

A sociolinguistic study of the use of the definite article (*ʔal*) in the Jordan Valley

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Abstract

This study investigates the variable use of the definite prefix (*ʔal*) in the Arabic spoken in Ghawareneh, a community in the Jordan Valley, Jordan. In Standard Arabic, the definite prefix undergoes assimilation only before coronal sounds; in Ghawareneh Arabic, assimilation is variably possible before all sounds, including non-coronals. The phenomenon is analyzed from a sociolinguistic perspective. Data is collected through informal interviews. The speech sample consists of the naturally occurring speech of sixteen speakers (2 genders × 2 education levels × 2 age groups × 2 speakers per cell), stratified by age, gender, and level of education. The study analyzes the data against lexical, phonological and sociolinguistic factors. The study has shown the impact of phonological factors on the assimilation of glottal consonants. The semantic content of words restricts the use of the non-standard variant. The education, age, and gender factors show that the non-standard variant is more likely to be used among uneducated, old, and male speakers. The study concludes that Ghawareneh speakers are moving linguistically away from the Jordan Valley to achieve some level of urbanization by avoiding the non-standard variant. Both the attitude toward life in the Jordan Valley and the degree of contact with urban centers and with other communities may impact the variable use of the definite prefix. However, for older generations, the use of the non-standard variant preserves and solidifies their identity.

Keywords: language variation and change, assimilation, definite article, Jordanian Arabic, lexicalist hypothesis, coronals

1 Introduction

This study investigates the variable use of the definite prefix (*ʔal*) in the Arabic spoken in Ghawareneh, a community in the Jordan Valley, Jordan. In Standard Arabic (SA), the definite prefix undergoes assimilation only before coronal (“sun”) sounds; in Ghawareneh Arabic (GA), assimilation is variably possible before all sounds, including non-coronals (“moon letters”). This peculiar

linguistic phenomenon is embedded within a complex social structure that incorporates several tribal roots and communities, including Suqour (Bedouin origin), Ghawareneh (rural farming origin), and others. Ghawareneh is used as a general term to cover all people who inhabit the Jordan Valley. However, in its actual use, Ghawareneh, in fact, refers to only one ethnicity, which can be distinguished from *alʔahraar* ‘the freemen’, and *ʔalʔabiid* ‘the slaves’. According to Bani Yasin (1980), the Jordan Valley had been structured based on tribal origins. While such distinction no longer exists, Ghawareneh is still used to refer to dark-skin people (Bani Yasin 1980), living in the area that extends between the Jordanian and Palestinian borders (see § 3.1 for further details). Even though Ghawareneh, Suqour and other communities interact on a daily basis, every community has pride in its origin and dialect. The interaction of Ghawareneh with other communities that follow the SA assimilation rules, and the closeness of the Jordan Valley to urban centers, leave a question on the sociolinguistic status of the definite prefix in that region. In this study, I analyze this phenomenon from a sociolinguistic perspective to highlight any linguistic and social factors that might lead to the use of one variant over the other. The study covers a range of speakers of different age groups.

The paper is organized as follows. The first section presents the background about the status of the definite article in SA and across dialects and introduces the factors that pertain to language variation. The second section highlights the problem of the study and its aims and hypotheses and introduces the framework followed in data collection and analysis. A thorough analysis and discussion are provided in sections 4 and 5. The final section concludes the study by presenting the significant findings and suggesting new arenas for further research.

2 Background

The aim of this section is to provide an understanding of the interaction of the definite article with lexical items. First, I present a brief description of the morphological and phonological status of the definite article in SA. Then, a brief description of the phonological status of the definite article across dialects is presented. The following section introduces a number of social factors that affect variation and connects such variables with studies of variation in the Arab world.

2.1 The definite article in SA

The definite article *ʔal-* is used as a prefix in Arabic to specify the grammatical definiteness of lexical items. For example, nouns such as *kitaab* ‘book’ and adjectives such as *kabiir* ‘big’ can be specified by attaching the definite article to the left of the lexical item to be realized as *ʔal-kitaab* ‘the book’ and *ʔal-kabiir* ‘the big’, respectively.

Arab grammarians have provided a description of how the definite article is pronounced before some letters. Based on their description of the phenomenon, Arabic letters are divided into two groups: sun letters and moon letters. In sun letters, the letter *l* of the definite article assimilates to the sound of the following sun letter; while in moon letters, it does not show any assimilation. The letters are grouped as follows:

1. sun letters: /t/ ت /ط/ ط /d/ د /d/ظ/ ظ /θ/ ث /ð/ ذ /ð/ض/ ض /s/ س /s/ص/ ص /z/ ز /ʃ/ ش
/l/ ل /n/ ن /r/ ر
2. moon letters: /b/ ب /dʒ/ ج /k/ ك /q/ ق /ʔ/ ع /f/ ف /x/ خ /ɣ/ غ /h/ ح /ʕ/ هـ
/m/ م /w/ و /j/ ي

Thus, in lexical items such as *fams* ‘sun’, the definite prefix is pronounced as *ʔaf* as in *ʔaf-fams* / **ʔal-fams* ‘the sun’, while in lexical items such as *qamar* ‘moon’, the prefix is pronounced as *ʔal* as in *ʔal-qamar* / **ʔaq-qamar* ‘the moon’.

From a phonological perspective, the sounds of sun and moon letters are distinguished in terms of their coronality (Kenstowicz 1994). In SA and the majority of dialects spoken, coronal sounds (sun letters) induce complete assimilation of the definite prefix, resulting in a geminate coronal consonant while non-coronal ones (moon letters) do not (Kenstowicz 1994; Ryding 2005; Heselwood & Watson 2015). From an acoustic point of view, Heselwood & Watson (2013; 2015) argue against the view that calls for looking at the interaction of the lateral /l/ of the definite article with coronal sounds as a synchronic assimilation process since the process does not fulfill one criterion of synchronic assimilation: optionality – the process is not optional as when /l/ occurs within or across a word boundary, as in *ħabil rafiiʕ* ‘a thin robe’ in Syrian Arabic (Heselwood et al. 2011; Heselwood & Watson 2013: 34). The study provides a new perspective for the interaction of the lateral /l/ of the definite article with coronal sounds. Nevertheless, whether the process is synchronic assimilation or not is beyond the scope of this paper.

2.2 The definite article across dialects

The phonology of the definite article and its assimilatory process has been an area of investigation in the literature (Bani Yasin 1980; Watson 2002; Assiri 2008; Al-Qenaie 2011; Heselwood & Watson 2013; 2015). In the dialects, the article can vary in three different ways: whether the article begins with a glottal stop /ʔ/ or not, whether the vowel of the definite article is /a/ or /i/ and whether the lateral /l/ undergoes assimilation or behaves differently.

While the lateral /l/ of the definite article assimilates to coronal consonants in SA, it does not always follow this pattern across dialects (Bani Yasin 1980; Assiri 2008; Heselwood & Watson 2013; 2015). Two different patterns can appear: ignoring the phonological environment by replacing /l/ with a fixed segment once it interacts with coronal and non-coronal sounds and/or overapplying the assimilation rule – *l* assimilates to the following sound regardless of whether the sound is a coronal or not.

