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Linguistic Variation and Change in the Dialect of Ha'il, Saudi Arabia: Feminine Suffixes

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بسم الله الرحمن الرحيم

والصلاة والسلام على رسول الله محمد صل الله عليه وسلم
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Abstract

This study investigates sociolinguistic variation and change in the dialect of Ha'il city, a dialect that belongs to the Najdi type of dialects, especially Northern Najdi. Two traditional linguistic features of Ha'ili Arabic (HA) are examined: the realisation of the feminine ending (ah) and realisation of the feminine plural suffix (a:t), in relation to three social factors: age (Younger, Middle-aged, Older), gender (Male, Female) and levels of contact (High, Low) with people from different dialectal backgrounds.

Raising of the feminine ending *-ah* is defined as: fronting and raising of short /a/ to /ɛ/ or /e/. In traditional Ha'ili Arabic, /a/ is raised unconditionally in all environments even after guttural and emphatic sounds (Abboud, 1979). The results, however, show progressive lowering of the (ah) variable, constrained by social and linguistic factors. Younger female speakers especially those with high level of contact lead the change toward the innovative and supra-local variant [a], while older speakers, even those with high level of contact, maintain the use of the traditional variant [e] at a very high rate (96%). Women are slightly ahead of men in using [a]. Such gender patterning can be interpreted in relation to the fact that there is no negative social meaning associated to the use of the two variants.

Regarding the second variable (a:t), /t/ in the feminine plural suffix *-a:t* can be lenited to /h/ or /j/ in HA. According to previous research (Abboud, 1964 and Ingham, 1982, 2009), lenition of /a:t/ is linguistically conditioned by the following environment. It is promoted pre-pausally and when the following word begins with a consonant, but it is precluded when followed by a vowel across word boundary. The results show that the innovative variant [a:t] is highly favoured when it is followed by a vowel across word boundary. Additionally, the number of syllables and the stress on the final syllable appear to have a minimal effect on the realisation of (a:t). All the younger speakers, except low contact female speakers, use the innovative variant categorically, while the older speakers use it at a rate of 52%. Concerning gender, men are found to lead the change in using [a:t] than women. This gender pattern is explained with reference to men's social interaction, mobility and to the overt stigmatisation associated with the use of the traditional variants [a:j] and [a:h] by male speakers.

Overall, a progressive levelling out of local/marked features in HA has been observed in favouring the innovative features found in the emerging supra-local variety in the central region of Saudi Arabia.

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Guide to Phonetic and Transcription System

Two systems are used in this thesis for Arabic transcription: IPA (International phonetic Alphabet) and EALL (Encyclopedia of Arabic Language and Linguistics). IPA fonts are used in phonemic and phonetic transcriptions. I followed the EALL system in Arabic transliteration of people's names and places. In quoting examples from previous studies, the same symbols of the main text are used. The table below lists the symbols used throughout the thesis.

Consonants:

Arabic	EALL	IPA	
أ	’	ʔ	voiced glottal stop
ب	b	b	voiced bilabial stop
ت	t	t	voiceless dento-alveolar stop
ث	t̲	θ	voiceless interdental fricative
ج	ǧ,j	dʒ	voiced post-alveolar affricate
ح	ḥ	ħ	voiceless pharyngeal fricative
خ	x	χ	voiceless uvular fricative
د	d	d	voiced dento-alveolar stop
ذ	d̲	ð	voiced interdental fricative
ر	r	r	voiced alveolar trill
ز	z	z	voiced alveolar fricative
س	s	s	voiceless dental fricative
ش	š	ʃ	voiceless alveo-palatal fricative
ص	ṣ	$s^ˤ$	voiceless velarised alveolar fricative
ض	ḍ	$d^ˤ$	voiced velarised dento-alveolar stop
ط	ṭ	$t^ˤ$	voiceless velarised dento-alveolar stop
ظ	ḏ	$ð^ˤ$	voiced velarised interdental fricative
ع	‘	ʕ	voiced pharyngeal fricative
غ	ġ	ʁ	voiced uvular fricative
ف	f	f	voiceless labio-dental fricative
ق	q	q	voiceless uvular stop
ك	k	k	voiceless velar stop
ل	l	l	voiced dental lateral
م	m	m	voiced bilabial nasal
ن	n	n	voiced alveolar nasal
ه	h	h	voiceless glottal fricative
و	w	w	voiced labiovelar glide
ي	y	j	voiced palatal glide
تس	ć	ts	voiceless dental affricate
دز	ǵ	dz	voiced dental affricate
ڤ	g	g	voiced velar stop

Vowels and diphthongs:

Vowels	EALL		IPA		Diphthongs	
	Long	Short	Long	Short		aj
	ā	a	a:	a		aw
	ē	e	e:	e		
	ō	o	o:	o		
	ī	i	i:	i		
	ū	u	u:	u		

Introduction

The present study investigates two sociolinguistic variables found in the traditional dialect of Ha'ili Arabic (HA), a dialect spoken in the city of Ha'il, Saudi Arabia. The HA dialect has been described by Abboud (1964), Prochazka (1988), and Ingham (1994). Abboud (1964), for example, illustrates various linguistic features of the Najdi sub-dialect spoken in Ha'il. Prochazka (1988) provides broad descriptions of Saudi dialects in general including HA. He used the dialect of the Šammar tribe as a representative of this dialect. Ingham (1994) discussed various linguistic features found in Najdi Arabic (NA). He divided the NA dialects into four main sub-groups; among them is the northern NA dialect, which includes the dialect of the Ha'il region especially of the Šammar tribe. Such studies relate to traditional approaches of dialectology, describing the linguistic features in certain geographical areas or in the speech of certain tribes. To date, there are no sociolinguistic investigations of the HA dialect, and the current study is intended to fill part of this gap.

Besides sharing definable linguistic features with other NA dialect sub-groups, HA has some distinguishing features (including the ones under investigation). This can be attributed to the city's demographics profile. The population of Ha'il city constitutes extended families from different tribal backgrounds. They share a fairly homogeneous culture and dialect (Ingham, 1994, p. 2), and enjoy close social relationships, retaining most of the traditions and social values of the local community. Such social structure would affect the dialect spoken in the city. In other words, one would expect to find a relatively high level of maintenance of the local linguistic features in the speech of Ha'ili people.

This introduction provides a general outline of the significance of the study followed by the theoretical framework. The research hypotheses and the organisation of the dissertation are also illustrated below.

Significance of this study

The present study provides an up-to-date account of linguistic variation and change in the HA dialect and examines the influence of the social factors on this dialect. This study hopes to make a contribution to the growing body of literature about the NA dialects, especially HA, and to provide future scholars with useful information in this field. Also, it aims to offer the chance to trace the origins of linguistic features (under investigation) found in HA that might have their origins in some ancient Arabic varieties. In addition, this study provides a quantitative analysis of the linguistic variables within the framework of variationist theory using Rbrul statistical software.

Theoretical framework

This study is motivated by variationist sociolinguistic theories. One of the main principles of language change is that variation in a language is not free or arbitrary but highly structured in the speech of individuals and communities. Such variation is constrained by linguistic and extra-linguistic factors. Based on the remarkable findings of Labov's (1966) study, variation can be restated in terms of *inherent variability*, (i.e. variability is an essential element in any linguistic system) and in terms of *structured heterogeneity,* (i.e. this variability is linguistically and socially structured and quantitatively constrained by the linguistic system). Thus, the use of one variant rather than the other is systematic and reflects social information. Labov also suggested that:

> "…this heterogeneity is an integral part of the linguistic economy of the community, necessary to satisfy the linguistic demands of every-day life"
>
> (Labov, 1982, p. 17).

Correspondingly, the distribution of varied forms across speakers is not random.

It is noteworthy that extra-linguistic factors, which constrain the variation process, include social demographics such as speaker's age, gender, social class, social networks and ethnicity. They can also involve context, setting and topics of conversation. The formality of the speech situation or the style (from a casual style 'spontaneous conversation' to the very formal one 'reading [of] a passage') can govern variability in speech, as well (Labov, 1982). Thus, investigating language beyond the purely linguistic level and in its natural context, i.e. by using data that represent the speech of native speakers of the dialect in question is essential to understand the linguistic system and linguistic variability. The sociolinguistic interview is considered to be the main data collection method to access the vernacular, which is considered the best source of systematic data (Labov, 1984, p. 29). In this study, the focus is on the variation in the HA dialect spoken in Ha'il city through exploring its relation to the social factors determined by the researcher.

Another issue considered in this study is the relationship between linguistic change and dialect contact. Trudgill (1986) argues that when speakers of mutually intelligible varieties of a language come into contact, their interaction results in some linguistic modifications, i.e. some linguistic features might be transferred from one variety to another. Trudgill extended Giles' (1973) speech accommodation theory to investigate and explain dialect contact; he proposed that linguistic accommodation between speakers of different dialects is one of the sources of linguistic changes. During face-to-face communication, speakers accommodate to each other by reducing the dissimilarities between their dialects, and may adopt some features of the dialect spoken by their interlocutors. If such a process occurs frequently, the resulting linguistic modifications may become permanent and be used in non-contact situations. For example, British couples that reside in the United States for certain amount of time might begin using American pronunciations or expressions in their own homes when no Americans are present (Trudgill, 1986, p. 39-40). A similar condition might occur in HA, that after frequent face-to-

face interaction with people from different dialectal backgrounds, HA native speakers might adopt some speech modifications permanently in place of their HA local features.

Dialect contact involves a number of mechanisms; among them is dialect levelling. Dialect levelling has been defined as a process of reducing the 'marked variants', which are peculiar to one variety or varieties in a specific region. Common variants, on the other hand, are retained even in dialect contact situations. Milroy and Gordon (2003) define levelling as the mechanism behind the emergence of regional standards, which are basically supra-local levelled varieties. Accordingly, dialect levelling can culminate in the emergence of supra-local norms. In the current study, the levelling process will be considered in relation to the linguistic features of the HA dialect: the realisation of the feminine ending *-ah* and the feminine plural suffix *-a:t*.

Research Hypotheses

This study hypothesised that:

1. There is variation in the realisation of the feminine ending *-ah* and the feminine plural suffix *-a:t* between localised and supra-local variants among HA native speakers.
2. The use of the variables under investigation (ah) and (a:t) varies across age and gender groups.
3. The density of contact between Ha'ili speakers and speakers from different dialectal backgrounds inside or/and outside the city is an important factor that determines which variant is used; speakers with high levels of contact use the innovative 'supra-local' variants more than those with low levels of contact.

To help examine these hypotheses, the present study utilised a quantitative method based on the variationist approach pioneered by William Labov in the 1960s. The data were

obtained through sociolinguistic interviews with 47 native Ha'ili speakers living in the city of Ha'il. The interviews were conducted between June 2013 and December 2013. Being native to the city and having strong social ties within the local community helped me obtain good quality of natural speech and a broad mix of speakers. I also recruited relatives and friends in order to gain the necessary number of participants.

Organisation of the chapters

This dissertation is presented in six chapters. The first chapter is about the Ha'il community. It provides a historical, geographical and social overview of the city of Ha'il.

Chapter two presents an overview of the sociolinguistic situation in the Arabian Peninsula, in general. It provides a linguistic description of the HA dialect spoken in Ha'il city. This linguistic description involves phonological, morphological, and syntactic structure of the dialect under investigation. It, also, discusses the issue of the emergence of a regional standardised dialect in Saudi Arabia.

Chapter three addresses the methodological approaches used in the present study. It focuses on how the data were collected and analysed. It provides information about the sampling techniques and interviewing procedures. It also illustrates how linguistic tokens are extracted and statistically analysed. This chapter ends with a brief description of the social and linguistic variables examined in the present study.

Chapter four analyses the first linguistic variable: the feminine ending (ah). In HA, the raising of (ah) is considered typical and traditional while lowering is considered innovative. This chapter provides a historical and linguistic overview of the raising of the feminine ending -*ah* as discussed in the literature (by medieval grammarians as well as modern

linguists/sociolinguists). Then, the results of the quantitative analysis of this variable in HA are discussed.

Chapter five deals with the second linguistic variable: the feminine plural suffix (a:t). In the traditional HA dialect, the feminine plural suffix (a:t) is lenited to [a:h] or [a:j]. In the first part of the chapter, a general discussion of the lenition process is given followed by a review of previous studies. In the second part, the results of the quantitative analysis of this variable are discussed.

Chapter six concludes the study providing a summary of the main findings and recommendations for further research.

Chapter 1 The Community of Ha'il

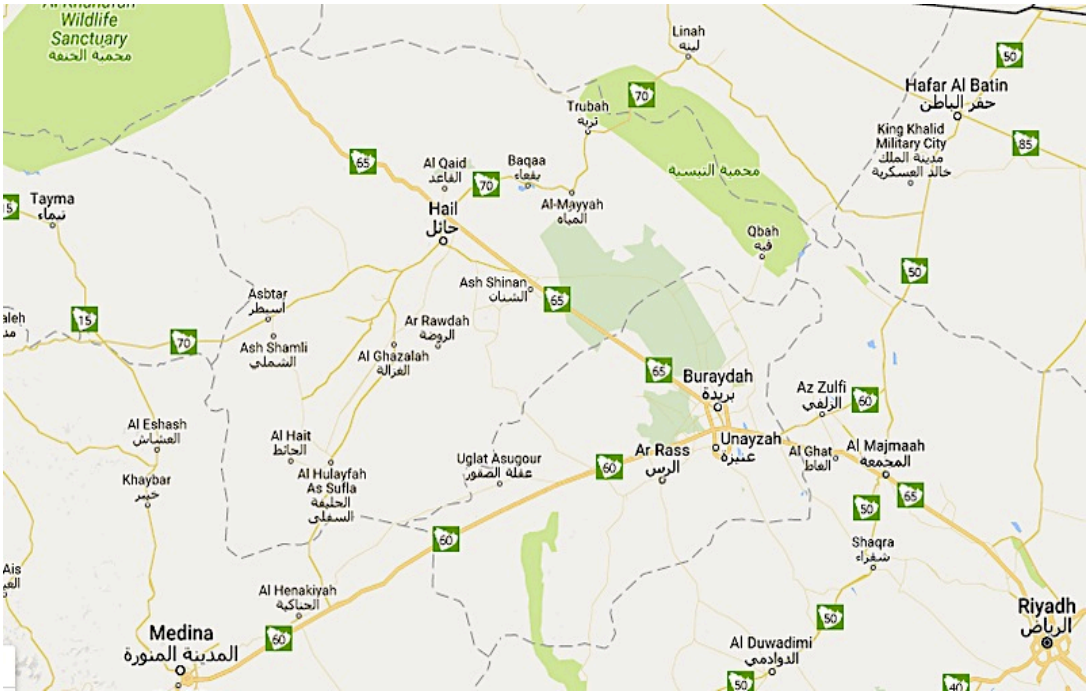
This chapter explains the geographical, historical and social context of the city of Ha'il and describes its population. The location of the city within the Arabian Peninsula is illustrated in §1.1. The socio-historical background of Ha'il is briefly outlined in §1.2. This section covers the time spanning the inhabitation of the city by the Ṭay' tribe, both before and after the Islamic Era, until Ha'il became a part of the Kingdom of Saudi Arabia. The changes in the Ha'il community before and after the discovery of oil are discussed in §1.3. The social and economic situations of Ha'il city are illustrated in §1.3.1 and 1.3.2. The development of education in the city, which has progressed from a religious-literacy-based system to an advanced educational one, is addressed in §1.3.3. All of this information is critical to understanding the Arabic spoken by today's Ha'ilis, and the direction of linguistic change in this variety.

1.1 Geographical profile of the city

Ha'il is the capital city of the Ha'il Province, which is located in the central-northern region of the Kingdom of Saudi Arabia (approximately on latitude 25°- 28.45° North and longitude 39°-43.30° East). The Ha'il Province used to cover a land area of about 350,000 km^2. However, after the last administrative divisions were made in Saudi Arabia, the area shrank to 118,232 km². The province is bordered by Al-Qaṣīm to the southeast, by the Northern Borders Province and Al-Jouf to the north, by Tabuk to the west, and by Medina to the southwest. In addition of the city of Ha'il, the province contains three other major towns in terms of resident population: Baqʿā, Al-Ġazālah and Aš-Šinān[1] (See the maps: 1.1 and 1.2).

[1] http://www.hail.org.sa/Default.aspx. Accessed on 2nd of March 2016
http://www.amanathail.gov.sa/Pages/About_Hail.aspx?txt_ty=13 Accessed on 2nd of March 2016

Map 1.1: A map of Saudi Arabia showing the administrative provinces, including the Ha'il Province (Source: http://file.scirp.org/Html/8-8302423_48213.htm#F1, accessed on 2nd of March 2016)



Map 1.2: Ha'il province map showing the cities in the province, including Ha'il. (Source: https://www.google.com/maps, accessed on 2nd of March 2016*)*

The city of Ha'il is located in the heart of the province, about 300 miles north of Riyadh, the capital city of Saudi Arabia. Ha'il city is located to the west of the Al-'Adēri' Valley (also called the Al-D'ējān or Ha'il Valley), between two mountain ranges:'Ajā, which

extends 110 km to the west, and Salma, which extends 60 km to the east. The highest point of ’Ajā is about 1,350 metres; while Salma’s highest point is about 1,200 metres. These two mountain ranges stand at the northern end of the Najd plateau. Ha’il is surrounded by several other mountain ranges: Al-Samra, Al-Xummāšiyyah, and ’E‘ērif to the north and east; Rummān, ’Irkān, Al-‘Ugēlah, Al-Ġarāyib and Šiṭīb to the south and Al-Ṭwāl, Al-Gā‘id and Ṣubrāwāt to the north. About 30 kilometres to the north is the Al-Nafūd Al-Kabīr Desert, which covers the entire northern third of The Ha’il Province. It connects to the Al-Dahna Desert on the northeast side. There are several valleys that surround Ha’il, including The Al-‘Udwah Valley, which begins and flows from the Al-‘Eš village on the north-eastern side of the city, and Al-Ši‘bah, one of the Al-Rimmah Valley’s tributaries (Al-Quway‘i, 1997).

The origin of the name of the city (Ha’il) is debatable. One claim is that the name of Ha’il comes from its location on the west bank of the Ha’il Valley; it is eponymous with the valley (Abu-Sudira, 1996). Al-Afnān (1996), however, argues that the names of valleys usually follow the places they flow through, not vice versa—i.e., the valley could be named Al-’Adēri‘, Ha’il, Al-Ḥumaimah or Al-Jabriyyah, depending on where it runs. Another claim concerning the origin of the name relates to the city’s location on the west bank of the Al-’Adēri‘ Valley. During monsoon season, the influx of water in the valley isolates the people living on the two banks from each other; the name ‘Ha’il’ may thus derive from the verb *ħa:l, jaħu:l,* ‘to divert’ (Al-Oraifi, 1985). Similarly, other scholars suggested that as the Ha’il area undergoes environmental changes (i.e., from draught conditions to greenery) during monsoon season, this name is derived from the verb *taħawwal, jataħawwal* ‘to transform/ to change’. Finally, some scholars claimed that the name ‘Ha’il’ refers to a small plateau on the Al-’Adēri‘ Valley that separates it from surrounding valleys (‘Igdah Valley, Ġaṭāṭ Valley and An-Nigrah Valley) (Al-Afnān, 1996, p. 165-7).

The topographical nature of the city (the mountain ranges and the Al-Nafūd Al-Kabīr desert) forms natural barriers that prevented the city from being conquered by kingdoms outside the Arabian Peninsula, such as the ancient kingdoms of Al-Ḥīrah in Iraq and the Ġassānids in the Levant.[2] This geographical nature guaranteed the permanence of the Ṭay' tribe's rule (in their days) and the Šammar tribe's rule afterwards. Additionally, the nature of the land in the city is fertile—it has a good supply of wells and cultivable land, as well as moderate weather conditions. These factors have also allowed residents of Ha'il some stability for long periods of time (Ingham, 1982). This stability encouraged the establishment of many small towns in the region, which later became cities, including the city of Ha'il.

1.2 Socio-historical background of Ha'il

The many Thamudic, Nabataean and Abyssinian ruins in the Ha'il region indicate that there was a civilized centre in that region before the birth of Jesus "before Christ (BC)". Ha'il was inhabited and ruled by the Ṭay' tribe, who moved there from their original homeland in the southern part of the Arabian Peninsula after the collapse of the Ma'rib dam in the 2nd Century. While some clans of the Ṭay' tribe settled in Ha'il, other clans migrated toward the Levant and Mesopotamia. The Ṭay' tribe became close allies with other tribes who inhabited the Ha'il region, such as Banu-'Asad bin Xuzaymah, Ḏubyān and Ġaṭafān. In the late 6th Century, several intra-tribal battles occurred between the clans of the Ṭay' tribe, most notably between the Jadīlah and Al-Ġauṯ clans. These battles were called *ħuru:b al-fasa:d* 'the corruption wars', and they resulted in the subdivision of the Ṭay' tribe into smaller clans, which scattered across the surrounding regions. This was how life ebbed and flowed in Ha'il during the pre-Islamic Era (Al-Swaida, 2009).

[2] http://www.amanathail.gov.sa/Hail/AboutHail.aspx#.V9idVSicOXw . Accessed on 2nd of March 2016

In the 9th year after Hijrah[3] (approximately in the 1st century AH, 7th century CE), the Ṭay', Furāzah, Ġaṭafān and 'Asad tribes who lived in the region converted to Islam. The Ṭay' tribe became faithful companions of the prophet Mohammad (Peace be upon Him). They participated in several Muslim battles after Prophet Mohammad's (Peace be upon Him) death, particularly during the Rāšidūn ('the rightly-guided rulers') caliphate.[4]

As a result of the expansion of the Islamic state during the Rāšidūn caliphate, the Umayyad caliphate and then the Abbasid caliphate, several clans of different tribes in the Najd territory abandoned their nomadic life and moved to urban centres, e.g., Al-Medina, Mecca, Damascus, Al-Kufa and Baghdad (Al-Swaida, 2009). Some clans of the Ṭay' tribe moved and settled in those urban centres, especially in the Levant and Mesopotamia, during these caliphates. Other Ṭay' tribesmen remained in the region alongside other clans (Al-Quway'i, 1997, p. 67).

During the 11th through the 14th Centuries AH (approx. 16th–18th Centuries CE), the Ṭay' clans that remained in the Najd region spread out and joined other tribes. They gradually gained political power and became the predominant clans. For example, the Al-Fuḍūl clan moved toward Al-Yamāma, in the centre of Najd; the Banu-Lām clan moved southward to Bīšah; the Banu-Khalid clan moved westward toward Ḥejaz territory; and some other clans moved to the Al-'Aḥsa region. Regarding the Ha'il region, some groups of Banu-Lām, Muġīrah, Šammar and Al-Fuḍūl clans returned to settle in Ha'il city alongside other tribes, such as the Tamīm, who mainly settled in some parts of Ha'il mainly Qifār; the Ḥarb, who moved from Al-Medina toward Al-Qaṣīm and settled in the southern part of Ha'il region; and the Banu-Rašīd, who settled in the Ġaṭafān tribe's homeland. Additionally, a group of the 'Anizah

[3] The term Hijra refers to the year of the migration of Mohammad (Peace be upon Him) and his followers from Mecca to Yaṯrib (Al-Medina) (Lewis, 1995).
[4] Rāšidūn represents the first Islamic caliphate after the death of the Prophet Mohammad (Peace be upon Him). It comprises the first four caliphs: Abu Bakr, Omar, Othman and Ali.

tribe settled in the southern part of the Ha'il region. The reported history during this period is quite limited, so these movements have been pieced together from various information sources (Al-Quway'i, 1997).

Sometime in the 9th or 10th Century AH (approx. 15th century CE), the Ṭay' clans in the Ha'il region re-united under the Šammari confederation[5] (one of the tribe's clans). Šammar and their allies from the Al- Ḍayāġim[6] tribe won a battle against Bihīj Al-Zubaidi, a member of the Ṭay' tribe who ruled some areas of Ha'il city and took 'Igdah as the capital for his state (Al-Swaida, 2009). Due to their power and political status, the Šammari confederation, through the 'Abdah clan, governed the city of Ha'il. And as evidence of their power, the two nearby mountain ranges (Ajā and Salma) became known as Jabal Šammar (Al-Quway'i, 1997).

There were two families of the Šammar tribe who ruled the Ha'il region. From 1640 until 1834, the Āl-'Ali governed the region and took the city of Ha'il as the centre of their emirate. From 1834 until 1921, the Āl- Rašīd ruled the city of Ha'il. This reign lasted until the Kingdom of Saudi Arabia annexed the Ha'il region in 1921. The Kingdom of Saudi Arabia then initiated a project aimed at the 'resettlement of nomads', in which tribes were provided with the resources to establish small suburbs or villages within their own tribal areas, or in other areas. This project insisted on creating equality between the living conditions of the various tribes (Al-Oraifi, 2007; Al-Atiq, 2008; Al-Swaida, 1998).

1.3 The Ha'il community

This section focuses the social, economic and educational dynamics of the city of Ha'il, both before and after the discovery of oil in the western region.

[5] It is called *ħilf*, in which a number of tribes or clans band together for specific purposes, e.g., mutual defense against raids by other tribal groups (Ingham, 1982).
[6] Al-Ḍayāġim is a tribe that migrated from the southern part of the Arabian Peninsula and settled in Najd (Al-Swaida, 2009, p. 283, 294).

1.3.1 The social situation

The city of Ha'il is inhabited by various sedentary populations who have descended from different tribes described above (e.g., Šammar, Tamīm, 'Anizah, Banu-Rašīd, Ḥarb, Muṭair and others). Additionally, the city encountered several waves of migration from the surrounding rural areas seeking better living standards (Al-Swaida, 2009). Those people who live within the city have maintained close relationships with the nomadic populations living around the city, especially those of the same tribe—e.g., the Šammar tribe. The sedentary and the nomadic populations have been mutually dependent on each other. The residents of Ha'il supply the Bedouin[7] with most of what they need to make their life easier, and the Bedouin support the Ha'ili residents economically. For example, the Bedouin controlled the grazing areas and the trade route through the collection of tolls. Such close ties between the two communities, the residents of the city and the nomadic tribes, distinguish them from other surrounding communities both dialectally and culturally (Ingham, 1994, p. 4).

The social life of the Ha'il community has been constrained by long-standing cultural and tribal traditions. Ha'ilis are generally organized into extended families, in which multiple generations live together in the same house; this situation strengthens the social ties among family members (Al- Quway'i, 1997). In the past, families resided in close proximity to each other within neighbourhoods and cooperated with each other extensively. They built new houses and harvested crops together. They also prepared for social events, such as weddings, Eid ceremonies, and *ge:la:t* 'extended picnics' together. As one might expect, endogamous marriages used to be the norm. Exogamous marriages were very rare.

Modernity has brought with it demographic expansion and economic growth. As a result, the local social structure has changed. According to the 2010 Census, the total population of the Ha'il Province is about 597,144 people; almost half of those residents live in

[7] Ingham (1982, p. 32) argues that the word "Bedouin" in the Arabian Peninsula means "member of an established Bedouin tribe and does not necessarily imply a nomadic life-style."

the city of Ha'il (278,525).[8] Ha'il city is now home not only to descendants of sedentary tribes and the immigrants from rural/nomadic areas, but also communities of non-Saudi citizens. These residents have moved from various countries—e.g., Egypt, Palestine, Syria, India, Pakistan—seeking better job opportunities. Moreover, family structures and the nature of social relationships have changed. Some multi-generational families still live together, while some younger members prefer to be independent. Some choose to move out of their parents' houses after getting married. Additionally, exogamous marriage has become less restricted over time. In general, traditional restrictions have become more lax, allowing for individuals' social networks to expand. Nonetheless, most people continue to observe many of the local customs.

1.3.2 The economic situation

Before the discovery of oil, the people in Ha'il relied on trade and agriculture for their livelihoods. Due to the modest weather conditions, farmers were able to grow several kinds of vegetables and some fruits and grains. Different types of palm trees were also grown there. The agricultural production, however, did not generally meet the needs of the whole population, so some local traders imported food and other goods from different areas (especially Iraq, Palestine, the Levant and Ḥejaz).

Commercial activity was lively, given that the city of Ha'il was a main stop on the pilgrimage caravan route (called Darb Zubaida[9] or the Kūfan route of the Hajj 'pilgrimage'). This route was one of the main income resources for the city and for the Najd region as a whole (Al-Othaimīn, 1991). During the rule of the Āl-Rašīd, a group of traders from the Najaf (in Iraq) even settled temporarily in the city and ran their trade from there (Ingham, 1982, p. 10). This is just one example of how integral pilgrimage-driven commercial activity was to the overall economy.

[8] http://www.cdsi.gov.sa/sites/default/files/ar-g-serv-2015-haiel_0.pdf Accessed on 2nd of March 2016

[9] The name is given in relation to Zubaida, the Abbasid caliph Hārun Ar-Rašīd's wife, who contributed to the development of this route (Al-Maghlooth, 2014, p.100). This route connects Mesopotamia and the Levant with Mecca and Al-Medina, the two holy cities.

Additionally, in the city of Ha'il, there was once a main market, Barzān, which was surrounded by a wall. This wall had two main gates (called Aṣ-Ṣaffāgāt): one on the northern side and one on the southern side of the market. These two gates were opened in the morning and closed in the evening. Local traders and traders from other regions sold their goods there, especially during the Hajj 'pilgrimage' season. Cattle herders came to the city to buy clothing, kitchen utensils, coffee, tea and many other goods, and to sell their livestock in the market. Transportation was one barrier to entry for travellers who wished to sell or buy goods at the market. Before cars became available, people relied on camels, horses and donkeys to travel from one place to another for any purpose (involving business). These travel methods were dangerous and often took days, weeks or even months to reach many destinations (Ingham, 1982). Interestingly, this market still exists in Ha'il city, operating under the same name. It is a popular destination for visitors and tourists.

Women contributed to the historic economy of Ha'il in various different ways. Outside of their duties at home, women worked in animal husbandry. They also harvested crops and supplied their houses with water. They made clothes for themselves and their children as well. To help with the expenses of their families, some women sold their handmade clothes and local cosmetics, which were famous at that time. In Ha'il, there were certain women who were responsible for hosting guests in guest houses, called *mana:χ*—e.g., Haifa Al-'Uṯmāniyyah in Ar-Rōḍah and Ṣītah Al-Xāldiyyah in Qifār. Faṭima Al-Sebhān was the first woman who was known to be active in Ha'il's political dealings, as she managed the affairs of the state in both direct and indirect ways (Al-Swaida, 2009).

The Ha'il Province as a whole witnessed rapid economic growth after the discovery of oil in the country in 1938. The economy and the development of the agricultural industry, via addition resources, grew significantly. Healthcare was improved as a hospital opened in 1955. Many roads connecting Ha'il to major cities were then paved, especially between Ha'il and

Riyadh, Al-Qaṣīm, Dammam, Tabuk and Al-Medina. The number of cars increased gradually in the city, too. In 1974,[10] a domestic airport was opened, which increased the social, cultural and economic interactions between Ha'ili residents and outsiders. More employment opportunities became available to the population, inside and outside of the city. For example, some people went to Dammam to study and work at ARAMCO, while others went to Riyadh or Jeddah to complete their education or seek other job opportunities.

1.3.3 Education

With respect to education in the area before the discovery of oil, the majority of Ha'ili residents suffered from the lack of a formal, official education system. At that time, people obtained their educations (religious education as well as basic reading and writing skills) via the Katātīb[11] in mosques, or in the Al-Muṭawwa' ('the teacher's house'). Women lacked educational opportunities altogether in those days, except for some voluntary classes given by female teachers in their homes. Women also taught other women the Quranic recitation and some basic reading and writing skills in private settings. Further education was focused exclusively on Islamic studies, covering topics such as faith, reading the Hadith[12], and Fiqh (Islamic jurisprudence). This state of affairs lasted until 1934, when Sheik Suleiman Al-Skēt established the first modern private school in Ha'il city. Three years later, the first official elementary school opened in the city under the name of 'the Saudi School', where students obtained their basic education in different subjects. Students who wanted to continue their education after that level travelled to one of the major cities (e.g., Riyadh and Mecca) or abroad.

After the discovery of oil, more educational opportunities became available to both men and women in Ha'il. The first official school for boys opened around 1937, with the one for

[10] (https://gaca.gov.sa/web/ar-sa/airport/hail-airport., accessed on 2nd of March 2016)
[11] These were classes conducted to teach the basic Quranic and Islamic readings, as well as reading and writing skills. They may also have involved basic mathematics.
[12] The Hadith is a collection of traditions containing sayings of the Prophet Mohammad (Peace be upon Him),

girls opening around 1960 (Al-Swaida, 2002). Higher education became available in the city in 1984 through the Intermediate College for Teachers' Preparation. In 1989, the college started offering bachelor's degrees in education, Arabic language, religion, science and other disciplines under the names 'Teachers College (for men)' and 'College of Education (for women)'. Under the auspices of King Fahd University of Petroleum and Minerals, a community college was established in Ha'il in 1998, the first of its kind in the area. It offered bachelor's degrees in applied electrical engineering, computer science and business. The two previously existing colleges joined the community college to form the University of Ha'il in 2007. This project was completed under the auspices of the Ministry of Education (previously known as Ministry of Higher Education). Consequently, the University of Ha'il[13] includes several colleges: Business Administration, Science and Arts, Education, Engineering, Computer Science and Computer Engineering, Community, Medicine, Nursing, Pharmacy and Medical Sciences and others. Such improvements in the educational field motivated the younger generation to continue their education and seek better job opportunities after attaining their degrees. Furthermore, recent scholarship programmes (e.g., the King Abdullah scholarship programmes) have opened up opportunities for all students to continue their higher education abroad, at a number of well-known universities.

As educational opportunities in Ha'il expanded, women's level of education, in particular, improved considerably. This paved the way for women to hold a wider array of jobs in different public and private domains. No longer confined to working in education, women began working in medical services, civil service and private businesses—e.g., in hospitals, banks and telecom companies. Nowadays, women can run their own businesses, especially via the Internet (e.g., via marketing accounts on Instagram). All of these socioeconomic changes

[13] (http://www.uoh.edu.sa/Pages/default.aspx, accessed on 12nd of May 2016)

have affected the Ha'il community greatly, both by changing quality of life within the region itself and by encouraging more interaction between Ha'ilis and those who speak different languages or different Arabic dialects. Thus, Ha'il's unique topography, and social and economic history are necessary to understanding the Arabic dialect spoken by today's residents.

Chapter 2 Ha'ili Arabic and Koineisation in Saudi Arabia

This chapter provides a linguistic description of Ha'ili Arabic (HA), a dialect that belongs to the Najdi group of Arabic dialects (NA) spoken in central, northern and some eastern regions of Saudi Arabia. This chapter comprises three sections. The first two sections serve to explain why HA is classified as an NA dialect. Section §2.1, begins with a brief description of linguistic variation in the Arabian Peninsula, which is followed by a general overview of Najdi Arabic. Section §2.2, includes a detailed linguistic description of HA. The third section, §2.3, introduces the issue of the emergence of a supra-local and koineised variety in Saudi Arabia, a variety which is argued to best represent the current linguistic situation and the direction of linguistic change in the region.

2.1 Arabic in the Arabian Peninsula

Prior to Islam, Arabic, as a Semitic language, was spoken in the Arabian Peninsula by different Arab tribes. These tribes were both sedentary and nomadic. The Arabic of those times was not identical for all speakers, of course; different regional dialects had different linguistic features. In the writings of the medieval grammarians, this variation was recognised and referred to as *luʁa:t* 'languages' (e.g., *luʁat Ṭayʾ* ' the dialect of Ṭayʾ tribe'). At that time, Arabic varieties were primarily classified by geography; there were southern Arabic dialects (*luʁat ʔahl al-yaman* 'the language of southern Arabs -(lit. the language of the people of Yemen)') and northern Arabic dialects (the language of the Peninsula). The latter can be subdivided into two main groups, once again based on geographical distribution: 1) the language of the Ḥejaz (of the Quraish tribe) in the western parts of the Arabian Peninsula and 2) the language of Najd (of the Tamīm tribe) in the eastern parts of the peninsula. Versteegh (1997) comments on this division, stating that it supports a pre-Islamic division of sedentary (Ḥejaz) and Bedouin

(Tamīm) dialects (Versteegh, 1997). Variant readings of the Qur'an also make note of the tribes' linguistic variation. The saying of the Prophet Mohammad (Peace be upon Him) about the Qur'an may be interpreted as follows: "...*ʔinna haða al-qurʔa:na ʔunzila ʕala sabʕati ʔaħrufin, faqraʔu: ma: tajassara minhu*" 'This Qur'an has been revealed in seven different styles 'lit. Letters', so recite it in the way that is easier for you' (Narrated by Al-Bukhari, 2287; Muslim, 818). Some scholars of the Hadith indicate that the term 'seven *ʔaħruf*' is not used literarily; it refers to the different dialects of the tribes in the Arabian Peninsula at that time—i.e., the Quraish, Huḏail, Ṯaqīf, Kināna, and Tamīm (Anīs, 1952).

