word for "class" is classified as a female noun, but "project" is a masculine noun. However, according to Laks (2014), *-aat* is the default plural formation strategy that Arabic speakers use for borrowed words (out of the 203

examples of borrowed words in plural that were examined in the study, 135 words (67%) took *-aat*). Nevertheless, it is important to note that it is not clear if "*el*-class-*aat*" and "*el*-project-*aat*" are established borrowed words among my participants; not only did the interviews have only one instance of each word but also, they were produced by two different participants.

Finally, instead of having clear phrasal and clausal boundaries, as was the case in SA interviews, participants in DA interviews produced phrases like "*el*-credits *ma haiseerlo* transfer" (the credits wouldn't be transferred), "*tibi* help *inti lazim*" (if you 'female' need help you should), "whatever *yani el*-role *haqao*" (whatever, I mean, his role), "*fih* exhaustion *kabeer*" (there is big exhaustion), and "*el-ta'amulat el*-social-*li*" (the social interactions). They also used English adverbs, such as "actually," "definitely," "mostly," and "basically," within Arabic phrases. In addition, when they used full English sentences and phrases, these English switches tended to be common English phrases and idioms, such as "jack of all trades," "people of color," "*el*-whiteness studies," "critical thinking," "*el*-spoon feeding," "exchange students," "bittersweet," and "I swear to God." All these instances of switches contributed to having significantly shorter mean switch length, in comparison to the instances found in SA interviews.

If I am to examine the types of code-switching found in DA interviews according to the types classified by Poplack (1980), I see an extensive use of the intimate type of code-switching, referred to as intra-sentential, which requires the highest level of competence of the languages being involved. This is the case because it involves blending in syntactic rules of the languages in one utterance. Having numerous instances of this type of code-switching in DA interviews indicates participants' high competence in both DA and English. On that note, it is important to point out that participants' Arabic-English code-switching patterns and types were not the same between SA interviews and DA interviews, which then gives insights into how SA and DA varieties are treated and perceived differently among Saudi Arabians (see above for SA patterns and types of code-switching).

Considering the higher rate at which participants switched languages in DA interviews as well as the types of code-switching involved in these short English switches, it is evident that the participants are more practiced at Arabic-English code-switching in DA conversations. To that end, I argue that Arabic-English code-switching is a linguistic style that is an emblem of DA conversations.

5. Conclusion

This study was conducted to explore Arabic-English code-switching behaviors among bilingual Saudi Arabians. While previous studies focused on code-switching between Standard Arabic (SA) and Dialectal Arabic (DA) on the one hand, and Arabic and English on the other, I designed three groups of interviews, one for each language variety: English, SA, and DA. Through this elicitation task, I investigated how each language variety generated Arabic-English code-switching patterns. I looked at three dependent variables: precent of language used, rate of switching, and switch length.

Based on the literature, employing one variety in a certain context is meaningful. SA and DA,

although they may co-exist in one setting, have different linguistic implications. SA is oftentimes used in formal conversations whereas DA is used in informal conversations. Moreover, using English among Arabs could be perceived as an insult to the Arabic language and a sign of disrespect, particularly to SA. Alternatively, the use of Arabic with English may indicate lack of fluency in English. Informed by these findings as well as Communication Accommodation Theory (CAT), I conducted the same interview in three different language contexts in order to determine how each variety encourages Arabic-English code-switching behaviors. Controlling the language of the interview (LoI), I hypothesized that SA and DA interviews would generate different results, and that SA interviews would resemble English interviews in code-switching practices. The results, however, reveal different outcomes and thus different code-switching behaviors in all three contexts.

The main findings of this study are that English language, as the LoI, has the greatest impact on participants' reluctance to code-switch. While previous studies argued that switching to English is viewed as an insult to Arabic language, my participants in English interviews avoided switching to Arabic at all costs. This, in fact, contradicts the argument that shifting to Arabic is an indication of Arabs' lack of fluency in English. When they were faced with English interviews, the participants successfully carried out the whole conversation in English. This is the case, I contend, as a result of the participants wanting to converge to their audience (i.e., the interviewer) who is using English, and, perhaps, to show off their mastery of English language. Having that said, it is plausible that the location of the interviews, (i.e., a US university) has an effect on the participants' maintenance of English as the LoI. Future studies, therefore, should be carried out in locations other than English speaking universities in order to explore if the impact of English, as the language of the conversation, will yield different outcomes in different locational contexts. They also should consider varying the interview questions to include longer conversations pertaining to experiences in Arabic, such as a favorite childhood memory with a grandmother. Another area that is worth investigating is gender differences. Future studies should include more interviews of both genders to examine if there are distinct code-switching patterns in each group.