In the Ghawareneh community (a community living in the Jordan Valley, Bani Yasin 1980) and some dialects that are found in the Western Yemeni mountains and Southern Oman (Behnstedt 1987: 85, cited in Heselwood & Watson 2013: 18), the definite article assimilates to any following consonant (Bani Yasin 1980: 217). Assimilation of the definite article to non-coronal consonants is also attested in some varieties of Moroccan Arabic (Heath 2002) and in Christian Baghdadi Arabic (Abu-Haidar 1991). According to Bani Yasin (1980) and Behnstedt (1987: 85), cited in Heselwood & Watson (2013; 2015), the process of overapplying the assimilation rule results in “an article that involves gemination of any nominal-initial consonant”.

The second pattern that appears in some dialects is the substitution of the lateral /l/ of the definite prefix with a fixed segment regardless of the initial consonant of the lexical item. In Yemeni Majz (spoken in Yemen), the lateral /l/ is substituted by /n/ regardless of its phonological environment, as in *ʔin-ša‘bah* ‘the female donkey foal’ and *ʔin-fams* ‘the sun’ (Behnstedt 1987: 85, cited in Heselwood & Watson 2013: 35). Another substitution process involves replacing the lateral /l/ with /m/. In Rijāl Alma’ (a dialect spoken in Saudi Arabia), the definite article does not assimilate to any sound (Assiri 2008). Its lateral /l/ is substituted with /m/ regardless of the following environment, as in *am-safar* ‘the journey’ and *am-qamar* ‘the moon’.

Thus, we see three possible assimilation processes: the lateral /l/ of the definite article can assimilate to a coronal; it can be substituted by a fixed segment regardless of the phonological environment, or it can assimilate to

any phonological environment.

In addition, across dialects, the vowel of the definite prefix varies. In some dialects, a high front vowel is used instead of the low front one. In Kuwaiti Arabic, *ʔal* is realized as *ʔil* or *il* (Al-Qenaie 2011). In this dialect, it is not only vowel raising that differs from SA but also deletion of the glottal stop. For example, lexical items such as *ʔintixabaat* ‘election’ is realized as *lintixabaat* ‘the election’. According to Al-Qenaie (2011: 241), the phonological structure of the lexical item passes through the following stages before the output is thus realized. In the underlying form: first, the lexical item is prefixed to *ʔal-intixabaat*, then the vowel is raised, as in *ʔil-intixaba*. Then, under the process of aphaeresis, the glottal stop and the vowel are deleted: *l-intixabaat*. Finally, the word undergoes re-syllabification to be realized as *lintixabaat*. The phonological decomposition under the impact of the definite prefix is argued to depend on linguistic and social factors that are discussed in Section 3 in more detail.

Between SA and spoken Arabic dialects, the definite prefix has six allomorphs as argued by Haywood & Nahmad (1965: 22), cited in Heselwood & Watson (2015: 158); with non-coronal consonants or vowel /ʔal/, /ʔil/ or /l/ is used. With coronal consonants, the lateral l becomes similar to the following coronal consonant. Thus, three patterns appear /ʔaC-C[cor]/, /ʔiC-C[cor]/, and /C[cor]/. The six patterns are argued to be governed by linguistic and social contexts (Heselwood & Watson 2015: 158).

2.3 Lexicalist and phonological variables

Based on studies on language variation and change, linguists noticed that phonological variation could be restricted to certain lexical items and not others (Abdel-Jawad & Suleiman 1990). This has been referred to in the literature as the lexicalist hypothesis. The lexicalist hypothesis states that some speakers may avoid using non-standard variants with certain lexical items, they may associate the non-standard variant with other lexical items, and they might alternate between the standard and non-standard forms for other lexical items.

In Jordanian Arabic, Abdel-Jawad & Suleiman (1990: 298) divide lexical items into three categories. The first class of lexical items includes technical, educated and cultivated words. Based on their study, they claimed that in such a class of words, the standard variant would more likely be used. They exemplify this class of words by lexical items such as *ʔiqtiṣaad*

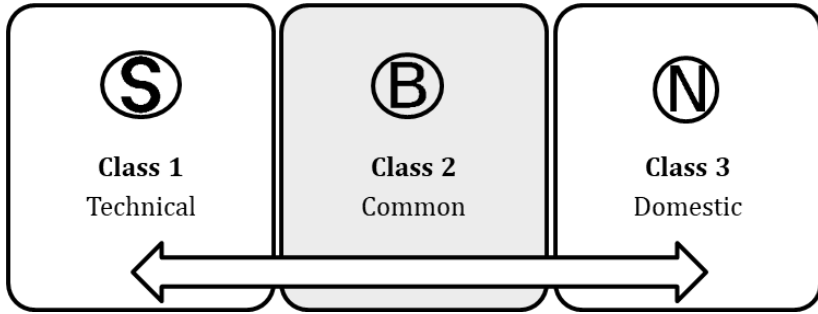


Figure 1. Illustration of the semantic continuum¹

‘economy’, *maqsam* ‘switch’ and the like. The second class of lexical items includes “etymologically related, basic, shared common items which may be morpho-semantically, and phonologically (a) identical or (b) not identical” (ibid.). This class of words is argued to use both the standard and non-standard variants in a random way. Lexical items such as *qamar* ‘moon’ and *ḍahab* ‘gold’ are representative of the former. Lexical items such as /kaif/ ‘how’ (in SA) >> /kiif/ ‘how’) illustrate the latter. The third class of lexical items consists of words that refer to “domestic and local objects and concepts” such as pure dialectal items that do not have standard synonymous words (e. g., *ṭṣabbara* ‘fire place’), blended lexical items *haaḍa al-waqt* ‘this time’ >> *halqet* ‘this time’ and words that are synonymous with standard words such as *bard* ‘cold’ (standard) >> *sagaḥa* ‘cold’ (colloquial). In this class of words, the non-standard variant is more likely to appear. The use of certain variants could be conditioned and restricted to certain lexical items. The continuum in Fig. 1 is illustrative.

The lexicalist hypothesis and the phonological contexts are attested in Arabic across a number of dialects and variables. Yet, such hypotheses are not yet examined on the use of the definite prefix *ḥal* ‘the’. Thus, in this study, it would be significant to test the validity of such a hypothesis.

¹ S: standard variant, B: both variants and N: non-standard variant.

2.4 Studies of variation in Arabic

Before dealing with the definite article as a sociolinguistic variable, I review the effect of sociolinguistic and linguistic factors in Arabic speaking communities: the variable use of the definite prefix (Assiri 2008; for further details on current research on variation in the Arabic-speaking world, see Horesh & Cotter 2016). Then, I review the sociolinguistic status of variation in Jordanian Arabic (e. g. Abdel-Jawad 1981; Al-Wer 1991; Al-Tamimi 2001; Al-Shatarat 2015; Abu Ain 2016; Omari & Van Herk 2016).

In Saudi Arabic, Assiri (2008) investigates the impact of age, gender and education on the use of two phonological variables: the variable alternation between *-il* (standard variant) – *-im* (non-standard variant) and [k] (standard variant) – [x] (non-standard variant) in Rjaal Almaṣ, Saudi Arabia. He finds that sociolinguistic factors affect the alternation between the use of standard and non-standard forms, yet the two variables are not alike (Assiri 2008: 42–45). With regard to the use of the definite article, he finds that the non-standard variant of the definite article, *-im*, is used more by young males, while educated speakers, regardless of their gender and age, tend to avoid that variant. Even though Assiri's (2008) study is the first study to highlight the variable use of the definite prefix, it is not clear whether the choice of non-standard variants is affected by the semantic content of lexical items or not, nor does he provide a reason to account for the use of the nasal sound, [m] over other sounds.

