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FACTORS THAT INFLUENCE THE PRONUNCIATION OF INTERDENTALS  
IN MODERN STANDARD ARABIC AND ENGLISH BY EGYPTIAN ARABIC SPEAKERS.

A Thesis  
presented in partial fulfillment of requirements  
for the degree of Master of Arts  
in the Department of Modern Language  
The University of Mississippi

by

YASMINE SEDEEK

May 2019



## ABSTRACT

Although Modern Standard Arabic (MSA) has three different interdental fricatives /θ/, /ð/, and the emphatic interdental /ðˤ/, most Egyptian Arabic (EA) speakers do not pronounce these interdental fricative sounds, whether in Modern Standard Arabic (MSA) or in English, and instead substitute them with the sibilant /s/ and /z/, respectively (Schmidt, 1987), as in the examples ‘three’ and ‘the’. The factors which influence the pronunciation of interdentals by EA speakers vary from one study to another. For instance, Ahmed Ali (2014) and El Zarka (2013) refer to dialect interference in the second language acquisition of phonology, while other studies indicate some sociolinguistic variables such as a socioeconomic background variable (Labov, 1970) or a stylistic variable (Schmidt, 1987) as influencing the EA speakers’ pronunciation of interdental fricatives. This study examines the interdentals of 15-20 EA speakers through an interview and several tasks, including reading samples, in order to determine which variables (e.g., phonological, sociolinguistic, stylistic) are the most salient in the acquisition of interdentals in MSA and L2 English. In addition, this study tests several new variables (the effect of pronunciation teaching, and formality of the topic) that may influence the EA speakers’ pronunciation of interdentals. Through analysis of the collected data, this study demonstrates that the pronunciation of interdentals by EA speakers is in fact due to a combination of these factors.

*Keywords:* Egyptians’ pronunciation, interdentals.

## DEDICATION

I would like to dedicate this thesis to my father Mohamed Dahy Sedeek, my mother Zeinab AlGohary, and my lovely daughter Hayat.

## LIST OF ABBREVIATIONS AND SYMBOLS

CA	Classical Arabic
EA	Egyptian Arabic
L1	First Language
L2	Second Language
MSA	Modern Standard Arabic

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## CHAPTER 1: INTRODUCTION

Arabic is not monolithic, featuring several dialects. Yet, it is a myth to state that Arabic speakers from different countries speaking different dialects need to communicate with one another using the lingua franca of the Arab World, namely Modern Standard Arabic (MSA) (Jaradat & Al-Khawaldeh, 2015). However, it is true, on the other hand, that the Arabic language is a prime example of diglossia, in which speakers of Arabic dialects also learn and use MSA. Al-Mamari (2011) states that “...linguists explain diglossia as a sociolinguistic phenomenon, in which a particular language has two varieties: the high level which is used for formal or standard use and the low level which is used for a daily communication and affected by the geographical regions” (p. 1).

According to Palmer (2007), the high-level variety of Arabic is called Modern Standard Arabic (MSA). This variety is related to the Classical Arabic (CA) the language of the holy book the *Qur'an* and the written or formal form of Arabic. As such, MSA is used in the media, in newspapers courts and on official occasions. Palmer (2007) states that “Modern Standard Arabic is understood across the Arab countries intelligibly” (p. 113).

On the other hand, informal spoken Arabic is sometimes referred to as a vernacular, dialect or colloquial Arabic. Arabic dialects are used in informal contexts, which means in the daily communication among people. Each region has its own dialect, as it is affected by the region's culture and people (Palmer, 2007). In fact, in contrast to MSA, Arabic dialects are unintelligible between Arabs, although there are some exceptions such as popular dialects like Egyptian Arabic or the Lebanese Arabic dialects which are more intelligible across the Arabic-language world due

to the popularity of culture and media. The linguistic disparities between the basilect form of Arabic (i.e., dialects) learned by most children at home and the acrolect form (i.e., MSA) which is first taught in the Arabic countries' schools from first grade are significant, such that most children learn MSA as a second language (Fellman, 1973, as cited in Mellor, 2005).

This study investigates the acquisition of MSA, specifically the acquisition of the interdental fricatives, by speakers of Egyptian Arabic (EA) or the Egyptian dialect spoken language by most of Egyptians in Lower Egypt (i.e., northern Egypt) and around the capital of Cairo. As noted, Egyptian Arabic is one of the most comprehensible dialects in the Middle East because of its prestigious position among the other Arabic dialects due to the spread of the Egyptian media, and hence, is understood by the majority of Arabs (Ahmed Ali, 2014). Furthermore, this study compares the acquisition of the interdentals of MSA to those of English as a second language (L2).

This study focuses on the pronunciation of the interdental fricatives of /θ/ and /ð/ in MSA and English by Egyptian Arabic (EA) speakers because these interdental fricatives /θ/ and /ð/ of the respective phonological inventories of MSA and English are not part of the phonological inventory of the Egyptian-Arabic dialect. The MSA phonological inventory has three interdental sounds /θ/, /ð/, and /ðˤ/ (Schmidt, 1987). The majority of Egyptian Arabic speakers substitute the interdental fricatives with the two sounds /s/ or /z/ respectively, when they speak English or MSA:

For example, in English the words 'three' and 'the' are pronounced as /sree/ and /zə/ respectively; while in MSA 'الثعلب' which is /əlθaalab/ is pronounced as /əlsaalab/ and 'إِذَا' which is /iðə/ is pronounced as /izə/.

Thus, this focus on the acquisition of interdentals should demonstrate that 1) the acquisition of interdentals of MSA and L2 English is comparable as MSA is analogous to a second language for EA speakers and that 2) the acquisition of interdentals between these two languages also varies

due to different factors (not merely phonological but also educational and sociolinguistic) shaping their respective acquisition.

Some studies attribute the difficulty of acquiring these interdentalals by EA speakers to L1 interference (Ahmed Ali, 2014). In contrast, other studies attribute such difficulties to sociolinguistic factors such as socioeconomic variables and educational background (cf., English, Labov, 1970) or to stylistic factors such as reading style (MSA and English, Schmidt, 1987). However, this current study will attempt to approach the acquisition of interdentalals in MSA and L2 English in a more comprehensive manner, investigating the influence of the empirical factors noted in previous studies while noting some new factors.

## CHAPTER 2: LITERATURE REVIEW

### *2.1 The Arabic language*

Arabic is a fast-growing language spoken in twenty-five countries by around 400 million persons in the Middle East and North Africa (Cote, 2009). Furthermore, Arabic is important for more than one billion Muslims around the world as a ritual language of the Muslims Holy book the *Qur'an* (Newman, 2002).

Arabic (along with Greek, Haitian Creole and Swiss German) is considered a prime example of the linguistic phenomenon of “diglossia,” whereby a single language community uses two languages or two dialects of one language (Freeman, 1996). Each diglossic community has a “High” version for formal use and a “Low” version for informal or casual use. These two varieties of language are noted to be related or have a close relation (Hashem-Aramouni, 2011, citing Ferguson, 1959). Furthermore, diglossia is different from bilingualism because Ferguson states that the “High” version is the acquired version of the language and is therefore the “real” language version, while the “Low” version is considered the “distorted” version of the language. However, in Arabic-speaking countries, Modern Standard Arabic (MSA), which is considered the “High” version and therefore the “real” version of Arabic, is not acquired, while the “Low” version of the dialects considered the “distorted version” is the actual acquired language (cf., Freeman, 1996).

#### *2.1.1 Modern Standard Arabic (MSA).*

Modern Standard Arabic (MSA), or literary Arabic, refers to the standardized Arabic used in writing and most formal speeches. Modern Standard Arabic is derived from Classical Arabic

(Newman, 2011). Classical Arabic is the language of the Qur'an and pre-Islamic poems (Ibrahim, 2009). Alish and Grandin-Gillette (2012) mention that Classical Arabic and MSA have almost the same grammar, phonology and lexical structure.

There are the same twenty-eight consonants in classical Arabic and Modern Standard Arabic, and six vowels (three short and three long vowels). The pronunciation of all the letters are the same in CA and MSA. For example, the word 'الجنة' [aljanah] which means 'paradise' in English, have the same pronunciation in CA and MSA.

Furthermore, the syntax and lexical structure are the same in MSA and CA as well. There are three types of sentences: 1) nominal sentence, 2) verbal sentence, and 3) sentence with special structure such as vocative sentence (ElShishany, 1900). In addition, the lexical structure of the imperative is the same in MSA and CA. For example, in the Qur'an "Surat AlBaqara" verse (238):

حافظوا	على	الصلوات
keep (v. 2nd p. pl.)	on (prep.)	the prayers (n.)
Keep your prayers		
[ħafið̣oo ʕala assalawati]		

As imperative form in MSA as well as in CA is addressed to the second person; and in this case, a verb with four letters root like 'keep' [ħafið̣v] will be in its jussive case.