Both SA and DA interviews, on the other hand, had numerous switches to English albeit in different patterns. While previous studies asserted that Arabic-English code-switching is a sign of lack of fluency in English, I argue that my participants shifted to English in SA interviews due to possible loss of fluency in SA. According to Poplack's (1980) classifications of types of code-switching, the types these participants produced are yet another indication of their compromised competence in SA. Nevertheless, expecting Saudi Arabians to be practicing their SA on a daily basis while living in an English-speaking country for more than 3 years is simply unrealistic. Therefore, I believe including bilingual Saudi Arabians who have returned to Saudi Arabia for a few years in order to determine if there is a higher possibility of maintaining SA as the LoI after being re-exposed to SA in the homeland is worth investigating in future studies. It might also be best to vary the topics of the interview questions to include topics that are more appropriate for SA, such as religion and poetry. Future studies should also examine the types of code-switching that occur in SA settings, and compare them to their DA counterparts, in order to evaluate the participants' fluency in SA after being re-exposed to it. Needless to say,

designing methods to distinguish between SA and DA in participants' Arabic speech should give insights into Arabs' true competence in SA, especially when it is compared to their competence in English.

Lastly, considering the informal nature of DA, participants in DA interviews not only generated the most code-switching instances but also shifted at a significantly higher rate. The types of code-switching found here are mostly intra-sentential code-switching, which Poplack (1980) refers to as the most intimate type of code-switching for it requires the highest level of competence of the languages being involved. This posited participants' significant familiarity of Arabic-English code-switching in DA settings. As a result, I assert that Arabic-English code-switching is an emblem of DA conversations among Saudi Arabians. However, considering how this study limits its finding on interviews taken in a formal setting (i.e., a US university), future studies should conduct interviews of informal questions in an informal contextual setting and compare them to interviews of formal questions in a formal contextual setting, in order to explore the impact of the locations and the topics of the interviews on participants' patterns of Arabic-English code-switching in DA conversations. This examines whether the formal/informal status of the context where DA interviews are being conducted in has any influence on how Arabic-English code-switching is experienced among Saudi Arabians. In other words, this investigates the implications of using DA in both formal and informal conversations. Is it possible that the informal nature of DA can change any context, including formal ones, to an informal status and thus increase the likelihood of code-switching? Also, it is worth investigating the impact of the topics being asked in the interviews on the patterns of code-switching, i.e., whether questions pertaining to English-mediated experiences generate more switches to English than Arabic-mediated experiences.

In addition, bearing in mind how different DA varieties hold different rankings among Arabs (Abu-Melhim, 1991; Soliman, 2014; S'hiri, 2003), it is worth exploring how different Saudi Arabian DA varieties employ Arabic-English code-switching. Between SA and DA varieties, Albirini (2016) and Saeed (1997) contend that one's attitude towards their own DA has an influence on their switching to DA in an SA setting, i.e., whoever holds a positive attitude towards their dialect will shift more to DA even when SA is expected. Future studies should examine how one's attitude and perceived status of their own DA variety impacts code-switching patterns. Furthermore, aligning with CAT theory, they should look at whether sharing the same DA variety with the interviewer yields different Arabic-English code-switching results from participants who speak different varieties of DA. Examining how Saudi Arabians employ code-switching as a means of convergence or divergence, based on their respective DA variety, will surely give insights into the hierarchy of different DA varieties in Saudi Arabia.

Ultimately, one of the main contributions of this study is to demonstrate how SA, although being perceived as the formal variety of Arabic, does not hold the same status as English among bilingual Saudi Arabians who have been living in an English-speaking country for a few years. It does not prevent language switching to the same extent as English does. Secondly, Saudi Arabians are not equally competent in SA and DA, which becomes evident in their Arabic-English code-switching patterns. The question then becomes concerned with not only

how fluent Saudi Arabians (or Arabs in general) truly are in SA but also how being fluent in English influences the status SA holds among Arabs.