With the rise of Islam and its expansion into new territories outside of the Arabian Peninsula, came the rise and spread Arabic. Arabic quickly came into contact with other, non-Arabic varieties. And, in order to standardise the Arabic language and preserve its 'purity' from these outside influences, 8th century Arab grammarians set out to codify Arabic grammar. They only accepted dialectal features as 'correct Arabic' if they were attested in one of the three sources: the Holy Qur'an, poetry, or trustworthy Bedouin informants in the Arabia. However, poetry and Bedouin speech are not likely to mirror everyday language use by all of the people living in the region. Furthermore, the Arabic varieties spoken by the Bedouins were not identical. Among the main works describing the Arabic language in the 8th Century is *ʔal-kita:b* 'the book', written by Sibawaih in the Abbasid Era. His book is the earliest written document on Arabic grammar. Owens (2006) considers this work as the best available source for Classical Arabic; it can be understood as the exemplar of Classical Arabic, against which modern Arabic dialects can be compared (Owens, 2006). Another manuscript, written by Ibn-Xaldūn (14th century CE) is called *ʔal-muqaddimah* 'the prolegomena'. In his book, he observed linguistic differences between 'conservative' Bedouin speech in the Arabian Peninsula and the speech of people living in urban centres outside the Arabian Peninsula. He elaborates on the differences between these two dialects and Classical Arabic, and between the two dialects themselves

(sedentary vs. Bedouin). He ascribes these divergences to local peoples' contact with people from the conquered territories and to the presence of different ethnic groups in one place—e.g., Berber influences on Arabic in The Maghreb (Versteegh, 1997, p.131). In the subsequent centuries, Arab grammarians continued to observe the influence of sedentary dialects on Bedouin ones; at that time, these influences were viewed as unfavourable (ibid., p.141).

In modern times, Arabic dialects spoken in the Arabian Peninsula have attracted the attention of Western linguists, including Johnstone (1967), Ingham (1982, 1994) and Prochazka (1988). Johnstone (1967) identifies four main regional dialect groups of Arabic: Ḥejazi, North Arabian, Omani, and South-western dialects. He focused on the Northern Arabian varieties, which he proposes share common linguistic features—e.g., the realisation of /g/ and /k/. He also subdivides this group into 'Anizah, Šammar, Syro-Mesopotamian and eastern Arabian dialects (Johnstone, 1967).

Based on both geographical criteria and certain common linguistic features, Ingham (1982) identifies the dialects spoken in north-eastern Arabia as 'North Arabian'. This group is said to be distinct from the other two groups of dialects: (1) South Arabian, spoken in Yemen, Ḥaḍramawt, Oman and among the Shiites of eastern Arabia, and (2) West Arabian, spoken in the Ḥejaz region, Syria, Jordan, Palestine, Lebanon and Egypt. Although they are territorially associated, North Arabian dialects can be genetically subdivided into two groups: the Arabian dialects (spoken in Kuwait, Al-'Aḥsa, northern parts of Saudi Arabia and by the Bedouin of the western borderland of Iraq) and the Mesopotamian dialects (spoken in southern Iraq and Khuzestan ('Arabistān) in southern Persia). Ingham (1982) also describes the dialect contact zones and their traditional lines of communication. He identifies three main zones: Najd (Al-Qaṣīm, Jabal Šammar and several Bedouin tribal areas lay between these settled regions), the coastal region (the towns of the Gulf and Al-'Aḥsa), and Southern Iraq and Khuzestan.

Prochazka's (1988) work is still considered a useful reference for the dialects spoken in Saudi Arabia. He provides a recent classification that broadly matches the traditional classification of the Arabian Peninsula dialects: the western Ḥejazi and the eastern Najdi or Tamīmi groups. Prochazka divides these dialects into two groups according to the treatment of the reflexes of Classical Arabic patterns $C_1 aC_2 aC_3$(a) (faʕal(a)): 1) the dialects of the southern Ḥejaz and the Tihama (with the reflexive pattern $C_1 aC_2 aC_3$), and 2) the dialects of Najd and eastern Arabia (with the reflexive pattern $C_1 iC_2 aC_3$). The first group includes the dialects spoken in the south-western part of the country; the second group refers to the dialects spoken in the central, northern and eastern parts. In this classification system, Prochazka does not include the Urban Ḥejazi dialect (spoken in northern Ḥejaz) or the Shiite dialect (spoken in the eastern region). Prochazka argues that Najdi group of dialects seems unique into its own; the dialects involved in this group (including HA) appear generally uniform in their morphological structure when compared to the southern Ḥejazi varieties and the Tihami varieties (Prochazka, 1988, p. 11).

All these studies show that the dialects of Arabic spoken in Saudi Arabia are highly variable. In addition to their classification into main groups (Najdi, Ḥejazi, eastern Arabia), these dialects can be classified further into many sub-groups or sub-dialects, e.g., those of Najdi Arabic, which are illustrated in greater detail below.

2.1.1 Najdi Arabic

Al-Sweel (1987) referred to Najdi Arabic (NA) as a dialect spoken in the Najd region, a vast plateau located in the central part of the Arabian Peninsula. According to his description, the Najd region extends through Yemen and Oman in the south, the Jordan and Iraq borders in the north, the mountains of Ḥejaz and the plains of ʻAsīr (Tihama) in the west, and the Saudi coast of the Arabian Gulf in the east, including the Al-'Aḥsa oasis (Al-Sweel, 1987). Thus, Najdi

Arabic is not simply one dialect, but a large group of dialects that are spoken by relatively culturally homogenous people who may even live beyond the geographical borders of the Najd region (Ingham, 1994). According to Ingham (1994), the NA dialects are classified as follows:

- The dialect of the non-nomadic/sedentary people from Central Najd (the districts of Al-ʻĀriḍ, Al-Washm and Sudair), Al-Qaṣīm, Jabal Šammar (Ha'il), Najrān and Bīsha.
- The dialect of the Bedouin tribes who live in Central Najd, including the ʻAnizah, ʻUtaibah, Subaiʻ, Suhūl, Bugūm, Dawāsir, Ḥarb, Muṭair, ʻAwāzim and Rashāyidah. Also, the Bedouin tribes who live in Northern Najd, such as Šammar and Ḍhafīr. The dialects of Gḥaṭān/Qaḥṭan in the south and Āl-Murrah and ʻAjmān in the east are counted among the Najdi dialects as well.
- The dialect of émigré Bedouin tribes who live in the Syrian Desert, and those who live in the Al-Jazīrah region of Iraq (of ʻAnizah and Šammar extraction).

(Ingham, 1994, p. 4).

Ingham (1994) maintains that all these dialects can be classified as Najdi Arabic, since they share similar features that are distinct from other dialects spoken in the surrounding areas. He postulates that the centre of the Najd and Jabal Šammar (Ha'il) regions represents the geographical core of the Najdi dialect area. It is particularly exemplary of the dialects spoken by the non-nomadic/sedentary population there. Accordingly, the NA dialect area is bordered by the sand deserts: Al-Nafūd to the north, Al-Dahna to the east and Ar-Rubʻ Al-Xāli to the south. To the west, however, it is quite difficult to define the border because of the gradual merge into the Bedouin Ḥejaz dialect spoken by major tribes residing in that area, mainly the Ḥarb and the ʻUtaibah tribes.

Shared linguistic features divide the NA group into further geographical division, according to Ingham's (1994) taxonomy. He classified the NA dialects into the following sub-groups:

- **Central Najdi**, which includes the dialects of central Najd. This comprises the sedentary population, the Bedouin tribes, and the ʻAnizah tribe of the Syrian Desert.

- **Northern Najdi**, which includes the dialect of Jabal Šammar and the Šammar tribes living in Northern Najd—i.e. the Ha'il region and the Jazīrah farther north.
- **Mixed Northern Central**, which includes the dialects of the Al-Qaṣīm and the Ḍhafīr tribes.
- **Southern Najdi**, which includes the dialects of the Najrān and the Gḥaṭān tribes of the south, and the Āl-Murrah and 'Ajmān tribes of the east.

(Ingham, 1994, p. 5)

Within these dialects, there are some linguistic features that are unique to each dialect. For example, one morphological feature distinguishing the three sub-groups (the Central, Northern and Mixed Northern Central dialects) is the use of different object and possessive pronoun suffixes. The following table shows these distinguishing features:

Table 2.1: Distinguishing characteristics of sub-groups of Najdi dialects (based on Ingham, 1994; Prochazka, 1988)

	Northern (Ha'il)	Mixed Northern (Al-Qasīm)	Central Najdi (Sudair)
3rdP masculine singular	-uh	-uh	-ih /-ah
3rdP feminine singular	-ah	-ah	-ha
3rdP masculine plural	-ham	-hum	-hum/-um
3rdP feminine plural	-hin	-hin	-hin
2ndP masculine singular	-ak	-ik	-ik/-k
2ndP feminine singular	-its	-its	-its/-is
2ndP masculine plural	-kam	-kum	-kum
2ndP feminine plural	-kin	-kin	-kin
1stP singular	-an	-an	-ni
1stP plural	-na	-na	-na

Other features distinguishing the Ha'il dialect from the Al-Qasīm one are the perfect form of the verb 'to eat' in the 3rd person masculine singular (CA-*ʔakala* 'he ate'). In HA, it is pronounced as *kala*, while in the Qasīmi dialect, it is pronounced as *ʔakal*. The traditional replacement of the 3rd person feminine singular suffix /-at/ by [-eh] exists in the HA dialect, while the /-at/ is retained in the Qasīmi dialect (e.g., *ktubeh* vs. *ktibat* 'she wrote' (Prochazka, 1988)). The HA dialect is discussed in detail in the following section (§2.2).

2.2 Linguistic Description of the Dialect of Ha'il City

This section presents an overview of the distinguishing linguistic features of HA. Generally speaking, HA belongs to the NA group of dialects spoken in the Arabian Peninsula (i.e. the Bedouin type), as discussed above. Abboud's (1964) work, *The Syntax of Najdi Arabic*, is based on the dialect of Ha'il, which suggests that NA and HA have many features in common. In Prochazka's (1988) discussion of NA and the eastern Arabian dialects, he, also, refers to the dialect of the Šammar tribe as representative of HA. In his work, *Najdi Arabic: Central Arabia*, Ingham (1994) examines some of the linguistic features found in the HA dialect. He classifies the HA dialect (the dialect of Jabal Šammar) as Northern Najdi, a subgroup of the NA dialects, as was mentioned in the previous section (§ 2.1.1). As is demonstrated in the subsequent sections of this chapter, HA manifests features that are typical of Najdi Arabic, while also realising some peculiarities of its own. Some linguistic features found in HA are derived from the dialects spoken by the tribes inhabiting the region, particularly the Šammar (Ṭay'), Tamīm, Huḏeyl, and Ḥarb tribes.

The following linguistic description of the HA dialect is based both on features mentioned in earlier studies of the Northern Najdi dialect (Ingham, 1982, 1994, 2009, Abboud, 1964, 1979 and Prochazka, 1988) and on my own empirical data collected from the people living in Ha'il city. This description broadly follows the format used in the dialect description sections of the *Encyclopaedia of Arabic Language and Linguistics*.

2.2.1 Phonetics and phonology

HA has a similar sound set (consonants, vowels and diphthongs) to most NA dialects.

A phonetic inventory of the consonant and vowels in HA is displayed below:

Consonants

Table.2.2: The inventory of consonants in the HA dialect.

	Bilabial	Labiodental	Dental		Interdental		Alveolar		Post-alveolar		Palatal	Velar		Uvular		Pharyngeal		Laryngeal	
	v+	v-	v-	v+	v-	v+	v-	v+	v-	v+	v+	v-	v+	v-	v+	v-	v+	v-	v+
Plosives	b		t	d								k	g	q					ʔ
Emphatic			tˤ																
Nasals	m						n												
Fricative		f			θ	ð	s	z	ʃ					χ	ʁ	ħ	ʕ	h	
Emphatic						ðˤ	sˤ												
Affricate			ts	dz						dʒ									
Trill/Tap							r												
Lateral fricative							l												
Glides	w										j								

In HA as well as in other NA dialects, /q/ is realised as [q] only in loanwords from Classical Arabic (CA). In non-borrowed lexical items, /q/ is realised as [g], such as *gałam* 'pen', *ga:ʕid* 'he is sitting' and *jga:bil* 'he meets'. Also, the emphatic voiced interdental fricative [ðˤ] is a reflex of both the CA emphatic voiced dento-alveolar plosive /dˤ/, and the emphatic voiced interdental fricative / ðˤ/, e.g., (CA) *dˤajf* > *ðˤe:f* 'guest' and (CA) *ðˤila:l* > *ðˤla:l* 'shades/shadows'. Furthermore, HA has natural emphatic sounds[14] / ðˤ, sˤ, tˤ /. Labials /m, f, b/ and liquids /l, r/ may become emphatic ([mˤ,fˤ, bˤ] and [ɬ, R], respectively) based on the phonological environment, as follows:

- In the vicinity of natural emphatics, e.g., /sˤ/ in *sˤaRaf* 'he spent (money)' and /tˤ/ in *ʕətˤɬeh* 'holiday'.

[14] Natural/primary emphatics refer to sounds whose primary articulation is coronal and that involve upper pharyngeal constriction as a secondary articulation. Davis (1995) defines emphasis as producing sounds with "… a primary articulation at the dental/alveolar region and with a secondary articulation that involves the constriction of the upper pharynx." (Davis, 1995, p. 465).

- In the vicinity of back consonants /k, g, χ, ʁ/, e.g., *daχaɬ* 'he entered', *mangaɬ* 'charcoal stove'and *kmˁa:R* 'special cupboard'. Additionally, /ħ/ can promote emphasis as in *ħmˁa:R* 'donkey'. Here, /R/ may also become emphatic due to its adjacency to the low-back consonant /mˁ/ and the back vowel /ɑ:/. Al-Nassir (1993, p. 48) argues that Dark /ɬ/ seems to appear in the "…neighbourhood of velarized or back consonant..."
- In the vicinity of low or high back vowels, some labials and liquids can become emphatic, e.g., *sijja:rˁeh* 'car', *hu:rˁeh* 'a kind of grains' and *ʃufˁti* 'you saw (f. s.)'. These sounds can be called secondary emphatics when they are adjacent to low-back vowels (Youns, 1994).
- The /m/ in the pronominal suffixes (*-am, -ham* and *-kam*) is always emphatic, e.g., *ʔintamˁ* 'you (2nd m. pl.)', *hamˁ* 'they (3rd m. pl.)' and *be:tekamˁ* 'your house (2nd m. pl.)'.

(Prochazka, 1988, p.20)

The realisation of /g/ and /k/ in HA

One interesting feature of HA is the affrication/palatalisation of the voiced velar stop /g/ and voiceless velar stop /k/. This feature is traditionally found in HA and other northern Najdi dialects (e.g., the Qaṣīmi dialect). It involves shifting /g/ and /k/ to [dz] and [ts], respectively, when proximal to front vowels, e.g., *tsabd* 'liver', *mitsa:n* 'a place', *tsibi:r* 'big', *dzidda:m* 'in front of' and *dzider* 'pot'. The /g/ can only be palatalised in the coda position when it is preceded by a high front vowel /i, i:/, e.g., *tˁiri:dz* 'a road' and *midzbil* 'he is coming'. In addition to being palatalised in word stems, /k/ can also be palatalised in the 2nd person feminine singular suffix *-ik*; so, it has two allophones: [-ik] and [-its], as in *be:tits* 'your house' and *ʔakalmits* 'I am talking to you (f)'.

The realisation of the feminine ending *-ah* in pre-pausal position

In traditional HA, the /h/ sound in the feminine singular ending *-ah* can either be retained or replaced by [at]. The [at] allophone occurs only in the pre-pausal position, such as *ʔala:blah* > *ʔala:blat* 'the day after tomorrow (in the evening)', *ʔalmart assanˁah#* > *ʔalmart assanˁat#* 'the

well-behaved women' and *kilmah* > *kilmat* 'a word'. According to Arab medieval grammarians, this feature is assumed to belong to the dialect of the Ṭay' tribe, who once inhabited Ha'il region. According to Abdel-Tawwab (1997), this feature is found in other Semitic languages, such as Assyrian and Abyssinian (Abdel-Tawwab, 1997). Al-Huwarīni (2005) reports that one of the Himyaritic kings used [t] for /h/ in *-ah* in pausal position as well, e.g., *ʕarabijjat* 'Arabic' (p. 292). Thus, one possible explanation for the occurrence of this feature in HA is that it was already integrated into the Ṭay' linguistic system before they moved to Ha'il. Based on my empirical data, the use of the [at] variant is limited to older speakers, and only few tokens are attested—e.g., *ħami:sat* 'a pan-fried food'. This observation may be understood to support the claim that the feature was integrated into the Tay' linguistic system pre-move.

Raising of the feminine ending *-ah* '*imala*' in HA

Raising of the feminine ending *-ah* in pre-pausal position is considered as one of the traditional HA features. It is one of the HA[15] distinct linguistic features that differentiates HA from other NA dialects. In some other Arabic dialects, including Urban Levantine dialects, *-ah* is raised conditionally according to the preceding phonological environment. By contrast, in traditional HA, *-ah* is raised no matter what the adjacent consonant is, e.g., *tˁaseh* 'bowl', *θala:θeh* 'three' and *milʕageh* 'spoon' (Abboud, 1979; Owens, 2006; Al-Wer, 2007). The phonetic value of the raised variant of the feminine ending is somewhere between the cardinal vowels /e/ and /ɛ/. It can be realised as [ɛ] or [ə] (Prochazka, 1988, p.19). The /h/ sound in the feminine ending is retained in all Najdi dialects, including HA (Ingham, 1994). Interestingly, another variant of the feminine ending *–ah* can be found in HA; it is the fronted and diphthongized form, [ejh], as in *nχalejh* 'palm tree' (ibid., 2009, 1982). Based on my data, this variant is used occasionally by

[15] Other dialects that show some sort of raising in the feminine ending *–ah* are spoken in Al-Qaṣīm, Hafūf, Bal-Qarn and Rufaidah (Prochazka, 1988)

some members of the older age group, e.g., *mrabbaʕejh* 'square (f. s.)*, tnikejh* 'tin' and *la:bsejh* 'she is wearing*'*.

The realisation of the feminine verbal suffix –*at* in HA

In the HA dialect, the 3rd -person feminine verbal suffix *–at*, of the perfective aspect, can be realised as [at] or [eh] (Ingham, 1982, p.69). Here, two phonological processes occur: first, the raising and fronting of the vowel /a/ to /e/; second, the lenition of the consonant /t/ to /h/, e.g., *ga:mat* > *ga:meh* 'she stood up' and *ra:ħat* > *ra:ħeh* 'she went'.

The realisation of the feminine plural suffix -*a:t* in HA

The feminine plural suffix *-a:t* undergoes a process of lenition in both pre-pausal position and before a word beginning with a consonant. The suffix *-a:t* can be realised as /a:t/, /a:h/ and /a:j/[16], as in, *bana:t sʕʁa:r* > *bana:h sʕʁa:r* or *bana:j sʕʁa:r* 'young girls' and *set sa:ʕa:t#* > *set sa:ʕa:h* or *set sa:ʕa:j* 'six hours'. This feature is mentioned by earlier Arab grammarians as a characteristic of the Ṭay' dialect.

Distinctive feature of the HA dialect

There are some augmentative nouns that originated in the Ṭay' dialect—e.g., *bwa:t* for *be:t* 'a big house' and *wla:d* for *walad* 'a boy'. These forms convey the meaning of 'largeness/ greatness' without adding any adjective (e.g., *be:t kibi:r* 'big house' and *walad kibi:r* 'big boy') (Al-Swaida, 1998).

Some phonological features of HA shared with NA

- The absence of the glottal stop (*hamzah* /ʔ/) in words that are not borrowed from Classical Arabic (CA). The glottal stop is usually replaced by a long vowel in modern NA dialects, including HA, e.g., *raʔs* > *ra:s* 'a head' and *kaʔs* >*ka:s* 'a cup'. It may be

[16] Based on my empirical data, there are very few examples of the aspirated form of /j/ in /a:j/ (/a:j^{h}/)—e.g., alħa:ra:j^{h} 'neighbourhoods'(Chapter 5 discusses the realisation of *-a:t* in more detail).

retained in some words, as in *saʔal* 'he asked', but in the traditional NA dialects, this word can be pronounced as *sa:l, saʕal* or replaced by *nifad* 'he asked' (Ingham, 1994).

- Re-syllabification associated with guttural consonants (named *gahawah*-syndrome dubbed by Blanc, 1970) is one distinctive feature of all NA dialects. It involves the insertion of a short vowel after a guttural whenever this guttural is preceded by /a/, causing a shift in the word's stress pattern. This feature is typical of Bedouin dialects and its occurrence in some sedentary dialects is evidence of language contact between the two groups (Jong, 2007). Abboud (1979) named this traditional feature as "low vowel insertion" after guttural sounds (X): -aXC- > -X**a**C- as in *naʕdʒah* > *nʕadʒeh* 'an ewe'. He also mentioned the following cases of low vowel insertion:

  (1) Nouns of the pattern CaXC- , e.g., *ghaweh* 'coffee'.

  (2) The masculine singular form of adjectives of colour and state/quality, which have the pattern ʔaXCaC, e.g., *ʔaχðˤar* > *χaðˤar* 'green' and *ʔaʕradʒ* >*ʕaradʒ* 'claudicant/ lame'. Here, the initial *hamza* is dropped with the first vowel—i.e. the whole first syllable /*ʔa*/ is dropped—and the guttural sound becomes the first consonant.

  (3) The feminine singular form of adjectives of colour and state/quality, which have the pattern CaXCa, e.g., *dahma* > *dhama* 'dark/brown'.

  (4) The passive participle of the pattern maXCuuC, e.g., *maχlu:tˤ* > *mχalu:tˤ* 'blended'.

  (5) When the first consonant is guttural in verbs of the forms XaCaC or XaCiC, a low vowel is inserted in the imperfect jaX**a**CiC, then the first vowel is elided jX**a**CiC, e.g., (perfect) *χadam,* (imperfect) *jχadim* but not **jaχdim* 'to serve' (Abboud, 1979, p. 471).

  Jong (2007) suggests that many dialects, including NA and HA, drop the vowel in the initial open syllable after vowel epenthesis, i.e. CaX**a**CV > CX**v**CV. The phonetic quality of the epenthetic vowel depends on the adjacent consonant.
- The preservation of the passive form by internal vocalic change is a salient feature of NA, e.g., *ktib* 'has been written' *wkil* 'has been eaten' and *srig* 'has been stolen'.
- Another remarkable feature of NA that is shared by HA is the maintenance of the Classical Arabic indefinite marking system (*tanwi:n*). That is, the suffix *-in* is used as an indefinite marker (glossed INDF). This suffix can also be used as a conjoiner in a sentence, signalling that the speaker is not going to pause and thus the hearer should expect to receive further information. This suffix can be added to nouns, active

participles, adjectives and numerals, when they are followed by a non-possessive modifier in the non-pausal position (Ingham, 2010, p. 81). Some examples of this feature are listed below:

fulletin tsibi:reh 'a large villa'

villa-INDF large.FS (FS- feminine singular suffix)

tsa:n dʒa:jbitin alkibi:reh 'it would have been better if you brought the older girl'

should.MOD brought.AP.FS-INDF DEF-old.FS (AP- active participle, MOD- model)

*ana wa:dzfitin ʕind al*ʁərfeh 'I am standing near the room'

I am.AUX standing.AP.FS-INDF near-ADV DEF-room (ADV-adverb, AUX-auxiliary)

Vowels

The vowels that are available in the phonetic inventory of both the NA and HA dialects are the short vowels /i/, /a/, /u/, and the long vowels /i:/, /u:/, /a:/, /e:/, /aj/, /o:/, /aw/. Abboud (1979), Al-Sweel (1987; 1990), Prochazka (1988) and Ingham (1994) observe that there are eight vowels in NA: three short vowels /a/, /i/, and /u/, and their long counterparts, /i: /, /a: / and /u: /, plus two long vowels that have no short counterparts: /o: / and /e:/. In some lexical items, the two diphthongs /aj/ and /aw/ are replaced by the long vowels /e:/ and /o:/, respectively, in non-final position—e.g., *sˁajf* > *sˁe:f* 'summer', *jawm* > *jo:m* 'day' and *lawn* > *lo:n* 'a colour'. When the vowel precedes a plosive, however, a gliding pronunciation ([ou] or [ei]) may be used—e.g., *foug* 'above' and *leit* 'would that' (Ingham, 1994, p. 15). Yet, in the empirical data I have collected for HA, these two realisations are rarely used in this environment[17]; the vast majority of speakers use the long vowels /e:/ and /o:/. In final position (as inflectional endings), diphthongs can be used, as in *ga:law* 'they said (perfect, 3rd m. pl.)' and *ʔimʃaj* 'come (imperative, 2nd f. s.)' (Prochazka, 1988).

In relation to vowels, syllable structure and affixation, the HA dialect exhibit some phonological processes found in other NA, Ḥejazi and Gulf dialects. Vowels, in general, may

[17] They can be heard mostly in the speech of the traditional Šammar dialect speakers.

have a grammatical marking function. That is, each vowel may be an essential element in the word that cannot be elided; or, they may not have this function, in which case they are subject to the effects of phonological processes. Ingham (1994, pp. 16-20) classifies the vowels as follows:

a) Vowels that have no grammatical marking function include:
   - Anaptyctic vowels
     These vowels can occur in a consonant cluster at the end of a word, especially when the second consonant of the cluster is one of this set: /r, l, n, w, j/—e.g., *radʒil* 'husband'. This vowel is dropped when followed by a vowel-initial suffix, e.g., *radʒil+its* > *radʒlits* 'your husband'. In other examples where the second consonant is something other than a voiced continuant, no anaptyctic vowel is added to the word in pre-pausal position, e.g., *ħilm* 'dream'. An anaptyctic vowel can occur at the junction of a word with long syllable (CVVC- and CVCC-) and a consonant-initial suffix, as in *be:t-a-ham* 'their house' and *ʃilt-i-hin* 'I carried them (f.)'; however, this vowel is unstable and not usually present, especially in fast speech, e.g., *ʃilt-hin* 'I carried them (f.)'. The quality of the inserted vowel varies between /i/ and /a/, as well.
   - The relation between short vowels and syllable structure
     The vowel in a non-final open syllable can be either Ci- or Cu-, except in the vicinity of guttural or /r, l, n, w/ sounds, where it is realised as Ca-, e.g., *gu-maz* 'he jumped' and *mi-sak* 'he caught', but *ra-ħal* 'he went away'.
   - In a sequence of open syllables, resulting from the addition of affixes to the stem, the vowel of the first syllable may be deleted, as in *dʒimal* 'camel', *dʒimal+ak* > *dʒmalak* 'your camel (m.)', *ħalaf* 'he swore (3rd m. s.)' and *ħalaf+aw*> *ħlifaw* 'they swore (3rd m. pl.)'

b) Vowels that have a grammatical marking function include:
   - The inflectional vowels (in inflectional suffixes *-u:n*, *-i:n*, *-in*, and the prefixes *(ʔ)a-* for active and *(ʔ)i-* for passive) are not subject to vowel raising/lowering or elision, e.g., *jarħamu:n* 'they feel mercy (m. pl.)', *ma-aʃu:f* 'I can not see' and *ʔiʃa:f* 'I would be seen'.
   - Vowels in verb stems can change the grammatical status of the verb; for example, the alternation between the active (*kitab* 'he wrote') and the passive (*ktib* 'it was written')

voice. In terms of the vowel's place of articulation and its phonetic quality, the stem vowel follows the following rule. In transitive verbs, the perfect active form has a low vowel while the imperfect active and perfect passive forms have a high vowel, e.g., *sikan* /a/ 'he settled' vs. *yaskin* /i/ 'he is settling' and *skin* /i/ 'it was settled'. The vowel in the intransitive verb is low in the imperfect active and passive forms, while it is high in the perfect passive and active forms, e.g., *simiʕ* 'he heard' and *smiʕ* 'it was heard' vs. *yasmaʕ* 'he is hearing' and *yismaʕ* 'it is heard'.

Stress (ˈ)

In general, the stress pattern is influenced by syllable weight and position. In disyllabic words, stress usually falls on the ultimate, super-heavy syllable, e.g., *radʒ.ˈdʒaːl* 'a man' and *ki.ˈtabt* 'I wrote'. However, if the ultimate syllable is not super-heavy, the stress falls on the penultimate syllable, e.g., *ˈdʒi.mal* 'a camel' and *ˈtˤaː.ħat* 'she fell down'. In polysyllabic words, the stress falls only on the ultimate, penultimate or antepenultimate syllable, but "not further than the 3rd syllable from the end" (Prochazka, 1988, p.20). Thus, stress falls on the ultimate syllable when it is super-heavy, e.g., *jal.ʕa.ˈbuːn* 'they are/were playing', *tˤu.wiː.ˈlaːt* 'they are long/ tall (f. pl.)' and *meb.tah.ˈraːt* 'they are amused (f. pl.)'. The penultimate syllable receives stress if it is heavy and the ultimate syllable is not super-heavy, e.g., *χal.ˈliː.hin* 'leave them' and *ni.saː.ˈjib.na* 'our kinsmen'. The antepenultimate syllable is stressed when the penultimate syllable is not heavy and the ultimate syllable is not super-heavy, e.g., *ja.χad.ˈmuː.ni.kin* 'they are serving you' and *ʔin.ki.sar* 'it got broken (m. s.)' (Al-Dwikat, 2013).

2.2.2 Morphology

The morphology of the NA dialects (including HA) retains some morphological features of Classical Arabic.

2.2.2.1 Pronouns

Independent personal and object/possessive pronouns

Gender distinction is retained in the 2nd- and 3rd-person singular and plural pronouns and object/possessive pronoun suffixes. Based on my empirical data, both old and young speakers maintain this distinction. The following table lists these pronouns:

Table.2.3: Independent personal pronouns and object/possessive suffixes in HA.

3rd person		2nd person		1st person	
Independent Personal Pronouns	Object / Possessive Suffixes	Independent Personal Pronouns	Object / Possessive Suffixes	Independent Personal pronouns	Object / Possessive Suffixes
hu 'he'	*-uh/-h* 'him'	*(ʔ)int* 'you m. s.'	*-ak/-k* 'you m.s.'	*(ʔ)ana* 'me'	*-an* 'me'
hi/hij 'she'	*-ah* 'her'	*(ʔ)intaj/ʔinti* 'you f. s.'	*-its/-ts* 'you f. s.'	*ħinna* 'we pl.'	*-na* 'us pl.'
ham 'they m. pl.'	*-ham* 'their m. pl.'	*(ʔ)intam* 'you m. pl.'	*-kam* 'you m. pl.'		
hin 'they f. pl.'	*-hin* 'their f. pl.'	*(ʔ)intin* 'you f. pl.'	*-kin* 'you f. pl.'		

Additionally, the vowel in the beginning of an object/possessive pronoun suffix is omitted when it is preceded by a vowel, e.g., *ʃare:t+uh* > *ʃare:tuh* 'I bought it' vs. *ʃaro:+uh* > *ʃaro:h* 'they bought it'(Abboud, 1964, p.16).

Here are some examples of these pronouns, as they appear in phrases:

ʔint tadris? 'Are you (m. s.) studying?'

hin alli ʕa:rf-a:jh 'they knew (f. pl.)'

ʔummits 'your mother (f. s.)'

la: taðʕrubuh 'do not hit him (m. s.)'

These object/possessive pronoun suffixes can be added to prepositions such as *ʕan* 'about', *min* 'from', *b-* 'by' and *l-* 'for/to'—e.g., *ʕan+ham* 'about them (m. pl.)', *ba+na* 'by us', *min+hin* 'from them (f. pl.)', *ga:lo:+la+na* 'they told us' and *ʔittasʕlu:+ba+ham* '(imperative) ring them

(m. pl.)'. The vowel in the preposition may be dropped when one of the object/possessive pronoun suffixes (-uh, -ah, -ak and -its) is added to *ʕan* 'about' or *min* 'from'—e.g., *ʕan +ah* > *ʕnah* 'about her' and *min + its* > *mnits* 'from you (f. s.)'. When two object pronoun suffixes exist in the verb, the suffix-bearing particle -*ijja*- may be used, as in, *ʔaʕtˁe:ta+ham+ijja+ah* > *ʔaʕtˁe:tahamijja:h* 'I gave it to them (m. pl.)' (Ingham, 1994).

2.2.2.2 *Demonstrative pronouns*

In HA, demonstrative pronouns are divided into two types of deixis: near and far. The demonstrative pronouns can occur dependently, as in *ha:ða alkta:b* 'this book', and independently, as in *ha:ða*, which can mean 'this person' or 'this thing'. Gender and number distinctions are maintained in most of these pronouns; only two demonstrative pronouns (*ha-* and *ha:k*) show no gender or number distinction, as in *ha-lbe:t* 'this house', *ha-ssa:ʕeh* 'this time/watch' and *ha-lʁanam* 'these sheep'. The vowel in the *ha-* pronoun may be lengthened as [ha:-]. Below are the pronoun sets of HA.

Table.2.4: Demonstratives in HA.

	Near deixis 'this/these'	**Far deixis 'that/those'**
Singular Masculine	*ha:ða, ha/ha:*	*ða:k, haða:k, ha:k*[18]
Singular Feminine	*ha:ði, ha/ha:*	*ði:k/ ði:ts, haði:k/haði:ts, ha:k*
Plural Masculine	*haðo:la, haðo:l, ðo:la, ha/ha:*	*ðo:la:k, haðo:la:k, haðo:lamk, ha:k*
Plural Feminine	*haðo:li, haðo:lin, ha/ha:*	*ðo:li:k/ ðo:li:ts, haðo:li:k/ haðo:li:ts haðo:link/ haðo:lints, ha:k*

All of these demonstrative pronouns can be placed before or after the head nouns, except for *ha/ha:-/ha:k*, which only occur before the head noun.

For example:

[18] "The masculine singular form *ha:k* 'that' is often used in narratives and has the added meaning of 'that…in the past' or 'that…unknown to you', as in, *ha:k addi:reh* 'that land'" (Ingham, 1994, p.55). Other examples include *ha:k aljo:m* 'that day (in the past)' and *ha:k aʃʃa:jib* 'that old man'.

ʔaʕja:l ðo:la:k / *ʔalʕja:l ðo:la:k* ‘those boys’

haðo:l alkutub ‘these books’

ði:k albint / *ʔalbint ði:k* ‘that girl’

2.2.2.3 Relative pronouns

In HA, there is only one relative marker, *alli/halli* ‘that/which/who’, which is used to refer to both singular and plural as well as feminine and masculine nouns—e.g., *albe:t alli ʕala jisa:rits* ‘the house which is on your left-hand side’.