Additionally, Classical Arabic is practiced everyday by Muslims in their prayers (Mellor, 2005). Thus, in this study, MSA will refer to the standardized form of Arabic (i.e., both Classical and Modern Standard Arabic).

Modern Standard Arabic is counted as the formal language, which means it is the language that is used in the courts of law, religious ceremonies, news bulletins, books and formal reports. The form of the Arabic language taught in schools in all the Arabic countries is, therefore, MSA.

Mellor (2005) describes the situation of MSA in schools as that of a foreign language or L2 because students do not practice it socially or even in classroom conversation, even though MSA grammar is taught in classes. Thus, students must memorize MSA, and only then can they read and write it. Fellman (1973) also adds that students can read religious or literary texts without necessarily understanding these texts (as cited in Mellor, 2005).

Many studies (Huthaily, 2003; Watson, 2002) describe the phonological inventory of Modern Standard Arabic: 28 consonants, each of them represented by a single alphabetical letter. There are three interdental fricatives in the MSA phonological inventory represented by three different letters: 1) the voiceless interdental fricative /θ/, represented by the letter “ث”, as in the word [θlæθh] ‘ثلاثة’ 2) the voiced interdental fricative /ð/, represented by the letter “ذ”, as in the word [iðə] ‘إذ’ and 3) the voiced interdental velarized fricative /ðˤ/, represented by the letter “ظ” as in the word [əlaaðˤim] ‘العظيم’ (Huthaily, 2003).

### 2.1.2 Arabic colloquial dialects

The Arabic colloquial dialects are referred to in several ways: Arabic vernacular, colloquial language, colloquial dialect, and informal language (Palmer, 2007). All these names refer to the variety of language employed in daily life conversations by Arabs and in their informal communication. For example, students in Israel note that Arabic dialects are the means to communicate in daily life, but not for study at schools, and that they consider formal Arabic as an ineffective way to communicate despite its prestige (Schmidt, Ibar, & Shohamy, 2004).

The differences among Arabic colloquial dialects, which vary from one area to another are due to the area and people’s cultural differences. For example, Iraqi Arabic is very different from Moroccan Arabic because the two areas are very far from each other (Palmer, 2007). Thus, the further apart the areas, the more unintelligible the dialects (Watson, 2002 cited in Palmer, 2007).

The variation among Arabic dialects is found in the dialects' phonology, morphology and grammar systems (Swan & Smith cited in El Zarka, 2013). However, some Arabic dialects are more intelligible than others in the Arab world, for example, the Egyptian dialect and the Levantine dialect.

For example, the word 'now' in the Egyptian dialect is /delwæʔt/, while in the Levantine dialect is /hæ'l'læ/ and both of them are intelligible by most of the Arab world (El Zarka, 2013).

Additionally, the mutual unintelligibility of the Arabic dialects due to their differences is apparently much more significant than that those dialectal differences between the English language in the UK, US and Australia (Tretman, 2011, p. 195).

### *2.1.3 Egyptian Arabic (EA)*

The Egyptian Arabic (EA) dialect is the language of the capital of Egypt, Cairo, which is why it is sometimes called the Cairene dialect (Versteegh, 1997). Egyptian Arabic or "Masri" (مصري), derived from the word "Misr." which means 'Egypt' in Arabic, is spoken by more than 64 million people in Lower Egypt (i.e., northern Egypt) and the Nile Delta. Furthermore, the Egyptian Arabic dialect is intelligible throughout Egypt due to the spread of mass media and also to being considered the prestigious language in Egypt (Versteegh, 1997). Moreover, the Egyptian dialect is counted as the most prestigious Arabic dialect in the Arab World (Ahmed Ali, 2014; Huthaily, 2003) due to the spread of its media and movies throughout the region. Another very important reason for the spread of EA is that most of the Arab countries hire Egyptian teachers because of the lack of local teachers (Huthaily, 2003).

## **2.2 Second language phonology**

Much of the literature explains the influence of the first language (L1) on second language (L2) acquisition as either having a positive or negative effect. The negative effect of the L1 on the

second language is termed as “interference.” Dulay et al. (1982) state that interference is the main reason behind negative transfer: the speaker depends on transferring the L1 sounds to the L2 sounds. Lott (1983) defines interference as “errors in the learner’s second language due to the native language” (p. 256). Ellis (1997) adds that the learner’s perception is one of the main reasons that motivates interference in the second language. All these definitions of language interference explain and clarify some different reasons as to how the native language may influence second language acquisition negatively.

One of the most common types of interference is phonemic and phonological interference. Flege and Port (1981) present a perfect explanation for the phonetic interference in a new language among adult learners. Three reasons cause phonetic interference. First, the adult learner may mispronounce a new sound if there is no similar sound in the learner’s native language (Lado, 1957), but Flege and Port (1981) add that if the new sound has a feature that is similar to a certain sound in the L1, the learner will find little difficulty in learning it. Second, interference could occur when the learner mispronounces certain allophones (i.e., one possible physical realization of a single phoneme conditioned by the phonetic environment, e.g., [t], [t̪], [ɾ], [ʔ] for /t/ in English) of the novel phoneme.

Alfehaid (2015) mentions one of the Arabs major problem in pronunciation which is substituting the voiceless /p/ by the voiced /b/. As the aspirated /p/ does not exist in the Arabic phonetic inventory. So, the word /pepsi/ may pronounced as /bebsi/ by some of the Arabs (Ahmed Ali, 2014).

Third, phonetic interference could happen as a result of applying phonetic features incorrectly (cf., Speech Learning Model, Flege, 1995).

In this study, interference will be examined as one of the reasons that may affect the mispronunciation of the interdental fricative sounds in MSA and English by EA speakers. Despite the absence of interdental fricatives in the Egyptian Arabic phonological inventory, EA speakers should still not be able to acquire the new phonemes /θ/ and /ð/ with target-like accuracy since they start learning MSA and English from the age of six (i.e., first grade). That is, a study by Pallier, Colomè and Sebastián-Gallès (2001) demonstrated that bilingual speakers of Catalan and Spanish could not perceive Catalan-specific contrasts when Spanish was the dominant language, i.e., little exposure to Catalan before the age of 4, as Spanish was spoken in the home. In the case of the interdentals of MSA and English, this appears to be the case as well.

For further hints as to why EA speakers have difficulty in pronouncing interdental fricatives, we turn to Flege and Port (1981), who examined the phonetic voicing contrast of Arabic produced by speakers from Saudi Arabia and in English produced by Saudi Arabian speakers and American-English speakers. The research concludes that there is interference of Arabic to English in the voicing stops produced by Saudi Arabian speakers. Also, the study notes that the American-English listeners found some difficulty in differentiating between the voicing stops produced by Saudi Arabian speakers except for the /p/ phoneme, despite its absence in the Arabic inventory. Flege and Port, however, demonstrate that the absence of the /p/ phoneme in the Arabic phonological inventory is not the main reason that causes language interference. Moreover, Flege and Port declare that even after Saudi Arabian speakers spend several years in an English-speaking environment, only minimal adjustment occurs in the articulation of /p/. Thus, Flege and Port conclude that the Saudi Arabian speakers are aware of the phonological and phonetic feature of /p/ because of their timing of labial articulation, and the “Saudis’ main difficulty was how to adopt the glottis in such a way as to stop the occurrence of the glottal pulse during the closure interval

of /p/” (p. 144).

In another study examining the influence of an Arabic dialect on L2 English (Ahmed Ali, 2014), the reason behind phonological interference is explained as a result of the second language users’ lack of knowledge of the L2 and relying on their first language to fill in the gap in their L2 knowledge: the greater the phonological similarity between the first and second language inventories, the easier it is for the speaker to learn the second language. Ahmed Ali’s study discusses the interference of two Arabic dialectal varieties (Libyan and Egyptian) on the acquisition of English phonology by examining multiple phonetic features such as the interdental fricatives /θ/ and /ð/ and the bilabial plosives /p/ and /b/. Ahmed Ali demonstrates in her study that in the case of the Egyptian Arabic speakers, L1 interference is the reason behind the non-target-like pronunciation of English interdentals by EA speakers and shows how the specific dialectal differences affect the acquisition of some phonological English sounds such as /p/, /θ/, and /ð/ (for example, many EA speakers pronounce /b/ instead of /p/, as in ‘people’ [pipəl] is pronounced as [bibəl] and /s/ instead of /θ/, as in ‘thanks’ [θæŋks] pronounced as [sæŋks]).