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References

Abu-Melhim, A.-R. (1991). Code-Switching and Linguistic Accommodation in Arabic. In *Perspectives on Arabic Linguistics: Papers From the Annual Symposium on Arabic Linguistics. Volume III: Salt Lake City, Utah 1989* (pp. 231-250). John Benjamins Publishing Company. https://doi.org/10.1075/cilt.80.15abu

Abu-Rabia, S. (2000). Effects of exposure to literary Arabic on reading comprehension in a diglossic situation. *Reading and Writing*, *13*(1), 147-157. https://doi.org/10.1023/A:1008133701024

Albirini, A. (2011). The sociolinguistic functions of codeswitching between Standard Arabic and Dialectal Arabic. *Language in Society*, *40*(5), 537-562. https://doi.org/10.1017/S0047404511000674

Albirini, A. (2016). *Modern Arabic Sociolinguistics: Diglossia, Variation, Codeswitching, Attitudes and Identity*. Routledge.

Al-Qahtani, A. (2014). The Phenomenon of Code-Switching and Code-Mixing as Practiced among Faculty Members in a Saudi University. *ResearchGate*, 1-8. ResearchGate. https://doi.org/10.13140/RG.2.1.3143.1122

Al-Tamimi, F. Y. A. (2001). *Phonetic and phonological variation in the speech of rural migrants in a Jordanian city* [Ph.D. Dissertation, University of Leeds]. Retrieved from http://etheses.whiterose.ac.uk/6750/

Altoma, S. J. (1969). *The Problem of Diglossia in Arabic: A Comparative Study of Classical and Iraqi Arabic*. Harvard University Press.

Bassiouney, R. (2013). The social motivation of code-switching in mosque sermons in Egypt. *International Journal of the Sociology of Language*, *2013*(220), 49-66. https://doi.org/10.1515/ijsl-2013-0013

Boersma, P., & van Heuven, V. (2001). Praat, a system for doing phonetics by computer. *Glot International*, *5*(9/10), 341-345.

Boersma, P., & Weenink, D. (2019). *Praat: Doing Phonetics by Computer* (6.1.05) [Computer software]. Retrieved from http://www.fon.hum.uva.nl/praat/

Bořil, T., & Skarnitzl, R. (2016). Tools rPraat and mPraat. In P. Sojka, A. Horák, I. Kopeček, & K. Pala (Eds.), *Text, Speech, and Dialogue* (pp. 367-374). Springer International Publishing. https://doi.org/10.1007/978-3-319-45510-5_42

Coupland, N., & Jaworski, A. (2009). Relevance, accommodation and conversation: Modeling the social dimension of communication. *Multilingua - Journal of Cross-Cultural and Interlanguage Communication*, *16*(2-3), 233-258. https://doi.org/10.1515/mult.1997.16.2-3.233

Ferguson, C. A. (1959). Diglossia. *WORD*, *15*(2), 325-340. https://doi.org/10.1080/00437956.1959.11659702

Fishman, J. A. (1967). Bilingualism With and Without Diglossia; Diglossia With and Without Bilingualism. *Journal of Social Issues*, *23*(2), 29-38. https://doi.org/10.1111/j.1540-4560.1967.tb00573.x

Giles, H., & Ogay, T. (2007). Communication Accommodation Theory. In *Explaining communication: Contemporary theories and exemplars* (pp. 293-310). Lawrence Erlbaum Associates Publishers.

Habib, R. (2010). Rural Migration and Language Variation in Hims, Syria. *SKY Journal of Linguistics*, *23*, 61-99.

Ibrahim, M. H. (1986). Standard and Prestige Language: A Problem in Arabic Sociolinguistics. *Anthropological Linguistics*, *28*(1), 115-126.