2.2.2.4 Interrogative words

The HA dialect has nominal and adverbial wh-interrogatives. Among them are the following:

1. (Nominal) *kam/ tsam* ‘how much/many’ e.g., *b kam alkta:b*? ‘how much does the book cost?’ and *kam daftar tabi:n*? ‘how many notebooks do you need?’
2. (Nominal) *min/mi:n* ‘who’, this interrogative form can be suffixed by personal pronouns such as minhu? ‘who is he?’ and minhin? ‘who are they? (f. pl.)’.
3. (Nominal) *wiʃʃu /wiʃ* ‘what’, e.g., *wiʃʃu ha:h*? ‘what is this?’. This pronoun also has a bound form (*ʃ-*, as in *ʃ-usmuh*? ‘what is his name?’ and *ʃ-kəθər*? ‘how much?’).
4. (Nominal) *ʔaj* ‘which’ as in *ʔaj θo:b xaðe:t*? ‘which dress did you choose/take (m. s.)?’
5. (Adverbial) *le:h/le:ʃ* ‘why’ as in *le:ʃ tabi:n turu:ħi:n*? ‘why do you want to go (f. s.)?’
6. (Adverbial) *mita* ‘when’ e.g., *mita nabi nru:ħ*? ‘when will we go?’
7. (Adverbial) *we:n* ‘where’ as in *we:n nabi nru:ħ* ‘where will we go?’
8. (Adverbial) *ʃlo:n/ ke:ʃ* ‘how’ such as *ʃlo:n sˁa:r alħa:diθ*? ‘how did the accident happen?’. The second form *ke:ʃ* is usually heard in the speech of young speakers, as in *ke:ʃ ħa:lak*? ‘How are you? (m. s.)’.
9. (Adverbial) *maʕʕe:n ʔadʒij*?/ *mne:n ʔadʒij*? e.g., ‘from where can I come?
10. (Adverbial) *be:n?* ‘where?’ (This interrogative can stand on its own and conveys a similar meaning to *we:n*.)

2.2.2.5 Particles

The HA dialect particles are as follows:

1. The definite article:

HA has a definite article similar to the standard definite article found in CA. This definite article is invariable.

2. The genitive markers:

HA has two genitive markers: *ħagg* and *fe:d*[19]. These two particles can precede or follow a definite noun, e.g., *alkullijjeh ħaggatna:* 'our college' and *ħagg azzawa:dʒa:j* 'for the weddings'. They can also be preceded by a definite noun and followed by a pronoun, as in, *almala:bis ħagga:tah* 'her clothes (f. s.)'.

3. Negation

In HA, negation can be expressed by using one of the two particles: *ma(:)-* and *la(:)-*. These two particles can negate the verbal sentence/phrase when it is placed before the verb. The particle *ma(:)-* occurs with perfect and imperfect verbs, e.g., *ma: ra:ħat* 'she did not go' and *ma: tadrij* 'she does not know'. The particle *la(:)-* is used to form the negative imperative when it occurs before an imperfect verb, which appears in the jussive mood (*madʒzu:m*), such as, *la: turu:ħ lal be:t* 'do not go home'. In other words, the jussive mood is used to give a negative command or request by adding the negative particle *la(:)-* to the imperfect verb (Abboud and McCarus, 1983). The particle *la(:)-* can also be preceded by (*wa-* 'and') to indicate absolute negation or to form the 'neither …nor' construction, e.g., *wa-la: tsilmeh* 'shut-up/ do not speak (lit. not even a word!)', and *la: jaʕarfin ʃaʁʁa:la:j wa la jaʕarfin xadam* 'they (f. pl.) have neither house maids nor servants (lit. they know neither house maids nor servants)'. These two particles can also negate nominal phrases (nouns, independent personal pronouns and demonstratives) when they occur before nouns or pronouns. For example:

ma(:)-

[19] Based on my empirical data, this possessive particle is very rare; it was only used 2-3 times by three older speakers.

alli ma-hij ze:neh 'that which is not good'

bʃu:t bas ma: hij kiθi:reh 'cloacks, but not so many'

ma: tinħa:tsa 'you cannot talk to her'

ma: jintaħa:tsa 'you cannot talk to him'

la(:)-

la ʕaʃreh wa la χamseh 'neither ten nor five (riyals)'

la: ha:ði wala haði:ts 'neither this nor that'

Furthermore, the particles *ma(:)-* and *la(:)-* can be followed by prepositions, as in:

la: buh θalla:dʒa:t 'there are no refrigerators'

wa-la ʕindits ʃaj 'and you have nothing at all'

ma: maʕham dʒawwa:la:h 'they do not have cell phones'

ma:fi ʃabba:t wa-la ʃaj 'there are no social gatherings or any thing else'

4. Prepositions

Prepositions in HA can occur before nouns or noun phrases. They include the following: *min* 'from', *b-* 'by/in', *l-*'to/for', *fi-* 'in', *maʕ* 'with', *ʕan* 'from, about' *ʕala* 'on/upon' and *lamm* 'toward', *dʒuwwa* 'inside', *barra* 'outside', *fo:g* 'above', *taħt/ taħat* 'below/under', ʕugub 'after', baʕad[20]/baʕd 'after', zajj 'as/similar to' and be:n 'between'.

5. Adverbs:

HA adverbs include:

- Temporal adverbs:

[20] This lexical item can also mean 'more/again' e.g., tabi:n baʕad? 'do you need more? (f. pl.)'

(during the day) *halħi:n/alħi:n*, *hassa:ʕeh/ haddigi:geh* means 'now or immediately' and can modify verbs, as in, *taʕa:l haħi:n* 'come now (imperative, m. s.)' and *tabi:h haddigi:geh* 'she wants it now'.

(for the whole day) *aljo:m/haljo:m* 'today', *bukra/ba:tsir* 'tomorrow', *baʕad bukra/ba:tsir* 'the day after tomorrow', *ʔams* 'yesterday' and *gabel (ʔ)ams* 'the day before yesterday'.

(For the evening), *(ʔ)alle:leh* 'tonight', *(ʔ)aldza:bleh* 'tomorrow night' and *(ʔ)ala:bleh* 'after tomorrow night'.

There are further expressions that indicate certain times and are used as conjunctions, such as, *jo:m* 'when', *jo:m ...jo:m* 'as soon as', *la:min* 'when', *meta ma:* 'once' and *baʕd ma:* 'after', e.g., *jo:m dʒaw* 'when they (m.) came', *meta ma: giðʕat gu:lan lij* 'once she is finished, tell (f.pl.) me', and *baʕd ma: χallasʕ alʕirs* 'after the wedding concert ended'.

- Local adverbs: *we:n* 'where', *mne:n* 'from where', *hina* 'here' and *hna:k* 'there'. The prepositions: *fo:g* 'up/on the top of', *taħt* 'under/below', *dʒuwwa* 'inside' and *barra* 'outside' can be considered as local adverbs.
- Manner adverbs: *weʃlo:n/ʃlo:n* 'how', *'kiða/ha:ts* 'like this'—e.g., *ta:kli:nuh ha:ts* 'you eat it like this (in this manner)'.

  Other adverbs indicate some sort of emphasis or intensity, such as *marreh/balmarreh and ħe:l/balħe:l* 'completely/too much'—e.g., *marreh ħilu:* 'so beautiful' and *ma: hij ze:neh balħe:l* 'it is not so good'. The CA adverb *dʒiddan* 'very' is also used, and when this is done, speakers are aware they are drawing from CA.

6. Other types of particles:

   There are some particles that work as conjunctions, such as *w* 'and', *willa* 'or', *(ʔ)aw* 'or', *fa* 'so', *li-(ʔ)an/linn* 'because' and *la:kin* 'but'. Others work as quantifiers, including: *ʃwaj/ʃwajjat/ʃwe:n* 'a little', *ʔajj* 'any', *gli:l, kam/tsam* 'a few' *kill/ killiʃ/killʃi:n* 'all together', *dʒimi:ʕ* 'all/ every', *kiθi:r, kθa:r, wa:dʒid* 'many/ much', *baʕðʕ* 'some' and *ma(:)ʁe:r* 'only'. Some of these quantifiers can stand on their own, as head nouns, while others can precede the head noun, as in *kam kta:b* 'few books' and *tsam ridʒdʒa:l* 'few men'. Others can occur either before or after the head noun; this is

particularly common with indefinite head nouns, e.g., *ʃwajjat ħinntˁeh* or *ħinntˁeh ʃwe:n* 'a little wheat'.

2.2.2.6 Numerals

As in NA, the numerals in HA usually occur before the head noun, except for *waħid* 'one' and *θne:n* 'two', which can follow the head noun. Number (two) is usually preceded by a head noun in dual form. The numerals from three to ten appear after the head noun in plural form. Numerals higher than ten appear before the head noun in singular form (Ingham, 1994, p.56). The feminine ending (*-ah* pre-pausally and *-at* in connected speech) may also be added to the number. Remarkably, the CA form *-ʕaʃar*, which is added to numbers 11-19, can be shortened to *-ʕaʃ* in HA.

Examples of these numerals are shown below:

1	*bent waħdeh* 'one girl', *walad wa:ħid* 'one boy'
2	*bente:n θente:n* 'two girls', *wlede:n θne:n* 'two boys'
3-10	*θala:θ ʕja:l/ bana:t* 'three boys/ girls', *ʕaʃer/ʕaʃrat ʕja:l or ʕaʃer bana:t* 'ten boys/ girls'
11-19	*ħdaʕaʃ bent/walad* 'eleven girls/boys', *tisiʕtˁaʕaʃ bent/walad* 'nineteen girls/boys'
20 upward	*ʕiʃre:n bent/walad* 'twenty girls/boys'

2.2.2.7 Verbs (verbal morphology)

In general, the verbal morphology of NA (including HA) does not differ much from other Arabic dialects. It is more regular, systematic and predictable than the nominal morphology (2.2.2.8). Both nouns and verbs show a consonantal root—i.e., the lexical component of the word. Verbal morphology in HA can be divided into classes based on the consonants contained

in the root (strong vs. weak roots[21]). Additionally, verbs can be classified by the voice of the phrase: active vs. passive. The following paragraphs provide an overview of the verbs and their morphology in the HA dialect.

Active strong verbs can be transitive (e.g., *kitab* 'to write') or intransitive (e.g., *tʿalaʕ* 'to appear/ go away' and *firiħ* 'to be happy'). Strong verbs (Form I) have two types of stem patterns: (1) $C_1VC_2aC_3$ and (2) $C_1iC_2iC_3$. The Table (2.5) below illustrates the two patterns of (Form I) verbs and the affixes that convey the declension type (perfect, imperfect and imperative). The inflections for gender, number and person are illustrated as well.

[21] Weak roots contain sounds that have non-consonantal exponents (i.e. ا /ʔ, a:/, ي /j/ or و /w/); strong roots, by contrast, do not exhibit non-consonantal exponents (Ingham, 1994, p.22).

Table 2.5: (Active) Verb inflections in HA.

	3rd pers.		2nd pers.		1st pers.	
Perfect	Type 1 CaCaC *daχal* (d.χ.l) 'to enter'	Type 2 CiCiC *sihir* (s.h.r) 'to be awake'	Type 1	Type 2	Type 1	Type 2
m. singular	*daχal*	*sihir*	*daχal-t*	*sihir-t*	*daχal-t*	*sihir-t*
f. singular	*dχal-at/eh, daχl-at/eh*	*shar-at/eh sahr-at/eh*	*daχal-ti*	*sihir-ti*		
m. plural	*dχal-aw daχl-aw*	*shar-aw sahr- aw*	*daχal-tu*	*sihir-tu*	*daχal-na*	*sihir-na*
f. plural	*dχal-an daχl-an*	*shar-an sahr-an*	*daχal-tin*	*sihir-tin*		
Imperfect						
m. singular	*ja-dχu*[22]*l*	*ja-shar*	*ta-dχul*	*ta-shar*	*(ʔ)a-dχul*	*(ʔ)a-shar*
m. singular	*ta-dχul*	*ta- shar*	*ta-dχul-i:n*	*tashar-i:n*		
m. plural	*ja-dχul-u:n*	*ja-shar-u:n*	*ta-dχul-u:n*	*ta-shar-u:n*	*na-dxul*	*na-shar*
f. plural	*ja-dχul-in*	*ja-shar-in*	*ta-dχul-in*	*ta-shar-in*		
Imperative						
m. singular			*(ʔ)i-dχul*	*(ʔ)i-shar*		
m. singular			*(ʔ)i-dχul-i (ʔ)i-dχul-aj*	*(ʔ)i-shar-i*		
m. plural			*(ʔ)i-dχul-u*	*(ʔ)i-shar-u*		
f. plural			*(ʔ)i-dχul-in*	*(ʔ)i-shar-in*		

Notes about strong verbs (Form I)

- In the perfect tense, verbs exhibit the pattern $C_1aC_2aC_3$ when they are followed by a null or consonantal sound—e.g., *ħasab* 'he counted' and *dʒalas* 'he sat down'. The pattern $C_1iC_2aC_3$ is found in non-guttural environments, as in, *kitab* 'he wrote' and *sikan* 'he resided'. When the stem is followed by a vocalic ending, the pattern becomes $C_1C_2VC_3$-, V= /a/ with guttural fricatives and /l, r, n/, while V= /i/ with other sounds.
- In the perfect tense, the verbs have the pattern $C_1iC_2iC_3$ when they are followed by a null or consonantal sound—e.g., *simiʕ* 'he heard'. The first /i/ vowel is lowered to /a/, and the second /i/ vowel is omitted when the stem is followed by a vowel, e.g., *simiʕ+at*

[22] The quality of the vowel varies according to the adjacent consonant or vowel, so -u- stands for any back vowel sound in this table.

> *samʕat* 'she heard'. The pattern $C_1aC_2C_3$-varies with the pattern $C_1C_2VC_3$- (in Type 1), e.g., *smaʕat.* (Prochazka, 1988, p. 28-31).

- In the imperfect tense, the first vowel (in both type $C_1aC_2aC_3$ and $C_1iC_2iC_3$) is deleted when prefixed with an imperfect inflectional particle, as in, *ja-, ta-, (ʔ)a-* and *na-*.
- When verbs of this type are followed by one of the object pronoun suffixes (Table 2.3), the final consonant can be doubled or the vowel can be lengthened, especially when the suffix begins with a vowel, e.g., *dχalan +uh* > *dχalannuh* 'they entered it (a place) (f. pl.)'.

Derived patterns of the simple triliteral strong verb

- **Form II** $C_1aC_2C_2aC_3$, e.g., *rattab* and *jrattib* 'to organize'. The stem vowel of the verb in the perfect tense is /a/ and in the imperfect, /i/.
- **Form III** $C_1aaC_2aC_3$, e.g., *ʕa:wan* and *jʕa:win* 'to help'.
- **Form IV** ʔa$C_1C_2aC_3$, e.g., *ʔarsal* and *jirsil* 'to send *smb/ sth*'.
- **Form V/VI** t(a, i)$C_1aC_2C_2aC_3$ or ta$C_1aaC_2aC_3$, e.g., *tizawwadʒ/jtizawwadʒ* 'to get married', tanaffas/jtanaffas 'to breathe' and *tana:fađʕ/jtana:fađʕ* 'to tremble'.
- **Form VII/VIII** ʔin$C_1VC_2aC_3$, ʔi$C_1taC_2a(:)C_3$, e.g., *(ʔ)ingitʕaʕ/ jingitʕiʕ* 'to be cut off (from)', *(ʔ)idʒtimaʕ/ jidʒtimiʕ* 'to meet' and *(ʔ)istalam/jistilim* 'to recieve'.
- **Form IX** (ʔ)i$C_1C_2aC_3C_3$, e.g., *iswadd/jiswadd* 'to become black'. This pattern can be used to form verbs related to colours. Form II pattern ($C_1aC_2C_2aC_3$,) can be used to form this type of verb as well, e.g., *sawwad* 'to become black' and *χađʕđʕar* 'to become green'.
- **Form X** (ʔ)ista$C_1C_2aC_3$, e.g., *istankar/jistankir* 'to be unfamiliar with somebody/something'.

- Other derived patterns of simple quadrilateral verbs (QV) include:
  - **Form I** $C_1aC_2C_3aC_4$, e.g., *ʔasraf/jisrif* 'to make extravagant'.
  - **Form II** ta$C_1aC_2C_3aC_4$, e.g., *talaflaf/jtalaflaf* 'to wrap oneself up'.
  - **Form III** (ʔi)$C_1C_2aC_3aC_4C_4$, e.g., *ʔirdʒahann/jirdʒihinn* 'to become calm'.

Importantly, these patterns are found in HA:

- **Form XIII** $C_1VVC_2aC_3$, e.g., *de:war* 'to turn around'.
- **Form XIV** ti$C_1VVC_2aC_3$, e.g., *time:laħ* 'to act in a flattering manner'.

- The verb form with the prefix /-int-/ is peculiar to NA, which is a result of combining the prefix /n-/ of Form VII and /ta-/ of Forms V and VI. It does not appear in my data.

The internal passive

In the HA dialect, the passive voice of strong verbs is formed via syllabic or internal vocalic changes. Forming the passive can involve velar fronting and vowel quality changes in some plural suffixes. This internal passive is one of HA's most salient features. In the passive form, the vowels of the perfect verb stem are usually high /i/, while those of the imperfect verb stem are usually low /a/. Consider the following table:

Table.2.6: (Passive) Verb inflections in HA.

tarak (t.r.k)'to leave' CaCaC Perfect	3rd pers.	2nd pers.	1st pers.
m. singular	*trik*	*trik-t*	*trik-t*
f. singular	*tirk-at, tirk-eh*	*trik-ti*	
m. plural	*tirk-aw*	*trik-tu*	*trik-na*
f. plural	*tirk-an*	*trik-tin*	
Imperfect			
m. singular	*ji-trak*	*ti-trak*	*(ʔ)i-trak*
f. singular	*ti-trak*	*ti-trak-e:n*	
m. plural	*ji-trak-o:n*	*ti-trak-o:n*	*ni-trak*
f. plural	*ji-trak-in*	*ti-trak-in*	

The active participle *ʔism ʔalfa:ʕil*

The active participle of a (Form I) verb has the pattern $C_1aaC_2iC_3$, e.g., *ra:dʒiʕ* (from the verb *ridʒaʕ*) 'returning back'. For other verb forms, a prefix *m(i)*- is added, as in *mtaχa:nig* (from the verb *taxa:nag*) 'he disputed with somebody', msa:fir (from the verb *sa:far*) and *miʃtirik* (from the verb *ʔiʃtarah*) 'engaged in something/with somebody'.

The passive participle *ʔism ʔalmafʕu:l*

The passive participle of the (Form I) verb has the pattern $maC_1C_2uuC_3$, as in *matru:k* 'was left', while other verb forms have the prefix *m(i)-*, as in *mirsal* 'was sent' and *mdʒahhaz* 'has been ready'.

Geminate (doubled) verbs

HA geminate verbs have doubled consonants ($C_1VC_2C_2$-)—i.e. the second and third consonants are identical and not separated by a vowel, as in *dagg* 'to knock/ dail (phone number)'. The quality of the vowel before the doubled consonants is affected by the verb's voice (active/passive), form (I, II, III, …etc.) and tense (perfect, imperfect or imperative).

Consider the following examples of the verb *ħatˤtˤ* 'to put':

ħatˤtˤ (perfect, active, 3rd m. s.) and *ħitˤtˤ* (perfect, passive, 3rd m. s.)

ħatˤtˤe:na (perfect, active, 1st pl.) and *ħitˤtˤi:na* (perfect, passive, 1st pl.)

tiħitˤtˤ (imperfect, active, 3rd f. s.) and *tħatˤtˤ* (imperfect, passive, 3rd f. s.)

ħa:tˤtˤ (active participle, form I) and *maħtˤu:tˤ* (passive participle, form I).

Weak verbs

The term weak verb refers to verbs with weak roots that have one of these non-consonantal sounds (أ /ʔ, a:/, ي /j/ or و /w/) in the root. There are three types of weak verbs:

1) *Initial-weak verbs*

The following table shows two examples of initial-weak verbs.

Table 2.7: Verb inflections of initial-weak verb in HA.

	3rd pers.		2nd pers.		1st pers.	
Perfect	*ʔaχað* (ʔ.χ.ð) 'to take'	*wigaf* (w.g.f) 'to stop'	*ʔaχað*	*wigaf*	*ʔaχað*	*wigaf*
m. singular	*χaða*	*wugaf*	*χaðe:-t*	*w(u)gaf-t*	*χaðe:-t*	*w(u)gaf-t*
f. singular	*χað-at/eh*	*wguf-at/eh* *wagf-at/eh*	*χaðe:-ti* *χat-ti*	*w(u)gaf-ti*		
m. plural	*χað-aw*	*wguf-aw* *wagf- aw*	*χaðe:-tu*	*w(u)gaf-tu*	*χað-na* *χaðe:-na*	*w(u)gaf-na*
f. plural	*χað-an*	*wguf-an* *wagf-an*	*χaðe:-tin* *χat-tin*	*w(u)gaf-tin*		
Imperfect						
m. singular	*ja:-χið*	*ja:-gaf*	*ta:- χið*	*ta-gaf*	*(ʔ)a:-χið*	*(ʔ)a:-gaf*
f. singular	*ta:-χið*	*ta:-gaf*	*ta:-χð-i:n*	*ta:-guf-i:n*		*(ʔ)o:-gaf*
m. plural	*ja:-χð-u:n*	*ja:-guf-u:n*	*ta:-χð-u:n*	*ta:-guf-u:n*	*na:-χið*	*na:-gaf*
f. plural	*ja:-χð-in* *ja:-χið-in*	*ja:-gaf-in* *ja:-guf-in*	*ta:-χð-in* *ta-χið-in*	*ta:-guf-in* *ta-gaf-in*		
Imperative						
m. singular			*χið*	*(ʔ)u:-gaf*		
f. singular			*χu:ð-i/-aj*	*(ʔ)u:-g(u)f-i* *(ʔ)u:-gf-aj*		
m. plural			*χu:ð-aw*	*(ʔ)u:-gf-aw*		
f. plural			*χu:ð-an/* *χið-in*	*(ʔ)u:-gf-in* *(ʔ)u:-gaf-in*		

Notes on initial-weak verbs:

- Gender and number distinction are maintained in these verb forms.
- Initial hamzated verbs in perfect forms (*ʔaχað* 'to take' and *ʔakal* 'to eat') are realised in HA as *χaða* and *kala*, respectively.
- The participle forms are:

  Active: *ma:χið* 'having taken' and *wa:gif* 'standing'

  Passive: *ma:χu:ð* 'taken' and *mwaggaf* 'stopped'

2) Medial-weak verbs

Table.2.8: Verb inflections of medial-weak verb in HA.

	3rd pers.		2nd pers.		1st pers.	
Perfect	*ʁa:b* (ʁ.j.b) 'to be absent'	*ga:l* (g.w.l) 'to say'				
m. singular	*ʁa:b*	*ga:l*	*ʁib-t*	*gil-t*	*ʁib-t*	*gil-t*
f. singular	*ʁa:b-at/eh*	*ga:l-at/eh*	*ʁib-ti*	*gil-ti*		
m. plural	*ʁa:b-aw*	*ga:l-aw*	*ʁib-tu*	*gil-tu*	*ʁib-na*	*gil-na*
f. plural	*ʁa:b-an*	*ga:l-an*	*ʁib-tin*	*gil-tin*		
Imperfect						
m. singular	*ji-ʁi:b* *ja-ʁa:b*	*ji-gu:l*	*ti-ʁi:b* *ta-ʁa:b*	*t(u)-gu:l*	*(ʔ)a-ʁa:b* *(ʔ)a-ʁi:b*	*(ʔ)a-gu:l*
f. singular	*ti-ʁi:b* *ta-ʁa:b*	*ti-gu:l*	*ta-ʁa:b-i:n* *ta-ʁa:b-e:n*	*t(u)-gu:l-i:n*		
m. plural	*ji-ʁi:b-u:n* *ja-ʁa:b-u:n*	*ji-gu:lu:n*	*ta-ʁa:b-u:n*	*t(u)-gu:l-u:n*	*na-ʁa:b* *ni-ʁi:b*	*nu-gu:l*
f. plural	*ja-ʁa:b-in* *ja-ʁab-in* *ji-ʁi:b-in*	*ji-gu:l-in* *ji-gil-in*	*ta-ʁa:b-in* *ta-ʁab-in*	*t(u)-gu:l-in* *ti-gil-in*		
Imperative						
m. singular			*ʁib*	*gil*		
f. singular			*ʁi:b-i* *ʁi:b-ay*	*gu:l-i* *gu:l-ay*		
m. plural			*ʁi:b-aw*	*gu:l-aw*		
f. plural			*ʁi:b-an* *ʁub-in*	*gu:l-an* *gil-in*		

Notes on medial-weak verbs:

- When adding the inflectional ending of the feminine plural suffix (-in) to medial-weak verbs in the imperfect form, the stem vowel becomes short and stressed (e.g., $jiC_1i:C_2$-+in > jiC_1iC_2in).

- Unlike most Arabic dialects, the imperative form in HA has a short vowel (2nd person masculine singular verb form), e.g., ʁib; this feature is shared by NA and CA. (Ingham, 1994, p.26).
- In HA, the passive participle form comes in the pattern (mafʕu:l), especially when the weak segment in the root is /j/, as in (b.j.ʕ) *mabju:ʕ* 'has been sold out' and (x.j.tˤ) *maxju:tˤ* 'has been sewn'. Generally speaking, Arabic dialects have two ways to form passive participles:

  1) ***ʔalitma:m*** 'lit. completetion' in which the hollow verb is treated as strong verb, and appears in the pattern (mafʕu:l), without any deleted segments. This is similar to what happens in HA, and it is known to be a significant Tamīmi feature.

  2) ***ʔannaqsˤ*** 'lit. reduction' in which one segment of the pattern is deleted (mafʕl). This is known to be a Ḥejazi feature, e.g., *mabi:ʕ* 'has been sold out' (Al-kitab, 1988 and Al-kafāwīn, 2017).

3) Final-weak verbs

Table.2.9: Verb inflections of final-weak verb in HA.

	3rd pers.		2nd pers.		1st pers.	
Perfect	*nisa* (n.s.j) 'to forget'	*ʃara* (ʃ.r.j) 'to buy'				
m. singular	*nisi/nisa*	*ʃara*	*nisi:-t*	*ʃare:-t*	*nisi:-t*	*ʃare:-t*
f. singular	*nasj-at/eh* *nis-at/eh*	*ʃar-at/eh* *ʃarj-at/eh*	*nisi:-ti*	*ʃare:-ti*		
m. plural	*nasj-aw* *nis-aw*	*ʃar-aw* *ʃarj-aw*	*nisi:-tu*	*ʃare:-tu*	*nisi:-na* *nise:-na*	*ʃare:-na*
f. plural	*nasj-an* *nis-an*	*ʃar-an* *ʃarj-an*	*nisi:-tin*	*ʃare:-tin*		
Imperfect						
m. singular	*ja-nsa*	*ja-ʃri*	*ta-nsa*	*ta-ʃri*	*(ʔ)a-nsa*	*(ʔ)a-ʃri*
f. singular	*ta-nsa*	*ta-ʃri*	*ta-ns-e:n*	*ta-ʃr-i:n*		
m. plural	*ja-ns-o:n*	*ja-ʃr-u:n*	*ta-ns-o:n*	*ta-ʃr-u:n*	*na-nsa*	*na-ʃri*
f. plural	*ja-ns-an*	*ja-ʃr-in*	*ta-ns-an*	*ta-ʃr-in*		
Imperative						
m. singular			*ʔins*	*ʔiʃir/ʔiʃr*		
f. singular			*ʔins-aj*	*ʔiʃr-aj*		
m. plural			*ʔins-aw*	*ʔiʃr-aw*		
f. plural			*ʔins-an*	*ʔiʃr-an*		

Notes on final-weak verbs:

- In the perfect tense, the vowels in the C_1iC_2i- pattern are variable. The second vowel is influenced by the inflectional endings that follow it. If it is followed by a vocalic ending, the pattern is usually C_1aC_2j- (*nasjan*), while before consonantal ending, it is C_1iC_2i:-(*nisi:na*).
- In the imperfect tense, the stem vowel can be /i/ or /a/ (jaC_1C_2i-/yaC_1C_2a-).
- The pattern (jaC_1C_2i- (m.), taC_1C_2i- (f.)) has the inflectional endings: 2nd person f. s. /-i:n/, m. pl. /-u:n/ and f. pl. /-in/ in the imperfect form. While the pattern (jaC_1C_2a- (m.), taC_1C_2a- (f.)) has /-e:n/, /-o:n/ and /-an/ respectively.

- The guttural sounds (χ, ʁ, h, ʕ and ħ) have an effect on the syllabication of the stem. They transform the patterns to jC_1aC_2V- e.g., *jħatsi* 'to talk' and *jhaga* 'to guess'.

2.2.2.8 Nouns (nominal morphology)

The nominal morphology in the HA dialect is similar to that of other NA dialects. Nouns can be derivative,[23] as in, *tˁabba:χ* (adj.)'chef', which can be derived from *tˁabχeh* (n.) 'a meal' and *tˁubaχ/jatˁbaχ* (v.) 'to cook'. They can also be inflectional,[24] such as *ku:be:n* 'two cups (dual form from the singular verb ku:b 'a cup')'. Adjectives can also be derivative or inflectional in which they mark number, gender and degree (comparative/superlative) via certain patterns or the addition of specific affixes. Some noun/adjective types are presented in the following list (Ingham, 1994, p.32):

- Nouns of instrument $miC_1C_2a:C_3$, e.g., *miħma:s* 'a special pan for roasting the coffee'
- Nouns of place $maC_1C_2aC_3$ or $maC_1C_2iC_3$, e.g., *maktab* 'an office' and *masdʒid* 'mosque'
- Primitive nouns or abstract nouns derived from simple form verbs $C_1aC_2aC_3$, e.g., *ðˁarab* > *ðˁarb* 'hitting' and $C_1iC_2aC_3$ *rikaðˁ*> *rakðˁ* 'running'
- Occupational nouns $C_1aC_2C_2$ $a:C_3$, e.g., *bajja:ʕ* 'a salesman' and *sabba:k* 'a plumber'
- Abstract nouns derived from adjectives $C_1uC_2uC_3$, e.g., *kubur* 'size, age'
- Comparative adjectives and colour words (ʔ)$aC_1C_2aC_3$, e.g., *(ʔ)azjan* 'better' and *azrag* 'blue'

Gender

Singular feminine nouns and adjectives are usually marked by the addition of the feminine suffix: *-at/-eh*. Please consider the following examples:

mista:nis (adj. m.) > *mista:nseh* (f.) 'happy/ amused'
sita:jer (n. pl.) 'curtains'> *sta:reh* (f. s.) 'a curtain' and *sta:rt al ʁurfeh* 'the room's curtain'
na:m (v. m. s.)'to sleep' > *no:meh* (noun)'a sleep', *no:mt al ʕasˁir* 'the afternoon sleep' and *ne:meh* (adj. f. s.) 'sleep'

[23] Derivational morphology involves the formation of a noun from verbs or adjectives, or an adjective from a noun. It may also refer to the formation of certain types of nouns, such as: Nouns of Instrument, Nouns of Place, Comparative Adjectives, Occupational Nouns and Participles (Ingham, 1994, p.31).
[24] Inflectional morphology involves the formation of plural and dual forms of nouns from the singular form by adding affixes that convey the gender and number information, e.g.-*a:t/-a:h* for feminine plural formation (ibid.).

Additionally, there are other feminine nouns without the feminine suffixes. These include the words for parts of the body, words for places, and nouns that refer to female creatures—e.g., *jidd* 'a hand', *kabd/tsabd* 'a liver', *ʃams* 'sun', *ʕanz* 'a goat'.

Plural formation

Plural nouns/adjectives are formed in the HA dialect from the singular form, either by adding the plural suffixes (*-i:n* for masculine and *-a:t/a:h/a:j* for feminine) or by using broken plurals. The plural suffix *-i:n* is added to certain types of nouns, particularly participles and nouns with a relative adjective suffix (*-i/-ij*) as in *sa:kin* > *sa:kni:n* 'dwellers' and *sʕu:di* > *sʕu:dijji:n* 'Saudis'. However, plurals of active participles with *-i:n* are not very common in NA dialects; instead, NA dialects (including HA) use broken plurals in these cases. Broken plurals can be formed by consonant doubling, vowel lengthening, vowel addition, vowel substitution, or vowel deletion (Ingham, 1994, p.33)—e.g., *na:jim* > *no:ma* 'sleeping (m. pl.)'. The feminine plural suffixes *-a:t/a:h/a:j* are added to substitute for the feminine ending marker *-eh*, as in *tˤa:wleh* (s.) > *tˤa:wla:t* (pl.) 'tables'. Further examples are illustrated below:

$C_1iC_2C_3a:n$, e.g., *waʁad* >*wiʁda:n* 'children'

$C_1aC_2a:jil_3$, e.g., *ħamu:leh* >*ħama:jil* 'clans'

$C_1(i)C_2u:C_3$, e.g., *be:t* >*bju:t* 'houses'

(ʔ)$aC_1C_2a:C_3$, e.g., *jo:m* > *(ʔ)ajja:m* 'days', *(ʔ)arza:g* 'provisions'

$C_1iC_2a:C_3i:C_4$, e.g., *sikki:n/sitsi:n* > *sika:ki:n/sika:tsi:n* 'knives'

$C_1C_2aC_3C_3$, e.g., *sˤu:reh* > *sˤwarr* 'pictures'

$C_1uC_2uC_3$, e.g., *asˤfar* > *sˤufur* 'yellow'

(ʔ)$aC_1C_2iC_3eh$, e.g., *dwa* > *(ʔ)adwijeh* 'medicines'

$C_1(i)C_2a:C_3$, e.g., *kibi:r* > *kba:r* 'big'.

Modals (preverbal particles)

The HA dialect has different types of modals (i.e. reduced forms of verbs or other elements), which can precede the verb. Some examples of modals are given below:

- (*le:t-, ja le:t*) desiderative/ precative 'would that, please'.
- (*ʕasa-*) optative 'I hope'.
- (*χall-, χal-*) jussive 'let'. The /l/ is assimilated to /n/ when followed by verbs with the 1st pl. prefix (n-), such as *χal +nana:m > χannana:m/χanna:m* 'let us go to sleep'.
- (*ka:n/tsa:n*) obligative unfulfilled 'should have'; this modal usually precedes the perfect form of verbs.
- (*widd-*) obligative remote 'ought to'.
- (*kinn/tsinn-*) speculative 'it seems'.
- (*tigil*) speculative 'it seems, it looks like' .

(Ingham, 1994, p. 119)

2.2.3 Syntax

2.2.3.1 Noun phrase

The noun phrase in HA comprises a noun and a modifying element. It can be either definite or indefinite. The noun phrase is definite if it is marked with the definite article *(ʔ)al-,* as in *ʔalbe:t* 'the house', or if it is attached to a personal pronoun suffix that indicates possession, e.g., *be:t+its* 'your house (f. s.)'. It is indefinite when it is not marked at all, e.g., *be:t* 'a house', or if it is marked with an indefinite marker *-in*, as in *be:t-in* 'a house'. Adjectives, prepositional phrases, genitive/possessive complements and adverbs may all occur with a head noun/pronoun, e.g., *be:t-in kibi:r* 'big house' and *rfugan+lij > rfugallij* 'friends of mine'. Numerals (e.g., *wa:ħdin/wa:ħid* (m.) and *waħdeh/waħditin* (f.)'one of') can be used as modifiers as well. They can even be used with generic pronouns, as in: *waħditin min albana:t* 'one of the girls' and *wa:ħid jidʒi:b ka:sa:t* 'one of them (m. s.) brings tea-cups'.

2.2.3.2 Verb phrase

Tense and aspect

Verbs in the NA dialects (including HA) show aspect and tense (perfective, imperfective and active participle), as well as action and state/motion categories.

- The perfect form is used to express the past tense (reference to a time that before the time of the utterance, the reference point), such as *kitab* 'he wrote' and *gaʕad* 'he sat down'.
- The imperfect form is used to express the present tense (reference to an action that happens at the time of utterance or at a given time of reference), such as *jaktib* 'he is writing' and *jagʕid* 'he sits down'.
- The active participle form is used to express a present and ongoing event, such as *ga:ʕid jadres* 'he is studying'.

Time references can be expressed using preverbal particles, such as *gid/dzid* 'already', *ka:n* 'was' and the model verb, *jabi* 'to want'. The particle *gid/dzid* 'already' can express an action that has already occurred. The modal verb (*jabi* or the short form b-) can be used to refer to a future action. The verb *ka:n* 'to be' may be used to express the explicit past tense, continuity (with imperfect verb) in the past tense, and future conditionals. Consider the following examples:

dzid ʔaʕreseh 'she has already gotten married'.

b-ja:χið 'he will get'.

ma: ka:n buh θalla:dʒa:t 'there were no refrigerators'.

ʔalbana:t ka:nan jalʕabin ball ʕi:d 'the girls were playing during the Eid festival'.

law meʕi xebreh ka:n tuwaðʕðʕaft 'if I had work experience, I would have gotten a job'.