This current study differs from the Ahmed Ali (2014) study as it focuses only on one phonemic feature (interdentals) for Egyptian Arabic speakers in two different languages (English and MSA) rather than two different sets of phonemes (fricatives and plosives) and in one L2 (English). This study concentrates on only the interdentals in order to be more specific and present more details about the interdental fricatives and demonstrate that interference in the production of the interdentals by EA speakers is attributable to some new factors.

Flege and Port’s (1981) study differs from that of Ahmed Ali’s (2014) as the former study states that the L1 is not the main influence in the L2’s interference. That is, Flege and Port (1981) show that the absence of the /p/ sound in the Arabic inventory does not affect its acquisition in

English by Saudi Arabic speakers. However, Ahmed Ali (2014) states “the absence of /θ/ and /ð/ sounds in the Egyptian Arabic inventory has a direct effect on the EA speakers’ acquisition to those sounds in English” (p. 42). This study attempts to determine other factors that go beyond the acquisition of interdental fricative sounds by EA speakers.

### **2.3 Sociolinguistic factors**

“Sociolinguistics,” as it is called by Labov (1970), is “a kind of research that deals with the use of language inside its speech community” (p. 30). Language is a social behavior, and thus, sociolinguistic research focuses on the social factors that deal with languages and dialects. Labov (1970) discusses “the sociolinguistic variables as factors that are not related to the linguistic variables and affect the social context such as the addressee, the speaker, the audience, etc.” (p. 66). Labov also adds that social markers or indicators such as socioeconomic status, gender, ethnic group, stylistics and age have an influence on the speech community.

In this study, the stylistic context and the formality of the topic or the situation is tested as the sociolinguistic variables that potentially influence the pronunciation of the interdentals by EA speakers. Labov (1970) and Schmidt (1974; 1987) use reading style as a sociolinguistic variable that affects the pronunciation of interdental fricatives. Stylistic context can easily influence the pronunciation of the reader, as evidenced in several studies (Labov, 1970; Schmidt, 1974; 1987) which used three different reading styles as sociolinguistics variables: a reading passage, word list, and minimal pair list varying on a continuum by the amount of attention given to pronunciation. Both studies consider a reading passage as the less formal style, as a reader will read normally with the least amount of attention to his/her pronunciation. The formality of the reading style is raised in the word list by focusing more on the pronunciation of each single word. Finally, the most formal style is found in the reading of minimal pairs, as the reader will pay the most attention

by comparing two words differing by one phoneme, which in turn influences the reader's pronunciation.

Labov (1970) conducted a study that tested socio-economic groups and stylistic contexts as sociolinguistic variables that affect the pronunciation of the interdental fricative sound /θ/ by African-Americans in New York City. Labov (1970) states that “the interdental fricative [θ] is considered as the prestigious sound for /θ/, while the stops (e.g., [t]) and affricates (e.g., [tʃ]) are the ruined ones” (p. 67). Moreover, Labov cited his 1966 study, which examines the gender factor as a sociolinguistic variable of pronouncing the /θ/ sound as women use less “ruined” forms (i.e., stops) for /θ/ than men. To sum up, Labov attributes in his studies (1966; 1970) several sociolinguistic variables such as gender, socio-economic background, and stylistic context as affecting the pronunciation of the interdental fricative /θ/. However, this current study differs from Labov's (1970) study in the type of participants, as the current study's participants are EA speakers and the languages examined are not the participants' first language as in Labov's study. This study also does not test only the social variables and stylistic contexts as in Labov (1966; 1970), but other sociolinguistic variables such as the formality of the topic or situation as tested through various tasks. This study thereby attempts to show more details regarding the socio-economic factors in determining whether they are influential factors in acquiring the pronunciation of interdentals in the L2 or whether there may be other more influential factors.

Schmidt (1987) investigated the pronunciation of interdentals of L2 English by EA speakers. The first part of the study explains how the EA speakers substitute these interdentals with either stops /t, d/ , as in the word ‘more’ which is [ʔakθr] will be [ʔaktɹ] and the word ‘wolf’ which is [ðiʔb] will be [diʔb] respectively or sibilants /s, z/, as in ‘to act’ [maθθl] will be [massl] and ‘to mention’ [ðakar] will be [zakar] respectively depending on the word, which is attributed to a

historical background explanation. Schmidt (1987, citing Robertson, 1970) states that there is no certain rule that controls the substitution of the Egyptians' interdental fricatives with stops /t, d/ and sibilants /s, z/ from their dialect. However, Schmidt (1987) mentions that "the replacement into stops is no longer operating in Egypt" (p. 368). Thus, the replacement of the interdental fricatives with stops by EA speakers in any foreign language is not expected. Schmidt furthermore investigated whether EA speakers alternate between sibilants and stops in substituting these for the interdental fricative sounds when Egyptian Arabic speakers speak English. Schmidt finds that only sibilants are substituted for interdental fricative sounds by Egyptians in English, but they never substitute stops. In the current study, Schmidt's results are considered as given and thus, Egyptian Arabic is not examined, but rather the acquisition of interdental fricatives in a second language such as English and MSA is examined.

In the second part of Schmidt's (1987) study, stylistic context is used as the sociolinguistic variable that affects the pronunciation of interdental fricatives by EA speakers in English and MSA. However, Schmidt hypothesized that within a certain style level, the participant's sibilant substitution for interdental fricatives in English will be reflected in the participant's performance in MSA at the same style level. For example, if a certain participant has many mistakes in reading interdental fricatives in the passage in English, this participant will make many mistakes reading interdental fricatives in the MSA passage as well. However, the current study goes beyond Schmidt's hypothesis introducing two additional factors to demonstrate that Schmidt's interpretation of his results are perhaps superficial. First, in this study, formality as a sociolinguistic variable will be interpreted in terms of the topic or the situation. That is, this study will examine formality as influenced by a continuum of different genres of reading from the most formal to the least: from

1) the Qur'an which is considered the most formal reading to 2) formal (news) topic and finally to 3) a puzzle.

Second, the influence of the correct teaching of pronunciation will be investigated as one of the main reasons affecting the participant's pronunciation. This aspect will be illuminated through an interview with the participants asking about their background in learning pronunciation. The reading of the Qur'an also represents one factor in pronunciation teaching because if the participant has been subjected to Qur'anic learning, this would most likely mean that the participant can produce the correct pronunciation of the interdental fricatives while reading the Qur'an. This is further explained in the following section.

#### **2.4 Teaching pronunciation**

The significance of correct pronunciation is discussed by El Zarka (2013) as a means to help people transfer their messages through communication. El Zarka adds that incorrect pronunciation may impede communication. Thus, the teaching of pronunciation can be critical. In the current study, the inadvertent teaching of incorrect pronunciation is regarded as one of the reasons behind the non-target-like pronunciation of interdentals by Egyptian Arabic speakers. This study attempts to examine the teaching of incorrect pronunciation as one of the factors that potentially affects the pronunciation of interdentals by EA speakers in L2 English and Modern Standard Arabic.

This study differs from other studies by introducing the reading of the Qur'an as one of the reading tasks. In fact, the reading of the Qur'an is a good indicator of the teaching of correct pronunciation because some of the participants who have been subjected to correct Qur'anic recitation or "the teaching of correct reading" should be able to pronounce the interdental fricatives correctly. Reading the Qur'an or reciting the Qur'an is called "Tajwid" (تجويد). Tajwid is an Arabic noun derived from the verb "Jawad" (جود) which means to become proficient at something, and

regarding the Qur'an, means to pronounce and articulate the Qur'anic verses correctly (Mssraty & Faryadi, 2012).

Czerepinski (2000) states that reading or reciting the Qur'an needs special training through listening to qualified teachers, and then reciting the Qur'an to the teachers to be corrected if need be. Therefore, this study adds a reading of the Qur'an to examine the factor of teaching correct pronunciation because the Qur'an is written in Classical Arabic. As such, it has the interdental fricative sounds, and the participant who is subjected to Qur'anic teaching should pronounce the interdental fricatives correctly. Additionally, it should be noted that teachers who teach Tajweed should have an "Ijazah" ('sacred pedigree'), which means a license or authorization to permit its holder to transmit Islamic religious knowledge such as practicing and teaching the Qur'an (Rafiq, 2014).

As for the teaching of English in Egypt, Yani (2012) discusses the effect of teaching incorrect pronunciation of English to young learners. Yani states that many urban areas have reduced the age of teaching English to grade one in their schools. This sudden reduction in the age of learning English has caused the presence of many poorly trained English teachers, which in turn influences the learners negatively. This situation is deemed one of the significant negative causes for learners' exposure to incorrect English pronunciation. In Yani (2012), the importance of teachers' mastery of English is discussed by stating that "it is considered as one of the teaching cores and cannot be separated from the teaching process" (p. 180). Language consists of four main aspects: phonology, morphology, syntax, and semantics; their combination forms language. Therefore, as one aspect of language, it is crucial to pronounce a language's sounds correctly while learning that language.