In Jordanian Arabic, studies on language variation and change have been abundant and have tackled different domains: urban centers (Abdel-Jawad 1981; Al-Khatib 1988; Al-Wer 1991), Palestinian refugee camps (Al-Shatarat 2015), rural areas (Abu Ain 2016), and the speech of rural immigrants to urban centers (Al-Tamimi 2001). Studies on Jordanian Arabic show that females are the ones who use urban variants, educated speakers use standard variants more than other speakers, and that young speakers are usually the ones who lead a change (cf. Abdel-Jawad 1981 and Al-Khatib 1988). Nevertheless, variation in the Jordan Valley has been overlooked. In fact, as mentioned earlier (see section 1), only one study has explored the dialects spoken there (Bani Yasin 1980), and that study dealt with the dialects spoken from phonological, semantic, and syntactic perspectives only. Therefore, it is not clear up to this date what linguistic changes took place from 1980 under the effect of social and linguistic factors.



Map 1. The location of the Jordan Valley. Adapted from: “Location Map of Jordan”, by NordNordWest, https://commons.wikimedia.org/wiki/File:Jordan_location_map.svg (accessed 2019-03-08). Licensed under CC BY-SA 3.0 DE (<https://creativecommons.org/licenses/by-sa/3.0/de/deed.en>). Image changed to greyscale. Labels added for clarification.

3 Methodology

First, I present the setting of the study with some geographical, demographic, and political information. Presenting such information helps in forming an idea about the structure of communities living there. Then, I highlight the problem of the study, its hypotheses, and its aims. After that, the population and the sample of the study and the rationale behind choosing such a sample are stated. Finally, I introduce the framework followed in data collection and analysis.

3.1 Regional setting and ethnographic background

The Jordan Valley (Al-Ghor) is a valley located between Palestine to the west and Jordan to the east (see Map 1). It extends for almost 105 km (the Jordanian part begins just 30 km from Irbid city to the west, passes through the Dead Sea and reaches up to Aqaba city in the south).



Map 2. The location of Mashari. Adapted from: “Proposed September 2019 Israeli annexation of Jordan Valley”, by Nice4What (adapted from a map by NordNordWest), https://commons.wikimedia.org/wiki/File:Proposed_September_2019_Israeli_annexation_of_Jordan_Valley.svg (accessed 2019-03-08). Licensed under CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/deed.en>). Image changed to greyscale. A circle has been added to indicate where the study took place.

The Jordan Valley is the lowest area in the region, with a year-round warm climate that is warmer than the rest of the country. Such a climate makes farming a prominent job in the area.

The valley is divided into many sub-regions, from north to west: North Shuna, Mughair, Waqas, Shaykh Husayn, Al-Mashari, Wadi Al-Ryan, Kuraymeh, Sawalha and others. The hollow circle shows where the study took place (see Map 2).

The Jordan Valley is inhabited by a wide array of communities. All communities living in that area, nevertheless, are referred to as Ghawarneh by Jordanian People. According to Bani Yasin (1980), in its broader sense, Ghawarneh refers to three ethnic groups: *alʔahraar* ‘the freemen’, the Ghawarneh, and *ʔalʔabiid* ‘the slaves’. These groups represent the original inhabitants of the Jordan Valley. Bani Yasin (1980: 29) provides a detailed

description of Ghawarneh.

All the people of Al-Ghor are sedentary. They no longer live in tents, except temporarily near their own land at the time of active cultivation. City dwellers call them *fallahin* or *Ghawarneh* and think as [sic] them unused to modern ways of life, like entertainments such as the cinema. In fact, the lifestyle of the people of Al-Ghor is very traditional. Thus, the [sic] women of Al-Ghor do not go out of their houses without covering their heads, according to Islamic Law, but they go out and work in the fields alongside the men. As far as social structure is concerned, their life is more or less like the life of Bedouins. Each tribe in Al-Ghor has a chief or sheikh, who is responsible for everything.

The description reflects the social status of Ghawarneh and the way they are looked at by other communities who live in cities. Most of Ghawarneh belong to the low working class. They prefer the rural style of living. Moreover, the description shows some aspects of their social ties. People in that community have strong blood/tribal ties. Their social structure imposes certain expectations on how individuals should behave or speak in that community. The description extends and captures how other communities look at Ghawarneh. It is enough for “city dwellers” to look down upon people if they are living in the Jordan Valley, regardless of their level of education, occupation, or economic status. If a person lives in the Jordan Valley, he is taken to be uncivilized.

3.2 Problem, hypotheses, and limitations of the study

Bani Yasin (1980) draws attention to the phonological status of the definite article in the speech of the Ghawarneh community. Nevertheless, he shows that the assimilation process is not very well understood across the community, and he does not provide a reasonable track of how this process started. Thus, it is not clear if the process has undergone any change with its interaction with other dialects and communities. Bani Yasin (1980: 220) concludes that

Al-Ghor dialect has its own characteristics with regard to phonetic realization of the definite article, *in which matter it is quite unusual* (italics mine). Any traces of more specific derivations from either the Ghaza region, or parts of Saudia [sic] Arabia, as maintained in tribal traditions are no longer observable, having been merged with other dominant linguistic traditions or developments, within Al-Ghor.

His observation highlights the fact that speakers of this community are more likely to affect or be affected by “other dominant linguistic traditions” (1980: 220). Even though the problem is stated, it has been overlooked in the literature.

It is hypothesized that (1) the non-standard form is favored by speakers who match the demographic profile of non-standard speakers in other studies (e. g. Abdel-Jawad 1981; Assiri 2008 and others), (2) the non-standard variant will target all non-coronal sounds, and (3) the semantic content and frequency of words can affect variation.

Covering all aspects and testing the effects of all social factors would require more space and time. Thus, the study is limited in many respects:

1. It is likely that political and historical factors affect variation in this community. However, these factors, among others such as ethnicity, social status, and style/register and the effect of phonological factors such as pauses, emphasis, stress, hesitation, and syntactic position of lexical items and the like, are left for further studies.
2. The sample of the study covers ages between 19 and 87. It would be a point of investigation to see how children acquire/use such a variable.
3. The study is limited to the Ghawarneh community and does not cover all sub-regions of the Jordan Valley. It would also be worthwhile to widen the scope to cover the southern part of the Jordan Valley.
4. The study is limited to non-coronal sounds attested in the literature, excluding borrowed sounds like [v] in lexical items, such as *viideo* ‘video’.

3.3 Population and sampling

The population of the study represents the speech of the Ghawarneh community living in the Jordan Valley. Working as a schoolteacher with the United Nations Refugees Working Agency (UNRWA) in Al-Mashari and Kuraymeh primary schools and mixing with the Ghawarneh community for over a year in 2009 makes me an in-group member to some degree. Thus, the sample of the study is chosen based on my own social network. The speech sample consists of the naturally occurring speech of sixteen speakers (2 genders × 2 education levels × 2 age groups × 2 speakers per cell), stratified

by age, gender, and level of education. Age includes old (50 and above) and young categories (below 50). Gender is categorized based on biological sex: males and females. The level of education is based on whether the speaker has received any post-secondary degree or not. Speakers who have received primary schooling are classified as uneducated. The reason for this classification is due to the structure of the educational system in Jordan. The Ministry of Education makes basic schooling (pre-primary, primary, and secondary levels) available in rural areas. Higher education is only available in urban centers.