2.2.3.3 Word order

Word order in the HA dialect can be SVO or VSO. Verbal sentences favour the VSO order more. The topic-fronting process may produce other orders as well, such as OVS (Ingham, 1994).

For example:

VSO *garrebat lihin alfa:kheh* 'she served fruit to them'.
SVO *lu:lweh ħatˤtˤat ladʒneh* 'Lulwa (proper f. name) established a committee'.
OVS *w albe:t skinuh ʕammij* 'and my uncle settled in the house'.

2.2.4 Lexicon

There are many lexical items that are peculiar to HA, including:

ja:- ʕizweti, ja:- milli, ja:- ħajji (term of endearment).

abχasˤ 'to know better'.

dʒuhmeh 'early morning'.

ʃanag 'one side'.

ħu:seh 'messy'.

ma:gad 'kitchen or an oven'.

ðˤəlʕ 'mountain'.

ðˤana 'own child' (the verb form *(ʔ)aðˤnat/eh* 'to give birth' is used as well).

ʃfa:jeh 'curiosity'.

ʁami:ðˤeh, *ħasa:feh/ ħsa:feh* (used to indicate 'regression').

jabdig 'to pay more attention to something'.

zaham 'to call'.

haga 'to think/hold an opinion of'.

dʒidaʕ 'to throw'.

ha:k/ha:ts, du:k/du:ts 'take (imperative)'.

(ʔ)arwedʒ 'do (it) quickly/come quickly (imperative)'.

jeddi 'to take something/somebody somewhere'—a shortened form of the verb (*jwaddi*).

Having provided an overview of the main characteristics of the traditional HA dialect, it is time to shed light on the current linguistic situation in the region and in Saudi Arabia in general, a task I undertake in the following section (2.3)

2.3 The emergence of a koineised variety in Saudi Arabia

Most sociolinguistic studies investigating the dialects spoken in Saudi Arabia indicate that there is a lack of a koine—of a standard Saudi dialect. Meanwhile, the Arabic dialects spoken in Damascus, Cairo, and Amman have acquired political, social and economic status in their respective countries. Miller (2004) states:

> "Since the early 20th century, the dialects of the main cities are often emerging as national or regional standards in both the Maghreb and the Middle East. In this respect they are competing with Modern Standard Arabic (MSA, Fuṣḥā) as prestigious norms in the Middle East."
>
> (Miller, 2004, p.180)

The lack of a standard dialect in Saudi Arabia is likely linked to the geopolitical situation before and after the unification of the kingdom of Saudi Arabia. Recalling that, before unification, the Arabian Peninsula was divided into different regions: Ḥejaz, Najd, 'Asīr and Jāzān, and Al-'Aḥsa. Each of these regions had different ruler or occupying force—e.g., Ḥejaz was ruled by the Ottoman Turks, and parts of the Najd were under the rule of the Āl- Rašīd. Under such disparate conditions, a unified standard dialect is unlikely to emerge.

After unification and the discovery of oil in Saudi Arabia, people experienced the benefits of living in a single, wealthy state; they were introduced to a unified administrative system, a modern health system, better educational system, and better transportation infrastructure. The urbanisation process accelerated quickly, causing huge social, cultural, economic and demographic changes, within individual families as well as across entire communities and regions, Such rapid urban growth, especially in large cities, encourages geographical mobility among people from different cultural and dialectal backgrounds. People in less urbanised areas often move temporarily or even permanently to those urbanised cities searching for a better quality of life.

Thus, one outcome of Saudi Arabia's growth was increased dialect contact. When speakers of different 'mutually intelligible' dialects come into frequent contact with one another, they may converge to each other's way of speaking. This convergence can be a gesture toward solidarity with other groups; mutual convergence appears in the case of mutual favourable attitudes. Such dialect convergence may result in the formation of an entirely new, unified norm—a common dialect, known as a 'koine'. Koineisation involves a number of linguistic processes: mixing, levelling, simplification and reallocation. Trudgill (2004) states:

> "…one of the consequences of dialect mixing is levelling in which minority forms, socially marked forms and linguistically marked forms are lost…"
>
> (Trudgill, 2004, p. 23).

The levelling process causes the koine to retain unmarked and more regular forms, while marked ones disappear. Additionally, new supra-local features emerge and are adopted by speakers over wider geographical areas (Williams & Kerswill, 1999). The spread of these supra-local forms to neighbouring areas and beyond can then create a regional standard (Al-Wer, 2014). Good examples of regional standard varieties in Arabic communities are the dialects spoken in the following urban centres: Amman, Cairo, Beirut and Damascus. In the

case of Saudi Arabia, no such regional standard dialect has been fully formed yet; however, recent studies suggest that a regional standard Saudi Arabic dialect is starting to emerge. Some of these studies are detailed below.

Al-Essa (2008) examined the speech of Najdi speakers living in Jeddah. Her study indicates that regional standard dialects are being formed. In particular, she found that some traditional Najdi features (e.g., the palatalisation of /k/ and /g/) are levelled out in favour of the Ḥejazi features. Moreover, her findings reveal that, over time, the western Ḥejaz regions would probably have a regional standard dialect different from the emerging one in central Najd, which is more associated with Riyadh. This koineised dialect is expected to be based on a dialect spoken in Urban Ḥejazi cities, primarily Jeddah. This view is supported by the findings of Al-Ghamdi (2013) on dialect contact in Mecca.

Al-Ghamdi (2013) investigated the changes that occurred in the speech of Ghamdi migrants (who migrated from Al-Baħa) in Mecca. She found that there is a levelling process in the speech of the Ghamdi people. Some of the traditional salient Ghamdi features (e.g., the diphthongs /ai/ and /aw/) have been abandoned in favour of Urban Ḥejazi Meccan features (monophthongs). Other linguistic features, such as interdental sounds, vary depending on the social factors investigated—i.e., most of the older Ghamdi speakers tend to preserve the Ghamdi features (interdentals), while the younger speakers are early adopters of the Meccan features (stops). Additionally, based on the trajectory of these linguistic changes, her study predicts the emergence of a pan-Saudi standard dialect in which most of the localised and marked linguistic features (of both varieties: Meccan and Ghamdi) are abandoned.

A related study, Hussain (2017), investigated the linguistic behaviour of two communities, one urban and one tribal/Bedouin, in the city of Al-Medina. When examining the realisation of /dʒ/, she found that the tribal/Bedouin speakers, especially the young

tribal/Bedouin speakers, favoured the Urban Ḥejazi variant [ʒ] more than the traditional variant [dʒ]. They were exposed to the target feature [ʒ] through their direct interaction with Urban Medini speakers, who are in close contact with Jeddah city community members, where [ʒ] is the default variant. This [dʒ], abandoned in Al-Medina, appears as the default sound in the emerging regional standard in central Najd region, associated with Riyadh. Thus, at least two different regional standard dialects may be emerging in the country: a western standard, based on the dialect of Jeddah, and a central standard, based on the levelled dialect of Riyadh.

Another study shows evidence of a third regional standard variety that may be emerging in the southern region, i.e., Abha. Al-Qahtani (2015) investigated variation and change in the dialect of Tihāmat Qaḥṭān, which is spoken in two isolated villages, Al-Jawwa and Al-Farša in the ‘Asīr Province. The patterns of variation she found in her study are influenced by social, spatial and linguistic variables. For example, a traditional linguistic feature, the ancient Arabic *dˤa:d* (lateral fricative [ɮˤ]), is levelled out in favour of the koine southern form [ðˤ].

Finally, it is worth noting that laypeople in Saudi Arabia seem to be conscious of the emergence of a common dialect or dialects in the country, which they call *ʔal-lahdʒah al-beːðˤa* ‘the neutral (lit. white) dialect’ (see Al-Ghamdi, 2013 and Al-Qahtani, 2015). The ‘White Dialect’ refers to a norm in which the localised features are levelled out. It is likely that the term *al-beːðˤa* ‘white’ is used in this expression as a metaphor for ‘pure’, ‘non-allied’, ‘acceptable’, ‘neutral’, etc. In this study, my participants are also aware of this norm. They only use this neutral dialect when speaking to someone from a different dialectal background. The lexical set of this ‘neutral’ dialect also involves some youth-specific/modern expressions and lexical borrowings from other languages, mainly English. The use of such neutral dialect may indicate that people in Saudi Arabia are aware of the differences in their local traditional dialects. Their frequent usage may also result in the emergence of unmarked and koineised Saudi dialect beside the regional koineised varieties within the kingdom of Saudi Arabia.

Chapter 3 Methodology and Data Collection

Introduction

Obtaining high-quality spoken data and finding a representative sample of speakers are two tasks that are crucial to investigating linguistic variation and change in any dialect. The methods used in obtaining the data should be carefully chosen and manipulated to suit the specific communities under investigation. This chapter presents a description of the methodology followed while conducting this research and explain how the data were collected and analysed. The chapter begins with a discussion of the sampling methods of the study §3.1 followed by an explanation of how I gained access to the community in §3.2. The linguistic data collection procedure and how the data were prepared for analysis are illustrated in §3.3 and §3.4, respectively. A description of the statistical software used to analyse the data is provided in §3.5. The social factors that are used to categorise the speakers in this work—age, gender and participant's level of contact—are examined in §3.6. An overview of the linguistic variables investigated in this study is given in §3.7.

3.1 Sampling methodology

Sociolinguistic studies are dependent on the effectiveness of the sampling methods. The sample has to be representative of a general population if one is to generalise the study's results to that population. The data must also be consistent from participant to participant in order for the statistical analyses of those data to be sound. There are several methods that can be used for selecting the participants of a sociolinguistic study, each of which has various advantages and disadvantages. Two of the most popular methods are random sampling and judgement sampling.

In his Lower East side survey in New York City, Labov (1966) pioneered the use of the random sampling method. He defined the population of interest for his work precisely and then took a random sample of it. The random sampling technique implies that every member of the population has an equal chance of being selected, i.e., in order to avoid sampling bias. However, this technique has some disadvantages. It is time-consuming and can be impractical (Bailey & Dyer, 1992). The method has also been criticized in that it does not necessarily result in a representative sample of the whole population, nor it is bias-free. This in turn affects the ability to obtain a balanced, well-stratified sample. For example, in his study, Labov (1966) excluded all non-native speakers of English[25]. Wolfram et al. (1968) also used the random sampling technique. They focused on African American speech in Detroit, an ethnically distinctive dialect. However, knowing that many African Americans also natively speak Standard English, they expanded the sample od the study to include European Americans, in order to have a comparison of the standard end of the dialect continuum. As Hoffman (2013) argues, while random sampling may be representative in a strict sense, it might not easily fulfil a project's goals with respect to certain demographic criteria (Hoffman, 2013, p. 31).

Due to the drawbacks of random sampling, "The judgment sample has become the standard operating procedure not only in dialectology but also in sociolinguistics." (ibid., p.3)". Quota or judgment sampling allows the researcher to select participants at his/her own discretion. In this sampling technique, the researcher identifies the size and type of sample required to answer his/her research questions, then searches the target population for participants to fit into pre-defined categories (e.g., age, gender, ethnicity and others). Milroy and Gordon (2003) write:

[25] Reasonably, given that he wished to describe the characteristics of native NYC English.

> "…quota samples rely on the investigator's judgment in determining the structure of the sample and even in selecting the subjects that fill the quotas. For this reason, the approach is often called judgment sampling."
>
> (Milroy and Gordon, 2003, p. 30).

Prior knowledge of the community under investigation is required to determine which social categories are relevant to the population under investigation. In many sociolinguistic studies, researchers who utilise the judgment sampling technique gain their knowledge either as members of the community who already have an insider's knowledge (as with Peter Trudgill in Norwich) or as participant observers who frequently visit the community before conducting their study (as with Penelope Eckert at Belton High School in Detroit).

In order to fill the quotas in the judgment sampling technique, researchers often make use of their own social networks as well as their participants' social networks within the community. This method is described using the metaphor of 'the snowball effect' and known as the 'friend of a friend' method (Milroy and Gordon, 2003). Researchers simply ask their participants to recommend other people to participate, especially those who fit the sampling criteria and are willing to participate. Those people can then identify other people, and so on (ibid., p. 32). This technique can help in locating larger numbers of participants. It may also reduce the probability that a nominated participant will refuse to participate (Hoffman, 2013, p. 32).

Accordingly, for the current study, I opted to use the judgement sampling method to select the participants from the speech community of Ha'il city. This approach was applied because Ha'il city has a well-established population with well-defined socio-cultural and dialectal characteristics. As Milroy (1987) suggests:

> "… in cities with a well-established population whose characteristics are definable on objectively specifiable dimensions, judgment sampling may be more appropriate for linguistic work."
>
> (Milroy, 1987, p. 27).

The number of speakers that must be included in the sample depends on the study's hypothesis, time limit, resources and the type of data needed. The more extra-linguistic factors are involved in the study, the more participants are required. According to Milroy (1987), it is not necessary to have a large number in a sample for conducting a linguistic survey (L. Milroy, 1987, p. 21). At the same time, it is inappropriate to make generalisations about the behaviours of a specific social category based on a single speaker—the data will not be robust enough (Hoffman, 2013, p. 31). Tagliamonte (2006), however, notes that "…it is better to design your sample to be smaller and better circumscribed than to end up with lots of data but not enough funds (or energy) to use it" (Tagliamonte, 2006, p. 33). Thus, most standards consider five speakers per specific social category ("cell") to be adequate (ibid., 2013, p. 30). In this study, I aimed to have five speakers per cell, but I was only able to obtain about four speakers per cell. Obtaining participants' approval to be recorded, especially from female speakers, was not an easy task. Although this sample size is not large, it is sufficient to run a multiple regression analysis (see Table 3.1 in §3.2).

3.2 The target community and participants

Since this study focuses on the HA dialect and how social factors (age, gender and level of contact with outsiders) may affect it, only native residents of Ha'il city were considered for participation in this study. That is, all participants were born and raised in Ha'il city.

Accessing the Community

Being a member of the Ha'il community myself helped me to gain access to research participants. I was born and raised in Ha'il city, and have been working there (except for a period spent studying abroad). My parents were born and raised in the city as well, and they still reside there. Therefore, I have extensive knowledge of the community. Also, being a native of the city allows me to understand everyday rapid conversation, which is essential for successful sociolinguistic investigation. Labov (1972) suggests:

> "The study of language in its social context can only be done when the language is 'known' in the sense that the investigator can understand rapid conversation."
>
> (Labov, 1972, p. 215).

According to Milroy (1987), "…the closer the fieldworker is matched to subjects in terms of various social attributes, the more successful he or she is likely to be." (L. Milroy, 1987, p.80). By these metrics, I am well suited to undertaking sociolinguistic research on this community.

Potential participants' residence information, their position in the community, occupation and education level were all considered. Such information helped me in choosing the sample for the current study. I relied mainly on my knowledge and that of my parents to obtain this information. If I did not already have this information, I asked the participants certain questions either directly or indirectly, or a third party offered it to me (i.e., a friend or a relative).

The task of recruiting target participants was facilitated in various ways. First, as my parents worked as teachers (they are now retired), they have social relationships with many other teachers and members of the community. Such relationships helped me in approaching participants from different age groups, especially adults of both genders. Second, my position as a lecturer at the University of Ha'il gave me the chance to access younger and middle-aged speakers, especially women. Third, by recruiting my cousins and my friend's brother, I had

access to male participants from different age groups, especially young men. Finally, I recruited participants from different age groups by visiting local schools, gathering places, local shops and offices.

The aimed sample is distributed over three age groups representing three different generations (younger, middle-aged and older), two genders (male, female), and two levels of contact with outsiders (low, high). Twelve cells were stratified in order to represent all the social categories specified in this study. Four participants are obtained per cell except for the female adult cell, which has three speakers. The distribution of the forty-seven native Ha'ili speakers who comprise my sample is shown below.

Table 3.1: The distribution of the sample of speakers

Age group	Level of Contact				Total
	High		Low		
	Male	Female	Male	Female	
Older	4	4	4	4	16
Middle-aged	4	3	4	4	15
Younger	4	4	4	4	16
					Total=47

3.3 Data collection

All data in this study is extracted from sociolinguistic interviews. This section describes how the interviews were conducted and the difficulties I faced while completing my fieldwork.

3.3.1 Social interviews

The traditional and most common approach of collecting sociolinguistic data is via sociolinguistic interviews. This approach was developed by Labov (1966, 1972, 2006) and other sociolinguists. It is relatively less structured and more flexible than a questionnaire; the researcher is able to initiate a free-flowing conversation and develop questions on the fly to keep the conversation going. This in turn increases the opportunity to obtain casual speech for

analysis, which is considered optimal for most sociolinguistic studies (Milroy and Gordon, 2003, p. 57).

While the sociolinguistic interview is a great tool for obtaining seemingly natural speech, the resulting data may be subject to the effect of the 'Observer's Paradox'. This notion was introduced by Labov (1972), who notes that "…the aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain this data by systematic observation." (Labov, 1972, p. 209). Therefore, He introduces some techniques that can reduce the influence of the researcher on the participant's linguistic behaviour (ibid.). For example, the interviewer can divert the speaker's attention away from the interview situation through breaks during the interview. The researcher can also engage the speakers in conversation about topics that provoke strong emotions, in which they may focus on narrating the stories and forget that they are interviewed. Labov (1972) argues that in answering a 'danger of death' question, the participant is:

> "… under some compulsion to show that there was a very real danger of his being killed; he stands in a very poor light if it appears that there was no actual danger. Often he becomes involved in the narration to the extent that he seems to be revealing the critical moment, and signs of emotional tension appear."
>
> (Labov, 1972, p.93).

Of course, Labov's choice to use the 'danger of death' question is community-specific; and what is appropriate in one society may not necessary be appropriate in another. In Trudgill's (1974) Norwich study, he asked his interviewees if they've been in a situation where they had a good laugh. This question was similarly designed to elicit un-self-conscious speech. Another technique involves recording participants while they are talking before and after the interview, or when they are talking to a third party (Labov, 1972).

In this study, I used sociolinguistic interviews to collect spontaneous speech data. My aims were to elicit relaxed, conversational speech and to reduce the Observer's Paradox. I tried

to interview the participants in a friendly environment. My status as a community insider also helped me minimize the possible effects of the Observer's Paradox. Whenever I did not know the participants personally, I was given a warm introduction to them through one of my relatives or mutual friends. Schilling (2013: 196) proposes that:

> "…we all feel more comfortable meeting people with whom we share an acquaintance or friend than we do meeting complete strangers, and often instant trust is conferred upon a new acquaintance when we know they are friends with a person we already know and trust."
>
> (Schilling, 2013 p. 192).

In all the conducted interviews, the participants were free to express their opinions, thoughts and criticism about any topic introduced to them, and even to choose the topic they want to discuss. In addition to a set of common topics used to elicit natural speech, I prepared questions about topics that I suspected would be of interest to the participants. For example, young female speakers spoke a lot about fashion, shopping, and make-up in addition to the topics related to their studies and the use of technology, especially social media and its latest products and applications. Young male speakers often talked about car racing and journeys with family or friends, plus their studies and work. Middle-aged female speakers preferred topics about the effects of technology on the younger generation, raising children and their growing demands, and some unforgettable memories from their childhood. On the other hand, older male and female speakers were delighted to talk about their daily routines in the past compared to the present, famous social activities and traditions peculiar to the Ha'il community. Moreover, I designed some other questions about relevant social, personal and demographic information, which helped me to fit the participants into the right social category, particularly their level of language contact. Extra caution was taken in asking such questions, as they might be viewed as inappropriate or impolite. These questions were distributed throughout the interview, inserted between topics where appropriate.

Regarding the length of the interview, there is a connection between the length of the interview and the purpose of the study. Milroy and Gordon (2003, p.58) mentioned a number of theorists' views on the appropriate length of interviews. They suggest that, in most cases, twenty to thirty minutes is enough to gain good phonological data, though longer interviews are needed for syntactic data. However, long interviews do not necessarily generate high-quality data. They may be considered time-consuming for both the researcher and the participants without much reward. Bearing this in mind, I collected an average of thirty minutes per speaker in order to provide enough tokens of the variables examined in the study.

The interviews were conducted in different settings and via different locations and modalities. I obtained the data either in face-to-face interviews or through phone interviews. Face-to-face interviews were conducted in my office at Ha'il University, in participants' houses, in local-shops, in schools and in workplaces. Some interviews were interrupted by mobile calls or by a third party (talking to the participants). These interruptions are actually considered valuable, since they divert the participant's attention from the interview and, in turn, provide very casual speech. In addition to my individual interviews, I conducted three group interviews, which involved two or more participants (older males, older females and younger females). We were all engaged in a conversation that I often started. Then, they continued the conversation by initiating whatever topics they wanted to discuss. Despite the fact that this type of interview is difficult to analyse, the group setting keeps the influence of the researcher to its minimum level and allows the participants to talk more freely amongst themselves.

Interviewing male speakers by myself as a female researcher was challenging in a conservative community such as Ha'il community. To overcome this challenge, I relied on my mother, two of my cousins as well as my friend's brother, who are all native speakers of HA, to access the target male participants. Face-to-face interviews were conducted in the presence of one of my close relatives and most often one of the participant's relatives in the agreed-upon

location, usually their houses or local shops. The face-to-face interviews seemed more appropriate for older male speakers, as they often have more free time, since most of them are retired or run their own business. Younger and middle-aged males, who are engaged in the public or private sectors as teachers, operators in telecommunications, administrators, and students, have less free time to offer. They are engaged in different responsibilities with their families, workplaces, and studies. Thus, telephone interviews were used for these groups. A total number of 12 telephone interviews (6 young males, 6 adult males) were conducted using my smart phone.

The purpose of these interviews was always explained to the participants before they agreed to interview. They generally knew that the interviews were conducted for linguistic purposes, although I also included comments to counterbalance the possibility that they might monitor their speech since they knew that I was interested in the way they spoke. For example, I told speakers that I was also interested in the social changes happening in Ha'il, local customs, and historical events in the region, which is true—these issues are relevant to the interpretation of the linguistic data.

3.3.2 Ethics

Before conducting the interviews, I explained to the participants that I was going to record them. I originally tried to obtain written consent at the beginning of each interview, but I soon realised that this method was going to work against my research by making participants very uncomfortable. Some of the participants took the issue of signing the consent form very seriously and refused to participate in the study; the use of a written consent form may be more appropriate in some cultures than in others. Thus, I abandoned the written forms and switched to obtaining approvals verbally. I explicitly asked each participant if they would permit me to record them for the purpose of the study. I also mentioned that any personal information given

in this study would be kept confidential and not revealed to anyone other than the researcher (myself). In addition, they were informed that they had the right to withdraw their consent at any time. This verbal consent session is recorded at the beginning of each interview.

3.3.3 Recording equipments

A digital voice recorder (Olympus LS-14) was used to record the interviews. In some cases, the built-in IPhone recorder was used as well. The Olympus LS-14 microphone system uses two directional microphones, which makes it easier to capture high quality sound than when using a normal digitalized recorder. Both instruments were easy to use. They provide different high quality audio file formats: WMA, MP3 and WAV. The LS-14 recorder was used most of the time for recording the interviews because it provides WAV files, which are compatible with most sound editors and sound file management systems. All the audio files were saved under pseudonyms in one secure (password protected) folder on my laptop.

3.3.4 Data collection challenges

As is true of any sociolinguistic study, some issues arose during data collection, in relation to the recorder and the participants. For example, a number of prearranged interviews were cancelled by the participants due to sudden or unexpected circumstances. Some speakers consented to participate in the study in the beginning, but later refused to participate for various reasons—e.g., their unwillingness to be recorded. Moreover, I conducted most of the interviews in quiet places, but we were sometimes interrupted by a student or a member of staff who entered the room asking me for something, or by a member of the participant's family who entered the room to serve tea or coffee (which may involve moving tables and changing palaces). Sometimes doors or windows were left open, which caused disruption for a while. Cell phones also caused interference when they were too close to the recorder. In such cases, I had to exclude the corrupted section of the audio files or even the whole audio file.

3.4 Preparing the data for analysis

Here, I describe how the recordings were prepared for analysis. Four phases of preparation were completed: data transcription, target token extraction for each variable, auditory analysis, and data coding.

3.4.1 Data transcription

Forty-seven interviews were transcribed for the purpose of analysis. Each recording lasted for no fewer than thirty minutes; hence, a total of about twenty-five hours of conversational speech data are analysed in this study. Generally, I used IPA symbols for transcribing the audio data. Each transcript was saved in a single Microsoft Word file. Any unclear parts of the recordings were disregarded. These transcript files were reviewed while listening to the recordings, and corrected where necessary.

3.4.2 Extracting target tokens

The target tokens for this study were those that were relevant to a given linguistic variable. Irrelevant tokens were not included. For example, when analysing the raising of the feminine ending *-ah*, words with the feminine ending in a genitive construction and those with feminine verbal suffix *-at* as [-eh] were excluded—e.g., *na:fðat alʁurfeh* 'the window of the room' and *dʒeh* 'she came (f. s.)'. Regarding the realisation of the feminine plural suffix *-a:t,* singular words with *-a:t* were omitted from analysis, as this study focuses only on the plural forms—e.g., *sˁała:t* 'a prayer'. Further information about the tokens and variables is presented in §4.6.1 and §5.5.1.

3.4.3 Auditory analysis

In order to examine phonological variation in the use of each variable, auditory judgments were used. The researcher began by listening and coding the variants impressionistically. Some

variables are treated as binary—e.g., the realisation of the feminine ending (ah) as either [a] or [e]; others have more than two variants and are treated as continuous—e.g., the realisations of the feminine plural suffix (a:t) as [t, h, j].

3.4.4 Coding

Forty-seven transcript files were coded and stored in separate Excel spreadsheets, which include both linguistic and social information. The advantage of using separate spreadsheets was to organize the coded information, manage the number of tokens per participant and facilitate locating certain tokens. After checking the tokens in each spreadsheet, they were grouped together in one spreadsheet and saved in *.csv* format (see Appendix C for the symbols used for coding the transcripts).

Due to the fact that high frequency tokens may distort the results of the statistical analysis, each lexical item could be represented in a maximum of three tokens per speaker. About 40 tokens were coded per speaker for the feminine ending variable (ah). For (a:t), the number of tokens range from 15-25 per speaker because this variable occurs less frequently than (ah). This is to complete a sound statistical analysis on each variable. Meyerhoff (2009) suggests that "…the most commonly-used quantitative tests generally require at least 20 tokens to produce reliable results." These 20 tokens are for every possible combination of social and linguistic factors (Meyerhoff, 2009, p.4).

3.5 Statistical software

Quantitative analysis of the collected data was done using the software program Rbrul (Johnson, 2009). This program provides easy ways to calculate variationist analyses. Rbrul provides step-up/step-down model runs for logistic and linear regressions (Tagliamonte, 2012,

p.139). Additionally, it allows the researcher to do cross-tabulation between different categories and identifies the most significant factor groups under investigation by displaying their p values.

3.6 The social factors

In sociolinguistics, it is well documented that linguistic variation correlates with social factors, including speakers' age, socio-economic class, gender, ethnicity and social networks. In this study, the target linguistic variables were collected and analysed in relation to three social variables: speaker age, gender, and level of contact with people from different dialectal backgrounds (inside and outside the community). In sections 3.6.1, 3.6.2 and 3.6.3, the social variables included in this study are explained in detail.

3.6.1 Age

As Milroy and Gordon (2003) write:

> "Age by itself has no explanatory value; it is only when examined in the context of its social significance as something reflecting differences in life experience that it becomes a useful analytical construct."
>
> (Milroy and Gordon, 2003, p.39).

Different life experiences may be revealed in the language use of different age groups. In sociolinguistic studies, age is also commonly used to investigate language change in apparent time.

There are two main methods for investigating language change: the *real-time* method and the *apparent-time* method (Milroy and Gordon, 2003). When using the real-time method, the researcher collects the linguistic features of a particular community at two sufficiently different points in time, and compares the findings to infer the linguistic changes that have

occurred over time. In conducting real-time studies, researchers may rely on historical records of the target language, which are used to gain information about the language state at an earlier point in time, or they may return to the community and replicate an earlier investigation. There are a number sociolinguistic studies that have used this method—e.g., Labov's (1996) famous Department Store study in New York has been replicated a number of times (e.g., Mather, 2012), as has his Martha's Vineyard study (Josey, 2003). Also, in his Martha's Vineyard study, Labov (1963) compares his findings with data collected for the Linguistic Atlas of New England in 1933. There are two types of *real-time* studies: *panel study* where the researcher re-investigates the same population studied in the first study. This type is not practical because obtaining the exact population is not guaranteed as some of them may have moved or passed away. The second type is *trend study*, where the researcher locates a population similar to the original one and replicates the original study, after a period of time, using precisely the same settings of data collection and analysis. Using this method, however, is problematic, as significant changes might have occurred in the community in the intervening period, e.g. migration. A common drawback of using the real time method is that it is not feasible and can cost a lot of money. Therefore, most studies in sociolinguistics follow the apparent-time method.

The apparent-time approach relies on studying linguistic variation and change across generations of the same community at a single point in time, usually the present. The change in the frequency of using certain linguistic features by different generations in the speech community can be interpreted as change in progress (Tagliamonte, 2012, p.43). In other words, the differences between the older and younger generations are taken as indications that change has occurred. The main advantage of the apparent-time approach is that "…one can study results immediately rather than waiting for 20 years or so to see what happens." (Trudgill 1988, p.34). Nevertheless, sociolinguists caution that such generational linguistic differences are not

always proof of change since the differences in the behaviour between different generations can be due to age-grading; speakers of different ages may use certain variants at certain stages in their life and then abandon these variants as they move to another stage. That is, as they grow older, speakers may begin to use language "…appropriate to their age group"(Wardhaugh, 2006, p. 196). The abandoned variants are age-specific features, which are not diffused to the next generation. In his definition, Labov (1994) claimed that in age grading, the change in the linguistic behaviour occurs to individuals throughout their lifetime but not to the community as a whole (Labov, 1994, p. 83). Most cases of age-graded changes seem to be associated with adolescence and childhood (Milroy and Gordon, 2003, p.36). Adolescents' slang expressions are typically cited as examples of age-graded features.

For the purpose of examining age and apparent changes in progress in this study, speakers were classified in different age groups following Eckert (1997) who used the life-stage model (childhood, adolescence and adulthood) to classify her speakers. My participants were classified into three age groups that represent the three different generations of the Ha'il community. The first age group consists of men and women aged 66 years and older. This age range was chosen because it represents the generation prior to the socio-economic growth associated with the discovery of oil in 1938. These individuals lived tough lives relying on the local economy (mainly simple trading and farming). These participants fostered strong social ties as a way of coping with the hardship. At the time I was conducting this research, most of them were unemployed (especially the women), retired or running their own businesses locally (mostly men). The second age group ranges from 35-60 years of age; it represents the generation that grew up during relative economic prosperity and easier social mobility. These speakers are all educated and employed, or very recently retired. The third generation is young adults, aged between 18 and 29 years old. They were born and raised in an era of social stability and economic prosperity. As was stated earlier, the city itself has experienced expansion at all

levels, which attracted employees from all over the country, and abroad. The improved health provisions also meant that the city became home to a class of professionals. The improved transportation system and opening of a local airport meant that travel between Ha'il and other cities became considerably faster and easier. The speakers from the third generation were influenced by all of these changes; the assumption is that they are considerably more mobile, and have wider and more varied social networks in general. This 18-29 year-old group is mostly comprised of students at the university and those who are working their first jobs in different fields.

The distribution of speakers by age is displayed in Table (3.2) below.

Table 3.2: Distribution of the sample by age.

Age group	Younger	Middle-aged	Older	Total
	18-29	35-60	66+	
Number of speakers	16	15	16	47

Although, linguistic behaviour can usually be predicted throughout speakers' life, there are other factors that may affect their speech; gender is a case in point.

3.6.2 Gender

Gender has been proven to be an important factor in studies of linguistic variation and change. Early sociolinguistic studies, conducted mostly in Western communities, suggested that there are certain gender-specific linguistic patterns that can be generalised. For example, women tend to prefer socially prestigious linguistic forms, which sometimes coincide with 'standard forms'. In an important reformulation of this pattern, Milroy et al. (1991) suggests that women prefer supra-local linguistic features while men are more likely to use localised features. Labov (1990, pp. 210-15, 2001) puts forth specific principles concerning gender and language change, which have been formulated on the basis of sociolinguistic research spanning three decades:

> *Principle I a: In stable variables, men use a higher frequency of non-standard forms than women.*
>
> *Principle I b: In change from above, women favour the incoming prestige form more than men.*
>
> *Principle II: In cases of change from below, women are most often the innovators.*

Put together, these principles suggest that women lead the linguistic change.

In Arab communities, early research findings seemed to suggest that the opposite was true in Arabic—that men were more likely to use 'standard' linguistic features than women. It is now accepted that these early interpretations were erroneous, and that the pattern regarding gender and variation in Arabic is similar to that found in Western societies. Furthermore, Ibrahim (1986, p.115) points out that standard and prestigious varieties of a language do not always coincide, especially in the context of Arabic. Haeri (1987) suggests that the closest parallel to a 'Western standard variety' is not Classical Arabic but the modern standardised urban varieties of Arabic, which seem to function as 'the prestigious varieties'. Arab women use features of these varieties more consistently; for example, they use the glottal stop variant [ʔ] of /q/ in Amman (Al-Wer, 2007). Furthermore, Al-Wer (1997) proposes that the formal standard (Standard Arabic or Classical Arabic) is not involved in mechanisms of variation and change in vernacular Arabic. She states:

> "The status and utility of CA [Classical Arabic, viz. the formal standard] is quite different from, and should not be confused with, the social evaluation and function of the standard varieties of modern European languages."
>
> (Al-Wer, 1997, p. 255).

Chambers (1995) suggests that although the socio-cultural aspects of Western and Eastern societies are different, their sociolinguistic behaviour seems identical. However, Milroy and Gordon (2003) caution against making generalisations across societies that are very culturally different. The study of linguistic behaviour as it correlates with gender clearly requires an understanding of the local context in which the speech is produced.

Al-Essa (2008) examined gender as a social factor in her study on Najdi speakers in Jeddah. Women are well represented in her study. She finds that female Najdi speakers use more Urban Ḥejazi variants than male Najdi speakers. Al-Ghamdi (2013) examined the role of gender as a social factor in the linguistic behaviour of Ghamdi speakers in Mecca. She found that female speakers, especially younger women, use the target Meccan forms more consistently than their male counterparts. Al-Qahtani (2015) used gender as social variable in her study which investigates variation and change in the dialect of Tihamat Qahtan (as spoken in two isolated villages). She found clear gender correlations. In the older generation, female speakers appear more conservative than their male counterparts, but the pattern is reversed in the case of the younger generation.

Exploring gender differences in the Ha'il community is crucial in this study. I relied on available social information as well as my own knowledge to understand the social structure and roles of men and women in Ha'il. Women's role in Ha'il society is similar to the role of women in most Arabian communities. Ha'ili women are more associated with family responsibilities than men. Ha'ili women who hold jobs must juggle their job responsibilities with what is considered their principal role in the society, i.e. bearing children and looking after their families. On the other hand, the men are expected to have a monopoly over public spaces. In reality, gender and age interact; thus, we find that while older women in the Ha'il community do spend more time at home, younger women have more mobile and more flexible lifestyles. Due to these differences, it is expected that gender will have some impact on the realisations of the variables under study. This study includes 24 male and 23 female participants.

3.6.3 Contact as a social variable

Contact through face-to-face interaction is considered the main cause of language change. Linguistic innovations are diffused as people interact with each other; thus, contact, linguistic diversity and mobility (social, occupational and geographical/spatial) are interrelated. Chambers (1995) argues that geographical proximity is not enough for mutual linguistic influence to happen, but that linguistic influence is more likely to occur through informal interactions between friends, neighbours, workmates and the like—as opposed to formal interactions between some teachers and students, or in a workplace between the manager and their employees. Trudgill[26] (1986) suggested that face-to-face interaction between two speakers of different but mutually intelligible dialects actuates linguistic change in a speech community.

Linguistic accommodation between speakers can take the form of either divergence or convergence. Individuals often accommodate linguistically to each other for different reasons, mainly to sound alike and gain approval from their interlocutors. On the other hand, in similar settings, individuals might insist on using their own variety in order to diverge from their interlocutors or to show disapproval.