Yani (2012) presents a survey as part of his research with the goal of showing the positive effect of pronunciation teaching about the language learners' pronunciation. Eighty-four

Indonesian students majoring in teaching English in a school of education were asked to pick the correct pronunciation of 16 words in English that are commonly mispronounced in Indonesia. The survey results show a high percentage of incorrect pronunciation by these future teachers of English. Thus, Yani believes that it is essential to examine the sources of input accounting for these mispronunciations of English. Yani further explains that the learning environment of English, which is the school is the primary source of input for the incorrect pronunciation of English as the English as a Foreign Language (EFL), students listen and practice English in their classrooms.

The current study supports Yani's conclusions attributing the source of the acquisition of incorrect pronunciation to the school and teachers. In the case of most EA speakers, the teaching of incorrect pronunciation may also be considered one of the main reasons for not acquiring the interdental fricative sounds correctly. Therefore, this study investigates the schooling situation through an interview by asking the participants whether they received incorrect input regarding the interdental fricative sounds through their teachers, and if so, how that may have influenced their production of the interdental fricatives.

This study, however, differs from that of Yani's (2012) in that the participants will not be future teachers. Nevertheless, through the interview, the participants in this current study were asked about their learning of English and how their teachers' pronunciation may have influenced their pronunciation.

To sum up, this thesis will focus on the pronunciation of interdentals by EA speakers in MSA and English as an L2. Moreover, this thesis is different from previous studies because the acquisition of the interdental sounds of the Egyptian Arabic (EA) speakers in (L2) Modern Standard Arabic in addition to L2 English will be analyzed in order to demonstrate that there are

reasons other than merely the effect of the L1 dialect (Egyptian Arabic) that affects the acquisition of interdentals by EA speakers.

## **2.5 Research Questions**

This study debates whether the Egyptian Arabic speakers' difficulties with interdentals is due to several intertwining factors, including not only L1 dialect interference but also several sociolinguistic variables and incorrect pronunciation teaching. Thus, the hypothesis of this study is that a combination of several factors accounts for the non-target-like pronunciation of the interdental fricatives of /θ/ and /ð/ in MSA and L2 English by EA speakers. These factors are L1 dialect interference, sociolinguistic variables (i.e., the stylistic spectrum and the formality of the topic), and incorrect teaching of pronunciation.

### *Research Questions*

1. Do Egyptian Arabic speakers mispronounce the interdental fricatives (i.e., /θ/ and /ð/) in Modern Standard Arabic?
2. Do Egyptian Arabic speakers mispronounce the interdental fricatives (i.e., /θ/ and /ð/) in English as a second language?
3. Does the formality of topic or the situation influence the pronunciation of interdental fricatives?
4. Does the teaching of pronunciation for reading the Qur'an influence the pronunciation of interdentals?
5. Does the teaching of pronunciation of L2 English factor influence the pronunciation of interdentals in English?

## **CHAPTER 3: METHODOLOGY**

This section discusses the methodology employed to investigate the usage of the interdental fricatives in both English and Modern Standard Arabic by L1 Egyptian-Arabic speakers.

### **3.1 Participants**

The participants in this study are represented by 16 Egyptian Arabic native speakers, including both men and women with university degrees to guarantee that they have received adequate English teaching. Their majors and social backgrounds vary to reflect the effect of the social variables (i.e., the education background effect) on the correct pronunciation of the interdental fricatives in English and Standard Arabic. The participants are highly educated (eight of the participants have doctorates, five have Master's degrees, and two have Bachelor degrees).

All the participants are Muslims to ensure that they have a Qur'an reading background (Tajwid) and recognize the instructions on how to read the Qur'an to promote the effectiveness of the current study (topic formality). Three of the participants studied Tajwid during their school period (Al-Azhar education). On the other hand, two of the participants did not study Tajwid, but they have some knowledge about how to read the Qur'an. The rest of the participants have been exposed to Tajwid teaching. Also, age is another important factor; the subjects are less than 40 years old and more than 20 years old to ensure that they have completed their university education stage and to reflect the recent changes in the education systems as well.

### **3.2. Methods**

This study uses various reading tests and final interviews with each participant. The data consisted of audio recordings of each participant who were interviewed separately in a quiet place.

The reading parts were clearly printed to be read by the subjects. Additionally, all the instructions were explained by the interviewer (the researcher) in Egyptian Arabic in order not to affect any of the subject's pronunciation (the Observer's Paradox), as EA has no interdental fricatives in its phonological inventory. William Labov explains the observer's paradox as one of the sociolinguistic fields that study the changes of the data collected because of the researcher's presence, Labov's approach depends on recording and observing the vernacular speech of the people's daily life (Labov, 1966 cited in Cukor-Avila, 2000). Conducting the interview in Egyptian Arabic should also allow each participant to express themselves more clearly as EA is their native language. All the data was recorded and then, analyzed qualitatively by the researcher in order to investigate the production of the interdental fricative sounds by the subjects.

### **3.3 Materials**

The materials of this study are in two languages [English and Modern Standard Arabic (MSA)]. Materials are in the form of different reading tests, and instructions for each test were explained by the researcher as noted in EA in order to avoid any interference from Standard Arabic and/or English during the test. The written materials were handed one by one to the subject in order not to distract them.

All the reading tests contain the two targeted interdental fricative sounds of English and MSA. The reading tests are as follows:

1. Several Qur'an verses.
2. Two reading passages: one in English and the other in MSA.
3. Two lists of reading sentences in the form of a puzzle. (See Appendices A-E)

### 3.4 Procedure

The study was conducted through the use four tasks. All the tasks are designed to help answer the research questions. Each participant performed the following tasks in the given order:

1. Reading several Qur'an verses.
2. Reading two passages: one in English and the other in MSA.
3. Reading two lists of sentences in the form of a puzzle.
4. Participating in an interview in Egyptian Arabic.

#### 3.4.1 First task: Reading the Qur'an

Each subject was asked by the researcher to read some Qur'an verses in a clear loud voice to be recorded. "Surah Az-Zalzalāh" was chosen by the researcher because it contains /θ/ and /ð/ sounds. For example, the word 'إِذَا' [iðə], and 'أَنْقَالَهَا' [ʔaθqalħa].

In "Surah Az-Zalzalāh," the sound /θ/ appears as four tokens (3 types) and /ð/ appears as six tokens (4 types) (See Appendix A).

The Qur'an reading is a good tool for this study, as it tests more than one variable that affects the pronunciation of interdental fricatives by EA speakers. First, the Qur'an tests the formality of the topic as it is a religious reading. Second, reading the Qur'an tests the effect of pronunciation teaching, as reading the Qur'an requires paying attention to the correct pronunciation from the reader because many of the Muslim subjects have had special teaching on how to read the Qur'an. Third, the Qur'an reading is considered the most formal in terms of the stylistic variable.

Thus, reading the Qur'an is an excellent tool to test three of the factors that may affect Egyptians' pronunciation of the interdental fricatives: the effect of correct pronunciation teaching, the formality of the topic (religious reading), and the stylistic formality of the situation because the Qur'an has to be read correctly and respectfully.

### 3.4.2 Second and third tasks: Reading passages and a cartoon

In the second and third tasks, each subject's readings for MSA and English were tested focusing on the interdental fricatives /θ/ and /ð/. Also, these tasks are good tools to compare formal and informal readings. The formality of the topic or the situation was tested through the kind of topic that was read by the subject in order to test whether the formality of the topic affects the subject's pronunciation of /θ/ and /ð/ or not.

The second task was in the form of two puzzles: arranging the scenes of two cartoon stories in the correct order. The first one is in MSA and the other in English. Each puzzle consists of cartoon pictures and each picture has a written sentence that describes the picture. The sentence is written in order to guarantee the occurrence of the two sounds /θ/ and /ð/. The subject was handed each puzzle separately. Then, the subject was given some time to read the sentences in the correct sequence.

In this task, the puzzle and the cartoon drawings create the informality of the situation. This should have allowed the analysis of the effect of the topic on the subjects' pronunciation of the interdental fricatives /θ/ and /ð/ (see Appendices D and E).

The third task was in the form of two reading passages about formal topics. The first passage is in Modern Standard Arabic with several tokens and types of the /θ/ and /ð/ sounds: 11 types and 20 tokens of the sound /θ/ for example, the word 'الثقافة' [alθqafəh], and 9 types and 10 tokens of the /ð/ sound for (i.e.) the word 'الذكي' [alðəky] (see Appendix B).

The second English passage also had many potential occurrences of the fricative sounds /θ/ for example, the word 'three' [θri:] and 'theory' [θi:əri], and /ð/ like in 'the' [ðə] (see Appendix C).