3.4 Data collection and analysis

3.4.1 Data collection

Data was collected through informal sociolinguistic interviews, recorded using a Samsung Note 4 mobile phone. The interviews were conducted in different settings, including homes of participants and coffee shops.² The interviews are of an average of 30 to 35 minutes each. Most interviews are conducted by me with the speakers' family members or friends present following Memorial University ethics procedures.

The strategy followed in conducting most interviews was almost the same for each participant:³ I asked the same questions, not in exact order, and emphasized areas in which I felt that the participant was able to talk spontaneously. The technique followed in this case has been controlled not only by the questions asked but also by the conversational frames of schematic discourse. Such frames aimed to activate topics that are related to common ground knowledge and experiences shared with me. For example, while talking about the fasting month of Ramadan, a speaker would mention the name of one of the well-known TV series. By using the conversational framing technique, I maintained the flow of conversation by asking further details

² Even though *diglossia* exists in Arabic communities, the use of informal interviews in very informal settings targets the low variety of spoken Jordanian Arabic (the vernacular). The high variety, the variety that is used in certain specific settings such as Muslim Friday sermon or formal education but not ordinary conversations (Ferguson 1959), is excluded. The term *standard*, therefore, refers to the way the definite prefix is used in cities and most modern vernacular Arabic varieties (see section 2.1).

³ The recordings of participants who have been able to talk naturally about topics they felt competent were shorter with less questions asked, yet they fulfilled the purpose of the conversation.

about the story of this series and his/her impression. This technique adds to the naturalness of conversations.

The interviews were about multiple topics: farming, dreams, childhood, the fasting month of Ramadan, education if any, marriage, traditional dishes, and the way they are made, life in the Jordan Valley as compared to that of a city, such as Irbid and Amman. The interview guiding questions are about 60 questions (see Appendix A). The choice of such topics and the presence of family members helped in eliminating the *observer's paradox* (Labov 1972).

The aim of choosing such topics is related to the nature of life in the Jordan Valley and the fasting month of Ramadan; speakers can talk naturally as the topics are accessible to all. Moreover, in Arabic, the topics would naturally target non-coronal sounds. For example, farming would spontaneously trigger lexical items that are related to different types of fruits and vegetables that are grown in that area, such as *burtugaal* 'oranges', *fiul* 'beans', *hamdijaat* 'citrus fruit', *muuz* 'bananas' and others. Talking about life in the city versus that in the Jordan Valley triggers lexical items such as *yor* 'the Jordan Valley', *hajaah* 'life', *mashaariʕ* 'Mashari', *qanaah* 'the canal' and the like. Talking about the fasting month of Ramadan would trigger words that are associated with prayers such as *mayrib* 'evening prayer', *ṣaṣir* 'afternoon prayer', *ṣiṣa* 'night prayer', *fadžir* 'dawn prayer', *faṭuur* 'meal that breaks fasting', *qurʔaan* 'The Holy Quran', *bab al-ḥaarah* 'Bab Al-harah, a popular series in Ramadan' and the like. The use of these words in the course of speech would trigger a natural use of the definite prefix with non-coronal sounds.

Albeit part of Muslims' common ground, some topics that are related to religious traditions are difficult for some. Thus, in line with Memorial University ethics procedures, participants were given the freedom to change the topic of the conversation and/or the question asked, to pause the recording at any time, or to stop it if deemed necessary.

3.4.2 Data analysis

After conducting an interview, I replayed the conversations multiple times to make sure that I extracted every token of the variable (article + non-coronal sound) used by participants. Tokens were coded for the variant used, speaker demographics (age, gender, and level of education), and lexical-semantic content (Technical "T", Common "C" and Dialectical "D"), based on my intuition as a speaker of Jordanian Arabic and the views of my Ghawarneh friends.

Goldvarb X (Sankoff et al. 2005) is used for statistical analysis. Binomial, Up, and Down test is run to obtain the degree of significance of each factor on the realization of variables across all non-coronal sounds. Cross-tabulation is also used to obtain the relationship between different intersecting factors.

4 Findings and Discussion

I begin by presenting the results in three stages based on the questions presented earlier: (i) which of the non-coronal sounds are subject to change, (b) what is the impact of the semantic content on LVC and (c) what is the impact of demographic factors on change? Then I proceed to discuss and attempt to explain the phenomenon.

The analysis of data shows the use of the definite article in 1820 lexical items – with the exclusion of words in which the definite article is not clearly recognized. The assimilation to non-coronal sounds shows that the non-standard variant appears in 642 (35.3%) tokens while the standard one is used in 1178 (64.7%) tokens. To understand the alternation of using one variant over the other, the data is further analyzed under the impact of linguistic and non-linguistic factors.

4.1 The impact of linguistic factors

Considering the assimilation and non-assimilation of individual non-coronal sounds, the analysis shows the distribution in Table 1. The table shows that the non-standard variant is seldom used with lexical items that begin with glottal stops, as [ʔ] and is less likely to appear in those that have glottal fricatives, as [h]. Albeit used often in most lexical items, the standard variant is less used with the affricate consonant, [dʒ].

A closer look at the distribution of sounds based on their voicing features (Table 2) shows the significance of such features in the variable use of *ʔal*. The lateral [l] of the definite prefix assimilates to voiced non-coronal sounds at a factor weight of .57 more than voiceless ones, .39.

Manner features (Table 3) show almost an identical relative strength of .31. As can be seen from the table below, the most frequent category that undergoes assimilation is affricates, while the least frequent one is stops. Apart from the affricate-coronal consonant, the relative strength (range) of manner features drops down to almost .11.

Table 1. Factors favoring assimilation of the definite article in Ghawareneh Arabic: the place of the initial consonant of the following word

Sound		% non-std	N
dʒ	.91	59.1	93
b	.64	44.8	212
m	.63	37.8	423
ʕ	.61	43.5	207
k	.56	40	55
f	.52	35.1	94
x	.51	37.8	45
ħ	.49	31.6	206
w	.48	33	97
q	.45	36.5	85
ɣ	.41	35.2	71
j	.27	34.3	35
h	.18	11.1	18
ʔ	.04	1.7	179
			1820

Corrected mean .227, range 87

Table 2. Factors favouring assimilation of the definite article in Ghawareneh Arabic: the voicing of the initial consonant of the following word

Voicing		% non-std	N
Voiced	.57	41.6	1138
Voiceless	.39	25.4	682
			1820

Corrected mean .39, range 18

Table 3. Factors favouring assimilation of the definite article in Ghawareneh Arabic: manner features of the initial consonant of the following word

manner features		% non-std	N
affricates	.72	59.1	93
nasals	.53	37.8	423
fricatives	.51	36.2	641
glides	.48	33.3	132
stops	.42	28.4	531
	.39		1820

Corrected mean .39, range 31

Table 4. Factors favouring assimilation of the definite article in Ghawareneh Arabic: place features of the initial consonant of the following word

place features		% non-std	N
coronal	.73	59.1	93
labial	.55	39.5	729
dorsal	.51	35.8	388
laryngeal	.40	26.2	610
			1820

Corrected mean .39, range 33

Table 5. Factors favouring assimilation of the definite article in Ghawareneh Arabic: lexical class of the following word

lexical item		% non-std	N
dialectal	.71	57.3	405
common	.49	32.3	1219
technical	.19	8.2	196
			1820

Corrected mean .39, range 52

As non-coronal sounds are hard to be grouped into natural classes, the statistical analysis of place features shows almost a similar outcome with manner features. See Table 4. Place features (.33) show almost an identical relative strength with the manner features (.31). The most varied category to undergo assimilation is coronals; similar to most non-coronal consonants, the affricate-coronal consonant [dʒ] is singled out by some place and manner categories of its own. In fact, the significance of manner and place features seems to be in part due to the strong effect of the affricate-coronal consonant [dʒ] that has a factor weight of .72 in each category. The second category to assimilate is labials. Laryngeals assimilate the least.