According to Kerswill (2002), long-term accommodation is a result of the cumulative effect of countless acts of short-term accommodation in certain communication settings. Trudgill (1986) proposes that long-term accommodation is considered a useful tool to interpret the linguistic change in dialect contact settings. Labov (2001) points out the importance of the density of interaction for linguistic change. He states that:

[26] Trudgill (1986) adapted speech accommodation theory from a psychologist named Howard Giles (1973) to explain this phenomenon.

> "The principle of density implicitly asserts that we do not have to search for a motivating force behind the diffusion of a linguistic change, the effect is mechanical and an inevitable one; the implicit assumption is that social evaluation and attitudes play a minor role."
>
> (Labov, 2001, p. 20).

In dialect contact settings, some linguistic features are more likely to be adopted or accommodated to by speakers than others. Trudgill (1986) discusses the importance of 'salience', and suggests that salient features are accommodated to first[27]. At the same time, however, he asserts that 'extra-strong' associations, as in the case of variables that are referred to by Labov (1972) as 'stereotypes', may delay or even prevent accommodation (see also Al-Wer, 1991).

Due to widespread population mobility, internal and transnational migrations, urbanisation, industrialisation, and the gentrification of rural areas/small towns, communities are becoming more and more heterogeneous. Social networks that were once closed, tight-knit, and highly-localised are now loosened and open to outside influences. Speakers' linguistic behaviours change as the social milieu changes. There are several studies that demonstrated the influence of social contact on language use (e.g., Jabeur, 1987; Al-Wer, 2007; Al-Essa, 2008; Horesh, 2014). Following suit, the HA dialect appears to experience linguistic change as a consequence of its speakers' exposure to other varieties of Arabic via face-to-face interactions.

One of this study's hypotheses is that the higher the level of contact of a Ha'ili speaker with people from different dialectal background, the more innovative features they will use. Thus, a mechanism is needed to measure speakers' level of dialect contact. I devised an index

[27] Kerswill and Williams (2002) critique Trudgill's criteria for determining the salience of a variable, pointing out the importance of considering extra-linguistic factors in determining the salience of a linguistic feature (Kerswill and Williams, 2002, pp. 31-35).

to measure this variable, which is a modification of Al-Essa's (2008) index to suits the Ha'il community. The contact index consists of five criteria:

1. Family (a member of the family is non-Ha'ili, marriage to an outsider)
2. Friends and neighbours (close relationships with non-Ha'ili friends/ neighbours)
3. Education (study outside Hail city)
4. Work (informal interactions with non-Haili colleagues)
5. Travel outside the city (frequently/regularly for different purposes, such as family visits and medical appointments.)

Each criterion includes two indicators, and each indicator is assigned 1 or 0 points. For example, the Work Criterion would be applied as follows:

1. A speaker interacts formally with his/her non-Ha'ili colleagues in their mixed workplace (i.e. includes speakers from different cultural, social and dialectal backgrounds, etc.) (Score = 0).
2. A speaker interacts informally with his/her non-Ha'ili colleagues in their mixed workplace (i.e. includes speakers from different cultural, social and dialectal backgrounds, etc.) (Score = 1).

The highest possible contact score achieved by a participant in this study is 4, while the lowest is 1. None of the participants scored 0, as all of them have some degree of contact with non-Ha'ili people. After scoring was complete, I grouped those with 1s and 2s into a "Low Level" contact group, and those with 3s and 4s into a "High Level" contact group.

The information used to assess these criteria was obtained by asking participants certain direct and indirect questions during the interviews. Examples of the questions I asked are illustrated below:

- Do you have non-Ha'ili relatives?
- Do you have relatives who are living outside the community? How often do you visit them?
- Where do you work? Do you socialise with your workmates?
- Do you travel? How often and for what purpose?
- Have you spent periods of time outside the city? Why?

- Where did/do you study? In Ha'il city, elsewhere in the country or abroad?
- Do you have friends from outside the community? How often do you socialise with them?

In some cases, I did not ask these questions, as I had already obtained the information during the interview or before the interview (based on prior knowledge about the speaker). The Table (4.4) below shows the distribution of speakers according to their contact level scores.

Table 3.3: Speakers' distribution by level of contact

	Index	Number of speakers	Total
High level of contact	Score 3-4	23	
Low level of contact	Score 2-1	24	
Zero level of contact	Score 0	None	47

3.7 The linguistic variables

This study examines two linguistic variables:

3.7.1 The realisation of the feminine ending (ah)

Unconditional raising of the feminine ending *-ah* in pre-pausal position is a typical feature of the HA dialect. In the traditional HA dialect, /a/ in the feminine ending *-ah* is raised unconditionally from /a/ to /ɛ/ or even /e/ (here, [e] stands for all forms of raising). Variation in this feature involves *lowering* of the traditional /e/ or /ɛ/ ([e]) to the innovative /a/ or /ɑ/ ([a]), which is considered a feature of the supra-local variety (spoken in Riyadh). Thus, the (ah) variable has two variants local [e] and supra-local (innovative)[a]. Some examples from the data are listed below:

dagłeh hindijjeh 'an Indian dress'

kil waħdeh ma:ske dʒawwa:lah 'each one is holding her mobile '

ib ʃiggeh fo:gana 'in a flat on the top floor'

ga:Ru:Reh ‘a bottle’

3.7.2 The realisation of the feminine plural suffix (a:t)

In the traditional HA dialect, the /t/ in the feminine plural suffix *-a:t* is lenited to /h/ or /j/ in pausal position or when it is followed by a word beginning with consonant. Variation in the variable (a:t) involves replacement of the lenited variants [a:h] or [a:j] the traditional and local forms by [a:t] the koineised and the supra-local one, i.e. change from lenition to fortition. Consider the following examples below:

θema:n bana:j# ‘eight girls’

ma:hin ʁa:lja:h ʕala χamseh ‘they are not expensive, they cost five (riyals) (f. pl.)’

wa:gfa:j# ‘standing (f. pl.)’

bana:t alma:niʕ ‘girls of the Almane' family’

Detailed explanations and historical developments of these two features are provided in chapters 4 & 5, respectively.

Chapter 4 The realisation of the feminine ending (ah)

Introduction

Sibawaih, in his famous book *ʔal-Kita:b* (1988), noted a variation in the phonetic value of vowels in Arabic. Among the linguistic processes that might cause such variation are: *imala* 'inclination/ raising', *tafχi:m* 'emphasis/ backing', and *ʔitba:ʕ* 'vocalic harmony'. This chapter focuses on the *imala* process, which is found in the feminine ending *ha:ʔ ʔattaʔni:θ*, corresponding to *ʔatta:ʔ ʔalmarbu:tˁah* in the pausal position, one of the traditional features in the HA dialect.

Before investigating the realisation of the feminine ending (ah) in HA, a general overview of the process of raising '*imala'* is provided in § 4.1, followed by the factors conditioning the occurrence of *imala* in § 4.2. The reflexes of *imala* in modern Arabic dialects are given in § 4.3. The raising of the feminine ending -*ah*, as a type of *imala*, is described in § 4.4, followed by a review of some related sociolinguistic studies which were conducted in Arabic-speaking communities § 4.5. As a variable of the current study, the feminine ending (ah) in HA is described and statistically analysed in § 4.6. A discussion of the main findings including the relationship between the linguistic variable and the linguistic and social constraints is given in §4.7 and § 4.8. The chapter ends with an overall summary of the main findings § 4.9.

4.1 *Imala* (Raising)

Imala is a linguistic phenomenon found in some ancient and modern Arabic dialects within the Arabian Peninsula and beyond. This feature was found in the speech of some tribes who settled in Najd and eastern part of the Arabian Peninsula as well as those who moved northward to the southern part of Iraq and Al-Basra, e.g. Tamīm, 'Asad, Banu-Baker and Qais tribes. The

dialects that exhibit the *imala* feature are classified as Bedouin as opposed to sedentary dialects (some Ḥejazi dialects) which do not have this feature (Al-Rajhi, 1998). Several medieval Arab grammarians such as Sibawaih, Ibn-Al-Sarrāǧ, Al-Zamaxšari, Ibn-Ya'īš and Ibn-Jinni discussed this feature. The term *imala,*[28] used in modern Arabic studies, was coined by Sibawaih who described it as "a type of assimilation (*ʔidʁa:m*), comparing it to assimilation of one consonant to another in terms of voicing or emphasis. The long /a:/ is assimilated by a following or preceding /i/." (Owens, 2006, p. 197). Sibawaih did not give a formal definition of *imala*, but he explained it as " an inclination of the tongue in which the phonetic configuration of /a:/ is made to resemble and approach that of /i:/", under the influence of an /i/ type vowel in the neighbouring syllable (ibid., pp. 197–198). Ibn-Al-Sarrāǧ defined the *imala* process as:

> *"maʕna l-ʔima:lati ʔan tumi:la l-ʔalifa naħwa l-ja:ʔi w al-fatħata naħwa l-kasrati."*
> "the term *imala* is that you incline the *ʔalif* /a:/ in the direction of the *ya:ʔ* /i:, j/, and the *fatħah* 'front open vowel' /a/ in the direction of the *kassrah* 'front close vowel' /i/"
>
> (Levin, 1992, p.74).

Thus, the term *imala* denotes the raising and fronting of /a/ or /a:/ to be closer to /i/ and /i:/ in the vicinity of /i/-type vowels[29]. This process can be attributed to human tendency to achieve ease of articulation and economy of effort (Al-Nassir, 1985, p. 161).

Degrees of *imala*

In spite of his explanation of the process of *imala*, Sibawaih did not provide a precise description of the phonetic quality of the inclined/raised vowel. He pointed out that /a:/ and /a/ vowels can be inclined but without a complete shift to /i:/ or /i/, respectively (ibid.). This uncertainty about the quality of the inclined vowel may be attributed to the fact that the process

[28] *Imala,* as a lexical term, is derived from *majl* 'inclination, shift'. It is a process by which a sound shifts phonetically toward another, i.e. /a/ shifts toward /e/.
[29] Although the term *imala* refers to the inclination of both long /a:/ and short /a/, some Arab medival grammarians such as Sibawaih referred to the *imala* of /a/ only when it occurs in the vicinity of /r/ (Levin, 1992).

of *imala* was not homogeneous in all dialects in his time, or due to the lack of a clear/advanced system for phonetic description. Accordingly, one cannot determine the exact vowel quality to which he referred nor judge whether it was closer to /i, i:/ or /e, e:/ in the 8th and 9th centuries. Some grammarians, including Ibn-Jinni and Ibn-Ya'īš, claimed that the quality of the raised long vowel is somewhere between /a:/ and /i:/, which in turn implies that this vowel might be /e:/ in most dialects (Levin, 1992, p. 76).

Since the phonetic quality of the raised vowel can be pronounced somewhere between /i, i:/ and /a, a:/, *imala* can be classified as *ʃadi:dah* /e:/ 'heavy' or *χafi:fah* or *bajn bajn* /ɛ:/ 'light' (Al-Fozan, 1989, p. 213). Al-Nassir (1985) claims that the inclined vowel can be pronounced somewhere between the cardinal vowels /e:, e/ and /ɛ:, ɛ/ (Al-Nassir, 1985, p. 161). However, according to Owens (2006), the phonetic realisation of the inclined vowel can be understood as a high falling diphthong: "the tongue begins in the position of [i] and moves towards [a] under the influence of an [i] in a neighbouring syllable" (Owens, 2006, p.199), i.e. in addition to [e:], /a:/ can be realised as either [ie] or [ia]. He proposes that [ie] is the phonetic variant of *imala* assumed by Sibawaih, which may either remains as it is or is monophthongised to [e:] or [i:] in modern dialects (ibid.).

**For convenience in referring to raised vowels, this study is using the phonetic symbols [e:] and [e] to refer to the allophonic variants of /a:/ and /a/, respectively.

4.2 Factors conditioning the *imala* process

Because the *imala* process was not a consistent in the speech of Arabs in his time, Sibawaih pointed out that the occurrence of *imala* may denote a dialectal variation even when the phonetic environment is the same (ibid., 1985, p. 161). Ibn-Ya'īš claimed that "the circumstances of *imala* make it optional and not compulsory … so all sounds occurring in

imala conditions may be pronounced without *imala*" (as cited in Al-Fozan, 1989, p. 214). Similarly, Solomon (2007) gave an interpretation of what Sibawaih proposed about the use of *imala* in the following way:

> "…not everyone who inclines the *ʔalifa:t* /a:/ agrees with the other Arabs who incline. Rather, each member of the group may differ from his colleague so that someone *jansˁub* 'erects' what his colleague *jumi:l* 'inclines', and *jumi:l* some others that his colleague *jansˁub*"
>
> (Solomon, 2007, p. 42).

Furthermore, Sibawaih referred to some Arabs who may incline the vowel regardless of the phonological environment, whether or not it promotes raising. He described them as *man la: juʔχaðu biluʁatihi*, 'whose dialect cannot be considered as a good or proper Arabic' (Levin, 1992, p. 76).

In general, *imala* may occur in both medial and final positions. It is phonologically conditioned by the occurrence of /i/ or /i:/ in the neighbouring syllable. The direction of the influence of these high vowels may be regressive or progressive. The influence of high front vowel /i/, preceding /a/ or /a:/ in a word, is greater than that of the following one (Al-Fozan, 1989, p. 217).

The following sub-sections (4.2.1 to 4.2.4) provide a brief explanation of the *imala* process (and its conditioning factors) of both /a:/ and /a/ in medial and final positions.

4.2.1 *Imala* in medial position

According to Sibawaih, there are three types of medial *imala*. Here, I adopted Levin's (1992) classifications of the medial *imala* in more details.

- ***Medial imala.***
  Medial *imala* is conditioned by the vocalic environment of medial /a:/, i.e. in the vicinity of /i/-type of vowels either in the preceding or following syllable. When /i/ occurs before /a:/, the /a:/ is raised to /e:/, e.g. *ʕima:d* > *ʕime:d* '*ʕima:d* (a proper name)'. More than one segment may separate the /i/ and /a:/ as in *ʃimla:l* > *ʃimle:l*

'small amount' and *ʔinsa:n* > *ʔinse:n* 'human being'. When /i/ comes after /a:/, the /a:/ is inclined to /e:/, such as *ʕa:lim* > *ʕe:lim* 'a specialist, a scientist' and *ʕa:bid* > *ʕe:bid* 'a worshipper'. In most cases, only one segment is allowed to intervene between /i/ and /a:/. With respect to short /a/, no examples of the raised vowel were reported in the same context.

Medial imala can also occur as a result of the genitive case, in which the syllable following /a:/ has /i/ (the genitive marker) as in *fi: anna:ri* > *fi: anne:ri* 'in the hellfire'. According to Sibawaih, since this /i/ is inflectional and changes according to the grammatical case, *imala* is less likely to occur in this position. This inflectional /i/ is 'weaker' than the radical 'internal' /i/, which does not change with the grammatical case and remains the same in the nominative, accusative, and genitive cases (e.g. *ʕa:bidun, ʕa:bidan, ʕa:bidin* 'a worshipper') .

Vowel /a:/ may undergo *imala* in the vicinity of '*ya:ʔ*' (either semi-vowel /j/ or the pure radical long vowel /i:/). Arabic grammarians and scholars of *Tajwi:d*[30] claimed that a preceding /j/ may induce *imala* in /a:/. This /j/ can occur in contiguity with /a:/, as in *baja:n* > *baje:n* 'statement', or when /j/ and /a:/ are separated by one segment, as in *ʃajba:n* > *ʃajbe:n* '*ʃajbe:n* (proper noun)', or by two segments, as in *ħajawa:n* > *ħajawe:n* 'an animal'. Furthermore, /a:/ can be inclined to /e:/ after geminate /j/; for example, *bajja:ʕ* > *bajje:ʕ* 'a salesman', in which the first /j/ induces *imala* while the second /j/ is considered an intervening segment (Al-Nassir, 1985, p. 167).

In the vicinity of radical vowel /i:/, /a:/ is inclined to /e:/. Sibawaih cited examples of raised long vowels but not short ones in this context (ibid., p. 165). The influence of long /i:/ on the inclination process is greater than that of short /i/ and semi-vowel /j/ (Al-Fozan, 1989, p. 221). The vowels /i:/ and /a:/ can be separated by one or two segments, e.g. *di:ba:dʒ* > *di:be:dʒ* 'silk brocade' and *dʒawa:ri:r* > *dʒawe:ri:r* 'drawers'.[31] The given examples clearly demonstrate that /i:/ can occur either preceding or following /a:/.

Additionally, /a:/ can be raised due to the frequency of usage. There are certain words in which /a:/ is inclined to /e:/ even though there is no phonetic environment that induces *imala* (i.e. without /i/ or /i:/ in the neighbouring syllable). Sibawaih considered

[30] It refers to a set of rules governing the way in which the words of the Qur'an should be pronounced during its recitation.

[31] In this example, short /a/ is supposed to be inclined under the influence of the *imala* process that occurred in /a:/, but the /w/ between the two vowels blocks the raising process (Al-Nassir,1985, p. 165).

these cases as *ʃa:ð* 'non-analogous and irregular', for example *na:s* > *ne:s* 'people' and *ʔalħadʒdʒa:dʒ* > *ʔalħadʒdʒe:dʒ* '*ʔalħadʒdʒe:dʒ* (proper noun)' (Levin, 1992, p. 78).

When there is no /i/-type of vowel in the surface structure, the underlying structure of the word is taken into consideration because it may affect the occurrence of *imala*. Thus, /a:/ can be a reflex of underlying /j/ or /w/ (in triliteral root forms), and this type of *imala* can occur in the medial or final position and in both nouns and verbs.

- **Medial *imala* in prefect verb forms**

  Medial *imala* is conditioned when a weak medial 'hollow' verb has /i/ in the paradigm. It occurs in verbs (in the perfect tense) when the initial syllable in the first and second person forms have /i/. This type of *imala* can occur even in an inhibiting environment, such as adjacent to an emphatic or back consonant, e.g. *tˁjb* (root), *tˁibt(u)/ tˁibt(a)* (1st and 2nd person singular, respectively), *tˁa:ba* > *tˁe:ba* 'became good' and *χwf* (root), *χift(u)/ χift(a)*, *χa:fa* > *χe:fa* 'he was afraid'. According to Sibawaih, *imala* does not occur if the verb has /w/ in the underlying structure and the initial syllable in the first and second person verb forms contains /u/, such as in *qwl* (root), *qultu/ qult*, *qa:la* > **qe:la* 'he said' and *dwr* (root), *durt(u)/ durt(a)*, *da:ra* > **de:ra* 'he turned' (Al-Nassir, 1985, p. 169).

- **Medial *imala* in nouns**

  When medial *imala* occurs in weak medial nouns, i.e. nouns that have either medial /ʔ, a:/, /w/, or /j/ in the underlying structure. When the neighbouring syllable contains no elevated consonants[32], /a:/ is inclined in the vicinity of front consonants, such as *mwl* (root) *ma:l* > *me:l* 'money', and *bwb* (root) *ba:b* > *be:b* 'door'. In contrast, in *swq* (root), *sa:q* 'leg' and *ʁjb* (root) ʁa:b 'forest', *imala* is blocked by the elevated consonants. These types of nouns are described by Sibawaih as 'exceptional nouns' (Owens, 2006, p. 202).

4.2.2 *Imala* in final position.

Raising final /a:/ was known, in Sibawaih's time, as a feature of the Iraqi dialect. It is not usually conditioned by the vocalic environment, i.e. by the presence of /i:/ or /i/ in the syllable

[32] They include emphatic and guttural consonants /χ, ʁ, q, sˁ, tˁ, dˁ, ðˁ/.

preceding /a:/. Final /a:/ is inclined to /e:/ only in the pausal position and when it does not occur in connected speech. Sibawaih suggested that this process may lead to pronouncing /a:/ as /ej/ rather than /e:/, as in *ʔafʕa:* > *ʔafʕe:* or *ʔafʕej* 'sneak'. He proposed that inclined /a:/, in pause, would be more conspicuous (*ʔabjan*) if it was realised with semi-vowel /j/. Schane (1973) held the view that /ej/ in *ʔafʕej* is a result of two phonetic processes. First, an inclination of /a:/ to /e:/, and second, the diphthongisation of /e:/ to /ej/ due to its final position (as cited in Al-Nassir, 1985, p. 165).

Generally speaking, final /a:/ can be inclined to /e:/ in the environment of /j/, /i:/, and /i/ in verb and noun forms. Further description of the conditions of raising of final /a:/ are provided in the following points:

- ***Augmentative segment.***
  When the final /a:/ is a part of an augmentative segment in quadrilateral nouns (either appended or used as a feminine marker), *imala* may occur, as in *ħubla:* > *ħuble*: 'pregnant', and *miʕza:* > *miʕze*: 'a goat'. Some grammarians claim that the inclination here is due to the similarity between the *ʔalif* Al-*Maqsˁu:rah* /a:/ in these examples and the /a:/ which is converted from /j/ in other examples, e.g. *alhuda:* > *alhude:* 'right path/ true religion' from the root *hdj* and *fata:* > *fate:* 'young man' from the root *ftj*, and in verbs as in *rama:* > *rame:* 'throw' from the root *rmj* (Ibn-Al-Jazri, no date, p. 34-5).

- ***Surface reflex of /w/***
  When /a:/ is a surface reflex of underlying /w/, in the final position of a triliteral root form, it is pronounced with *imala* in verbs such as: *ʁaza:* > *ʁaze:* 'invaded' from the root *ʁzw*, but in triliteral nouns, final /a:/ is not inclined to /e:/ as in *ʕasˁa:* 'a stick' from the root *ʕsˁw* and *qafa:* 'back' from the root *qfw*. However, there are some other nouns where /a:/ is inclined to /e:/, as in *ʔal ʕula:* > *ʔal ʕule:* 'dignity' from the root *ʕlw*, and *ʔar-riba:* > *ʔar-ribe:* 'usury' from the root *rbw*. Sibawaih assumed that the underling /w/ in the final position is weak and it is prone to change into /j/, especially when the surface form derivation has three consonants or more, e.g. in *ʔal ʕulja:* (singular form of *ʔal ʕula*:); here, /a:/ can undergo *imala* as in *ʔal ʕulje:*. Final /a:/, also, is raised to /e:/ in quadrilateral nouns no matter whether /a:/ is converted from /w/ or /j/ because

commonly in dual or plural forms, /a:/ is replaced by /j/ e.g. *masʕa:* > *masʕe:* (Plural form: *masa:ʕj*, and Dual form: *masʕaja:n*) 'efforts'.

- ***Nunation marker*** **(in the accusative form)**

  Final /a:/, which is a substitution for nunation, or '*tanwi:n*', in the pausal position, is pronounced with *imala* when it is preceded by either /j/, /i/, or /i:/, e.g. *raʔajtu zajda:* > *raʔajtu zajde:* 'I saw Zayd' and *darastu ʕilma:* > *darastu ʕilme*: 'I gained knowledge'. This /a:/ is not inclined when there are no /i/-type vowels in the neighbouring syllable, e.g. *hamsa:* 'whisper' and *kawkaba:* 'a planet'. Sibawaih considered the nunation, which is realised in Arabic as 'alif with diacritic ' اً ', to be long /a:/. In connected speech, such as *jadan kabi:rah* > *jaden kabi:reh* 'a big hand' or *ʕilman na:fiʕ* > *ʕilmen ne:fiʕ* 'good knowledge', /an/ is treated as long /a:/ due to the influence of their written form in Arabic (يداً and علماً).

- ***Suffixed to a construct***

  Final /a:/, in the object suffix of the 3rd f. s. -*ha:* is inclined to /e:/ when the word is in an accusative form as in *jadʿribha:* > *jadʿribhe:* 'he beats her', and in the genitive/ possessive pronoun suffix of the 1st plural -*na:* is also inclined, such as in *fi:na:* > *fi:ne:* 'in us' and *ʕalajna:* > *ʕalajne:* 'on us'. According to Sibawaih, final /a:/ in this condition is inclined in pausal position but not in connected speech, e.g. ina *minna: zajdun* 'Zayd is one of us' (Al-Nassir, 1985, pp. 164–165).

- ***Particles and indeclinable nouns.***

  Imala does not regularly occur in particles and indeclinable nouns; yet, they can be pronounced with *imala*. In particles, /a:/ is rarely inclined to /e:/, such as: *la:* > *le:* 'no', *bala:* > *bale:* 'yes', and *ja:* > *je:* 'O'. Regarding the demonstrative noun *ða:* and adverbs of time *mata:* 'when' and *ʔanna:* 'when', /a/ can be raised to /e:/ as in *ðe:*, *mate:*, and *ʔanne:,* respectively (Al-Saaran, 1951, p. 284).

4.2.3 The influence of elevated consonants on *imala* in medial and final positions.

The term '*ħuru:f ʔalʔistiʕla:ʔ*', which literally means the 'elevated consonants' refers to emphatic and guttural consonants /χ, ʁ, q, sˤ, tˤ, dˤ, ðˤ/.[33] These elevated consonants may block or reduce the probability of inclination of /a:/ or /a/ in certain phonetic environments. The conditions in which inclination is either precluded or allowed are presented below.

- When /a:/ is immediately preceded by one of the elevated consonants, *medial imala* is blocked, e.g. *ʁa:ʔib* 'he is absent', *qa:ʕid* 'he is sitting', and *sˤa:ʔib* 'correct'. However, elevated consonants do not always prevent raising. There are some dialects that incline /a:/ even in the immediate proximity of the elevated consonants. Sibawaih considered such cases where /a:/ is raised to /e:/ as not an example of (good Arabic) probably because the speaker did not follow the general condition of blocking the raising process in the vicinity of these consonants (Levin, 1992, p. 78).
- *Medial imala* is inhibited when an elevated consonant occurs between preceding /a:/ and following /i/, i.e. -a:Ei- (E= elevated consonant), e.g. *ʕa:sˤim* '*ʕa:sˤim* (proper noun)'and *na:qid* 'a critic'. Here, the elevated sound blocks the influence of /i/ on /a:/.
- Between /a:/ and /r/. When /a:/ occurs after an elevated consonant and before /r/ which is followed by /i/, raising is optional, e.g. *qa:rib* > *qe:rib* ' a boat' and *tˤa:rid* > *tˤa:rid* 'he is driving away' (further explanation is in § *4.2.4*).
- In some cases where final /a:/ is preceded by an elevated consonant, /a:/ can be raised to /e:/, as in *tˤaʁa:* (root: *tˤʁj*) > *tˤaʁe:* 'to overflow, or to exaggerate'.
- When final /a:/ is followed by an elevated consonant across a word boundary (-a: # E), the elevated consonant prevents the influence of the preceding /i/ on /a:/, so /a:/ is not inclined, e.g. *ʔata: Qa:sim* 'Qa:sim came', versus *ʔate: Zajd* 'Zayd came' (Al-Nassir, 1985).
- A following elevated consonant in the pattern (-a:CVE-) (V= /i:, i/ and C= not elevated consonant) can prevent raising, e.g. *na:fiχ* 'a blower' *na:biʁ* 'genius, talented' and *mana:fi:χ* 'blowers'
- When a preceding elevated consonant is separated from /a:/ by two or three segments, one of which is /i/, /a:/ is inclined to /e:/. This /i/ must be in the immediate proximity of

[33] Al-Fozan (1989) adds the emphatic /r/ (glossed R) and /ɬ/ to the list of elevated sounds that influence the occurrence of *imala* in /a:/ (Al-Fozan, 1989, p. 231).

the elevated consonant, i.e. the elevated sound is *maksu:r* (Ei-) as in *ðˤifa:f* > *ðˤife:f* 'river banks', *sˤiʕa:b* > *sˤiʕe:b,* 'difficulties', and *qisma:n* > *qisme:n* 'two parts'.

Comments on imala and elevated consonants

Proposing why elevated consonants may block the *imala* process, Al-'Azhari stated that "… these elevated consonants inhibit *imala* seeking for harmony in sounds" (as cited in Al-Fozan, 1989, p. 234). Sibawaih, also, claimed that these elevated consonants assimilate the place of articulation of /a:/ to their elevated place of articulation, thus *imala* is blocked (Al-Nassir, 1993, p. 170). In the same vein, Al-Fozan (1989) claims that pronouncing /a:/ in the vicinity of an elevated consonant results in a kind of assimilation. He also suggests that the elevated consonant has greater influence on the preceding /a:/ than on the following /a:/, i.e., the regressive assimilation is more frequent and less easily inhibited than progressive assimilation (ibid., 1989).

4.2.4 The influence of /r/ on *imala* in medial and final positions.

Sibawaih devoted two chapters to discuss the effect of /r/ on the raising of /a:/ and /a/. He found that the trill /r/ tends to induce the raising of /a:/ and /a/. More specifically, based on its position from /a:/, /r/ can be either an *imala* inducer if it occurs after /a:/ in the vicinity of /i/, or an *imala* inhibitor if it occurs before /a:/. The four contexts where /r/ sound may effect the *imala* process of both /a:, a/ are illustrated below (Owens, 2006, p. 202):

- **First**, /a:/ is not raised when it is immediately preceded by /r/, as in *fira:ʃ* 'a bed' and *Ra:ʃid* '*Ra:shid* (proper noun)'. /i/ does not affect the /a:/ sound.
- **Second**, *imala* is blocked when /r/ comes immediately after medial /a:/ and is followed by /-a or -u/, e.g. *ħima:rak* and *ħima:ruk* 'your donkey'; but in *ħima:rik* > *ħime:rik,* the /a:/ is inclined to /e:/ because /r/ comes after /a:/ and is followed by /i/. However, in the patterns Ca:Cira- and Ca:Ciru-, /r/ does not prevent *imala* because it is not in immediate proximity to /a:/, e.g. *ka:firun* > *ke:firun* and *ka:firan* > *ke:firan* 'an atheist'.

- **Third**, the medial /a:/ is inclined to /e:/ when it is followed by -ri- or -ri:-. It is inclined even when it is preceded by an elevated consonant, e.g. *qa:rib* > *qe:rib* 'a boat' and *sˤa:rim* > *sˤe:rim* 'strict'. Sibawaih pointed out that initial elevated consonants block *imala* on /a:/, except in the presence of a neighbouring /ri-/; compare *qa:ʕid* 'he is sitting' with *qe:rib* 'a boat'.

  Returning to the issue of the influence of elevated consonants, if an elevated consonant comes immediately after this pattern -a:ri(:)+E-, the preceding /a:/ is not inclined to /e:/, e.g. *sa:riq* 'a thief' and *ʔaba:ri:q* 'pots'. The elevated consonant appears to preclude the occurrence of *imala* even though it is separated by -ri(:)-. In the pattern -ri(:)# E- where one of the elevated sounds occur across word boundaries, /a:/ may or may not be inclined to /e:/, for example, *bi ħima:ri # Qa:sim* 'by Qa:sim's donkey'; the /i/ here is an inflectional marker (i.e. weaker than radical); thus, /a:/ may be either inclined under the influence of /-ri/ or /q/ sound may over-ride /-ri#/ and prevent the inclination process. In this example, /q/ in *Qa:sim* may work as an *imala* inhibitor for the following /a:/.

  The pattern -ri(:)- can also influence short /a/, e.g. *min asˤ- sˤiʁari* > *min asˤ- sˤiʁeri* 'of smallness' and *min al-kibari* > *min al-kiberi* 'of largeness'. In the example *min ʕamri* > *min ʕemri* 'from Amer', the /a/ is inclined to /e/ even if /-ri/ and /a/ are separated by one segment /m/. However, if /a/ and /-ri/ are separated by /j/, /a/ is not raised, e.g. *min ʁajrik* 'without you'. When -ri(:)- is followed by an elevated consonant, *imala* is precluded, as in *ʔalmaʃriq* 'the east'. Finally, when final /a/ is followed by /-ri/ across word boundaries, /a/ can be inclined to /e/ in a word junction or 'connected speech' (Al-Nassir, 1985, pp. 174–176).
- **Fourth**, when /a:/ is followed immediately by /-rri-/, it can be inclined to /e:/, e.g. *fa:rrin* > *fe:rrin* 'a fugitive'. The first /r/ of /-rri-/ does not impede the effect of /ri-/ on /a:/. This pattern, /-rri-/, is a reflex of /-riri-/, e.g. *fa:ririn* > *fa:rrin*> *fe:rrin* 'a fugitive'. The first /i/ is elided due to the successive identical syllables, which are avoided in Arabic (ibid., p.177).

4.3 *Imala* in Modern Arabic dialects.

The process of *imala* in Modern Arabic varieties is quite different in the details, conditioning factors and the phonetic qualities of the inclined vowel. In describing modern dialects, *imala* can be either allophonic or lexical. Allophonic *imala* is regular with respect to the raising of /a:, a/. For example, /a:, a/ are raised in the vicinity of an /i/-type vowel. Lexical *imala*, on the other hand, is irregular and may not show *imala* in a comparable context, i.e. it depends on the lexical item. The two types of *imala* share a common condition that /a:/ can be raised (whether /i/ is present or absent) unless one of the inhibiting factors (emphatic or back consonants) is present in the adjacent environment, e.g. *na:s* > *ne:s* 'people' and *kila:b* > *kile:b* 'dogs'(Owens, 2006, p. 212). In this section, examples of different modern Arabic dialects that exhibit *imala* are listed below:

- *Imala* in Eastern Libyan Arabic (ELA) follows the vocalic conditions described by Sibawaih, i.e. /a:/ is raised in the vicinity of /i/-type vowels (either preceding –a:Ci or following –iCa:); and is prevented in the vicinity of emphatic consonants, /ʁ, χ/ and the vowel /a/, e.g. *tˁa:liʕ* 'leaving'. When long /a:/ is inclined, it is realised as [ie], e.g. *ma:ʃi* > *mieʃi* 'he is going'. Mitchell (1975 as cited in Owens, 2006), noted that *imala* is allophonic; it is affected morphologically by the front vowel in the suffix as in *ba:l+ik* > *bielik* (f. s.) vs. *ba:l +kam* >*ba:lkam* (m. pl.)'look out!'. The intervening consonant between /a:/ and the front vowel /i/ also affects the occurrence of *imala*. For example, if the consonant between the two vowels is an emphatic or a guttural consonant, /a:/ is not inclined, e.g. *atˁfa:lhin* 'their (fem.) children'.

  With respect to *imala* in the vicinity of /r/, Mitchell (1975, as cited in Owens, 2006) summarised four main conditions of *imala* in this position. First, /r/ prevents inclination when the /i/ vowel occurs in a suffix, but induces *imala* if both vowels /i/ and /a:/ occur in the same stem. Second, /a:/ is raised when it is followed by /r/, e.g. *da:ri* > *dieri* 'take care of'. Third, *imala* is prohibited when /a:/ is preceded by /r/, such as in *ra:mi* 'having thrown'. Fourth, in word-final post/-a:/, /r/ inhibits *imala* as in *da:r* 'house'. Even if a suffix such as /-i/ 'my' is added to the word, /a:/ is still not raised, e.g. *da:ri* 'my house'. Therefore, /a:/ 'across morpheme boundaries' is not inclined to [ie];

this differs from Sibawaih's description, in which /a:/ undergoes *imala*.

In ELA, a stressed syllable induces *imala* as in *kitabˈniehin* 'we wrote them (f.)'. In monosyllabic nouns, *imala* can occur when there are no inhibiting consonants, such as *na:s* > *nies* 'people', as well. (Owens, 2006, pp. 213-215).

- *Maltese Arabic.* In the dialect spoken in Malta, *imala* occurs in almost the same conditioning environments as in ELA. Maltese has lost the emphatic consonants which results in a wider distribution of *imala*-induced /a:/ than in ELA. *Imala* in Standard Maltese (a dialect spoken in the eastern part of Malta, the main island) is realised as [iə] and is orthographically characterized as 'ie', such as in *ba:b* > *bieb* [biəb] 'door' and *χadda:m* > *haddiem* [haddiəm] 'workman/ servant'. In stressed syllables, *imala* is realised as [iə], as in *ˈbiərku* 'they blessed' and *nˈbiərek* 'I bless'. In unstressed syllables, /a:/ is shortened to [i] or [e], such as in *biˈrikt* 'I blessed'. Final /a/ is not inclined in unstressed syllables; however, when a suffix is added to the word, /a/ is lengthened to /a:/ and inclined to 'ie' [iə], such as *ktibna* 'we wrote' versus *ktibna:+hum* > *ktibniehum* [ktibniəhum]'we wrote them'.