In these tasks, the study starts with the more formal reading topics then proceeds to the less formal ones to investigate the effect of the formality degree of the topic on the subject's pronunciation and whether the formality of the topic causes the participant to put more attention on pronouncing the target interdental fricatives more correctly.

#### *3.4.3 Fourth task: Interview*

The final task was an interview. The researcher asked each participant a few questions in the Egyptian dialect in order to provide the participant with the opportunity to express his or her opinion clearly. The interview questions started by asking about the participant's educational background (the participant's experience in learning English as a L2 and learning the Qur'an reading) in order to investigate how this may affect the subject's pronunciation of the interdental fricative sounds. The interview questions were in the form of open-ended questions to allow the subject to answer questions freely (see Appendix F for the complete questionnaire).

### **3.5 Data analysis**

The audio recorded data has been analyzed by the researcher as an EA native speaker; therefore, the researcher is aware of the MSA phonological system to identify the errors in the recordings. The English recordings has also analyzed by the researcher with sufficient knowledge of the English phonological system to perceive the incorrect pronunciation of the interdental fricatives in the audio recordings.

In this study, qualitative data analysis was used to examine the participants' interdental fricative pronunciation, not numerically but through analysis and interpretation of the collected data (Gay, Mills & Airasian, 2009, as cited in El Zarka, 2013). Also, a qualitative analysis was employed in examining the answers to the interviewer's questions, as open-ended questions allow the subjects to answer freely using their own words.

The data collection of this study should reveal the extent of the influence of the factors mentioned in the study's hypothesis. First, the interview detected the subject's educational background and how pronunciation teaching (Tajwid, English, or MSA) may have affected his/her pronunciation. Second, the subject's substitution of the sibilants sounds for the interdental fricatives might demonstrate the impact of the Egyptian Arabic dialect on the subjects' pronunciation. Finally, the formality of the topic and the situation might also influence the subjects' pronunciation, and this has shown in the subjects' readings in the different tasks that reflect the various levels of formality created by the situations and topics.

## CHAPTER 4: RESULTS

### **Question 1: Do Egyptian Arabic speakers mispronounce the interdental fricatives (i.e., /θ/ and /ð/) in Modern Standard Arabic?**

This section will first describe the number of errors in the pronunciation of the interdentals by reading type. Through listening to the audio recording of the participants' readings, the researcher counted out the number of mistakes of the interdental fricatives /θ/ and /ð/ by the participants. Then, the participants' answers provided in follow-up questions from the researcher regarding the tasks and pronunciation will be discussed.

The quantitative analysis is used by the researcher as the variation by the participants have been counted and displayed in Table 1. However, a qualitative analysis was supposed to be used, but the researcher discovered that comparative research, a type of quantitative analysis, is suitable to show and what causes the differences of certain behavior among certain groups (Gay, Mills & Airasian, 2009, as cited in El Zarka, 2013).

Then, qualitative analysis has been applied to the participants' answers to the questions of the interview to enable the researcher to clarify and analyze the visual and narrative data (Gay, Mills & Airasian, 2009, as cited in El Zarka, 2013). Thus, the researcher can interpret the reasons

of the participants mispronunciation to the interdental fricatives /θ/ and /ð/ in MSA and English as a second language.

The following table shows the number and the percentage of substitutions that the participants made during the five readings concerning the interdental sounds /θ/ and /ð/:

Table 1

*Numbers and Percentages of the Participants' Mistakes /θ/ and /ð/*

	<u>Reading Qur`an</u>	<u>Reading MSA Story</u>	<u>Reading English Story</u>	<u>Reading MSA</u>	<u>Reading English</u>
Participant #1	0, 0%	0, 0%	33, 50%	1, 4%	18, 82%
Participant #2	0, 0%	0, 0%	0, 0%	0, 0%	5, 23%
Participant #3	0, 0%	0, 0%	0, 0%	0, 0%	5, 23%
Participant #4	0, 0%	0, 0%	1, 1.5%	0, 0%	0, 0%
Participant #5	1, 11%	1, 4%	2, 3%	2, 8%	0, 0%
Participant #6	0, 0%	13, 48%	51, 77%	10, 40%	20, 91%
Participant #7	0, 0%	4, 15%	35, 53%	5, 20%	15, 68%
Participant #8	7, 78%	23, 85%	65, 98%	19, 76%	21, 96%
Participant #9	0, 0%	17, 63%	49, 74%	4, 16%	17, 77%
Participant #10	1, 11%	0, 0%	2, 3%	1, 4%	0, 0%
Participant #11	0, 0%	0, 0%	4, 6%	1, 4%	4, 18%
Participant #12	0, 0%	0, 0%	0, 0%	0, 0%	0, 0%
Participant #13	2, 22%	14, 52%	40, 61%	5, 20%	15, 68%
Participant #14	0, 0%	0, 0%	1, 1.5%	0, 0%	0, 0%
Participant #15	0, 0%	2, 8%	42, 64%	7, 28%	12, 55%
Participant #16	0, 0%	0, 0%	0, 0%	1, 4%	0, 0%

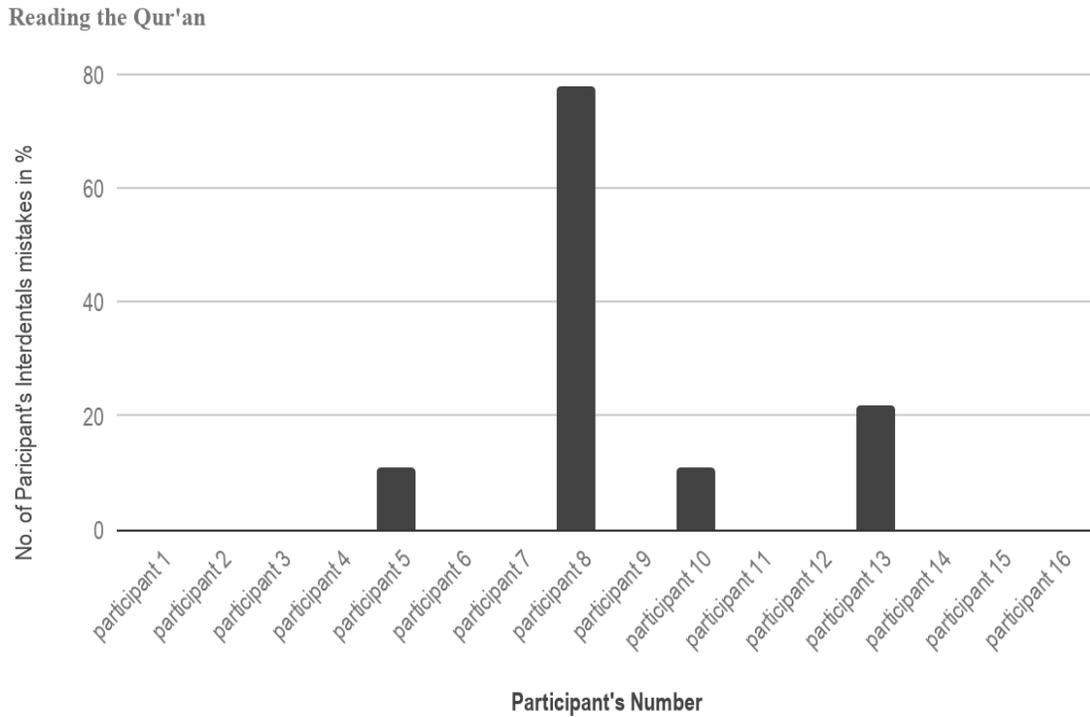
The results in Table 1 show that all the 16 participants made substitutions in pronouncing /θ/ and /ð/ in their readings. One participant (#12) did not make any substitutions in English nor Arabic (whether MSA or the Quranic Arabic). The number of the participants' substitutions vary from one subject to another.

The readings are divided into three levels regarding their topic formality. The Qur'an is considered the most formal reading. The less formal is the MSA and English paragraphs, then the MSA and English stories are the least formal regarding the topic.

Nevertheless, all participants' correct pronunciation of the interdental fricatives /θ/ and /ð/ is related to their pronunciation learning experience (i.e., it does not mean the participant with higher degree has fewer substitutions than the other participants). For example, participant #12, who has no substitutions at all, has a bachelor's degree, while participant #8, who has the greatest number of substitutions, has a Ph.D. degree. However, participant #12 mentioned that his/her teachers in MSA and English cared about the correct teaching, and also had been learned Tajwid. On the other hand, the participant #8 was not subject to Tajwid teaching, and his/her teachers did not pronounce the interdental sounds /θ/ and /ð/ in a correct way. Furthermore, the pronunciation teaching effect displayed in participants #2 and #14 who were in Al-Azhar schools and had no mistakes in their Qur'anic and MSA readings (see Table 1).