The semantic content of words is found to impact the alternation between standard and non-standard way of assimilation. Table 5 illustrates the distribution of both variants across three lexical classes based on the lexicalist hypothesis.

Table 5 shows that the non-standard variant is rarely used with technical words. Yet, its distribution between common and dialectical lexical items is evident, and it is more likely to appear in the latter.

It should be noted that while variation could be accounted for in terms of semantic meaning, the use of technical words is noticed to overlap with social factors such as education.

Bani Yasin (1980), among others, has noticed that the definite article in the Jordan Valley assimilates to non-coronal sounds. Such an observation, however, is too general and has not provided any clue on which of non-coronal sounds is used/not used often. The data show that not all non-coronal sounds affect the use of one variant over the other in the same degree. In fact, some sounds are almost used exclusively with the standard variant. Thus, there should be some relation between the sound used and the type of variant.

The use of the standard variant with [ʔ] can be attributed to the fact that using the non-standard form would result in three glottal stops in the lexical item. For example, in lexical items such as *ʔamiir* ‘prince’, the assimilation to non-coronal sounds would result in triple glottal stops, *ʔaʔ.ʔamiir* ‘the prince’ which makes an unnatural sound combination. Thus, I argue that if the process makes the pronunciation difficult, speakers refrain from using the non-standard variant. The same argument can be extended to the glottal fricative [h]. It seems that since [ʔ] is used at the beginning of the definite prefix, it bans the use of glottal consonants.

A natural conclusion to put forward is that under the impact of the Obligatory Contour Principle, a principle that bans “consecutive identical

features” (Odden 1986) or “nearby segments that are similar or identical from occurring” across morpheme boundaries (McCarthy & Prince 1995: 92), the use of the non-standard variant would be restricted. Such an argument has been observed to affect some instances of reduplication in some languages such as Akan, a language spoken in Ghana, in which a sequence of at least three coronal segments blocks the phonological environment of reduplication; two segments, nevertheless, are allowed (McCarthy & Prince 1995: 92). The OCP principle, I argue, would not be active to all non-coronal sounds as the assimilation to such sounds would not result in three consecutive identical segments/features, which is an exceptional application of the OCP principle.⁴ The few instances observed are perceived to behave more like deletion of the lateral [l] of the definite prefix, rather than a full gemination of glottal stops.

In addition, based on the inventory of non-coronal sounds (Heselwood & Watson 2013: 35) and studies on Arabic grammar (Aala Addin 2016) the affricate coronal sound [dʒ] and its allophonic variant [ʒ] is classified as a non-coronal sound that does not undergo assimilation.⁵ Therefore, while a coronal consonant should be treated as a sun letter due to its place of articulation, the sound does not belong to sun letters. What the actual realization and the status of this sound in the speech of Ghawarena shows is that the sound is not clearly defined as a non-coronal sound in this dialect: almost 60% of tokens have undergone assimilation, a higher rate than for other sounds. The rule of assimilation, therefore, seems to be acting in accordance to the natural way of assimilating the lateral [l] to coronals; the sound fits those original specifications of coronal sounds; it is pronounced with the tip of the tongue in a similar way that the coronal sound [d] is pronounced.

However, this sound does not categorically assimilate, in the way that regular coronals do. I argue that this is because this sound at the very first levels of education is instructed to be pronounced as a non-coronal sound, in which the definite prefix does not assimilate. The non-assimilation, therefore, would be attributed to language maintenance in which this sound has to be set and pronounced as a non-coronal sound. The sound highlights a significant

⁴ Partial assimilation could invoke less violation of OCP. It is worth exploring if partial assimilation of the lateral [l] (devoiced [l̥] and glottalized/pharyngealized [l̥ʕ]) occurs from an acoustic point of view.

⁵ From a historical-phonological perspective, the sound /dʒ/ has sometimes been treated as a non-coronal sound [g]. Some traces of the non-coronal use of this sound can be found in varieties such as Egyptian Arabic (EA) and Omani Arabic. For example, in EA, words that take [dʒ] in SA are pronounced with [g] instead, cf., *ʔal.dʒunuud* ‘the soldiers’ (SA) vs. *ʔal.gunuud* ‘the soldiers’ (EA). See Woidich & Zack (2009).

bottom-line for a correlation between Classical Arabic and Ghawareneh Arabic (and other varieties of Arabic, such as Omani Arabic and Yemani Arabic); while it is unquestionable that /dʒ/ is a coronal sound, the data show instances of a covert contrast between a coronal and a non-coronal sound,⁶ a voiced palatal plosive /j/. At the perception level, the sounds are hard to set apart. Thus, the non-assimilatory patterns of /dʒ/ might be manifestations of a change in progress from below, that is, in the speech of Ghawareneh, the two sounds might be present at their phonetic inventory. Because of the fact that these sounds are perceptually identical, all treatments of the non-coronal sound, represented by the letter <ج>, capture only one variant of this sound /dʒ/ and overlook the other covert contrast with /j/. The data provide a piece of evidence toward the presence of /j/ which might be manifested through the cases in which the definite prefix is not assimilating to /dʒ/. Since the contrast is covert, I argue that the language is undergoing a change in progress from below the level of awareness of Ghawareneh speakers; that is, Ghawareneh are going from the marked /j/ to the unmarked /dʒ/. Because of the change toward the unmarked, the impact of the rule of assimilation is evident.⁷

The use of the non-standard variant with the rest of the sounds ranges between 30% and 45%. As these sounds do not make a natural class by themselves, it would be hard to predict what feature accounts directly for their use. However, based on grouping sounds to their prominent voicing and points of articulation and manner features, the study shows that voiced non-coronal sounds are more likely to trigger assimilation. The reason, I argue, is attributed to markedness (Hayes & Steriade 2004; Rice 2007; Zhang & Tian 2015); even though the exact definition of markedness is debatable in the literature and subject to cross-linguistic variation (see Rice 2007), according to some phonologists marked sounds can be triggers (more than targets) of assimilation, they are unlikely to be epenthetic and subject to neutralization (see Rice 2007: 80 for more defining features). Given the debate over featural markedness, I adapt Lombardi's (1991) argument that calls for defining voiced sounds as

⁶ As pointed by one of the reviewers, *covert contrast* is a concept used primarily in L1 and L2 acquisition of phonology/sounds. Perceptually, a child might not be able to distinguish sounds. The same idea may add to our understanding of instances of *a change from below* in sociolinguistics; perceptually similar sounds might affect the choice of one variant over the other.

⁷ Acoustic analyses will be needed to confirm the distinctions. I recommend further analyses to re-examine the phonetic inventory of speech sounds within spoken Arabic varieties. As the researcher can intuitively tell, the inventory should be expanded since a covert contrast exists between /dʒ/ and /j/. The contrast is highlighted to exist based on the current data, which explains its classification as a non-coronal sound, yet my predictions await to be confirmed.

marked in comparison with their voiceless counterparts. If that is the case, the markedness of the non-coronal sounds with respect to their voicing can affect the tendency and the frequency of using one variant over the other. It should be noted that place and manner features play a role, yet their role is more evident once sounds are taken individually, as discussed above.