  The inhibiting contexts of *imala* in Maltese have almost been lost. When one of the formerly emphatic consonants, /χ, ʁ, ʕ/, or /r/, is in the preceding vicinity of /a:/, *imala* is precluded, e.g. **ʁa:li* > *ʔa:li* 'expensive' and **rχa:m* > *rha:m* 'marble'. In other instances, /a:/ may be inclined to 'ie' [iə] in the vicinity of an etymologically inhibiting context, as in **tˤa:liʕ* > *tielaʔ* 'going up' and **sa:q* > *sieʔ* 'leg'. Notably, in his discussion of *imala* in Maltese, Owens (2006) did not explain why some words have a short vowel [a] in an inhibiting context of *imala*. One possible claim is that in Maltese, certain words contain short /a/ in place of an original long /a:/, as in **naðˤa:fa* > *nadafa* 'cleanliness' and *ʕa:m* > *am* 'he swam'.

- The process of *imala* is also found in some dialects spoken in Northern Mesopotamia, Aleppo, and Cyprus. These dialects can be associated with '*qəltu'* dialects. A number of scholars including Cantineau (1960), Levin (1992/2002), and Owens (2006) discussed *imala* in these dialects; their views are presented briefly in the following paragraphs.

  Cantineau (1960) studied medial *imala,* which is conditioned by the consonantal environment of old /a:/, in modern Arabic dialects of the Syrian Desert oases Qarītēn, Palmyra, Suxne, and of the Druz of the Ḥōrān. In these dialects, *imala* occurs when /a:/ is in the vicinity of either two front non-emphatic consonants, or /h/ and a front non-

emphatic consonant, as in *ke:n* 'it/he was' and *ʃabe:b* 'youngsters'. As observed in *ke:n* example, /k/, the farthest back consonant, is grouped with front consonants. Emphatic consonants preclude *imala* when they occur in the immediate proximity of /a:/, such as in *ħi:tˁa:n* 'walls' and *ħsˁa:n* 'a horse'. Medial *imala* in these dialects is also influenced by the immediate proximity of back consonants /q, χ, ʁ, ħ/ or /r/. Levin (1992) stated that it is difficult to determine the exact factors conditioning *imala* in such vicinity, which may be taken to support Cantineau's (1960) view that medial *imala* in old and modern dialects is an unconditional phenomenon (Levin, 1992, pp. 80-82).

Levin (1992, 2002) provided an overview of the *imala* in modern Arabic dialects, especially the *qəltu*[34] Iraqi and Aleppo dialects. Medial *imala* in Iraqi '*qəltu*' dialects (ancient urban dialects of Iraq), the Anatolian '*qəltu'* dialects and the modern Aleppo dialect, is conditioned by the vocalic environment (the same conditions described by Sibawaih), i.e. the existence of 'historical' /i/ or /i:/ in the syllable adjacent to /a:/, even if this conditioning segment is absent or changed in the modern dialects, e.g. (historical) *kila:b* > (modern) *kle:b* or *kli:b* 'dogs'. However, the raising of /a:/ is not always precluded in the vicinity of back and emphatic consonants, e.g. *maqe:sˁisˁ* 'scissors' and *we:qəf* 'standing'. (ibid., pp. 83-90).

Owens (2006) also briefly presented some variations in the realisation of allophonic and lexical *imala* in the '*qəltu*' type of dialects. Cypriot Arabic, generally, shows historical, lexical and allophonic *imala*, though there are some cases where *imala* is precluded. For example, form III verbs (in the imperfect tense) do not show *imala*, such as in *bi-saʕid* 'he helps'. The pattern Ca:CiC varies with respect to *imala*. For instance, *imala* is inhibited by the historical inhibiting contexts (emphatic consonants) which are lost in this dialect (similar to case of the Maltese dialect), such as **ʃa:tˁir* > *ʃater* 'smart'. Yet other words with the same conditions may demonstrate *imala*, such as in **qa:tˁiʕ* > *qetʕe* 'passing'. Anatolian '*qəltu*' dialects, especially Mardin, may show *imala* as in *qa:ʕid* > *qe:ʕid* 'standing'. The form III verbs in Cilician Arabic[35] vary in displaying *imala*. Some form III verbs have *imala* in the imperfect tense and others have *imala* in the perfect and imperfect tenses; however, other form III verbs never undergo *imala* in either tense. In nominal patterns, *imala* varies as in *minʃa:r* 'saw' (no *imala*) vs. *minχe:l* 'sieve' where *imala* occurs even though there is an emphatic consonant present in the adjacent syllable. For the other two types of '*qəltu*' dialects, Jewish

[34] Such as Judaeo-Baghdadi, Christian Baghdadi, and Mosul dialects.
[35] A type of Anatolian 'qəltu' dialect

Baghdad (JB) and Christian Baghdad (CB), Blanc (1964) noted that the form III verbs never undergo *imala* as in *asa:meħ* 'I forgive'. *Imala* may occur in all contexts in which it is historically present. The occurrence of *imala* in inhibiting environments is considered to be irregular. The realisation of *imala* in the 'qəltu' type of dialects is either /e:/ or /i:/. Most Mesopotamian dialects have the [e:] variant. The JB dialect, however, has [i:] as a usual reflex of *imala*; and in the case of active participle form I verbs, *imala* is realised as [e:], as in *we:qef* 'standing'.

- *Southern Mesopotamia and other areas.* In these dialects, *imala* is realised as [ie] and appears as a reflex of the Classical Arabic diphthong /aj/, such as in: **bajt* > *biet* 'house' and **maʃajt* > *miʃiet* 'I went'. Owens (2006) noticed that these forms may not be considered as *imala* reflexes, even though they are similar to *imala* reflexes in ELA (Owens, 2006, pp. 219–220)

- According to Versteegh (1997) and Behnstedt (1997), *imala* is found in several central Syrian dialects including the Oyoun Al-Wadi variety. Habib (2012) investigated two phonological processes: *imala* and rounding in the fellahin 'rural' variety spoken in the village of Oyoun Al-Wadi in Syria. She hypothesized that, in this variety, the *imala* phenomenon is quite different from what is traditionally found in Arabic concerning its linguistic environments and conditions. In her study, she proposed that *imala* and rounding should be explained beyond phonological rules. Thus, she used Optimality Theory to explain the phonological conditioning of *imala* and rounding; as well as lexical phonology theory to explain the morphological and lexical conditioning of these two processes.

  The results showed that the [e, e:] and [o, o:] are morpho-phonologically and lexically conditioned in this variety. Based on the examination of the linguistic environments of the words, two phonological rules for rounding and *imala* are proposed. These rules are applied as one rule per-word to the final syllable. The rules are proposed to help describe the grammar of *imala* and rounding phenomena.

  Imala rule:

  [a:, a] > [e:, e]/ C_C# where C is not emphatic/rhotic/lateral consonant.

[+back,+low] > [-back,-low]/ C_C#[36].

The results of Habib (2012) show that the conditioning environment of *imala* appears to be different to what is claimed by Arabic grammarians. *Imala* can occur with or without the presence of /i/-type vowels in the neighbouring syllable, similar to Cantineau's (1960) view. This variety exhibits *imala* in the final syllable only in words with two or more syllables, such as *masalan* > *masalen* 'for example', *ħusa:m* > *ħuse:m* 'proper noun'. *Imala* also occurs in *ʔaħja:n* > *ʔaħje:n*, and *ʔaħja:nan* > *ʔaħja:nen* 'sometimes' but not **ʔaħje:nen* ; these two examples show that when a suffixed morpheme[37] is added to a word *(ʔaħja:n* + an), the final /a, a:/ (before suffixation) is not inclined because it is no longer in the final position. Also, the occurrence of guttural and emphatic consonants [q, χ, ʁ, ʔ, ħ, ʕ, h] in the neighbouring syllable does not preclude raising of /a, a:/, as in *ʔaʕad* > *ʔaʕed* 'he sat (m. s.)'.

Despite the lowering influence of the elevated consonants /sˁ, dˁ, zˁ, tˁ, q, χ, ʁ/ on /a, a:/, Habib (2002) claimed that the uvular /q, χ, ʁ/ and guttural consonants / ħ, ʕ, h/ do not have a lowering effect on the adjacent /a, a:/ as much as emphatic consonants /sˁ, dˁ, zˁ, tˁ/. Thus, they may not prevent the occurrence of *imala*. Rhotic and lateral consonants exhibit some sort of emphatic influence on the adjacent /a, a:/ in many Arabic dialects including Syrian Arabic, so they can prevent raising.

Morphological conditioning effect can explain why /a, a:/ may be raised in the vicinity of [r] and emphatic consonants [38], an environment that is supposed to induce rounding. *Imala* occurs in certain morphological patterns or suffix morphemes before it has been submitted to the phonological component where the phonological rules apply, for example in the verbal noun form *fa:ʕil* > *fe:ʕil* such as *tˁa:liʕ* > *tˁe:liʕ* 'going up' and in the morphological suffix *a:t* as in *dʒa:r* + *e:t* > *dʒa:re:t* 'neighbours'. Here, raising is a part of the lexical representation of the morphological patterns or suffix morphemes before the application of the phonological rule i.e. the vowel in a suffix (e.g. -*e:t*) is already inclined, thus there is no need to apply the phonological rule, which usually applies to /a, a:/ in the final syllable.

Concerning the issue of lexical conditioning, some lexical items are pronounced with *imala* because of the frequency of their occurrence in an inclined form (as

[36] *Rounding* rule: [a:, a] > [o:, o]/ C_E# , E_C# where E is emphatic/rhotic/lateral consonant [+back,+low] > [+round,-low]/ C_E# , E_C#.
[37] A suffixed morpheme might be an indefinite accusative case marker, a feminine plural marker or an adverbial suffix.
[38] In the final and sometimes in the first syllable of the word.

mentioned earlier in this chapter § 4.2.1). Word category plays a role in the *imala* process, for example *ħadʒdʒa:dʒ* as a proper noun is usually pronounced with *imala*, while as an adjective *ħudʒdʒe:dʒ* 'pilgrims', it is pronounced without *imala.* Another issue concerning the lexical conditioning is that whether or not a word is borrowed from standard Arabic and whether it has two different meanings or belongs to different categories, e.g. /a:/ is not inclined in *ra:tib* 'salary' but is inclined in *mʕa:ʃ* > *mʕe:ʃ* 'salary'. The word *ra:tib* is considered to be borrowed from standard Arabic (SA) while the word *maʕa:ʃ* is colloquial and used more frequently than the former form. Also, /a:/ in *ʕa:dil* 'fair' is not inclined, since the word is borrowed from SA and has a colloquial form *ħaqqa:ne:* 'fair', however, /a:/ is inclined in *ba:rid* > *be:rid* 'cold' as it is frequently used. Thus, it is assumed that these borrowed lexical items have not yet assimilated to the morphological pattern (fe:ʕil) used in this dialect. Moreover, the preservation of the original pronunciation can act to differentiate a word lexically, e.g. *ħa:mil* 'pregnant' vs. *ħe:mil* 'carrying'. Habib (2012) concluded her study by claiming that although phonological processes of *imala* and rounding can be explained by two rules, the lexical phonology theory seems to be better in explaining the interaction between the phonological and morphological processes of both *imala* and rounding.

4.4 *Imala* in the feminine ending *-ah*

In Arabic, the feminine ending marker *-ah* can be attached to nouns, adverbs and adjectives, e.g. *kalimah* 'a word' and *dʒami:lah* 'beautiful'. It is pronounced /-ah/ in a pausal position and /-at/ in connected speech. Sibawaih reported having heard some Arabs pronouncing *dˁarabtu dˁarbeh* 'one act of striking' and *ʔaχaðtu ʔaχðeh* 'one act of taking' with *imala* (Al-Kitab, 1988, part. 4, p. 140).

The process of *imala* in *–ah* was associated with Iraqi dialects, especially in southern Iraq. It is discussed by scholars of *Taji:wd* and attested in the Quranic reading tradition by Kufan readers such as Ḥamzah, Al-Kisā'i as well as Basran readers such as Abu 'Amr ibn 'Ala:' (Anīs, 1952). The Quranic reader Al-Kisā'i is known for his inclination of *ha:ʔ*

ʔattaʔni:θ /ah/ to /-eh/ in pausal positions.[39] He established a rule for the *imala* process in feminine ending *-ah*, whereby /a/ is raised to /e/ when *-ah* is in pausal position and is not preceded by elevated sounds, pharyngeal sounds /ħ, ʕ/, or long /a:/, e.g. *niʕmah* > *niʕmeh* 'grace' and *dʒannah* > *dʒanneh* 'garden', compared to *sˁibʁah* 'characteristic' and *ʁildˁah* 'harshness', where inclination is blocked. This rule applies only to the feminine ending *-ah* and not to other radical *-(a)h*'s, such as the original *-h* in *wadʒəh* 'face' or the 3rd m. s. pronoun *-ah* in *ʕilmah(u)* 'his knowledge'. The sounds /ʔ, k, h/, and /r/ inhibit inclination of *–ah* except when they are preceded by /i/, /i:/ or /j/, either in an immediate proximity or with one segment interval,[40] such as in *fa:kihah* > *fa:kiheh* 'fruit', *χatˁi:ʔah* > *χatˁi:ʔeh* 'sin', *sidrah* > *sidreh* 'the lote tree', *widʒhah* > *widʒheh* 'direction', and *hajʔah* > *hajʔeh* 'form'.

4.5 Sociolinguistic studies of *imala* in the feminine ending *-ah* in Arabic dialects

According to Cantineau (1960), the Eastern Arabic dialects are typically raising dialects while the western Arabic dialects are non-raising. In standard Arabic, the orthographic representation of the feminine ending *-ah* is always non-raised (Al-Wer, 2002, p.36). An overview of the studies, which discuss this phenomenon, is provided in the following subsections.

4.5.1 Al-Wer (2002, 2007, 2015)

Al-Wer (2002, 2007, 2015) conducted her study on dialect formation in Amman, Jordan. One of the variables that have been analysed is the realisation of the feminine ending *-ah*. The dialect of Amman can be considered as the outcome of contact between 'Jordanian' (JD) and 'Palestinian' (UBD) dialects.

[39] Al-Kisā'i considered the process of *imala,* especially in *–ah,* as "an Arabic characteristics", referring to the Arabic variety spoken in Al-Kufah (Anīs, 1952, p. 56). Thus, his inclination of /-ah/ while reading the Quranic texts can be attributed to the influence of the Kufan dialect.
[40] The intervening sound should be *sa:kin*, i.e. have no vowel sound'.

Similar to most of the Levantine dialects, Jordanian[41] and Urban Palestinian dialects conditionally raise the feminine ending (a) in non-emphatic and non-guttural environments. Al-Wer (2002, 2007) found that in the traditional Jordanian dialect, /a/ is raised to [ɛ] after coronal sounds; it is raised to [half open] after coronal sounds. On the other hand, /a/ in the Urban Palestinian dialects is raised everywhere except after back and emphatic consonants; the phonetic quality of the raised variant is [e]. Therefore, it can be seen that the two dialects differ phonologically in the vocalic environment where the vowel /a/ is raised, and phonetically in the quality of the raised vowel, i.e. phonetically, Urban Palestinian has [e] and Jordanian has [ɛ] as raised variants for /a/ such as: *fattɛ* (JD) vs. *fatte* (UPD) 'traditional dish'.

In general, the outcomes of dialect contact in Amman show the change in the realisation of /a/ in the feminine ending. Older speakers in both groups maintained the Palestinian and Jordanian variants. For younger speakers, /a/ is realised differently from what was found originally in Palestinian and Jordanian varieties. Younger speakers who were born in Amman do not follow the linguistic rules of their parents' dialect. They adopt the Palestinian phonological constraints and at the same time maintain the use of the Jordanian variant [ɛ], such development is termed as 'fudged form[42]' by Al-Wer (2007). Youngsters who come from a Jordanian dialectal background never raise *-ah* further than [ɛ]; while those who are from a Palestinian dialectal background may lower [e] to [ɛ]. With regards to the [e] variant, youngsters from Palestinian dialectal background use [e] more than the other youngsters. This may indicate that [e] is acquired originally in the home environment while the use of [ɛ] comes

[41] Central and northern dialects

[42] In which, the first stage represents the first generation's arrival into Amman where there is no native dialect. They speak their native dialects which had been acquired in their early years, and as a result of contact with other groups arriving to the same area, their dialects (both groups) undergo some sort of levelling as a part of a process of koineisation. The second stage represents the first native-born generation. They are exposed to the dialect of their parents as well as the dialects spoken around them. The data from this group would show a variable model, a mixture of different features from different dialectal backgrounds. The second stage shows some sort of stability. The third stage represents the second native-born generation. This stage is more stable and the variability found in the previous stage is reduced. It also shows some aspects of Koineisation (e.g. reallocation). In the final stage, the dialect spoken is more focused and stable. This stage involves regularisation in the linguistic behaviour of individuals, younger generation speakers share many features regardless of their dialectal heritage (Al-Wer, 2007, p. 73).

as a result of the contact with peers from a Jordanian dialectal background. The more contact with youngsters from a Jordanian dialectal background, the more they use [ɛ] and diverge from their parents' [e] variant.

In Al-Wer et al. (2015), which investigated the role of religious/sectarian affiliation in linguistic variation in Jordan, the realisation of the feminine ending /a/ is described as one of the most peculiar characteristics of Ḥōrān dialects. The study confirmed the pattern mentioned in previous research (Al-Wer, 2002 & 2007) that /a/ is conditionally raised in Urban Palestinian and most Levantine varieties except after velarized and back consonants. Ḥōrāni dialects differ from these varieties in both the phonetic quality of the raised vowel and the context in which the vowel is raised. /a/ is raised to [ɛ] systematically after coronal sounds while inclination is precluded when /a/ is preceded by back sounds and velarized consonants, including the labio-velar /w/. Labial consonants are influenced by the adjacent vowel and are sensitive to vowel harmony, i.e. in the vicinity of front vowels, labials induce raising while in the vicinity of back vowels they induce lowering, as in *dʒe:be* 'pocket' vs. *magsu:ma* 'divided' (f. s.).

4.5.2 Herin (2013)

Herin (2013) examined the features of the dialect of Ṣalṭ in relation to the Ḥōrāni dialect. He suggested that despite the fact that both Jordanian and Palestinian dialects are classified as being of a Southern Levantine type, there is strong linguistic evidence to show that they are quite different. In cooperation with Dr. Al-Wer, a native speaker of both the Ṣalṭi and Ḥōrān dialects, Herin (2013) challenged the claim of the similarity between the two dialects. He compared the three dialects of Ṣalṭ, Ḥōrān and the rural dialect of the West-Bank linguistically, and investigated certain phonological and morphological characteristics, including the feminine ending *-a*.

As reported in previous studies, most Urban Levantine dialects conditionally raise the feminine ending *-a* to /e/, and sometimes to /i/, in the vicinity of non-emphatic and non-guttural sounds. In his study, Herin (2013) found that the Galbūn dialect follows the Levantine dialects in raising /a/ to /e/ in non-emphatic and non-guttural contexts, as in *salle* 'basket' vs. *kadda:ħa* 'lighter'. The results for the Ṣalṭ dialect agree with the analysis provided by Al-Wer (2002, 2007), who concluded that while the Urban Palestinian dialect raises /a/ to /e/ in all environments except after emphatic and guttural sounds, the Jordanian Ṣalṭi dialect only raises it after coronal sounds and the phonetic quality of the raised /a/ is [ɛ]. The default variant in the Ṣalṭi dialect is /a/, while in Nablus it is [e]. Herin (2013) identifies the sounds which block raising of [a] as primary emphatics (/tˁ, sˁ, ðˁ/) and back consonants (/h, ħ, ʕ, ʔ, χ, ʁ, k, g/), whereas the sounds that promote raising include coronal sounds (/t, d, s, z, θ, ð, ʃ, ʧ, ʤ, n and j/).

After /b, m, f/ both realisations of /a/ can be found: [a] (with a velarized allophone) and [e] (with a non-velarized allophone). The /b, m, f/ sounds become velarized in the vicinity of back vowels and under the influence of other emphatic consonants in the adjacent syllable. In other words, emphatic sounds affect the following /b, m, f/, which becomes velarized when the intermediate vowel is back, but when it is front vowel, the emphatic influence is blocked and the following consonant remains as it is i.e. not velarized; e.g. *gari:be* 'close' vs. *garˁa:ba* 'kinship' and *χatˁi:be* 'fiancée' vs. *maχtˁu:ba* 'engaged'. Thus, the presence of back vowels preceding one of these allophones can be enough to prevent the raising of /a/. Furthermore, Herin (2013), notices that back consonants may drag the following vowel backward, which in turn precludes raising, for example in *miħkama* 'court', /k/ drags the following /a/ toward the back of the tongue. This claim can be applied to the labial consonants: /f/ and /b/, as well.

Concerning liquids, the raising of /a/ is conditioned by the phonetic value of the two consonants /l/ and /r/, and the preceding sounds. /r/ is very sensitive to velarisation, i.e. it only

becomes non-velarized after a high front vowel /i:, i/. Thus, non-velarized /r/ induces raising of /a/, e.g. *zʁi:re* ‘small (f. s.)’. In other environments, where /r/ is not preceded by /i:, i/, raising of /a/ is blocked, such as in *le:ra* ‘pound’. In the case of /l/, /a/ is raised after /l/ no matter the value of the preceding vowel whether front or back. However, when /l/ is dark, as a result of the preceding emphatic sound, raising of /a/ is precluded, e.g. *basˁała* ‘onion’ and *ʕutˁɬa* ‘holiday’ vs. *tˁufu:le* ‘childhood’ and *tˁawi:le* ‘long’. In other examples where phonetics cannot fully account for the emphasis of /l/, dark /ɬ/ is considered to be lexically conditioned rather than phonetically, such as in *ʁu:ɬa* 'ogress' and *ʃaʁɬa* ' thing' and thus, lowering is predicted for the feminine ending *–a.* I assume that /ʁ/ is considered as an elevated consonant (§ 4.2.3) which may have similar influence as emphatic consonants on /l/ sound. Similarly, according to Sibawaih, elevated consonants assimilate the place of articulation of /a:/ to their elevated place of articulation, and thus *imala* is blocked.

In his description of the Ḥōrāni dialects, Cantineau (1940, 1946) used the classical grammatical term *tafχi:m* to refer to the processes of emphasis and velarisation. He distinguished between sounds emphatic by nature (/ʁ, q, sˁ, tˁ, ðˁ/)[43] and sounds emphatic by position (/m, b, f, l, r, h, ħ, ʕ/). The main feature of emphasis and velarisation is to prevent raising of /a/. Non- emphatic consonants, ‘*muraqqaqa* sounds’, on the other hand, induce *imala* in /a/. These consonants include coronal sounds (/t, d, s, z, θ, ð, ʃ, ʧ, ʤ, n and j/). Concerning the sounds emphatic by position, the sounds (/m, b, f, l, r, h, ħ, ʕ/) become emphatic under the influence of a neighbouring emphatic sound and/or back vowel. With the exception once again of the sounds /h, ħ, ʕ/ which are added by Cantineau to the emphatic sounds, the same condition is found in the Ṣalṭi dialect. The influence of /h/ is unclear since Cantineau (1940, 1946 as cited in Herin, 2013) presented examples of raising of /a/ in 3rd s. f. (*-ha*) to /e/ in plain contexts, and no examples of /h/ followed by /a/ are given. However, depending on the data from ‘Ağlūn

[43] According to Ibn Al-Jazri, emphatic sounds by nature include: (/ʁ, q, χ, sˁ, tˁ, ðˁ/).

(Jordanian Ḥōrān), Al-Wer (2010 as cited in Herin, 2013, p.107) confirms that /a/ is never raised after /h/.

Herin (2013) proposes that typologically the dialect of Ṣalṭ is considered to be a Jordanian Ḥōrāni variety. Rural Palestinian dialects are either raising (similar to the Urban Levantine dialects) or non-raising dialects (similar to Gaza dialect, see below).

4.5.3 Cotter (2013)

Cotter's (2013) study is the first quantitative sociolinguistic study conducted in the urban city of Gaza. It investigates the outcomes of dialect contact between the indigenous residents of Gaza and the refugees who are originally from Jāffa (a city 40km north of Gaza). Cotter examined two linguistic features: the uvular /q/ and the feminine ending *-ah*, alongside three social features: dialectal background, age, and gender. He also examined issues like mobility, geography, history, politics and space, where applicable to his study.

Cotter (2013) focused on the notes given by Owens (2006) with regards to the feminine ending *-ah*, especially the influence of the vowel /i/ in the neighbouring syllable and the back and emphatic consonants and /r/. Generally speaking, raising of the feminine ending is a linguistic feature found in most Levantine dialects including Urban and Northern Palestinian varieties[44]. Regarding the dialects close to the Gaza strip, some dialects do not raise the feminine ending; the sedentary dialect of Al-'Arish in the Sinai Peninsula is a case in point (de Jong, 2000 in Cotter, 2013). Other dialects may exhibit *imala* such as the Negev Bedouin dialect. It raises /a/ to [i] in all environments except after primary and secondary emphatics as well as back consonants. Contrary to the case in the Urban Levantine dialects, the pharyngeal /ħ, ʕ/ and glottal /ʔ/ consonants do not prevent raising of the feminine ending in Negev Bedouin dialect (Shawarbah, 2012).

[44] Rosenhouse (1982) claimes that "sedentary dialects of the area are known to have this feature [*imala*] in their speech in varying degrees, while the Bedouin dialects do not always have it" (Rosenhouse, 1982, p.18).

The analysis of all tokens in his study corresponded to most of the previous findings regarding the conditioning factors of raising of the feminine ending, such as Al-Wer (2007) and Owens (2006). The feminine ending is raised after all consonants except emphatics, pharyngeal, velarized consonants and /r/ (when it is not preceded by the vowels /i, i:/). The pharyngeal / ħ, ʕ/ and glottal /ʔ/ consonants appear to prevent raising of /a/ in this variety, contrary to Shawarbah's (2012) claim. Because there is no variation in the phonological environments that prevent raising in the feminine ending, Thus, Cotter (2013) only included the tokens where the feminine ending is preceded by non-emphatic and non-pharyngeal consonants or by an /r/ which occurs in the vicinity of /i, i:/ vowels.

His results showed that there is a correlation between the feminine ending *-ah* and the social features. For Gazan speakers, raising of the feminine ending appears to be a dialectal variable rather than a sociolinguistic variable. The older and middle-aged generations use the un-raised variant [a] almost all the time (90%). Youngsters score even higher, using the variant [a] around (95%) of the time. Thus, the findings of this study coincide with the earlier work by Bergsträsser (1915) in which speakers from a Gazan dialectal background do not raise the feminine ending in these environments. On the other hand, raising of the feminine ending is considered to be a sociolinguistic variable in the speech of speakers of a Jāffan dialectal background. The older generation shows a degree of variability in the use of the feminine ending, using the Jāffan default variant [e] (54%) more than the Gazan one (10%). In the middle generations, a sharp decrease occurred in the use of the raised variant [e] with only 28% of the total number of the tokens for this group realised with [e]. The youngest generation shows a similar tendency to favour the [a] variant more than [e], as only 16% of all their tokens are realised with [e]. Cotter proposes that such behaviour of originally Jāffan speakers indicates that there is a sign of change in progress toward the loss of the raised variant [e] (the default variant of the Urban Palestinian variety) as a result of dialect contact with other speakers from a

Gazan dialectal background (who do not raise the feminine ending). Contact with other groups beside Gazan speakers in Gaza city may enhance the process of linguistic change toward the loss of the raised variant [e] in the speech of Jāffan speakers. Cotter (2013) claims that the next generation of Jāffan speakers may advance the change toward the localised [a] variant closer to completion, i.e. nearer to total replacement of the native Jāffan variant [e] by [a].

4.6 Raising of the feminine ending *-ah* in the HA dialect

In traditional HA, raising (*imala*) is found in the feminine ending *-ah* in pausal position. Historically speaking, raising of the feminine ending is a common feature in the dialects of Arabic tribes that inhabit Najd region, mainly Banu-'Asad, Qais and Tamīm. As mentioned earlier (chapter 1), some of these tribes particularly the Tamīm stayed in Ha'il, while other tribes migrated out of the region to Mesopotamia and the Levant, which may explain the existence of this phenomenon in the Kufan dialect (Anīs, 1952). Ingham (2009) highlights this phonological process as a feature in the HA dialect, especially the Šammar tribal dialect (Ingham, 2009). According to Abboud (1979), raising of the feminine ending is unconditioned in the HA dialect; he maintains that

> "…unlike most other Arabic dialects, *imala* in this dialect occurs no matter what the adjacent consonant is, i.e. even next to a guttural or emphatic."
>
> (Abboud, 1979, p. 489).

Accordingly, the raising conditions of the feminine ending in HA are different from those found in many other Arabic dialects; especially Urban Levantine (see Owens, 2006, Al-Wer, 2002 & 2007). For HA, the raised variant of the feminine ending (ah) represents the local traditional form while the non-raised variant is the innovative variant, which represents the koineised predominant form used in the supra-local variety in Saudi Arabia (Riyadh). Regarding the phonetic value of the raised variant of *-ah*, it can be realised somewhere between the cardinal

vowels /e/ and /ɛ/, it can also be realised as [ɛ] or [ə] (Prochazka, 1988, p.19). [ej] is another realisation of the raised variant which was reported as a HA traditional feature, as well (Ingham, 1982, 2009).[45] Since my analysis is not concerned with the exact phonetic quality of the raised vowels, I used the phonetic symbol [e] to stand for the raised variant of the variable throughout.

Some examples of the raised variant are listed below:

θ+ah *θalaθah* > *θalaθeh* 'three'

j+ah *θa:njah* > *θa:njeh* 'second'

r+ah *fikrah* > *fikreh* 'an idea'

R+ah *ħa:Reh* 'neighbourhood', emphatic /r/ glossed /R/

ʕ+ah *sa:ʕah* > *sa:ʕeh* 'an hour'

tˁ+ah *ʃanntˁah* > *ʃanntˁeh* 'a bag'

w+ah *ħilwah* > *ħilweh* 'beautiful'

g+ah *milʕagah* > *milʕageh* 'spoon'

4.6.1 Coding protocol:

The feminine ending (ah) has two variants: raised (traditional) variant [e] and lowered (innovative) variant [a]. As a prior step to this variable analysis, I double-checked the data with two native speakers of HA. It is worth mentioning that the presence or absence of the sound /h/ in the feminine ending *-ah* is not examined in this analysis; the focus is only on the vowel segment /a/. Files, in Excel sheet format (.csv), were prepared for Rbrul analysis. The total number of tokens is 2090.

The tokens of the feminine ending (ah) were coded for the following linguistic

[45] It is worth mentioning that based on my recorded data, very few examples of the pronounciation /ej/ are found in the speech of older speakers, such as: *aʃʃaʁa:lejh* 'a house keeper/maid'. This variant is attested by Ingham (1982, 2009) and Al-Swaida (1998), however since the pool of data contained a very low number of tokens, this variant was excluded from my analysis, so the (ah) variable has only two variants [e] and [a].

variables: preceding phonological environment (dorsal, coronal, labial and emphatics), following phonological environment after the pause (dorsal, coronal, labial and emphatics, pause, front vowel), part of speech (noun, adjective, adverb), and the classification into words borrowed from standard Arabic and words not borrowed from standard Arabic (vernacular). The reason behind coding for the status of the item in relation to the standard variety is that according to the norms of standard Arabic the feminine ending is supposed to be pronounced with the open low vowel only. My data, however, showed variation in words that are clearly borrowings from the standard variety; for instance, in the following expressions we notice that the speakers maintain the usage of standard [q] but vary in their realisation of the feminine ending, between standard [a] and non-standard HA [e]:

*ʃrahat ʕalaj wa bi **q**uww**a*** 'she strongly blamed me'. In this expression, the speaker uses the standard variant [q] (for vernacular [g]) as well as standard [a].

*sˁna:ʕatham **q**awijj**e**h* 'they have a strong industry'. Here, the speaker uses the traditional possessive pronoun *–ham* (m. pl.) (for standard *–hum*), and standard [q] (for vernacular [g]) with vernacular feminine ending [e] (for standard [a]).

*ʔalχa:le mu**q**addas**e*** 'the aunt is precious (lit. 'holy'). In this expression, the speaker pronounces the definite article *ʔal-* in the standard way with /ʔ/ (as opposed to *al- in the* vernacular), and standard [q] (for vernacular [g]) and vernacular feminine ending [e] (for standard [a]).

The linguistic variables have been specified depending on the conditioning environments mentioned by the medieval grammarians as well as those in previous research such as Al-Wer (2007), Owens (2006), and Levin (1992). Concerning the social variables, I have coded for gender (male and female), age group (younger, middle-aged, older) and level of contact (high, low).

Regarding the classification of the sounds, I followed Ladefoged (2005), as follows:

- Labial articulations (bilabial, labio-dental).
- Coronal articulations (dental, alveolar, palato-alveolar).
- Dorsal articulations (velar, uvular, pharyngeal, glottal).
- Palatal glide /j/ is classified as coronal.
- Labial glide /w/ is classified as labial or velar (i.e. dorsal).

Additionally, a further group of sounds is added. It involves consonants emphatic by nature /ðˤ, tˤ, sˤ/; and sounds emphatic by position, especially emphatic /r/ (glossed R) and dark /ɬ/.

The coding of variable (ah) followed the procedure outlined below:

1. Preceding sounds were first coded as individual sounds and as a result of the difference in the number of tokens per sound; I re-coded and grouped them according to their place of articulation. Six sets of sounds were generated to find the most suitable set for analysing this variable and to avoid skewing the data. Each generated group of the preceding sounds was called step based on the statistical runs results. Below are the steps used in coding for the preceding environment (as a factor group).

    - Step 1 factor group includes dorsal /k, g, χ, ʁ, ħ, ʕ, ʔ, h, q/, labial /b, f, m/, coronal /t, d, n, r, s, z, l, θ, ð, ʃ, dʒ, ts/ and emphatic sounds /ðˤ, tˤ, sˤ/. Regarding the two glide sounds, the labial-velar glide /w/ was grouped with labial sounds while the palatal glide /j/ was grouped with coronal sounds. For example: *maktebeh* (/b/, labial) 'library', *ħelweh* (/w/, labial) 'beautiful', *ʃanntˤeh* (/tˤ/, emphatic) 'a bag', *dʒumʕeh* 'Friday' (/ʕ/, dorsal) and *mijjeh* (/j/, coronal).
    - Step 2 factor group includes dorsal sounds /k, g, χ, ʁ, ħ, ʕ, ʔ, h, q/, labial sounds /b, f, m/ + /w/, coronal sounds /t, d, n, r, s, z, l, θ, ð, ʃ, dʒ, ts/ + /j/, and emphatic sounds /ðˤ, tˤ, sˤ, ɬ, R/. Here, /r/ is divided into emphatic /R/ and trill /r/, and /l/ is divided into clear /l/ and dark /ɬ/[46] based on adjacent segments. /r/ and /l/ are

[46] According to ladefoged (2001, p.55), the pronounciation of dark/emphatic allophone involves both primary and secondary articulations, the primary one is similar to the coronal 'light' allophone while the secondary involves lowering the centre of the tongue and arching the back of the tongue. Such place of articulation seems to induce the lowering process.

velarised when they are preceded by back vowels and/or under the influence of other emphatic/back consonants in the preceding syllable. Al-Wer et al. (2015, pp. 78-9) propose that velarisation of dark [ɬ] is a result of " …spread from an adjacent velarized consonant and the vicinity of a velar and post-velar element." which in turn preclude the raising process. While when these two sounds are preceded by an /i/ type of vowel, they becomes light/clear and thus raising is induced. Dark /ɬ/ and emphatic /R/ were grouped with emphatic sounds /ðˤ, tˤ, sˤ/, while clear /l/ and trill /r/ were grouped with coronal sounds (similar to Al-Fozan's (1989) classification), e.g. *ku:Reh* 'a ball' (/R/, emphatic) and *nχaɬeh* 'palm tree' (/ɬ/, emphatic) vs. *fekreh* 'an idea' (/r/, coronal) and *bla:leh* 'a traditional cosmetic' (/l/, coronal).