Figure 1 compares the participants' substitutions according to the type of reading:

***The Qur'anic Reading:***



*Figure 1.* Number of participants' interdentals sounds /θ/ and /ð/ substitutions in reading the Qur'an

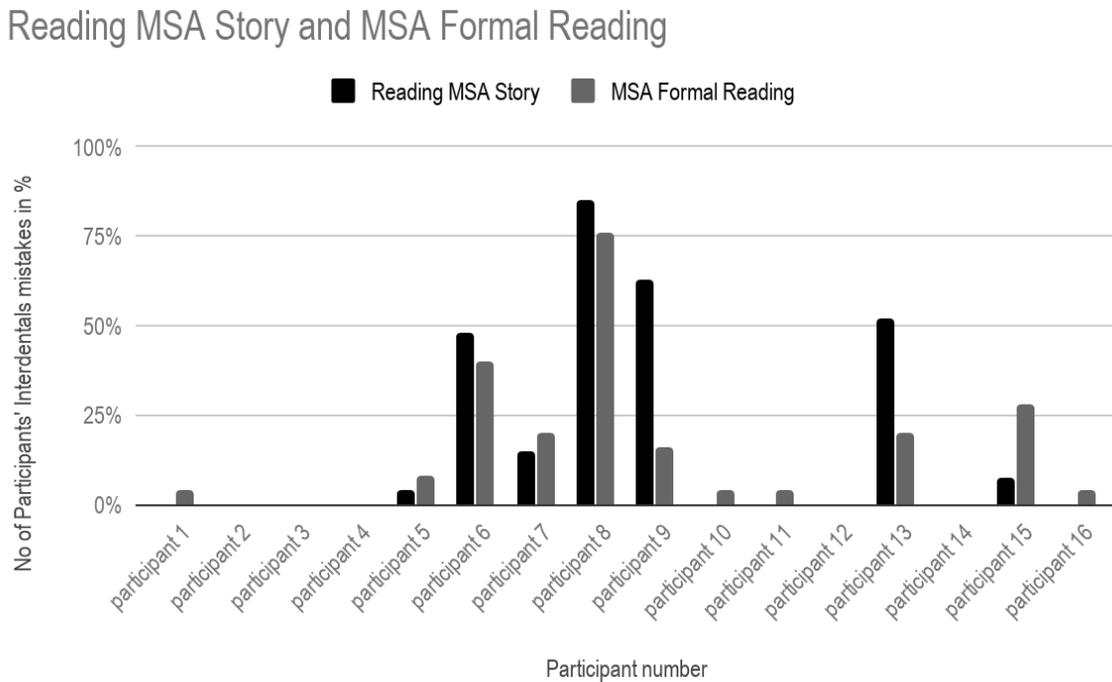
The results show that twelve participants out of sixteen had no substitutions while they were reading the Qur'an. This result is because all of them were subjected to Tajwid learning (i.e., how to read the Qur'an), and their care while they are reading it due to religious affairs. On the other hand, participant #8 had the most significant number of substitutions in pronouncing the interdentals sounds, and that is due to not learning how to read the Qur'an.

The data showed that participants #5, and #10 both of them have only one substitution in the same word “إِذَا” /iðə/, while they were reading the Qur'an. Both of these two participants were subjected to Tajwid learning when they were young. These two participants shared the same

comment that correct pronunciation is essential for reading the religious topic especially the Qur'an. However, these two participants were aware of the interdental sounds, and they mentioned them in Arabic during the interview, they had only one substitution. This substitution may be due to the dialect effect because it is only just one replacement.

While participant #13 has learned Tajwid at the age of 15 years old for a short period. This participant had two substitutions in pronouncing the interdentals while reading the Qur'an, despite learning Tajwid. The age learning may be the reason because this participant was 15 years when he started learning Tajwid and it was for a short period of time (critical period hypothesis).

***Reading MSA Story and formal reading:***



*Figure 2.* Number of participants' interdental sounds /θ/ and /ð/ substitutions in reading MSA story and MSA formal reading

In this section, there are nine participants with no substitutions at all in reading the MSA story. These nine participants included the participants that had good Tajwid learning for adequate

time according to what they had mentioned in the interview and all the participants that were in Al-Azhar schools. Furthermore, five out of these nine participants had no substitutions in reading the formal MSA paragraph, while the other four participants (#1, 10, 11, and 16) had only one substitution when they read the formal MSA reading (حذقه، إذ، إذ، الجذر) [ħðquh], [ið], [ið], and [ɛljaðr] respectively (see appendix D). These results reflect the influence of learning Tajwid on reading the MSA whether in the informal (MSA story) or the formal reading paragraph as these nine participants had no substitutions while they were reading the Qur'an. The reason for the four participants had one substitution in reading the formal reading, but no substitutions on the MSA story reading could be the arrangement of the readings. As the MSA story came after reading the Qur'an, which requires the participants to pay more attention to the correct pronunciation while reading the formal MSA paragraph came after reading the English story.

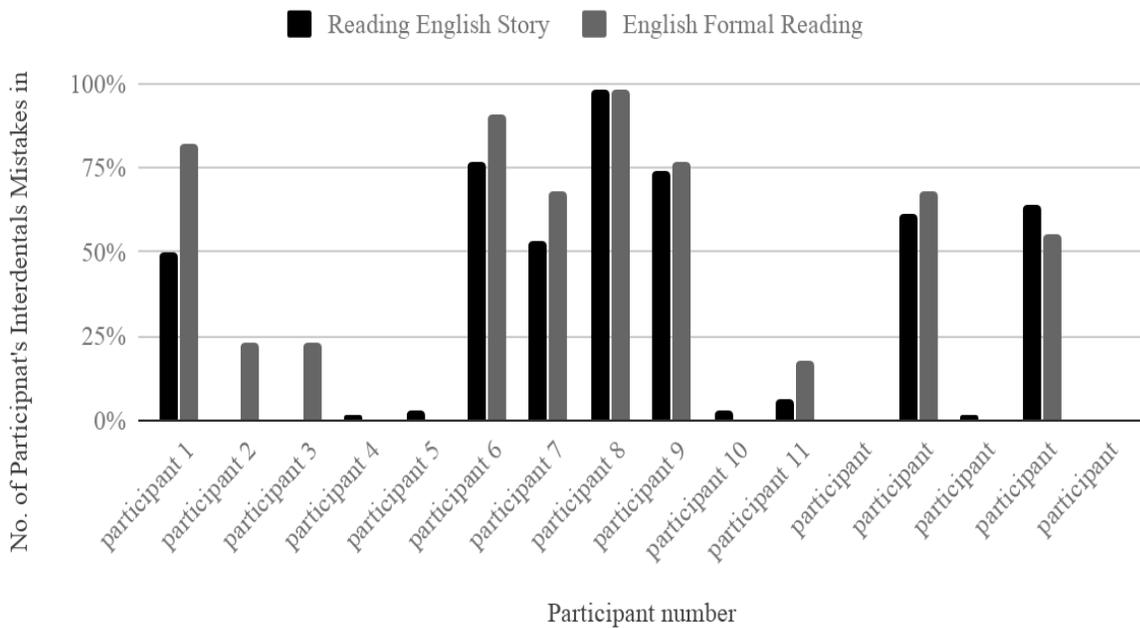
On the other hand, participant 8 who had the most significant number of substitutions in reading MSA whether in the MSA story and the formal reading (see Figure 2), also has the highest number of substitutions in reading the Qur'an. This participant mentioned during the interview that teachers in his schools did not pay attention to their pronunciation due in no small number of students in the classroom, and he did not regularly pronounce the interdental /θ/ and /ð/, replacing them with the sibilants /s/ and /z/ respectively.

While the number of substitutions by the other six participants in pronouncing the interdental sounds /θ/ and /ð/ in reading MSA story approach the number of substitutions while reading formal MSA (see Figure 2). For instance, participant #5, who had the minimum number of substitutions while reading MSA story, with one substitution in the word 'الثعلب' [θaʕlab] (see appendix D), also had the minimum number of substitutions in MSA formal reading, with two substitutions in 'إذ، الجذر' [ið], and [ɛljaðr] respectively among the other participants (see appendix B).

Nevertheless, participant #9 had seventeen substitutions in reading the MSA story, but only four in reading the formal MSA paragraph. This participant mentioned in the interview how her father and teachers of MSA were keen on her pronunciation, but she mentioned that when she is reading a story to her children in MSA, she may not focus on the correct pronunciation; however, she is trying to read the Qur'an and formal reading correctly, which means that the formality of the topic influences her reading.