Ismail, M. (2015). The Sociolinguistic Dimensions of Code-Switching between Arabic and English by Saudis. *International Journal of English Linguistics*, *5*(5), 99-109. https://doi.org/10.5539/ijel.v5n5p99

Laks, L. (2014). The Cost of Change: Plural Formation of Loanwords in Palestinian and Jordanian Arabic. *Zeitschrift Für Arabische Linguistik*, *60*, 5-34. https://doi.org/10.13173/zeitarabling.60.0005

Makowski, D., Ben-Shachar, M. S., Patil, I., & Lüdecke, D. (2021). *Automated results reporting as a practical tool to improve reproducibility and methodological best practices adoption* [R]. Retrieved from https://github.com/easystats/report

Mesthrie, R., Swann, J., Deumert, A., & Leap, W. L. (2009). *Introducing Sociolinguistics* (2nd ed.). John Benjamins. Retrieved from https://benjamins.com/catalog/z.102

Omar, A., & Ilyas, M. (2018). The Sociolinguistic Significance of the Attitudes towards Code-Switching in Saudi Arabia Academia. *International Journal of English Linguistics*, *8*(3), 79. https://doi.org/10.5539/ijel.v8n3p79

Poplack, S. (1980). Sometimes I'll start a sentence in Spanish Y TERMINO EN ESPAÑOL: Toward a typology of code-switching. *Lingusitics*, *18*(7-8), 581-618. https://doi.org/10.1515/ling.1980.18.7-8.581

R Core Team. (2018). *R. A language and environment for statistical computing* (3.5.1) [R]. R

Foundation for Statistical Computing. Retrieved from http://www.R-project.org

RStudio Team. (2018). *RStudio, Integrated Development Environment for R* (1.1.463) [R]. RStudio, Inc. Retrieved from https://www.rstudio.com

Saeed, A. T. A. (1997). *The pragmatics of codeswitching from FuSHa Arabic to Aammiyyah Arabic in religious-oriented discourse* [Ph.D., Ball State University]. Retrieved from http://search.proquest.com/docview/304336313/abstract/DBE31EDBC52B48ADPQ/1

Sallam, A. M. (1980). Phonological variation in educated spoken Arabic: A study of the uvular and related plosive types1. *Bulletin of the School of Oriental and African Studies*, *43*(1), 77-100. https://doi.org/10.1017/S0041977X00110559

Sayahi, L. (2014). *Diglossia and Language Contact: Language Variation and Change in North Africa* (1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9781139035576

Soliman, R. K. A. M. (2014). Arabic cross-dialectal communication: A missing element in the Teaching of Arabic as a Second Language. *Arabele 2012*, 115-133. https://doi.org/10.6018/editum.2716

S'hiri, S. (2003). Speak Arabic Please!: Tunisian Arabic Speakers' Linguistic Accommodation to Middle Easterners. In *Language Contact and Language Conflict in Arabic* (pp. 149-174). Taylor & Francis Group. Retrieved from http://ebookcentral.proquest.com/lib/unm/detail.action?docID=1099330

Zakaria, M. H., & Stephen Kalong, R. I. (2010). Code Switching In Informal Interaction Among A Group Of 4th Year TESL Students Of UTM. *Journal of Science & Mathematics Education*, 1-8.

Appendix: Interview Questions in English

1- How old are you?

2- Where did you come from in Saudi Arabia?

3- When did you move to the US? How old were you then?

4- How was your move from Saudi Arabia to the US?

5- In the US, what was the first town you lived in? How was it like? What did you like and dislike about it?

6- What did you like and dislike about Albuquerque?

7- Talk about something you miss about Saudi Arabia?

8- What will you miss the most about the US when you move back to Saudi Arabia?

9- How does living in the US shape your personality?

10- Tell us about a memorable experience you had in the US.

11- How is it like to make friends in the US?

12- How did the English classes you took in Saudi Arabia help you interact with people in the US in everyday life?

13- When did you join UNM?

14- What are you studying? What is the degree you are seeking?

15- What was the last degree you got from Saudi Arabia?

16- What has been your favorite class at UNM and why?

17- What made you decide to study abroad?

18- What made you choose the US?

19- How did your education in Saudi Arabia prepare you to study in the US?

20- How does American education compare to Saudi Arabian education?

21- What do you plan to take from your experience here with you home?

22- What is your professional aspiration?

23- What do you like and dislike about American education?

24- How does using English in classrooms impact your education?