It has been noted by Assiri (2008) that some dialects choose to assimilate the definite article to the nasal consonant [m]. He left a question unsettled. Why do speakers choose the non-coronal nasal [m] over other non-coronal sounds? The results of the study show that the most frequent sound to occur, at least in the interviews conducted, in both variants across the sample, is the nasal [m], with 23.2%. This might give a prediction toward why [m] would overapply in replacement of other sounds in some cases such as that of Assiri (2008).

The semantic content of words affects the choice of variants. For example, in words that are related to farming, names of local areas, and objects such as *bayaarah* ‘farm’, *muuz* ‘banana’ and *mafaariʕ* ‘Mashari’ and the like, it is noticed that speakers would more likely use the nonstandard variant. In words that are used in their Classical forms such as *qurʔaan* ‘Holy Quran’, speakers tend to use the standard variant. In addition, in words that are commonly used and do not belong to either of the aforementioned classes, speakers tend to alternate between the two variants. This matches findings of other variables that are used in Irbid City in the North part of Jordan and other studies that deal with LVC from a lexicalist perspective (Abdel-Jawad & Suleiman 1990).

4.2 The impact of social factors

4.2.1 The gender factor

The statistical analysis has shown that gender is statistically significant in the variable use of (*ʔal*). Males tend to assimilate the lateral [l] of the definite article before non-coronal sounds more than females (Table 6).

The results show that female speakers use the standard variant more than male speakers, a pattern that should be “connected with the overall picture of societal structures” (Wodak & Benke 1998) to form an idea toward the underlying reasons that calls women to use the standard variant more than men. Using the standard pattern of assimilation more often by females shows that they are aware that the non-standard variant is interpreted as a form that is used by rural Ghawarneh people; women prefer using the variant that is used

Table 6. Factors favouring assimilation of the definite article in Ghawareneh: gender

gender		% non-std	N
males	.56	40.6	982
females	.43	29.0	838
			1820

Corrected mean .227, range 13

in not only SA but also in urban centers. According to Eckert (1997b) and Trudgill (1972), the use of the standard variant by women is related to some social status or job opportunities that women try to achieve through language. Male speakers, on the other hand, have access to far more ways of defining their status. Thus, using the variant that is more associated with rural aspects of life helps in solidifying the idea that being from a rural agricultural region is part of being hard-working men who are viewed as tougher than those men who work in offices (Trudgill 1972; Assiri 2008).

Labov (1990: 210) states this conclusion as follows:

[The] basic finding can be formulated in two complementary ways: men use more nonstandard forms, less influenced by the social stigma directed against them; [...] women use more standard forms, responding to the overt prestige associated with them.

Even though the gender factor by itself shows a statistical difference, it does not show a full picture of the social structure. Once gender intersects with age, the results show that not all men are behaving differently from women. Young female and male speakers seem to show almost no difference in the use of variants, and both show preference toward the use of the standard variant. Such finding is discussed in the following subsection

4.2.2 The age factor

The age factor plays a significant role in LVC (e. g. Eckert 1997a; Assiri 2008; Habib 2010; Abu Ain 2016). Likewise, in this study, there is a significant statistical difference between young and old speakers: young speakers are more inclined toward using the standard variant while old speakers use the non-standard variant more (Table 7). A cross-analysis of gender and age

Table 7. Factors favouring assimilation of the definite article in Ghawareneh Arabic: age

age		% non-std	N
old	.71	46.5	908
young	.29	22.5	912
	.227		1820

Corrected mean .227, range 42

Table 8. Factors favouring assimilation of the definite article in Ghawareneh Arabic: intersection between age and gender

age	gender	% non-std	N
old	males	54	299
	females	39	137
young	males	23	100
	females	22	106
			1820

(Table 8) shows that old male speakers tend to use the non-standard variant more than old female speakers, but there is no difference in gender between young male and female speakers.

Chambers (2003: 159) notes that “young adulthood is seen as representing a crucial life stage during which standardization increases”. This difference in the variable use of the definite prefix (*ʔal*) among young speakers can be attributed to the following observation. Throughout the interviews conducted, when young speakers were asked about life-style differences between the Jordan Valley and some urban centers such as Irbid city, they indicated that the Jordan Valley is less developed. Thus, they indicated that establishing their lives in a city will provide them with more opportunities for jobs. Thus, the positive evaluation of life in urban centers and the fact that the non-standard variant ties them to the Jordan Valley help in understanding the reason behind choosing the standard variant by young speakers. This conclusion has been supported in many studies (cf. Labov 1972; Habib 2010):

The adult is seen as participating in the standard linguistic market within

the working life stage. Hence, the use of prestige forms is thought to peak in the middle years when the maximum societal pressure to conform is thought to be felt. (Holmes 1992: 186)

Thus, the lack of jobs in the area (the only jobs available in the Jordan Valley are agricultural-based) makes young people interested in working in malls (e.g. Irbid Mall, Arabella Mall, and others) and factories (e.g. Al-Hassan Industrial Estate) found in urban centers such as Irbid, and Amman.

It has been clear that there is almost no difference between young male and female speakers in the variable use of the definite prefix (*ʔal*). The intersection with gender supports the idea that young speakers, regardless of their gender, use the variant that moves them linguistically away from the Jordan Valley. Neutralizing gender shows that young speakers in such a community avoid using the variant that reflects their place of origin. Another reason that might underlie the use of the standard variant could be the conversations conducted. It could be that despite my best efforts to create a comfortable situation and my semi-community status, young speakers might have found themselves in a context for using language from the more formal end of their stylistic repertoire.

For older speakers, the situation has been different. The non-standard variant is found often in the speech of old speakers, with old males using the non-standard variant more than old females. As indicated earlier (see Section 1), the social structure of the Ghawarneh community is complex. It is composed of communities with tribal origins. In the Jordanian society in general and the Jordan Valley, in particular, every community strives to preserve its tribal origin. Under the impact of the vast developments in the Jordanian society and the number of forced migration movements that took place, I argue that the only way to preserve identity and origin is through linguistic means. While the tribal roots are diminishing in younger generations, such roots are still found in the speech of older generations who resist changes.

Three factors inhibit the change toward the standard variant in the speech of old speakers. First, using the non-standard variant would set the Ghawarneh community apart from other communities that use the standard variant; it is, therefore, used a marker to maintain identity. Second, old speakers are more conservative; old informants value family relations and spend most of their time in family gatherings. Thus, the use of the non-standard variant fortifies their identity. Third, it could be that older speakers lacked access to education and interaction with standard speakers and are thus the last generation to

adequately maintain their dialectal forms. Such conclusions are in correlation with other studies on LVC (see Eckert 1997a).

4.2.3 The education factor

The analysis of the education factor shows that uneducated speakers are far more likely to use the non-standard variant (Table 9). Intersecting the results with age (Table 10) shows that uneducated old speakers use the non-standard variable more in their speech, while educated speakers, regardless of age, use the standard variable.

Furthermore, an intersection with gender (Table 11) shows that uneducated male speakers use the non-standard variant more than educated ones. Educated speakers, regardless of gender, show a high tendency toward the use of the standard variant. The following table is representative.

It is crucial to highlight the relation between the education factor and the choice of lexical items for the simple reason that it is assumed that the level of education could affect the choice of lexical items. See Table 12.