***Reading English Story and English Formal Reading:***

Reading English Story and English Formal Reading



*Figure 3.* Number of participants’ interidental sounds /θ/ and /ð/ substitutions in reading English story and formal English reading

In the English reading section (story and formal paragraph), there are two participants with no substitutions (see Figure 3): participant #12, who had no substitutions in any of the reading, and participant #16, who is an English teacher and was in Al-Azhar schools. On the other hand,

participant #8, who still had the highest number of substitutions in the English readings as well, mentioned that pronouncing interdental sounds in English is his big problem and he always forgets pronouncing them, replacing them with the sibilants /s/ and /z/ because he never used to practice pronouncing them when he was learning English:

Example from his reading

the word ‘the’	should be [ðə]	pronounced as [zə].
the word ‘three’	should be [θri:]	pronounced as [sri:].
the word ‘theory’	should be [θiəri]	pronounced as [siəri].
the word ‘then’	should be [ðen]	pronounced as [zɛn].

In reading the English story, six participants (#1, 6, 7, 9, 13, 15) other than participant #8 had a large number of substitutions in pronouncing the interdental sounds in English (see Figure 3). All these participants referred that their English teachers did not use to pay attention to their interdental sounds pronunciation, and some of them mentioned that their teachers did not use to pronounce the interdental sounds themselves. All of these six participants had no problem in how to pronounce the interdental sounds. However, they forget to pronounce these sounds while they are reading or speaking.

In the same way, the last seven participants (#2, 3, 4, 5, 10, 11, 14) had a very few substitutions in pronouncing the English interdental sounds and in the other readings as well (see Figure 3). Each of participant #4 and 14 had only one substitution in reading the English story, and no substitutions in formal English paragraph. The mistakes are the word ‘the’ [zə] instead of [ðə], and [sri:] instead of [θri:] respectively.

These two participants had two common features: they were subjected to a good Tajwid learning while they were young, and they read the Qur’an frequently.

After the participants finished the five readings, the researcher asked questions to clarify several aspects regarding their pronunciation of the interdental fricatives /θ/ and /ð/ in MSA and English (see Appendix F). Not all the participants knew the term “interdental sounds.” However, when the researcher explained that interdentals are pronounced with the tip of the tongue against the teeth, the participants mentioned their awareness of these sounds.

Besides, all the participants asserted the importance of pronouncing the interdental fricatives /θ/ and /ð/ in MSA and English. Some of the participants stated that correct pronunciation shows respect for the language, whereas all of the participants emphasized the importance of correct pronunciation for word meaning.

In the Qur’an section, 12 out of the 16 participants made no substitutions in pronouncing the interdental fricatives /θ/ and /ð/. From the participants’ answers to the interview questions, the formality of the topic/reading appears to be one of the reasons to pay attention to read and pronounce the Qur’an correctly. All the participants mentioned in their answers that when they read the Qur’an, they had to focus on pronouncing every letter correctly, as the Qur’an is considered the most formal reading to them regarding the topic and, therefore, is a way of respecting the Qur’an.

**Question 4: Did you study Tajwid (to know how to read the Qur’an)?**

Additionally, as indicated by answers to question #4 by the interviewer, learning Tajwid appears to play a significant role in the correct pronunciation to the interdental fricatives /θ/ and /ð/ when the participants read the Qur’an. All the participants had learned Tajwid, with the exception of one or two of the participants (#8 and #15) but have some knowledge about how to read the Qur’an. As can be seen in Table 1, this factor appeared to influence scores for the reading to the Qur’an. That is, we see that participants #8 and #15 performed at less accurate levels than

the other participants on the Qur'anic reading and even the other readings (as in MSA). Therefore, learning how to read the Qur'an appears to influence the participants' pronunciation accuracy of the interdental fricatives /θ/ and /ð/ when reading the Qur'an. Moreover, Tajwid learning appears to also affect the participants' MSA reading. As shown in the Table 1, subjects who learned Tajwid, particularly those studied it in school (e.g., Al-Azhar schools) for an extended period, made no substitutions with interdentals in Modern Standard Arabic readings as well.

**Question 5: Do you remember if any of your (English, or MSA, or Qur'an) teachers taught you how to pronounce the interdental fricatives sounds /θ/ and /ð/ accurately?**

The participants' experiences appear to be clearly reflected in the reading by the participants who were taught by English teachers who cared about the correct pronunciation of the interdental fricatives /θ/ and /ð/. That is, participants made fewer substitutions in the two sounds when reading English. However, most participants pointed out that their English teachers did not care about the pronunciation of the interdental fricatives /θ/ and /ð/ in English.

One more point of interest is one word in the English reading ("thrall"), which has the interdental fricative /θ/ pronounced by all the participants correctly. This word is not common and was not known by most of the participants, and so most participants stopped momentarily to try to pronounce it and then pronounced the interdental fricative /θ/ accurately. This action shows that the Egyptian participants are aware of how to pronounce the interdental fricatives /θ/ and /ð/, but they still sometimes mispronounce words.

**Question 10: Finally, from your point of view why can most of the Egyptian cannot pronounce the interdental fricatives correctly?**

During the interview, the participants shared their point of view about their pronunciation of the interdental fricatives /θ/ and /ð/ in MSA and English. The researcher asked the participants to

list some factors that influence their pronunciation of the interdental fricatives /θ/ and /ð/ in MSA and English. The participants listed the following factors: pronunciation learning, the formality of the topic, and the effect of the Egyptian dialect. Table 2 shows the number of participants who listed these factors as the most critical factors influencing their pronunciation of the interdental fricatives /θ/ and /ð/ in MSA and English:

Table 2

<i>Number of Subjects Related to The Most Critical Factor</i>		
<u>Education effect</u>	<u>The Formality of the topic</u>	<u>Dialect effect</u>
11 out of 16	3 out of 16	2 out of 16

Moreover, some participants added some factors that may affect their pronunciation of the interdental fricatives /θ/ and /ð/ in MSA and English. The first factor concerns the listener(s): some participants mentioned that if they read or spoke English in front of an English speaker, they paid more attention to the correct pronunciation. At the same time, when they knew that the listeners were not Egyptians, they pronounced the interdental fricatives /θ/ and /ð/ when they spoke Arabic (i.e., the Observer’s Paradox, from Labov 1972). The second factor that was suggested by some participants is the formality of the situation, such as speaking in a conference or giving a presentation, causes them to differ their pronunciation than when in a casual conversation.

The last factor that was added by one of the participants was the arrangement of the readings. Reading the Qur’an appeared to force participant #3 to “be in the mood” to pronounce the letters correctly so that she later pronounced the interdental fricatives /θ/ and /ð/ in MSA and English accurately.

Participant #3 said, “When you gave me the Qur’an at the beginning, you formatted my head to read and pronounce the interdental correctly by using the tip of the tongue, however if you started with the story, I might not pronounce the interdentals in the correct way.”

These factors are worth considering as they may affect the pronunciation of the interdental fricatives /θ/ and /ð/ in MSA and English as a second language.

## **CHAPTER 5: DISCUSSION/COMCLUSION AND FUTURE DIRECTIONS**

Since the purpose of this study is to investigate whether the Egyptian Arabic speakers have difficulties with the pronunciation of interdentalals due to several intertwining factors. These factors include not only L1 dialect interference but also several sociolinguistic variables and incorrect pronunciation teaching. The study finds that all the participants, but one made substitutions in pronouncing the interdental fricatives /θ/ and /ð/ through their readings, thus answering the first two research questions which investigate if the Egyptian Arabic speakers substitute the interdental fricatives (i.e., /θ/ and /ð/) while reading Modern Standard Arabic and English as a second language.

Also, the study answered Research Questions 3, 4 and 5 by showing that the variable pronunciation of the Egyptian Arabic speakers of the interdental fricatives /θ/ and /ð/ is not only due to the three factors presumed by the study, such as topic formality (Research Question 3), learning effect of the Qur'an (Research Question 4), and pronunciation teaching of English as L2 (Research Question 5).

Moreover, some of the participants added several more sociolinguistics factors that may affect their pronunciation of the interdental fricatives /θ/ and /ð/ whether in MSA or in English, such as who the listener is, the formality of the situation, and the arrangement order of the readings.

Therefore, the Egyptian Arabic speakers' substitution of the interdental fricatives /θ/ and /ð/ in MSA and English as a second language is due to the interplay of several factors, some of which were not anticipated by the current study.

Due to the overwhelming response by the participants about the significant effect of pronunciation teaching on their pronunciation of the interdental fricatives /θ/ and /ð/ in MSA and English, a new study should be conducted to examine the pronunciation of second language learners of MSA in a foreign language environment who are taught by Egyptian teachers. This study would investigate how such L2 learners of MSA pronounce the interdentals in MSA and should such learners have any issues, whether pronunciation teaching and/or exposure to the MSA pronunciation of instructors who speak Egyptian Arabic as their L1 may contribute to non-target-like pronunciation of these interdentals.