- Step 3 factor group follows Al-Kisā'i and Ibn-Al-Jazri's classification of the emphatic sounds, in which the elevated consonants (*ħuru:f ʔalʔistiʕla:ʔ*) include both emphatic and guttural consonants /χ, ʁ, q, sˤ, tˤ, ðˤ/. Dark /ɬ/ and emphatic /R/ sounds were also added to emphatic sounds. Beside emphatic sounds, the factor group includes dorsal sounds /k, g, ħ, ʕ, ʔ, h/, labial sounds /b, f, m /, and coronal sounds /t, d, n, r, s, z, l, θ, ð, ʃ, dʒ, ts/, e.g. *tˤabχeh* (/χ/, emphatic) 'recipe' and tˤaɬɬeh (/ɬ/, emphatic) 'appearance'. The two sounds /w/ and /j/ are treated separately with each one standing as a group by itself. They are examined separately due to their different behaviour concerning the realisation of the feminine ending. As mentioned earlier in most dialects that conditionally raise the feminine ending, /j/ is found to favour the raised variant [e], while /w/ (as a labial-velar sound) varies in favouring the lowered [a], for example, the Jordanian Ḥōrāni dialect vs. Urban Palestinian dialect (see Al-Wer, 2007, Herin, 2013).
- Step 4 factor group includes dorsal sounds / k, g, χ, ʁ, ħ, ʕ, ʔ, h, q/, labial sounds /b, f, m/, coronal sounds /t, d, n, r, s, z, l, θ, ð, ʃ, dʒ, ts/, and emphatic sounds /ðˤ, tˤ, sˤ, ɬ, R/. /j/ and /w/ are tested as separate sound groups.
- Step 5 factor group includes dorsal sounds /k, g, χ, ʁ, ħ, ʕ, ʔ, h, q/, labial sounds /b, f, m /, coronal sounds /t, d, n, r, s, z, l, θ, ð, ʃ, dʒ, ts/, and emphatic sounds /ðˤ, tˤ, sˤ, ɬ, R/. /j/ stands as a group while /w/ as **labio**-velar is added to labial sounds, because of the relatively low number of tokens.
- Step 6 factor group includes dorsal sounds /k, g, χ, ʁ, ħ, ʕ, ʔ, h, q/, labial sounds /b, f, m /, coronal sounds /t, d, n, r, s, z, l, θ, ð, ʃ, dʒ, ts/, and emphatic sounds /ðˤ, tˤ,

sˁ, ɬ, R/. /w/ as labio-**velar** is added to dorsal sounds group while /j/ was treated as a separate group.

2. The following phonological environment (after the pause #) was coded in the first run as individual sounds. As the number of tokens varies with each of the following environment, with some having very few number of tokens (e.g. 3-4 tokens), these environments were recoded and grouped according to their place of articulation in the following runs as: dorsal, coronal, labial, emphatics, front vowel, back vowel and pause (i.e. if the word comes at the end of the utterance); some examples of coding of different environments are demonstrated below.

   ʔaʃja χafi:feh# jaʕni 'I mean light things' (/j/, coronal)

   su:g almeʃa:hdeh# 'Al-Mesha:hdah market' (pause)

3. Part of speech, the tokens were coded according to their part of speech, as in:

   dʒa:jjeh 'she is coming' (f. s. participle)
   sˁiʁi:reh 'small' (adjective)
   sˁu:reh 'an image' (noun)

4. With regard to the classification of the words, all tokens are classified as either 'borrowed from standard Arabic (glossed-s)' or as 'pure vernacular/colloquial' (glossed-v), e.g. *fekreh* 'an idea' (s)[47], *ʃabbeh* 'social gathering' (v). I relied for the most part on my knowledge as a native speaker of the dialect to determine the class of the items. Additionally, I checked the lexical items in Al-Maʿāni dictionary (digitalised version)[48]. I realise that this method of classification is not without fault as there are many items that are shared between the two varieties (standard Arabic and HA). Nonetheless, I believe that native speaker intuition is sufficient for the purpose of the current research, i.e. to be able to separate those items that are 'purely' vernacular and those that were used in the interviews as borrowings from the standard.
5. For the social variables, the speakers were classified according to their gender (male and female), age group (younger, middle-aged, older) and level of contact with people from different dialectal backgrounds (high, low).

[47] The vernacular term for this word is *ra:j* or *fo:r*.
[48] http://www.almaany.com/ar/dict/ar-ar/

After outlining the factor groups, six models were created and examined via Rbrul software (R version 3.2.1). Each model involves seven factor groups:

1) Preceding phonological environment

2) Following phonological environment after the pause

3) Part of speech

4) The classification of the word (standard vs. non-standard)

5) Gender

6) Age group

7) Level of contact.

The first factor group (preceding phonological environment) differs in each model based on the steps 1-6 (mentioned above). For all six models, Rbrul returned 'gender', 'age group', and 'level of contact' as statistically significant variables. On the other hand, the factor groups 'following phonological environment after the pause', 'part of speech', and 'The classification of the word' were found to be statistically insignificant in all models. The factor group 'preceding phonological environment' was found to be insignificant in the first and second models while it was significant in the third, fourth, fifth and sixth models. It is worth mentioning that in the third model, the classification of emphatic sounds seems not to be influential, their behaviour toward the variable remained very similar to the result in the fourth model. The treatment of the sound /w/ as a separate group was important, since it appeared as the linguistic environment which most strongly favoured the lowered variant /a/.

After examining these models, the log likelihood-ratio test was applied to decide which model best explained the linguistic variation found in the feminine ending variable (ah). By doing the chi-square test for the six models, two at a time, the results showed that the difference between the 5th and 6th models were not significant while the difference between the 4th model and 5th or 6th models was significant ($p < 0.05$). This means that the model with the higher degree of freedom is better in explaining the data, i.e. model 4. Thus, the fourth model (with $R^2 = 0.691$) was chosen to explain the linguistic variation found in (ah).

4.7 Findings and Discussion

The results of the final run are displayed in Table (4.1)[49] below. Rbrul returned all three social variables and the preceding phonological environment as significant. The most highly significant factor group is age with (p = 5.83e-161) followed by level of contact with (p = 2.28e-131) and then the preceding phonological environment with (p = 7.16e-06). Gender is the least significant factor (p = 0.0124).

[49] In the table, the R^2 value indicates the proportion of variation the model explains. A positive log-odds value (0+) and a factor weight above (0.5) show that the application value /a/ is favoured, whereas negative log-odds value (-0) and a factor weight below (0.5) indicates that the application value is disfavoured. The log-odds value (0) and factor weight (0.5) means that preference of the application is neutral (Johnson, 2009).

Table 4.1: Rbrul results of the corrolation between the use of (ah) and the independent variables.

				R^2= 0.691 Application value [a]
Preceding sound	**No. of Tokens**	**Mean [a]**	**Log-Odds**	**Factor Weight**
w	54	0.33	1.03	0.74
j	303	0.41	0.39	0.60
Dorsal	339	0.32	0.00	0.50
Emphatics	290	0.26	-0.27	0.43
Coronal	830	0.29	-0.48	0.38
Labial	275	0.23	-0.67	0.34
(p = 7.16e-06)				
Age				
Younger	686	0.56	1.89	0.87
Middle-aged	588	0.37	0.97	0.72
Older	817	0.03	-2.9	0.05
(p = 5.83e-161)				
Gender				
Female	981	0.29	0.18	0.55
Male	1110	0.31	-0.18	0.46
(p = 0.0124)				
Level of contact				
High	980	0.53	1.60	0.83
Low	1111	0.10	-1.60	0.17
(p = 2.28e-131)				
Following sound	**[ ][50]**	**[ ]**	**[ ]**	**[ ]**
Part of speech	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Type of the word	**[ ]**	**[ ]**	**[ ]**	**[ ]**

Of all the linguistic variables examined, Rbrul returned only the preceding phonological environment as significant. As explained earlier, previous studies also showed that the realisation of the feminine ending is influenced by the preceding sound (Owens, 2006, Al-Wer, 2007, Herin, 2013, and Cotter, 2013). The analysis shows that the traditional feature

[50] Empty brackets indicate non-significant factor groups.

(unconditioned raising) is not consistently adhered to; there is a tendency to lower this vowel in certain phonological environments. The lowered 'innovative' variant [a] is highly favoured after /w/ (FW 0.74) and after /j/ (FW 0.60). For the lowered variant to be highly favoured after /w/ is not surprising, given the classification of the labial glide as a labio-velar sound, according to Ladefoged (2005). In their studies of the Ṣalṭi dialect, Al-Wer et.al. (2015) and Herin (2013) found that raising in the feminine ending is precluded after back (velar consonants and beyond) and emphatic consonants, as well as the labio-velar /w/ sound (Al-Wer et al., 2015 and Herin, 2013). However, for /j/ to favour the lowered variant [a] is rather odd considering the information given by medieval grammarians as well as the findings of recent studies in which /j/ along with coronal sounds, turned out to be the most favouring environment for raising the feminine ending *-ah* (see for instance, Owens, 2006, Al-Wer, 2002, 2007, and Herin, 2013).

Another unexpected finding is for the preceding dorsal sounds to show neutrality (FW 0.50), viz. not particularly favouring lowering.[51] Bearing in mind that in the traditional HA dialect the feminine ending is raised in all environments, while in Levantine dialects raising is conditional, the behaviour of a preceding dorsal environment (as neutral) in the current research can be considered as a turning or transitional point towards lowering. In other words, if lowering of this vowel progresses further, as the results indeed seem to suggest, I anticipate that this environment will be consolidated further as an environment that promotes lowering.

Based on the Rbrul results, emphatic sounds appear to slightly disfavour the [a] variant (FW 0.43). This environment, i.e. preceding emphatic sounds, is among the prime environments that block raising according to the ancient grammarians and to research on dialects that raise conditionally. What we see in Ha'il is the exact opposite of such reports and indeed the opposite of what one would expect of the phonological effect of such sounds on

[51] It is worth mentioning that in Models 5 and 6, where /w/ is conflated with dorsal or labial sounds, dorsal sounds appeared to favour the lowered variant [a]. This may indicate that preceded dorsal sounds tend to favour the lowered variant (see appendix B).

surrounding vowels. Thus, how can this result be interpreted?

Let us begin by comparing the results of the two environments: preceding dorsal and preceding emphatics. The emphatic sounds are different from gutturals, laryngeal, pharyngeal, uvular and velar sounds / χ, ʁ, ħ, ʕ, ʔ, h, k, g/ (referred to here as dorsal) in articulation. Emphatic sounds /ðˤ, tˤ, sˤ/ include both coronal articulation and secondary articulation which involves the back of the tongue as a result of the retraction of the tongue body. Dorsal sounds (except for /q/) are articulated with a retraction of the tongue root in the lower pharynx (Ghazeli, 1977, in Al-Solami, 2013, p.315-16). Such differences in articulation may account for the difference in the behaviour of these two sound groups (dorsal and emphatic) in the data, namely that the emphatics, which primary place of articulation is coronal, rank lower than dorsal on the scale of factor groups that favour the /a/ variant, similarly to the coronal sounds. This explanation however does not account for the fact that the group of sounds that have back place of articulation (primary in the case of dorsal, secondary in the case of emphatics) do not 'consistently' promote lowering, as is the case in the dialects that raise conditionally.

Assuming that the feature of unconditional raising found in some Arabic dialects, such as the dialect under investigation, is historically an innovation, the existence of dialects that raise only conditionally suggests that raising was an internal language change conditioned by internal (linguistic) constraints. In other words, historically the change was motivated primarily by universal tendencies of raising in the vicinity of front sounds, mainly coronal. In Labovian terms, such a change would be called 'change from below', or, in the classification of linguistic changes proposed by J. Milroy (1992) is called a 'system-based' change. The current development in Ha'il on the other hand is most likely the type of change that is referred to in the variationist paradigm as 'change from above' or 'speaker-based' change, which is typically motivated by social factors, and involves the 'borrowing' of a linguistic feature from another dialect. In the case at hand, an open realisation of the feminine ending is the only realisation

that is found in the koineised dialect of the capital city (Riyadh), as well as in the whole of the western region; in other words, the dialects that use a raised variant are quite marked (and may be in the minority, in the country as a whole). Therefore, the change affecting the HA dialect is strictly speaking not a reversal of the historical process as such, but a 'sudden' replacement of the raised 'traditional' vowel [e] by the lowered 'supra-local' one [a] (as explained by Al-Wer, 2016). This would probably explain the slight arbitrariness in the ranking of the factors of the preceding linguistic environment. Al-Wer (2016) suggests that some of the ongoing linguistic changes reported in some modern Arabic dialects appear to reverse the historical internally motivated changes in the same dialects (which already have internal linguistic constraints) while other changes are sudden and socially induced. Al-Wer (2016) argues that the historical conditioning factors of raising /a/ to /i/ in *-ah* are either maintained (in the Urban Levantine dialects) or lost resulting in unconditional raising of /a/ (in the traditional dialects spoken in eastern Arabia and Iraq as well as the traditional HA dialect). According to the results given in this study, Al-Wer points out that there is a progressive change toward lowering the traditional raised vowel /e/ to /a/ which is not yet integrated in the linguistic system of HA but used as borrowing from other dialects. She concludes that such a sudden replacement of the traditional vowel /e/ by /a/ is motivated by regional Koineisation (Al-Wer, 2016, manuscript).

The remaining two groups that disfavour the lowered variant /a/ are plain coronal sounds (FW 0.38) and labial sounds (FW 0.34). These two environments promote the raising process, which is broadly in line with the conditions under which raising may occur in the Urban Levantine dialects, and with those mentioned by the medieval grammarians. It is worth mentioning that due to the relatively high number of tokens for the coronal sound group (830 tokens) compared with the number of tokens where the variable follows 'emphatic' (290 token), the mean usage of the open/low variant is higher after coronal (29%) than after emphatics (26%) although the coronal environment is ranked lower.

4.8 Feminine ending (ah) and social variables

This section presents the correlation between lowering of the feminine ending (ah) and the social variables: age, gender and level of contact.

4.8.1 Feminine ending (ah) and age groups:

Table (4.2) demonstrates the distribution of the lowered variant [a] for three different generations (older, middle-aged, and younger).

Table 4.2:Rbrul results for [a] realisation by age group (p = 5.83e-161) (p ≈ 0).

Age Group	No. of Tokens	Mean [a]	Log- Odds	Factor Weight
Younger	686	0.56	1.89	0.87
Middle-aged	588	0.37	0.97	0.72
Older	817	0.03	-2.86	0.05

The Rbrul analysis returned age variable as highly significant (p = 5.83e-161). The results indicate a successive increase by each generation in the use of the 'innovative' lowered variant [a] among Ha'ili speakers. The young speakers strongly favour the lowered variant [a] with 56% usage. The older age group, on the other hand, shows the lowest rate of usage of the lowered variant [a], at less than 4%. They predominantly use the traditional raised variant [e] (around 97%). Thus, older speakers can be considered the most conservative group. Middle-aged speakers use the lowered variant [a] at a rate of 37%. The use of the [a] variant increases steadily, with the biggest rise being between the older speakers and the middle-aged speakers (4%-37%). This pattern strongly suggests that this variable is undergoing change in progress towards the open vowel /a/ led by young speakers in apparent time. This change is not surprising since most dialects in Saudi Arabia (except Ha'il, Al-Qaṣīm, Hafūf, Bal-Qarn and Rufaidah dialects[52]) do not raise the feminine ending *-ah* (Prochazka, 1988, p.19). In other

[52] Al-Qaṣīm and Hafūf are classified as both Najdi and eastern Arabian dialects, while Bal-Qarn and Rufaidah dialects are classified as southern Hijazi or Tihāmah dialects (Prochazka, 1988, p.11).

words, the change can be interpreted as a case of levelling out of marked features, and that [a] is becoming a supra-local variant (Labov, 1972; Trudgill 1986; J. Milroy et al., 1994).

As mentioned above, there is a considerable difference between middle-aged and older speakers as well as between the middle-aged and younger speakers in their use of the [a] variant. Such jumps can be motivated by sudden social change. Older speakers, born during the 1940s, grew up in a community that relied on subsistence economy, mainly farming and simple trading. Only primary education was available. There were a small number of schools. The first official school for boys opened around 1937 and for girls around 1960. The community was also largely limited in mobility as transport facilities were very basic and limited. Accordingly, the social networks were closed and the local people had tight-knit. It is thus unsurprising to find that the older generation maintain a high rate of usage of the traditional form. Middle-aged speakers, born between 1965-1980, encountered a considerably different situation, especially as a result of the discovery of oil and increased reliance on it. The economy of the country as a whole was completely transformed. Education became accessible to the majority of the population who lived in cities, including Ha'il, which in turn encouraged social and physical mobility and thus increased the opportunity for contact with speakers of different dialects. During this period, Ha'il itself developed to assume the position of a major city in the region where healthcare and Good public transport (with paved roads and an airport) became available in addition to schools and some institutions/colleges of education and training. Overall, the level of education increased among the local population. Furthermore, some students, who were willing to continue their higher education, travelled outside the city or even gained a scholarship to study abroad. The city, also, started to attract migrants as well as short-term visitors from the wider region, seeking a better life. New job opportunities became available in both state and private sectors including teaching, medicine and civil services. These changes also heralded a change in the demographic structure of the city's population, as well as in the

mixture of dialects spoken locally. The youngest generation speakers, who were born in the 1990s, embraced the newest phase of developments in the city. During this era, there was a huge increase in schools, university colleges, healthcare centres, and leisure facilities. Furthermore, the presence of new technologies significantly affected their lifestyle. We can thus see that the environment in which the generations grew up locally is considerably different. The linguistic changes found in their speech can be seen as a reflection of these developments and socio-economic changes that influenced the local community.

4.8.2 Feminine ending (ah) and gender

In this section, the correlation between speakers' gender and their use of the innovative variant [a] is examined. The results are displayed in Table (4.3) below.

Table 4.3: Rbrul results for [a] realisation by gender (p = 0.0124)

Gender	No. of Tokens	Mean [a]	Log- Odds	Factor Weight
Female	981	0.29	0.18	0.55
Male	1110	0.31	-0.18	0.46

Table 4.3 shows that gender was returned by Rbrul as the least significant variable (p = 0.0124). The difference in the use of [a] between male and female speakers is relatively small. Men and women behave quite similarly, using the [a] variant 31% and 29% of the time, respectively. Although the higher percentage usage of the [a] variant belongs to the male speakers, female speakers favour the [a] variant (FW 0.56), while male speaker disfavour it (FW 0.46).

The interaction between 'gender' and 'age' as social variables is displayed in (Table 4.4).

Table 4.4: Cross tabulation of the use of [a] variant by age group and gender.

	Female	Male	Total
Older	0.04	0.02	0.03
Middle-aged	0.34	0.39	0.37
Younger	0.59	0.54	0.56
Total	0.29	0.31	0.30

As can be seen in Table (4.4), the use of the [a] variant increases steadily across age within each gender group. This pattern increases our confidence in the conclusion that this variable is undergoing change in apparent time.

In the younger age group, the female speakers are slightly ahead of male speakers in the use of [a], by 5%. They score the highest percentage of use of [a] at about 59%, making them the most innovative group, i.e. leading the change. Within the older generation there is not much difference in the use of [a], as both female and male speakers rarely use the [a] variant, at 4% and 2% respectively, i.e. the feminine ending (ah) is raised almost all the time. Older male speakers represent the most conservative group using [a] just 2% of the time. The pattern is reversed in the case of the middle-aged group where female speakers use the lowered [a] variant less than their male counterparts (34% and 39%, respectively).

The slight difference (within 5%) in the use of the innovative variant [a] by the female and male speakers of the three age groups may indicate that there are as yet no overt social meanings associated with the use of the lowered variant [a] or the local variant [e]. It is noteworthy that while in the case of the older age groups (older and middle-aged) the behaviour of the male speakers is overall consistent with the fact that they tend to be more mobile and therefore exposed more frequently to the target variant, in the youngest age group the pattern is reversed; here, it is rather the female speakers who lead the change in progress. This result is a reflection of social change as well as the opportunities now available to younger women. Restrictions on women's education have been eased off quite noticeably in recent decades, such

that it has become a source of pride for families to encourage their daughters to attend institutions of higher education. Such institutions have become available locally; therefore, there has been a remarkable increase in the opportunities available to younger women of coming into contact with speakers from different dialectal backgrounds without necessarily leaving the local community, but simply through attending the local university –which attracts students from all over the country. For the younger women, therefore, physical mobility is not the only or major channel through which they access the target supra-local feature. These patterns are similar to those found by Al-Qahtani (2015) in two villages in southern Arabia. Al-Qahtani explains the reversal of the age and gender patterns in similar terms; she maintains that the increased availability of schooling locally has brought the younger women in frequent face-to-face interaction with speakers of the target features ([ðˤ] and l-article).

4.8.3 Feminine ending (ah) and contact

The speakers in this study are divided into two groups according to their level of contact with people from different dialectal backgrounds either inside or outside of the city: 1) speakers with a high level of contact, and 2) speakers with a low level of contact. None of the participants have zero contact (see chapter 3, § 3.6.3). Table (4.5) shows the differences in the use of the innovative lowered variant [a] of the feminine ending *-ah* according to Ha'ili speakers' level of contact.

Table 4.5: Rbrul results for [a] realisation by level of contact (p = 2.28e-131) (p ≈ 0)

Level of Contact	No. of Tokens	Mean [a]	Log- Odds	Factor Weight
High	980	0.53	1.60	0.83
Low	1111	0.10	-1.60	0.17

Rbrul analysis returned this factor as highly statistically significant (p = 2.28e-131). The results showed a tendency for speakers who have frequent/dense contact with people from other dialectal backgrounds, both inside and outside of the city, to favour the lowered variant [a] (FW

0.83). They use [a] 53% of the time. Speakers with low levels of contact, who interact less frequently with outsiders and maintain dense social relations within the local community of Ha'il city, use the [a] variant only 10% of the time (FW 0.17).

The linguistic behaviour of Ha'ili speakers, with both high and low levels of contact, shows a similar pattern to that reported in other studies which have discussed the influence of face-to-face interaction between people from different dialectal backgrounds and different communities. For example, in her investigation of the outcomes of dialect contact of Najdi speakers in the city of Jeddah, Al-Essa (2008) found that, in interdental variables, the variation in the use the interdental variants by Najdi speakers is associated with their degree of integration into the Urban Ḥejazi community. Najdi speakers who maintained the Najdi variants of interdental variables have limited contact with Urban Ḥejazi speakers. Horesh (2014) is another study that discusses the influence of language contact between Palestinian Arabic speakers and Modern Hebrew speakers in Jāffa on the phonology of Arabic. Horesh found that there is a correlation between the lenition of pharyngeal articulation and the level of contact Jāffan speakers have with Hebrew speakers, a language which lacks pharyngeal fricative sounds. Based on his findings, younger Jāffan speakers whose language of schooling is Hebrew use the lenited variants more frequently than other speakers whose language of schooling is Arabic or mixed (Arabic and Hebrew). In terms of occupation, his study showed that blue-collar workers favour lenition more than white-collar workers since they have more daily contact with Hebrew speakers (Horesh, 2014, p.80).

In order to build a clearer picture of these findings, a cross-tabulation between level of contact, age, and gender is presented below, Table (4.6).

Table 4.6: Cross tabulation of age group, gender and level of contact in the use of [a]

			Application value [a]
High level of contact			
	Female	Male	Total
Older	0.06	0.03	0.04
Middle-aged	0.77	0.79	0.79
Younger	0.94	0.77	0.84
Total	0.52 (445)*	0.54 (535)	0.53 (980)
Low level of contact			
	Female	Male	Total
Older	0.03	0.01	0.02
Middle-aged	0.08	0.03	0.05
Younger	0.26	0.27	0.27
Total	0.11 (536)	0.10 (575)	0.10 (1111)

** The number in parenthesis represents the number of tokens.*

Table (4.6) shows that the overall difference between males and females in use of the [a] variant is relatively small in both contact groups. In the high contact group, male speakers use the innovative variant 54%, slightly more than their female counterparts at 52%; while in the low contact group, female speakers are slightly ahead of male speakers in using [a], at 11% and 10%, respectively. However, by observing the level of contact between speakers of the same gender, the results show that in the middle-aged and younger age groups, the influence of the contact variable appears to be highly significant, while it only has a minor influence on the speech of the older participants, i.e. both high and low contact older speakers appear to be linguistically conservative in using of the local variant [e]. They are quite similar in their linguistic behaviour toward the innovative [a] variant, using it very rarely at 4% and 2% of the time, respectively.

Such results are expected given that the nature of contact that the older speakers experienced is different from that of the younger generations. Actually, they are exposed or have been exposed to the innovative variant [a] from several sources. Both high and low

contact old male speakers can be exposed to [a] (in different degrees) via their interaction with people in the streets, mosques, local shops, and hospitals. Besides, some of the high contact older male speakers spent several years outside the city for different studying, teaching, trading or working at large well-known companies, such as ARAMCO, before coming back to the city. Most of them took their families with them as well; so, not only have the men themselves been exposed directly to the target variant but also their families. At the time of research, most of them are either retired or have their own part-time jobs in the local community. All high contact older participants had one or more family member, usually their children, living/working outside Ha'il, with whom they were in regular contact; this forms another source exposure to the target feature. In spite of all these resources, their linguistic behaviour is still not strongly affected. They highly maintain the use of the local variant [e]. Older female speakers of high contact group, on the other hand, are less mobile than their male counterparts and the younger groups of the same level of contact. Despite their limited mobility, they are more mobile than their level contact female counterparts. Similar to high contact older male speakers, they are frequently in contact with their family members living or working outside Ha'il city. Again, such resources appear to mildly affect their use of the local variant. All older female speakers interviewed in this study are unemployed but are still involved in some social activities, such as attending local bazaars and joining social events. In addition to family gatherings, older speakers, both male and female, socialise with the community through '*aš-Šabbah'*, a popular social meeting/event held regularly at certain times and places, usually in houses or rest houses, where some groups of the community meet to enjoy themselves and discuss different issues related to the local community. I have attended one of these (female) meetings and have noticed that it consists of a group of women from the same neighbourhood who take it in turns to host the meeting in one of their houses. This group involves women who were from the local community and had known each other for more than 15 years, in addition to new members who

joined the group few years ago. I claim that such meetings reinforce the use of the local variant [e] among older female speakers with high level of contact who have newly joined the group, since these meetings happen frequently, increasing the levels of exposure of these females to the local [e] variant. The same is true for high contact older male speakers.

Another interesting finding is the influence of level of contact on middle-aged speakers. The results show that speakers with high level of contact use [a] considerably more (79%) than their low contact counterparts who use it only 5% of the time. Such result can also be explained based on the nature of the contact they have. Besides having close relatives from outside the local community or living outside the city with whom they are in regular contact, middle-aged speakers with high level of contact are highly mobile, especially male speakers. Since females' mobility is sometimes dependent on males, women can be considered as slightly less mobile than their male counterparts. They may work in workplaces alongside employees from outside of the city, such as in the university, hospitals, banks and large well-known companies (e.g. STC-Saudi Telecom Company). They may also have their own businesses in which they interact with people from several dialectal backgrounds inside and outside of the city. Thus, their exposure to the [a] variant is relatively high. On the other hand, middle-aged speakers with low levels of contact are less mobile. The nature of the jobs they do is quite limited within the community, usually in the field of education), though they are free to pursue careers either inside or outside the city if they wish. Most of the participants of this group, both males and females, work in schools where almost all of their colleagues belong to the same community. Besides, outside working hours, they may socialise with their relatives, colleagues or next-door neighbours who are also community insiders. Accordingly, they maintain high levels of the localised feature /e/ in their speech. With respect to mobility, males are more mobile and free to travel and work outside the city than their female counterparts who are limited to work in the

city or the nearby villages within the province. In the following two paragraphs, two cases of middle-aged speakers are given.

Tariq

The first example is a speaker with high level of contact. He is 42 years old born in Ha'il city. He used [a] at a rate of 87%. In terms of contact with people from outside the community, he frequently travels to Riyadh (once a week). He is an employee in one of the well-known telecom companies, which allows him to interact with different nationalities in the workplace. One of the company's polices is to offer a number of training courses/workshops for the employees in technical and administrative fields, computers, and English. These courses usually take place in the main training centres or in other companies' branches outside the city and last for different periods of time (three days, two weeks, or six months). Also, the employee may be assigned to work for a certain period of time in one of the company's branches outside the city, i.e. the employees are not settled in one place for a long time. Tariq worked outside Ha'il city for 2 years before being assigned to work in the main branch in Ha'il. When I interviewed him during his working hours, I noticed how he communicated with the customers; he appeared to rarely use salient/local HA features. He sometimes accommodates to the dialect of the customer (e.g. Egyptian Arabic) or even uses a pidginized form of Arabic with non-Arabic speakers. I asked him whether he found it difficult to switch to non-Ha'ili linguistic features, to which he replied that he has become used to speaking with a supra-local type of dialect. These factors induce his usage of the supra-local variant [a].

Zaid

The second example is of a speaker with low level of contact. He is 49 years old born in Ha'il city. He received his education in the Saudi school in Ha'il city and graduated from the teachers' education college, the first collage established in the city in 1984. At that time, the

administrative and academic staffs were from both inside and outside of the city. Also, due to the shortage in the academic staff in some departments such as English, sociology, mathematics and science, many academics from different countries were recruited to teach there, which in turn provided an environment for students and staff/supervisors from the local community to come into contact with others from outside the community, even for a short period of time. *Zaid* graduated from the college in the 1990s and worked as a teacher in several schools within the city. He then settled in one of the schools close to his house, where most of the attendees (students, teachers and administrative staff) are from the same neighbourhood. Socially, he has regular meetings with his relatives, colleagues and next-door neighbours in the local community, i.e. *ash-shabbah*. Such meetings may be restricted to certain age groups as the 'colleague's shabbah' would be, or may involve different age groups such as a 'neighbourhood/relatives *shabbah'*. Therefore, his exposure to the [a] variant is far less than the previous example, which may explain his usage of a relatively high rate of the local variant [e] 95%.

Due to their lifestyles, younger speakers are expected to have a higher level of contact than the other two generations within both high and low contact groups. This should explain why younger speakers with low contact use the [a] variant 27% of the time, more than the middle-aged (5%) and older (2%) speakers of the same level of contact. Generally speaking, younger speakers (both high and low levels of contact) are living in the technology revolution era. Their own needs and interests are different from those of older generations; which in turn make them willing to discover their own world and learn more about several aspects of life. For example, younger speakers often love to stay up-to-date on the latest news related to technology, fashion, sports and other social issues. This desire motivates them to interact with different people who share similar interests. One-way of carrying out such interaction is via the

social media[53]. Most of the male and female younger speakers that I interviewed are active on the social media. They frequently use blogs and social networking sites, especially Facebook, Twitter, Snapchat and Instagram, which could be downloaded as 'mobile applications' onto their smart phones and other devices. Young speakers have their mobile devices to hand and could use them in any time and place, assuming there is network coverage. Besides, they use these social networking applications to stay connected with their family members and friends from inside as well as outside of the city. Through these applications, they can access and share photos and audio-visual materials, and can respond to friends and relatives (in text, video, or audio formats) via these applications, as well. Social media sites/applications, hence, may play a role in enhancing the level of contact among members of younger generations. The final point to raise here is that the use of such technology is not exclusive to young speakers, nevertheless they may differ in the intensity of the usage compared to other generations.

The influence of education

According to Al-Wer (2002), 'education' can be considered as a proxy variable that enhances the level of contact of individuals; in other words, education works on behalf of other variables, especially contact, rather than education itself being the primary influencing force on speaker's linguistic behaviour. In my research, most of the participants in the young age group are students at the university of Ha'il, which was established in 2006. The University of Ha'il takes students from all over the country who reside in the city for the duration of their university education, as well as foreign and Saudi academics from elsewhere in the country and from other Arab, and non-Arab countries. Therefore, the interaction between students from the local community and other people (students/staff) from different social, cultural and dialectal backgrounds within the university campus raises the level of contact of the students of both

[53] It can be defined as "… any Internet or mobile-based technology that promotes social interaction and sharing of user-generated content. It includes blogs and microblogs such as Twitter, social networking sites including Facebook and video sharing sites like YouTube." (Al-Jassem, 2010 in Al-Sharkh, 2012, p. 13).

high and low groups. Thus, the university environment may motivate low contact students to accommodate linguistically to those students and staff who are from outside the community, which may explain the difference in the use of /a/ between this age group and older generations (middle-aged and older). However, in their social gathering events, most of the members are relatives or/and friends from the local community. High contact students are likely to score higher in using /a/ variant than low contact students due to extensive exposure to the target variant /a/ and the plentiful opportunities to utilize this variant in their speech not only with their families/relatives but also with friends and other people in the university and beyond. Regarding travelling, high contact younger speakers travel more frequently than their low contact counterparts. One of the High contact young participants named Fahd was a student at medical college (at the time of research) who was enrolled in the internship-training programme in one of the general hospitals in the city. Also, he joined a number of summer programmes offered by the University, which took place abroad, mainly in France. All of these factors increased his exposure to the supra-local variant [a].

4.9 Summary

This chapter investigates the realisation of the feminine ending -*ah* in the dialect of Ha'il. The variable (ah) has two variants: the supra-local 'innovative' [a] and the local 'traditional' [e]. The results show that the (ah) variable is undergoing change in progress toward the supra-local variant [a] led by younger speakers in apparent time, mainly those with high levels of contact. The statistical results showed significant correlation between the use of the incoming variant [a] and social and linguistic factors under study: age, gender and level of contact, and the preceding linguistic environment. Linguistically speaking, lowering is favoured after only /j/ and /w/ sounds. Dorsal and emphatic environments, which preclude raising of /a/ (according to the medieval and modern literature), are either neutral or disfavouring the [a] variant. The coronal and labial environments promote the inclination process of –*ah* and

disfavour the [a], such influence is broadly aligning with the conditions mentioned by the medieval grammarians and recent studies on some Arabic dialects. Such change prevailed in HA appears not as a *reversal* of the historical change found in the HA dialect system, i.e. a change which is internally motivated by universal tendencies of raising in the environment preceded by front sounds, mainly coronal, but as a 'sudden' replacement of the raised vowel [e] by the low [a] which is socially induced. This probably explains the irregular behaviour of the preceding sounds toward this variable. Such arbitrariness may indicate that what is in HA is a borrowing process of [a], which has not been integrated yet in the HA system, from other dialects, especially the supra-local 'koineised' dialect.

Regarding social factors, age and level of contact show similar patterns to those reported in the literature where young and high level of contact groups use the innovative variant [a] more than the other low and older groups. Despite the fact that women are found to slightly favour the lowered variant, gender plays a relatively minor role in determining the realisation of the feminine ending as yet no overt social meanings associated with the use of either the [a] or [e] variants.

Chapter 5 The realisation of the feminine plural suffix (a:t)

Introduction

In Arabic, the feminine plural is the second type of the sound (regular) plurals[54]. The formation of the regular feminine plural involves adding the suffix *-a:t* to a specific set of singular nouns and adjectives. The feminine plural suffix *-a:t* replaces the feminine ending marker *–ah* in words. Below are some cases where the feminine suffix *-a:t* can be added:

1) Feminine proper nouns such as: *hind* > *hinda:t*, *ʃa:tˁimah* > *ʃa:tˁima:t* 'proper names',

2) Nouns with the feminine ending marker *-ah* whether they refer to female humans or not such as: *maktabah* > *maktaba:t* 'library'.

3) Adjectives modifying feminine nouns and ending with the feminine *-ah* as in: *dʒami:lah* > *dʒami:la:t* 'pretty'

4) Adjectives referring to masculine nouns, with a non-human referent, as in: *ʃa:hiq* > *ʃa:hiqa:t* 'too high'

5) Diminutive masculine nouns, with a non-human referent, such as: *kutajjib* >*kutajjiba:t* 'small book'

6) Some borrowed words that have no other plural forms as in *telfezjo:n* > *telfezjo:na:t* 'television'

(Al-Ghilāni, 1994, 21)[55]

Najdi Arabic dialects, including HA, follow CA pattern in forming the feminine plural. In addition to the conditions mentioned above, the feminine plural in NA can be formed by adding the suffix *-a:t* to certain feminine nouns, participles and *nisba* adjectives ending with the relative adjective suffix *-i/-j*, for example: *dʒa:lis* (m. s.) *dʒa:lash* (f. s.) > *dʒa:lsa:t* 'they are sitting (f. pl.)' and *adʒnibij* (m. s.), *adʒnibijjah* (f. s.) > *adʒnibijja:t* 'foreigners (f. pl.)' (Ingham, 1994, p.33). This suffix can also be added to head adjectives whether they refer to female humans or not, for example: *atta:lja:t* 'the most recent ones', this adjective could refer

[54] The first type is the regular masculine plural. It is formed by adding the suffix -u:n/-i:n based on the infliction case, e.g. (nominative) *muhandisu:n* (accusative) *muhanndisi:n* 'engineers'.
[55] Further cases of regular feminine plural formation can be found in Al-Ghilāni (1994, p. 21-27).

to women or things (ibid., 66-8). In traditional HA dialect, this feminine plural suffix undergoes a process of lenition, the /t/ in the suffix *-a:t* is lenited to /j/ or /h/. Thus, the (a:t) variable has three variants [a:t], [a:h], [a:j].