Table 12 shows that educated speakers are more likely to use technical lexical items (149 tokens), and only 5% of such words have been used with the non-standard variant. Uneducated speakers, on the other hand, used 47 technical lexical items, 19% of such items assimilate to non-coronal sounds. It is evident that the level of education affects the choice of technical items. Moreover, the low percentages, in both educated and uneducated, show that the semantic factor hinders the assimilation process in technical words. Educated speakers use the non-standard variant in 23% of dialectal lexical items, while uneducated speakers use the non-standard variant in 83% of dialectal items. Even though the semantic factor increases the use of the non-standard variant in dialectal items, the education factor hinders the assimilation process. The same applies to common words.

Several studies have highlighted the importance of education as a social variable (e. g. Al-Wer 2002; Assiri 2008). Education as a sociolinguistic factor is a complex one. It could be an indicator of literacy in which the use of standard variant is used as the medium of instruction (Al-Wer 2002), it could be an indicator of social status since in wealthy societies such as Saudi Arabia, educated speakers are those who belong to higher social classes (Assiri 2008: 6), and it could also be a marker that shows language contact if speakers move to urban centers to continue their studies (Al-Wer 2002). Albeit different views, most studies have one conclusion: educated speakers

Table 9. Factors favouring assimilation of the definite article in Ghawareneh Arabic: level of education

education		% non-std	N
uneducated	.84	62.0	823
educated	.20	13.2	997
		.227	1820

Corrected mean .227, range 64

Table 10. Factors favouring assimilation of the definite article in Ghawareneh Arabic: intersection of education and age

education	age	% non-std	N
educated	old	18	94
	young	8	38
uneducated	old	86	342
	young	40	168
			1820

Table 11. Factors favouring assimilation of the definite article in Ghawareneh Arabic: the intersection of education and gender

education	gender	% non-std	N
educated	males	17	86
	females	10	46
uneducated	males	68	313
	females	55	197
			1820

Table 12. Factors favouring assimilation of the definite article in Ghawareneh Arabic: the intersection of education and lexical class of words

education	lexical item	% non-std	N
educated	technical	5	149
	common	13	675
	dialectical	23	173
uneducated	technical	19	47
	common	57	544
	dialectical	83	232
			1820

are more likely than uneducated speakers to use variants that are associated with standard forms or prestige.

Likewise, the findings of this study show that the education factor is significant in the variable use of the definite prefix (*ʔal*). Educated speakers use the standard variant more often. Intersecting education with gender indicates that educated male and female speakers use the standard variant more than uneducated ones. Intersecting the findings with age shows that old uneducated speakers are more likely to use the non-standard variant while young educated speakers tend to avoid using such variant.

Since the majority of Jordanian people are more likely to receive a university degree, education cannot be a reliable indicator of social status in this culture (unlike the situation described in Assiri 2008). In fact, due to the very competitive marketplace and the scarcity of jobs available, people in Jordan, in general, and the Jordan Valley, in particular, consider obtaining a university degree mandatory for both genders. For males, obtaining a university degree can guarantee a decent, well-paid job. For females, a university degree can enhance the odds of marriage (Rashad et al. 2005). Thus, it would be crucial to view the education factor in the Ghawareneh community in line with Al-Wer (2002), who views education as a possible outlet for language contact.

Due to the fact that the Jordan Valley does not have any universities, Ghawareneh move to urban centers such as Irbid to study: Yarmouk University and Jordan University for Science and Technology (in Irbid), the University of Jordan (in Amman) and others. Educated speakers, therefore, are more likely

to be in contact with dialects in which the definite prefix does not show any assimilation to non-coronal sounds. Thus, interacting with people who use the standard pattern of assimilation can be a significant factor in the difference in use between educated and uneducated speakers. For instance, in one of the interviews conducted, a speaker has indicated that once he was in Irbid city, two Ghawarneh people were using the Ghawarneh dialect on the bus. He tried to avoid talking with them so that he did not appear to belong to the peasant agricultural area. Thus, to appear as urban, modern, and educated while being in cities, some speakers tend to change their language to fit with the language spoken in urban centers. Such an example also indicates how educated Ghawarneh speakers compare their dialect with other dialects that are spoken in urban centers. The awareness of some Ghawarneh speakers of the linguistic status of the standard variant could be best described as a case of *a change from above* (Labov 1972; Meyerhoff 2010).

In addition to being subject to language contact, I argue that the use of standard language as the medium of instruction in universities and schools can lead to the use of the standard variant more than the non-standard one, especially when it comes to assimilating the definite prefix. In Jordan, it is essential for educated speakers to have mandatory courses in Standard Arabic Grammar at schools and universities; teachers highly emphasize the pronunciation of words. The same argument has been indicated earlier with regard to the coronal sound [dʒ]. However, there is no reason why such emphasis is there in the first place. Our findings show that there is a covert contrast between two perceptually similar sounds: one is a coronal while the other is not. The covert contrast between sounds affects articulation. Since speakers are not aware of the distinction between these sounds, they tend to overlap in their assimilation of the definite article; that is, in some instances, they seem not to be assimilating the definite prefix with a coronal sound. The few cases of non-assimilatory patterns highlight the contrast between these sounds. Since the coronal sound is unmarked relative to its non-coronal counterpart, speakers are using it more frequently.

The impact of education has been evident not only on the variable use of the definite prefix but also on the choice of lexical items. It has been clear that educated speakers tend to use more technical words, while uneducated speakers used more colloquial lexical items than educated ones. The choice of the lexical item and the variable that is associated with the semantic base reveals the level of change toward the standard variable. Education increases the level of awareness that overapplying the assimilation rule to non-coronal

sounds can stigmatize the speech of literate people. Moreover, the frequency of using colloquial items is hindered by the interaction of educated speakers with speakers who use relatively different forms in urban centers. Thus, I argue that if a speaker is educated, then it is discouraged for that speaker to show any dialectal feature that contradicts the rules of the standard language and the majority of the dialects spoken in Jordan.

5 Conclusion

The study has shown that the definite article in the speech of the Ghawarneh community assimilates to non-coronal sounds, as it has been argued earlier by Bani Yasin (1980). Nevertheless, assimilation is becoming less frequent. Using the standard pattern of assimilation is viewed more positively. Thus, it is likely that speakers in the region are moving toward the standard way of assimilation. In addition, the study has shown that linguistic factors can impact the assimilation of glottal consonants. The semantic content of words also limits the use of the non-standard variant in an obvious way. The education, age, and gender factors show that the non-standard variant is more likely to be used among uneducated (62%), old (46.5%), and male (40%) speakers. The sociolinguistic factors, albeit with some difference in their level of significance, meet at one juncture; there is a tendency toward moving linguistically away from the Jordan Valley to achieve some level of urbanization. Both the attitude toward life in the Jordan Valley and the degree of contact with urban centers and with other communities determine the strength of the social factor and its impact on the variable use of the definite prefix.

In addition, the study has shown that instances of a change from above and a change from below are observable in the dialect. Speakers are aware of the stigma associated with assimilation to non-coronal sounds; thus, they tend to avoid this linguistic phenomenon in urban centers. Moreover, the study shows a case of a change from below; speakers are not aware that they were extensively using assimilation with one of the non-coronal sounds, /j/, to the extent that the contrast between /j/ and /dz/ is lost. Losing the contrast between these sounds resulted in patterns in which the definite article seemed not to assimilate for coronal sounds. The unusual behavior, however, could be a matter of a covert contrast that is hard for speakers to detect perceptually. Our conclusions are at the heart of revisiting the status of /j/ across Arabic

varieties. We predict that the presence of this sound would be inevitable. Further studies are yet to confirm this prediction.