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## **List of Appendices**

## Appendix A

### The Qur'an Reading

Bismi ilahi arrah'mani arrahim      بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Itha zulzilati al-ardu zilzalaha      1. إِذَا زُلْزِلَتِ الْأَرْضُ زُلْزَالَهَا

Waakhrajati al-ardu athqalaha      2. وَأَخْرَجَتِ الْأَرْضُ أَثْقَالَهَا

Waqala al-insanu ma laha      3. وَقَالَ الْإِنْسَانُ مَا لَهَا

Yawma-ithin tuhaddithu akhbaraha      4. يَوْمَئِذٍ تُحَدِّثُ أَخْبَارَهَا

Bi-anna rabbaka awha laha      5. يَا أَيُّهَا رَبِّكَ أَوْحَىٰ لَهَا

Yawma-ithin yasduru annasuashtatan liyuraw aAAmalahum      6. يَوْمَئِذٍ يَصُدُّرُ النَّاسُ أَسْتَأْتَاتًا لِّيُرَوَّا أَعْمَالَهُمْ

Faman yaAamal mithqala tharratinkhayran yarah      7. فَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ خَيْرًا يَرَهُ

Waman yaAamal mithqala tharratinsharran yarah      8. وَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ شَرًّا يَرَهُ

## Appendix B

### The Arabic Reading Passage

#### الثقافة

إنَّ لكلِّ شعبٍ منْ شعوبِ العالمِ تراثٌ فكريٌّ خاصٌ به، ويعتبرُ منِ العواملِ الرئيسيَّةِ التي تميِّزُ بها جميعُ الأممِ عن بعضها بعضاً، حيثُ تختلفُ طبيعةُ الثقافةِ وخصائصها منْ مُجتمعٍ لمُجتمعٍ آخر، وذلكِ للارتباطِ الوثيقِ الذي يربطُ بين واقعِ الأمة، وتراثها الفكريِّ والحضاريِّ.

تُستخدمُ العديدُ من التّعريفاتِ العامَّةِ للثقافة؛ إذ تُعرفُ لغةً بأنَّها كلمةٌ مُشتقةٌ من الجذرِ الثلاثيِّ (تَقَفَ)، فيقالُ: ثقافَ الرِّمَاحَ بمعنى تسويتها وتقويمِ اعوجاجها، وأيضاً تُستخدمُ مع تثقيبِ العقلِ ومن معانيها ما يفيدُ الحدقَ والفتنةَ والذكاءَ، يُقالُ ثقَّفَ الشَّيءَ أيَّ عرّفه وحذقه ومهر فيه، والتَّقِيفُ هو الفطينُ، وثَقَّفَ الكلامَ أيَّ فهمه بسرعة، ويوصفُ الرَّجُلُ الذكيُّ بأنَّه ثَقِفٌ. أما اصطلاحاً فتوجدُ العديدُ من التّعريفاتِ للثقافةِ ومنها: هي مجموعةٌ من العفائد والقيم والقواعد التي يقبلها أفرادُ المجتمع.

#### *English gloss*

#### The culture

Every peoples of the world has its own intellectual heritage and it is one of the main factors that characterize each nation. The nature of culture and its characteristics differ from one society to another because of the close connection between the reality of the nation and its intellectual and cultural heritage.

Many definitions are used for general culture; knowing a language as a word derived from the root trio (educate) [θqf]. It is said that, 'culture the spears' meaning is in the sense of settling them and correcting them. and also used with educating the mind and sense indication of smartness, acumen, and intelligence. And the educated is the acute, and the uttering of any speech is quickly understood, and the intelligent man is described as a cultured. As for the term,

there are many definitions of culture including: a set of beliefs, values and rules accepted by members of the society.

## Appendix C

### The English Reading Passage

Book by James Thrower

Religion: the classical theories

Introduction

We live today with an awareness of the phenomenon and phenomena of religion denied to previous generations and any theory purporting to explain religion must, if it is to have credibility, reflect this. However, the knowledge that we now possess of the history and the geography of religion both helps and hinders attempts to explain it. Such Knowledge helps because it is now possible to test such explanations as are or have been advanced against a wider body of evidence than has previously been possible- a procedure which demonstrates the often limited and culture bound nature of many of the explanations which have held Western intellectuals in thrall. Yet, at the same time, such knowledge hinders attempts to explain religion because our increased awareness of the variety of religious expression found in the world makes it well-nigh impossible to formulate a comprehensive theory of religion that will encompass this variety: counterexamples proliferate.

## Appendix D

### The Modern Standard Arabic Cartoon Puzzle

1. ذات يوم من الأيام، كانت تسكن ثلاثة من الماعز (الأم و اثنين من الصغار).  
Once upon a time, three goats were living together (mother and two kids).
2. وكان الثعلب المكار يريد خداع الأثنان الصغار و يريد أن يأكلهما. وكانت الأم تحذر الصغار من الثعلب كثيرا.  
The mischievous fox wanted to deceive the two little ones and wanted to eat them. The mother warned the young of the fox a lot.
3. وفي صباح يوم، خرجت الأم و طرق الثعلب الباب ولكن رفضا الماعزتين أن يفتحا.  
One morning, the mother went out and the fox came in the door, but the young goats refused to let the fox in.
4. ولذلك قرر الثعلب الخديعة و ذهب لشراء العسل لتحسين صوته.  
So, the fox decided to trick the young goats and went to buy honey to make his voice better.
5. بعد ذلك، ذهب الثعلب مرة ثانية للماعزتين وتظاهر أنه أمهم و حينها فتحا الباب و أكلهما.  
After that, the fox went back to the goats and pretended to be their mother and then opened the door and ate them.
6. ثم عادت الأم و وجدت الثعلب أكل أولادها. فكرت الأم في حيلة لإخراج أولادها من بطن الثعلب.  
Then the mother returned and found that the fox ate her children. The mother thought of a trick to get her children out of the fox's belly.
7. فقالت له كن حذرا من إصابتك بنفس المرض الخطير بعد أكلهم. فارتعب الثعلب وقال لها ماذا أفعل لإخراجهم.  
The mommy told the fox to be careful that he would have catch a serious illness that the children had after eating her young. And the fox was afraid, and said to her, what shall I do to bring them out?
8. قالت له اشرب الكثير و الكثير من الماء. وبالفعل فعل الثعل بذلك و انفجرت بطنه و خرجا الماعزتان لأمهما.  
The mother told the fox to drink lots and lots of water. Indeed, he did so, and his stomach exploded, and the goats came back to their mother.

## Appendix E

### English Cartoon Story

1. Once upon a time, there were three piglets were living with their mother.
2. One day their mum called them and told them it's time to leave their home and start their new lives.
3. Then the three piglets left and after a while they could find a piece of land to build their new homes.
4. The youngest piglet decided to build his house from straw. He thought that it was the fastest and easiest way to build a home. It took only one day to finish his house.
5. The second piglet decided to build his house from the wood that he collected from the forest. It took three days to finish building the house.
6. While the two young piglets were playing, the third piglet was busy building his house from bricks. His house took a whole week to be ready.
7. A day after, a hungry wolf stood in front of the youngest piglet house. The wolf warned the piglet that he would blow his house down. And the wolf did blow the house with a little effort.
8. The youngest piglet ran quickly to his middle brother to hide in his house. Then, the wolf came again and told them that he could blow the wooden house too. Then, the wolf blew the wooden house by more effort than the first house.
9. After that, both of the young piglets ran to their third brother to hide in his house. Then, when the wolf came and tried to blow the house down, nothing happened. So, the wolf left.
10. Finally, the three piglets were being free from the wolf and they hugged each other. From that day, the two young piglets decided never being lazy and always do their best.

## Appendix F

### The Interview.

1. What is your educational background? (the highest degree)
2. Did you study Tajwid (how to read the Qur'an)?
3. When did you start studying English? And for how long?
4. Do you know what the interdental fricatives sounds in MSA and English are?
5. Are you able to pronounce the interdental fricatives sounds?
6. Do you think it is important to pronounce the interdental fricatives sounds correctly (by placing the tip of the tongue between your teeth)?
7. Exercise: Please read these words please (Think, Sink); (ثري, سري).
8. Do you remember if any of your (English, or MSA, or Qur'an) teachers taught you how to pronounce the interdental fricatives sounds correctly?
9. Do you feel that the topic affects your pronunciation in reading or speaking?
10. Finally, from your point of view why can most of the Egyptians not pronounce the interdental fricatives correctly?

## VITA

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Yasmine Sedeek participated in TESOL conference in 2017. She is seeking to take part in more conferences.