Appendix: Interview Questions in Standard Arabic (SA)

١- كم مضى من عمرك؟

٢- من أي منطقة من المملكة العربية السعودية أنت؟

٣- متى انتقلت إلى الولايات المتحدة الأمريكية؟ كم كان عمرك حينها؟

٤- كيف كانت هجرتك من المملكة العربية السعودية إلى الولايات المتحدة الأمريكية؟

٥- ماذا كان انطباعك عن أول مدينة سكنت فيها في الولايات المتحدة الأمريكية؟ ما الذي أحببته في تلك المدينة؟ وما الذي كرهته فيها؟

٦- ما الذي تحبه في مدينة البوكوركي وما الذي تكرهه فيها؟

٧- أخبرني عن شيء تحن له في المملكة العربية السعودية؟

٨- ما الذي سوف تحن له في الولايات المتحدة الأمريكية عندما تعود إلى المملكة العربية السعودية؟

٩- كيف تجربة عيشك في الولايات المتحدة الأمريكية صقلت شخصيتك؟

١٠- أخبرني عن تجربة لا تنسى حصلت لك في الولايات المتحدة الأمريكية؟

١١- كيف يستطيع الشخص تكوين علاقات صداقة في الولايات المتحدة الأمريكية؟

١٢- كيف ساعدتك اللغة الإنجليزية التي تعلمتها في المملكة العربية السعودية من التخاطب مع الآخرين هنا في الأمور اليومية؟

١٣- متى انضممت لجامعة نيوميكسيكو؟

١٤- ماذا تدرس؟ ما هي الشهادة الأكاديمية التي تعمل للحصول عليها؟

١٥- ما هي اخر شهادة حصلت عليها من المملكة العربية السعودية؟

١٦- ما هي المادة الأكاديمية المفضلة لديك؟ ولماذا؟

١٧- ما الذي جعلك تقرر الدراسة في الخارج؟

١٨- لماذا اخترت الولايات المتحدة الأمريكية؟

١٩- كيف أهلتك الدراسة في المملكة العربية السعودية للدراسة في الولايات المتحدة الأمريكية؟

٢٠- ما رأيك في الدراسة في الولايات المتحدة الأمريكية مقارنة بالدراسة في المملكة العربية السعودية؟

٢١- ما الذي سوف تأخذه معك من تجربة دراستك بالولايات المتحدة الأمريكية إلى المملكة العربية السعودية؟

٢٢- ما هي طموحاتك؟

٢٣- ما الذي تحبه في الدراسة في الولايات المتحدة الأمريكية وما الذي تكرهه فيها؟

٢٤- كيف ترى المحاضرات باللغة الإنجليزية أثرت على تعليمك؟

Appendix: Interview Questions in Dialectal Arabic (DA)

١- كم عمرك؟

٢- من فين جيت من السعودية؟

٣- متى جيت لامريكه؟ وقد ايش كان عمرك وقتها؟

٤- كيف شفت نقلتك من السعودية لأمريكه؟

٥- كيف لقيت أول مدينة سكنت فيها في امريكه؟ ايش الاشياء اللي حبيتها واللي ما حبيتها في ديك المدينة؟

٦- ايش اللي تحبو واللي ما تحبو في البوكوركي؟

٧- حكيني عن شي وحشك في السعودية؟

٨- ايش اللي ح يوحشك في امريكه لما ترجع السعودية؟

٩- كيف عيشتك في امريكه اترت على شخصيتك؟

١٠- حكيني عن حاجة حصلت معاك في امريكه مستحيل تنساها.

١١- بالنسبالك، كيف الواحد يقدر يسويي صداقات في أمريكه؟

١٢- كيف الانقليزي اللي تعلمتو في السعودية ساعدك تتكلم مع الناس هنا في امريكه في الحاجات اليومية؟

١٣- متى دخلت جامعة نيوميكسيكو؟

١٤- ايش بتدرس؟ لشهادة ايه؟

١٥- ايش اخر شهادة اخدتها من السعودية؟

١٦- ايش المادة اللي حبيتها اكتر شي؟ وليش؟

١٧- ايش اللي خلاك تقرر تدرس بره؟

١٨- ايش معنى اخترت امريكه؟

١٩- كيف دراستك في السعودية جهزتك تدرس في امريكه؟

٢٠- كيف تشوف دراسة امريكه لما تجي تقارنها بدراسة السعودية؟

٢١- ايش اللي حتاخذو معاك من تجربة دراستك في امريكه لما ترجع السعودية؟

٢٢- ايش هيا طموحاتك؟

٢٣- ايش اللي تحبو واللي تكرهو في دراسة امريكه؟

٢٤- كيف تشوف المحاضرات بالانقليزي تأثر على تعليمك انت؟