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Appendix A Interview guiding topics/questions

The interviews are conducted about general topics that involve descriptions of different aspects of life that are of interest to the participants themselves.

The interviews targeted several topics. Some topics are in line with William Labov's guiding questions and topics. Others have dealt with some areas of interests for the speakers themselves in line of culture and region.

- Topic one: Life in the Jordan Valley / Farming
- Topic two: The effect of technology and social networks
- Topic three: Dreams and nightmares
- Topic four: The fasting month of Ramadan
- Topic five: Traditions in marriage and death
- Topic six: Memorable incidents at schools/universities
- Topic seven: Childhood/memorable story
- Topic eight: Making traditional meals

English illustration of some Questions

- Where did you grow up? Do you like living in the Jordan Valley? Do you think life in Irbid city is easier? What are the differences between the city and the Jordan Valley? Do you have a farm in the Jordan Valley? What kind of vegetables/fruits do you grow there? Can you describe how working on a farm is different from working in other professions? Do you think life now is better than before? How? Why do you think so? How life now is different from that of the old days? What are some environmental problems faced by your hometown?
- What is a memorable event for you? Why do you find this event memorable? Have you ever been to a wedding? Whose wedding was it? Where was it held? What sort of gifts do people buy for the bridal couple? What kind of clothes did the bride and groom wear? How is a wedding nowadays different from that of the past? Do you think that some aspects should be changed? Why do you think such aspects should be changed? What are some of the advantages of marriage?
- What do you study at university? Why do you find this major interesting? What are the most interesting topics in your major? Why? If you have a chance to change your major, what would you choose? Why would you choose that major instead?

The Arabic version

Profile questions

بداية ممكن تعرفنا عن نفسك ؟ انت مواليد اي سنة ؟ يعني تقريبا كم عمرك ؟ بتشتغل او بتدرس ؟ سكان اي منطقة بالاغوار ؟

Topic one: Life in the Jordan Valley/ Farming

كيف بتشوف الحياة بالغور هل هي سهلة او صعبة؟ هل بتشوف في اختلاف بين الحياة بين مدينة اربد والاغوار؟ شو الاختلافات الي بتشوفها بالمدينة؟ الي مش موجودة او متوفرة بالاغوار؟ شو الايجابيات الحياة بالغور وشو هية سلبياتها؟

هل بتشوف انه في تقصير بالنسبة للبنية التحتية في الاغوار؟ بسمع انه طريق الغور سبب للحوادث شو رايبك؟ مين السبب؟

في عندكو بيارة او عند احد من معارفك في منطقة الاغوار؟ شو طبيعة المواسم الي بتزرعو فيها الخضار والفواكه الي بتزرعوها في البيارة؟ ممكن تحكيلنا عن العمل بالبيارة بالتفصيل؟ هل بتشوف انه العمل في البيارة اسهل من العمل من مهن ثانية؟ هل بتشوف في اختلاف بين الحياة ايام زمان والحياة

الان ؟ شو طبيعة التغييرات الي صارت؟ هل في موقف صار حسيت انه الناس متعاونة بالاغوار اكثر من المدينة؟ طيب بالنسبة للتعاون لو عندك سيارة واحد الاشخاص طلبها منك هل بتعطي اياها؟ طيب في ناس ممكن ما تعطي شو السبب؟

Topic two: The effect of technology and social networks

الان ممكن من الاختلافات الي تغيرت عالناس مواقع التواصل الاجتماعي ؟ شو ايجابيات استخدامها وسلبياتها؟

هل بتشوف/ي انه التكنولوجيا غيرت بحياة الناس للاسهل او للاصعب؟ ممكن توضح؟

Topic three: Dreams and nightmares

هل في حلم انت حلمته غير بحياتك او بعدك بتتذكره؟ شو كان الحلم وعن ايش ؟ ممكن تحكي لي هاد الحلم غير بحياتك؟

شو رأيك بالاشخاص الي بفسرو الاحلام؟ وبيصدقوها؟ هل في حلم انت اسمعت عنه لاحد الاشخاص وحسيته غير مقنع؟

شو تفسيرك انت للحلم الي هو حلمه؟ هل بتشوف انه الاحلام بتاثر على الاشخاص وواقعهم؟ هل الاحلام بتعني اي شي بالنسبة للناس؟

Topic four: The fasting month of Ramadan

الان احنا جايين على شهر رمضان...ممكن تحكي لنا عن هاد الشهر؟ شو السبب انه الشهر مميز عند المسلمين؟

هل بتشوف انه الصيام سهل او صعب ؟ كيف بتمضي يومك خلال شهر رمضان؟ لو تحكي لنا بالتفصيل ؟ شو اكثر المسلسلات الي بتابعها بشهر رمضان؟ ممكن تحكي لي قصة واحد من المسلسلات الي بتتذكرها؟ بقلك شهر رمضان ممكن تكثر فيه المشاكل؟ شو من العادات السلبية الي الناس بتعملها خلال الشهر؟ شو بتبع شهر رمضان ؟ هل عملت عمرة ؟ شو الفرق بين العمرة والحج؟

Topic five: Traditions in marriage and death

شو رايبك بالعادات والتقاليد؟ شو في اشي بتشعره من العادات والتقاليد الي لليوم الناس بتعمله؟ مثلا بالنسبة للزواج هل بتشوف انه جزء كبير منه ماشي على العادات والتقاليد؟ في ناس بتحكي انه الزواج هاي الايام صار صعب شو الاسباب؟ هل بتشوف في مبالغات متبعة بالعادات والتقاليد بالنسبة للزواج مثلا؟ شو العادات والتقاليد الي المجتمع بعملها في حالة الوفاة مثلا؟ ممكن تحكي لنا بالتفصيل مثلا لشخص ما يعرف عن العادات والتقاليد؟

Topic six: Memorable incidents at schools/universities

انت درست بجامعة صح ؟ كيف شفت الحياة الجامعية؟ ممكن تحكيلنا عن تخصصك بالجامعة ؟ الصعوبات الي واجهتها خلال دراستك؟ مثلا اصعب مادة واجهتها ولبش؟ شو اهمية تخصصك بالحياة العملية؟ وشو هو مستقبله الوظيفي؟ ان كان عندك الفرصة تغير تخصصك لتخصص اخر شو ممكن يكون التخصص وشو السبب؟ هل بتشوف انه الحياة الجامعة اسهل من الحياة العملية؟ ممكن تحكيلنا عن موقف صار معك بالجامعة مع دكتور او طالب بعدك الى الان بتتذكره؟ هل بتتذكر موقف سبي صار مع احد الطلاب خلا تعامله مع الدكاترة في الجامعة؟ نفس السؤال بس موقف ايجابي مثلا صار؟

Topic seven: Childhood/memorable story

هل بتتذكر قصة من قصص الاطفال من هذيك الايام؟ شو رايك بقصة علي بابا والاربعين حرامي مثلا ؟ شو هية هاي القصة؟ هل بتشوف انه الطفولة مرحلة مميزة ؟ شو السبب؟ لو قارنت فترة الطفولة بحياتك الان مين بتشوف اسهل؟ او اجمل ؟ شو السبب؟ برايك؟ في ناس بتحكي بتمنى ارجع صغير شو السبب؟ هل انت مع هالحكي؟

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