This chapter focuses on the variation found in the feminine plural suffix *-a:t* in HA. It begins with a brief definition of lenition § 5.1 followed by the main processes of lenition § 5.2. An overview about the lenition of /t/ in *-a:t* in Arabic literature is given in §5.3. Some sociolinguistic studies on lenition of /t/ are provided and discussed in § 5.4. The process of lenition in the feminine plural suffix *-a:t* in HA is illustrated in § 5.5. The data analysis process, findings and discussions are provided in § 5.6. The interaction between the linguistic variable and the social variables is provided in § 5.7, and the chapter winds up with a summary in § 5.8.

5.1 What is lenition

The term lenition (from Latin *lenis*, 'weak') is defined by Trask (2000) as "Any phonological change in which a segment becomes less consonant-like than previously." (Trask, 2000, p.190). It may also refer to both "…synchronic alternations as well as diachronic sound changes, whereby a sound becomes "weaker" or where a "weaker" sound bears an allophonic relation to a "stronger" sound." (Kirchner, 1998, p.1). Campbell (1998) defined lenition as "…a reasonably loose notion applied to a variety of kinds of changes in which the resulting sound after the change is conceived of as somehow weaker in articulation than the original sound". (Campbell, 1998, p.41). Therefore, lenition can be seen as the loss of segmental material (e.g. elision/deletion), an increase in sonority (debuccalisation or spirantization) or an increase in the "ease of articulation" of a phoneme (Honeybone, 2012).

One of the motivations of a sound change is 'ease of articulation', which involves uttering the sound with minimal effort through using different processes of lenition. Labov (2001) discussed the three principles that cause sound change, one of which is the principle of 'least effort'. Commenting on Bloomfield's proposals[56], Labov provides further elaborations of the principle of 'least effort':

- In principle of least effort I, the reduction of speech effort is restricted to a level in which the interlocutors can still understand the speech.
- In principle of least effort II, speakers can reduce their speech effort to a level that leads to some loss of meaning.
- Principle of least effort III is based on the influence of certain factors which lead speakers to reduce the phonetic information in their speech to a point at which their interlocutors may not be able to understand the speech. This principle indicates that there are further factors that may lead to sound change such as laziness or economy effort (Labov, 2001, p.16-18).

Furthermore, Kirchner (1998) argues that the phonetic imperative for minimizing articulatory effort is the main cause of the lenition (Kirchner, 1998, p.3). This coincides generally with what medieval Arabic grammarians assumed regarding the reasons for lenition (i.e. minimizing articulatory effort), which was considered by them as one of the characteristic features of Bedouin dialects (Al-Rajhi, 1998, p.133). Hock (1991) also claims that lenition involves "…a 'relaxation' or 'weakening' of articulatory effort, something that has been called 'the lazy-tongue phenomenon'." (Hock, 1991, p.81).

Escure (1977) provides a scale (outlined below in Scale 5.1) that represents the degrees of lenition and fortition; lenition denotes sound change in descending order, for example, from voiceless to voiced stops while fortition refers to the opposite process:

[56] "It is safe to say that we speak as rapidly and with as little effort as possible, approaching always the limit where our interlocutors ask us to repeat our utterance, and that a great deal of sound change is in some way connected with this factor" (Bloomfield, 1933, in Labov, 2001, p. 16)

Fortition

6 voiceless stops
5 voiced stops /voiceless fricatives
4 voiced fricatives
3 nasals
2 liquids
1 glides
Ø deletion
Lenition

Scale 5.1: Escure (1977) Fortition and lenition scale.

Parker (2008, p. 60) adds further sound categories to this scale, as below. His scale is considered universal and more detailed. In this scale, voiceless stops are the least sonorous sounds while low vowels are the most sonorous. Such scale is better suited for most of the world's languages, including Arabic.

Least sonorous (Fortition)

Voiceless stops
Voiceless affricates
Voiceless fricatives
Voiced stops
Voiced affricates
Voiced fricatives
Nasals
Trills
Laterals
Flaps
Rhotic approximants
Glides
High interior vowels
Mid interior vowels
High peripheral vowels
Mid peripheral vowels
Low vowels

Most sonorous (Lenition)

Scale 5.2: Parker's (2008) sonority scale

5.2 Processes and types of lenition

The core idea of lenition is some reduction in constriction degree or duration of the consonant

(Kirchner, 1998, p. 3); the following processes most commonly fall under the term lenition[57]:

- Determination, or reduction of a long consonant (a consonant cluster, CC) to a short consonant (e.g. tt > t);
- Flapping, or reduction of a stop to a flap, usually either alveolar [ɾ] or retroflex [ɽ] (e.g. t > ɾ);
- Spirantization, or reduction from a stop (or affricate) to a fricative or an approximant continuant, most commonly in intervocalic position (e.g. t > {θ, θ̬ });
- Reduction of other consonants to approximants (e.g. r > ɹ , s > s̬);
- Debuccalization, or reduction to a laryngeal consonant. It involves the loss of place of articulation and preservation of the glottal constriction (e.g. t > ʔ, s > h);
- Gliding is the replacement of stops or spirants with a homorganic glide. (e.g. t̬ c ~ j, p k ~ w).
- Deaspiration is the loss or reduction of aspiration, (e.g. p^h > p)
- Complete elision or 'loss' is considered the final stage of lenition 'at its most extreme' (e.g. t > Ø).
- Devoicing is the loss of voicing, usually in final position (e.g. d > t)

Voicing involves a change from a voiceless sound to a voiced one. It can be considered as a process of lenition even though it does not involve reduction of the constriction of a consonant. It is common with stops (e.g. t > d).

(Kirchner, 1998, p. 1, and Gurevich, 2011, p. 2-7)

Lenition can occur in unstressed syllables, especially in weak environments which involve coda position (either pre-consonantal at word boundaries or word-final), and intervocalic position, (sometimes referred to as: medial position in the vicinity of vowels, sonorous sounds or when the following vowel is not stressed) (Hock, 1991, Kirchner, 1998 and Honeybone, 2012). Escure (1977) considers the consonants in coda position to be more prone to lenition than those in onset position. She attempted to construct a hierarchy of weak environments representing where lenition is likely to occur most: starting with word-final

[57] The vocalisation process, which involves a change to a vowel, is included under the process of lenition, as well (Honeybone, 2008, p.40).

position (the weakest position), followed by intervocalic-position and then word-initial position (Escure, 1977 in Lavoie, 2015, p.7). Therefore, lenition is most likely to occur word-finally and is least likely in word-initial position (Kirchner, 1998, p.8) [58]. Lenition is also favoured in certain environments, especially in (prosodically) weak syllables (Honeybone, 2008, p.40). The Arabic literature appears to support the view regarding the environments that induce lenition, as weakening occurs more often in syllable final position than in initial position, a process that aims to achieve 'ease of articulation' (Al-Nassir, 1985, p.192).

Najdi Arabic dialects, including the HA dialect, incorporate some lenition processes, such as:

- Voicing, the change from the voiceless uvular stop /q/ to the voiced velar stop /g/ (e.g. *qalam* > *glam* 'pen').
- Spirantization, the change from the alveolar emphatic voiced stop /dˤ/ to the interdental emphatic voiced fricative /ðˤ/ (e.g. *dˤa:bitˤ* > *ðˤa:bitˤ* 'policeman').
- Affrication/Palatalisation, the change from stops to affricates, from the voiced velar stop /g/ and the voiceless velar stop /k/ to the voiceless dental affricate /ts/ and the voiced dental affricate /dz/, respectively (e.g. *katf* > *tsatf* 'shoulder' and *gidir* > *dzidir* 'a pot')[59].
- Elision of /ʔ/ in connected speech when it is the first segment of the following word (at word boundaries), e.g. *sakkar ʔalba:b* > *sakkar alba:b* 'he closed the door' (imperative, m. s.)).

A further process of lenition, which is addressed in this chapter, is lenition of the feminine plural suffix *-a:t* in HA. It involves changing of the voiceless alveolar stop /t/ to the voiceless glottal fricative /h/ and/or to the voiced palatal approximant /j/. Thus, it is assumed that the voiceless stop /t/ may undergo diachronic sound change, i.e. be debuccalised to voiceless

[58] The strong position, on the other hand, is the syllable onset either in word-initial or in post-coda position (Honeybone, 2012).
[59] The conditions of palatalisation are presented in chapter 2 (section 2.2.1)

fricative [h] and then glided to [j], or /t/ is either debuccalised to [h] or glided to [j]. The following paragraphs present a brief overview of these two processes of lenition.

Generally speaking, the term debuccalisation (from Latin *bucca*, meaning 'cheek') is defined as the loss of a consonant's place of articulation, i.e. a consonant either turns into a glottal consonant like [h] or [ʔ], or disappears entirely (O'Brien, 2010, p. 2). Lavoie (1996, p. 290) commented on sounds that have undergone debuccalisation that:

> "… Except for glides and one instance of [g], all of the debuccalized stops or fricatives were voiceless. Some glides, such as [j], may be debuccalized. Fricatives usually become [h]. The voiceless velar fricative very frequently debuccalizes. All of the segments that are debuccalized to glottal stops were stops to begin with".
>
> (Lavoie, 1996, p. 290)

Debuccalisation occurs in weak positions, mainly in coda position. In addition to coda position, it can be found in different linguistic environments: word initially, word finally, intervocalically and in the vicinity of various sounds (ibid. p.8). Thus, the conditions of this process of lenition are based on the linguistic systems of each individual language or dialect.

Debuccalisation is well attested in several languages including Arabic, for example, in Cockney English (/t/ to [ʔ]) and Cairene Arabic (/q/ to [ʔ]). Gurevich (2011) provides an example of this process found in an Austronesian language called Toba Battak, in which pre-consonantal /p, t, k/ becomes [ʔ]. Among the languages that exhibit debuccalisation of consonants (to [h]), particularly in coda position are: *Ainu* in which the sounds /p, t, k, tʃ, ɾ/ > [h], *Awa and Tiriyó* in which all obstruent sounds > [h], *Sanskrit* in which /s/ > [h] in syllable final position, and *Liverpool English* in which /t/ > [h] (after short, unstressed vowels and usually in monosyllabic function words). This type of lenition is quite popular in Spanish varieties such as *Latin American Spanish* in which /s/ > [h] (intervocalically and word-finally in polysyllabic words), and *Penin Spanish* dialects in which /s/ > [h] in coda position before

voiceless or sonorant sounds (all examples are cited in O'Brien, 2010, p.5). From most of these varieties, one can witness that a common conditioning factor of debuccalisation is 'final position/coda position', which coincides with the conditioning factor found in our variable (a:t).

The second possible process, involved in this variable, is 'gliding'. It can be defined as "…the replacement of stops or spirants with a homorganic glide." (Gurevich, 2011, p. 7). Gliding is attested in some languages such as the Djapu dialect of the Australian language Yolngu, where 'laminal stops' are glided when following a vowel, liquid, or semivowel in word-medial position (e.g. [b] > [w] as in *ḏa:* 'mouth' + *birkaʔju-N* 'try' [ḏa:-birkaʔju-N] > [ḏa:-wirkaʔju-N] 'ask'). It can occur alone as is the case in the Djapu dialect or as a level of the continuum of lenition process as a diachronic change, as in French where an intervocalic stop > voiced > spirantized > glided (not shown in the pattern) > deleted (e.g. [t]> [d]> [ð]> Ø); and in Latin, where intervocalic voicing of the stop > spirantized or glided > elided ([t]> [d]> [ð]> Ø) (ibid., p. 7, 9-10). Applying this to the case of the HA dialect, /t/ can be either debuccalised to [h] or glided to [j] as two separate processes of lenition; or these two processes can occur in a chain-shift pattern (/t/> [h]> [j]). Such a lenition trajectory corresponds to the sonority hierarchy presented in (scale 5.2) above.

5.3 Lenition[60] of /t/ in the feminine plural suffix *-a:t* in pausal position (medieval and Modern Arabic literature).

In most old and modern Arabic dialects, the general rule of pronunciation of the feminine ending '*ta: ʔattaʔni:θ'* (in singular nouns) is that /-t/ is pronounced as /-e(h)/ or /-ah/ pre-

[60] To maintain clarity of discussion, the terms 'lenition' and 'weakening' are used interchangeably in this chapter to describe the lenition processes, particularly in *-a:t*.

pausally and as /-at/ in connected speech, such as in: *qadimat fa:tˁimah#*[61] 'Fatima (proper name) came' and *madrasatu lbani:n* 'the boys' school'. In the feminine plural nouns with the feminine suffix *-a:t*, the general rule is to pronounce these nouns with [a:t] in pausal position as well as in connected speech, e.g. *θala:θ tamara:t#* 'three pieces of dates' (Al-Rakābi, 2011). Grammarians such as Al-Ghilāni (1993) discussed the /-t/ '*ta: ʔattaʔni:θ*' in pausal position in Arabic. He proposes that if /t/ is attached to a singular noun and preceded by a long vowel /a:/ '*madd'*, it can be pronounced as [a:h] and [a:t]; the latter being more acceptable in his view (e.g. *sˁala:t* and *sˁala:h* 'prayer'); this is also applied to regular feminine plural forms (e.g. *muʕallima:h* and *muʕallima:t* 'teachers (f. pl.)') (Al-Ghilāni, 1993, p.129).

According to Ibn-Jinni (1993) and Al-Huwarīni[62] (2005), some groups of the Ṭay' tribe[63] pronounce the words with feminine plural suffix *–a:t* as [a:h or a:t] in pausal position and [a:t] in connected speech, e.g. *ʔalʔuχwah w alʔaχawa:h* 'brothers and sisters' and *ʔalbanu:n w albana:h* 'boys and girls'. Al-Rāfi'i (2000) commented on this feature as found in the historical Ṭay' dialect, stating that /t/ is replaced by [h] pre-pausally following the general rule of the feminine ending in singular nouns in pausal position i.e. [ah] in pausal position and [at] in connected speech (Al-Rāfi'i, 2000, p.123). In other words, they generalize the rule of replacing /t/ by [h] in pausal position regardless of the type of /t/ in the word either of the feminine plural or the feminine singular ending. The medieval grammarian Qutˁrub postulated that the change from /t/ to /h/ in *–a:t* is a feature in the Ṭay' tribe's dialect; though, this pronunciation is perceived to be irregular (Ibn-Jinni, 1993). Also, these words are written with the grapheme (ـاه) and not with (ـات), e.g. الاخواه and البناه . Thus, the choice of grapheme reflects

[61] In this example, notice that the /t/ in the verb [qadimat] is '*ta: ʔattaʔni:θ'* and written as 'ت' while the *-ah* in the noun is called '*ha: ʔattaʔni:θ'*, and is written as 'ـة' since it can be pronounced as [h] pre-pausally and [t] in connected speech. Further discussion about the origin of '*ha: ʔattaʔni:θ'* whether it is [h] or [t] can be found in Al-Rakābi (2011)

[62] May also be named as Ash-Shāfi'i

[63] As mentioned in chapter two, this feature is claimed to be found in other Semitic languages: Akkadian, Abyssinian and Himyarite (e.g. ʕarabijjat 'Arabic') (Abdel-Tawwab, 1997 and Al-Huwarīni, 2005). Again based on my empirical data, the use of the [t] variant appears to be limited to some older speakers who rarely used it.

its pronunciation in pausal position, i.e. if it is pronounced as /a:h/ it will be written as (ـاه) but if it is pronounced as /a:t/ it will be written as (ـات) (Al-Huwarīni, 2005, p. 292-5).

Šaṭnāwi and Al-ʻAḍāmāt (2009) investigated the use of some old residual linguistic variables in the dialect of north Jordanian Bedouin[64] in the province of Al-Mafraq. The community under investigation was characterised linguistically as conservative since they have low level of contact with other speech communities. Among the features that have been examined is the realisation of the feminine plural suffix *-a:t* as a feature of Ṭay' dialect. The researchers commented on Al-Rāfiʻi's (2000) view concerning this variable that 1) the process of lenition of *–a:t* is one of Tay' tribe features which applied at the first place to the singular nouns in pausal position, 2) the conditions where /t/ of *-a:t* can be lenited to /h/ are analogous to the cases of other Semitic languages[65]. They correspond to Anīs' (1978) view, who argues that the /t/ of *ha: ʔattaʔni:θ* 'feminine ending' is not lenited to /h/ due to the difference between the two sounds in their place/manner of articulation, though, /t/ is dropped and the preceding vowel is lengthened ending up with the pronunciation of a perceptible [h] called in Arabic *Haʔ As-sakt* 'pausal /h/' (Anīs, 1978, p. 232). Back to their investigation, the researchers found that this feature appears in the speech of some Bedouin speakers especially *ʔahl-ʔaldʒabal* tribes 'lit. the mountain tribes' who change /t/ to [h] in connected speech as well as in pausal position (Šaṭnāwi and Al-ʻAḍāmāt, 2009, p. 37-8).

Al-Šamsān (2012) refered to this feature in his discussion of Classical Arabic features found in modern dialects. He mentioned that lenition of the /t/ of the feminine plural suffix *-a:t* to [h] is a Ṭay' dialect feature and can be heard in Ha'il, more specifically by speakers of the

[64] According to Šaṭnāwi and Al-ʻAḍāmāt (2009), Šammar and 'Anizah are among the north Jordanian Bedouin tribes. The Šammar clan is originally descended from the Jabal Šammar region and has spread into the Levant and Iraq. This may indicate that this feature is related to the Šammar tribe and thus may have been carried by them to this specific area.

[65] In some other Semitic languages, the feminine ending *-at* undergoes a process of lenition ending up with full deletion (at > ah > a > a:) (Anīs, 1952). In Aramaic and Hebrew, for example, the feminine ending (-at) is realised as [-ah] either pre-pausally or in connected speech, and then changed to [a:] (Brockelmann, 1916, translated into Arabic by Abdel-Tawwab, 1977, p. 96).

Šammar tribe. Based on my data, this feature is not exclusive to them, as it can be heard from native speakers of the city regardless of their tribal background. Additionally, Al-Šamsān mentioned that there is a further lenition process occurs resulting in the pronunciation of the plural suffix /a:t/ as /a:j^{h} / (Al-Šamsān, 2012, p.29). This coincides with what is mentioned by Al-Swaida[66] (1998, p.47).

Ingham (1982, 2009) and Abboud (1964, 1979) also discuss the feminine plural suffix -*a:t* as one of the features of Ṭay' and found that the /t/ is lenited to [j] pre-pausally or before a word beginning with a consonant, and when it is not followed by a possession/object suffixes or indefinite marker *–in,* e.g. *bana:h* 'girls' vs. *bana:tin ze:na:h* 'pretty girls' and *bana:ti* 'my daughters'. In sum, the literature agrees on the sequence of sound change that affects the feminine suffix -*a:t*, namely that (a:t) is lenited to [a:h] and/or lenited to [a:j].

5.4 Studies on lenition in general

Generally speaking, the process of lenition has been examined cross-linguistically. An overview of some studies[67] of different languages/dialects is briefly presented in the following paragraphs. I tried to focus on the studies where lenition is attested in final position (including coda position) because they could pattern with the HA data presented in this thesis (i.e. plosives lenited in final position).

Liverpool English is one of the most recognizable accents of the British Isles. Among the significant features of this dialect is lenition process which can be described as a change from voiceless plosives (commonly /t/, /k/ and /p/) to fricatives or affricates. It involves spirantization, affrication, and sometimes debuccalisation (Honeybone, 2012). In this review,

[66] It is worth mentioning that based on my empirical data, few examples have the aspirated form of /j/ i.e. [a:j^{h}], as in: ka:sa:j^{h} 'tea cups' and alħa:ra:j^{h} 'neighbourhoods'.
[67] It is noteworthy that most of the studies analyse lenition within the framework of Optimality Theory (OT) (Prince and Smolensky 1993).

the focus is on the debuccalisation of /t/ due to its resemblance to the variable under investigation. Debuccalisation of /t/ to [h] is a common feature in Liverpool English. It occurs in certain phonological and lexical environments. According to Honeybone (2012), debuccalisation requires absolute finality, i.e. /t/ must be in word final position and also *utterance*-final. Also, debuccalisation occurs only in an unstressed syllable in polysyllabic words (e.g. *klaɪmət* > *klaɪməh* 'climate') or monosyllabic function words with short vowels, such as quantifiers, prepositions, and relative pronouns, e.g. *nat* > *nah* 'not' and *wat* > *wah* 'what?' (Honeybone, 2012, p.7).

Watson (2002)[68] discussed the lenition process of /t/ in three environments: Firstly, pre-pausal /t/ in monosyllabic and polysyllabic words. Similar to Honeybone (2012), /t/ appears to be lenited in monosyllabic function words with short vowels. In polysyllabic words, she noticed that in this particular variety schwa has a wider distribution than in RP (Received Pronunciation). In polysyllabic words, debuccalisation of /t/ > [h] occurs only in a final syllable when preceded by a schwa. This underlying schwa consequently turns into [ɨ] after debuccalisation, e.g. *makɪt* (RP), *makəts* > *makɨh* 'market'. The second environment is non-pre-pausal /t/ when it occurs word-finally and is followed by a vowel (*utterance*-medial). In this environment, debuccalisation is prohibited, but /t/ can be realised as rhotic [ɹ/R] when it is preceded by a short vowel, e.g. *gɛɹ ɒf* 'get off' and *makəɹ ən* 'market on'. Watson argued that "/t/ can be realised as [ɹ] *only* in environments which promote /t/ → [h]" (Watson, 2002, p.200) i.e. the conditioning environment of debuccalisation is required prior to the spirantization process. The third environment involves /t/ in word-final position followed by a consonant (*utterance*-medial). In this environment /t/ is not lenited (neither to [h] nor to [ɹ]), and instead is often elided completely as in: *əmi* 'at me'. The word stress also affects the process of

[68] The study was based on the analysis of the recordings of four young female speakers, aged 17, who have lived in Liverpool all their lives. Different types of speech styles are recorded from reading style to a spontaneous conversation, via four tasks given to the speakers to do in two pairs.

debuccalisation, i.e. it is induced in polysyllabic words with an unstressed final syllable. Within the framework of the 'lexical diffusion theory', Watson argues that this process of lenition seems to have diffused through the lexicon over time. In other words, it appears to occur not only in monosyllabic function words but eventually expands to polysyllabic words with a final unstressed syllable (Watson, 2002, p. 195-204).

Another study conducted by Marotta and Barth (2005) on Liverpool English (Scouse), discusses the lenition process in plosives. This study provided an acoustic analysis of the lenition process and investigated the influence of gender as social factor [69]. According to this study, /t/ shows the highest number of possible outputs, changing from affricate to fricative and from a voiceless glottal fricative to an approximant ([t]> [t^{θ}]> [$\underline{\theta}$] or [t^{h}]> [t^{s}]> [s]). The results also showed that lenition occurs frequently in pre-pausal position, particularly in unstressed syllables, and intervocalically. Concerning gender as a social factor, the researchers calculate the percentage of lenited segments of the stops for each speaker. The results demonstrated that the percentage of lenition of /t/ and /k/ is higher in male than in female speakers. According to this study, female speech is driven by prestige norms, i.e. the use of the lenited variants is conditioned by the stigmatisation of these variants. They added that lenition of /d/ is higher in females' speech than males' because it is relatively new and not yet stigmatized (in comparison to /t/ and /k/). Another possible explanation of the linguistic behaviour of females and males is based on Eckert's (1989) proposal that "…women's prestige orientation is the outcome of their powerless position in society, which leads them to signal status linguistically." (Marotta and Barth, 2005, p. 404). In some cases, females appear to use the lenited forms slightly more than their male counterparts. This slight difference may indicate a wide diffusion of lenition process across gender boundaries (ibid. p.408).

[69] The corpus of this study involved spontaneous speech and 'one reading task' recordings of six native adolescent speakers of Liverpool English, of both genders.

Danish language, also, exhibits lenition in coda position, but neither intervocalically nor in syllable-initial position. Hart (2010) examined the consonant lenition processes in coda position by investigating local conjunctions within the framework of Optimality Theory (OT) (Prince and Smolensky 1993). The coda lenition process involves de-aspiration of the aspirated plosives, because in Danish it is prohibited for aspirated plosives to occur in coda position, and the resultant stops are either vocalized or lenited to approximants in syllable-final position, for example: **skip^{h} > skip ~ skiu̯* 'ship' (ibid., 2010).

Many Spanish varieties also exhibit lenition in plosives and fricatives in final or initial syllable and/or intervocalic position. In Chilean Spanish, stops are vocalized in coda position (e.g. /t/ > [i̯] *etniko* > *ei̯niko* 'ethnic'). Word-final coda /s/ or /z/ undergoes lenition in a pre-consonantal context only. Another variety called North-Central Peninsular Spanish (NCS) encounters lenition in plosives in coda position. In this dialect, voiced coda stops undergo spirantization and devoicing when followed by a voiced consonant (e.g. [θixθax] 'zigzag'), and voiceless coda stops spirantize when followed by a voiced consonant (e.g. *frack grande* [frax. ɣran.de] 'large tuxedo') (Morris, 2002). A final example of lenition from Spanish is found in the North Rustic Dominican Spanish (NRDS) variety. In this dialect syllable-final sounds, either obstruents or sonorants, undergo lenition. They can be vocalized (e.g. *kulpa* [kui̯pa] 'blame'), or replaced by [h] or [ŋ]. Nasal sounds, however, are assimilated to the following stop or affricate, or change to [ŋ] (e.g. *sinko* [siŋko] 'five', *kanpo* [kampo] 'field') (Piñeros, 2002).

5.5 Lenition of /t/ in the feminine plural suffix *-a:t* in the HA dialect[70]

There are various lenition processes that have been noted and examined by linguists and dialectologists in the description of different Arabic dialects (e.g. lenition of /q/ to [ʔ] as in

[70] To maintain clarity of discussion, the terms 'lenition' and 'weakening' are used interchangeably in this chapter to describe the lenition processes, particularly in the (a:t) variable in HA dialect.

qalam> *ʔalam* ‘a pen’, palatalisation of /k/ to [ts/tʃ] and /g/ to [dz/dʒ] as in *kalb* > *tsalb/tʃalb* ‘a dog’). However, the lenition process in the feminine plural suffix *-a:t* has not yet been subject to sociolinguistic investigation. It is hoped that this in section we will shed some light on this process as well as the correlation between the linguistic variable (a:t) and the social factors.

According to Abboud (1964) and Ingham (1982, 2009), the feminine plural suffix *-a:t.* is a *Ṭay’* dialect feature and can be lenited to /a:j/ pre-pausally or before a word beginning with a consonant. It is also lenited when it is not attached to any possession/object suffixes or not followed by the indefinite marker as in *bana:h* ‘girls’ vs. *bana:tin ze:na:h* ‘beautiful girls’.

By combining what is found in the literature, we can propose that the feminine plural suffix (a:t) can be realised as [a:t], [a:h] and [a:j] in HA. Thus, it is possible to draw a chronology of sound change that has occurred in this variable based on the lenition hierarchy (i.e. /t/ in *-a:t* is lenited to [h] and /h/ is lenited to [j]), which perfectly fits the definitions of lenition in (§ 5.1), as well as Vennemann’s definition that “A segment X is said to be weaker than a segment Y, if Y goes through an X stage on its way to zero.” (Vennemann cited in Hyman 1975, p.165). This chain shift is also consistent with McCarthy’s (2007) claim that “…a consonant can only assimilate or delete if it first loses its place features by debuccalising, and debuccalization is only possible in coda position.” (McCarthy, 2007, p. 1). Also, the sequence (t > h > j) is supported by the presentation of the two variants in the literature, where only [a:h] is mentioned by medieval grammarians while the modern literature mentions both [a:h], [a:j], and [a:j^{h}]. Another possibility is that /t/ is either lenited to [h] (debuccalisation) or to [j] (gliding) as two separate processes. Both suggestions of the sequence of lenition are in line with Campbell’s (1998) definition of lenition as:

> "…a reasonably loose notion applied to a variety of kinds of changes in which the resulting sound after the change is conceived of as somehow weaker in articulation than the original sounds."
>
> (Campbell, 1998, p.41).

Based on the current data we have, the variable (a:t) is realised as [a:t], [a:h], or [a:j][71]. The lenited forms [a:h] or [a:j] represent the local and traditional variants of HA while the non-lenited form [a:t] is the 'innovative' koineised predominant variant of the feminine plural suffix used in the surrounding dialects of HA as well as in the supra-local variety in Saudi Arabia (Riyadh). Some examples are given below:

ʕru:s zawa:dʒa:h ma ħaðʕrah 'I do not attend wedding concerts'

dʒne:ha:h sʕu:di 'Saudi pounds'

dʒatna min haʃʃa:ʃa:h 'they have been introduced to us via these screens (T.V)'

5.5.1 Coding protocol

The feminine plural suffix variable (*a:t*) undergoes a process of lenition and has three variants: [a:t], [a:h] and [a:j]. I doubled checked the coded data with two native speakers of HA. Files, in Excel sheet format (.csv), were prepared for Rbrul analysis. Classical words and singular words ending with /-*a:t*/ such as *zaka:t* 'zakat' and *mərka:t* 'a special water container' were excluded from the analysis. The total number of tokens is 1070.

The linguistic variables have been specified depending on the conditioning environments mentioned in previous research such as: Ingham (1982, 2009), Abboud (1964), Honeybone (2012) and Watson (2002). The tokens of the feminine plural suffix -*a:t* were coded for the following linguistic factor groups:

- Preceding phonological environment 'before the long vowel /a:/'. First, I coded the

[71] It is worth mentioning that based on my empirical data, [a:j^{h}], as a variant of (a:t) is attested. However, due to the low number of tokens, this variant was grouped with [a:j], so the (a:t) variable has three variants [a:t], [a:j], [a:h].

sounds as individual sounds and then due to the difference in the number of tokens per sound, the sounds were grouped according to their place of articulation, namely dorsal, coronal, labial and emphatics, e.g. *bana:t*, (/n/, coronal)'girls' and *ħsa:ba:t* (/b/, labial) 'accounts'

- Following phonological environment. First, I coded the sounds as individual sounds. Similar to the preceding sounds, they then were grouped according to the place of articulation due to the differences in the number of tokens per sound as: dorsal, coronal, labial, emphatic, front vowel, back vowel and pause. Because of the symmetrical behaviours of all of the consonants and all of the vowels showed in the initial runs, the following sounds were grouped as consonant, vowel and pause, 'pause' indicating that the variable occurs in a pausal position and is not followed by any other sound e.g.:

  ʕru:s zawa:dʒa:h ma ħaðˤrah 'I do not attend wedding parties' (/m/, labial, consonant).

  θala:θ sanawa:t arbaʕ 'three or four years' (/a/, front vowel, vowel).

  dʒatna min haʃʃa:ʃa:h# 'they have been introduced to us via these screens (T.V)' (pause)

- Number of syllables, the tokens were classified first as numbers (2, 3, 4, 5), and then grouped as polysyllabic (3 syllables and above) and disyllabic (2 syllable words). Monosyllabic words are not available in the data because the minimum case is a stem plus a suffix *-a:t* (disyllabic). Consequently, the minimum number of syllables is two e.g.: *ra:jħa:h* 'they have gone'(2, disyllabic)

  zawa:dʒa:h 'wedding parties' (3, polysyllabic)

- Stress, whether the final syllable -Ca:t is stressed or not, e.g.:

  ħa.la.wij. ˈ*ja:t* [+stress] 'sweets'

  ʔaʁ.la.b al. ˈ*ħa:.dʒa:.til.lij* [- stress] 'most of the things that'

- The definite article (*ʔ*)*al-*, whether it is present in the word or not (generally, /l/ usually assimilates to a following dental, alveolar and palatal sounds in a word), e.g.:

  sajja:ra:t 'cars' (without definite article)

  (ʔ)as-sajja:ra:t 'the cars' (with definite article)

- The position of the variant in the syllable (coda, onset), e.g.

  ħsa:ba:t# (coda) *'accounts' vs., ħsa:ba:t atˤtˤabχ* (onset) 'cooking accounts'

- The stress position, which syllable of the word is stressed. e.g.

  *an.naðˤ.*ˈ*ðˤa:.ra:.t aʃ.ʃam.sij.jeh* 'sunglasses', here the word consists of four syllables and the stress is on the third syllable.

Concerning the social variables, the data were coded for:

- Gender (male and female)
- Age group (younger, middle-aged, older)
- Level of contact (high, low)

Four different models were created and examined via Rbrul software (R version 3.2.1) to find out the significant factor groups that influence the use of the feminine plural suffix *-a:t*. In two of these models, I treated the variable (a:t) as continuous, assuming that the linguistic change occurs in a chain shift (a:t > a:h > a:j) based on the sonority hierarchy (mentioned in scale 5.2) and the variation in the use of these variants as reported in early and modern literature (§ 5.3, 5.5). When running a linear model, the variants must be coded as numbers; thus they were given the following values: [a:t]=3 'strongest', [a:h]=2 and [a:j]=1 'weakest'.

In the first two models, I included all the factor groups that I have coded for and ran the first model with the (a:t) variable as continuous and then in the second model as binary. Both models included ten factor groups:

1) Preceding phonological environment (before the long vowel /a:/)

2) Following phonological environment

3) Number of syllables

4) Word with/out definite article

5) Stressed/unstressed final syllable

6) Variant position

7) Stress position

8) Gender

9) Age group

10) Level of contact.

Then, in the third and fourth models, I excluded one factor group (the position of the stress) because the results for step-up and step-down were returned as 'mismatch' in both binary and linear models. The step-up and step-down results of the later models appear matched. Thus, I decided to choose both the logistic regression and the linear models with one factor excluded, to interpret the variation in the use of the (a:t) variable; the two treatments (continuous and binary) are presented below:

5.6 Findings and discussion

This section includes the results of the continuous model followed by those of the logistic regression model.

5.6.1 Feminine plural suffix (a:t) as a continuous variable

This linear regression model treated the variable (a:t) as continuous on a scale from 1-3 where the values for the variants are: [a:t]=3 (strong/non-lenited variant), [a:h]=2 (intermediate 'lenited' variant) and [a:j]=1 (weak/lenited variant). The results of this model are displayed in Table (5.1)[72] below.

In this model, the application value is the non-lenited variant [a:t]. The R^2 value is (0.365) indicating that this model explains around a third of the variability of the whole data.

[72] A positive co-efficient shows the tendency to pronounce the variant closer to the non-lenited variant [a:t] (3) while a negative co-efficient shows a tendency to pronounce the variant closer to the lenited variant [a:j] (1).

Table 5.1: Rbrul results of the correlation between the use of (a:t) and the independent variables_(Continuous).

			R^2= 0.365 Application value [a:t] (Continuous)
Following sound	**No. of Tokens**	**Mean [a:t]**	**Co-efficient**
Vowel	190	2.85	0.24
Pause	216	2.51	-0.10
Consonant	664	2.47	-0.14
(p = 7.32e-06)			
Number of syllables			
Polysyllabic	819	2.59	0.06
Disyllabic	251	2.38	-0.06
(p = 0.0176)			
Stress			
Stressed	873	2.51	0.09
Un-stressed	197	2.70	-0.09
(p = 0.0195)			
Age			
Younger	300	2.97	0.38
Middle-aged	402	2.58	0.05
Older	368	2.16	-0.43
(p =1.5e-54)			
Gender			
Male	475	2.83	0.22
Female	595	2.31	-0.22
(p = 1.18e-26)			
Level of contact			
High	440	2.83	0.22
Low	630	2.34	-0.22
(p = 5.36e-27)			
Preceding sound	**[ ]** [73]	**[ ]**	**[ ]**
Variant position	**[ ]**	**[ ]**	**[ ]**
Word with definite article (al-)	**[ ]**	**[ ]**	**[ ]**

[73] Empty brackets indicate non-significant factor groups.

Rbrul returned the following factor groups as significant: age, gender and level of contact from the social factors, and the following phonological environment, the number of syllables and final syllable stress from the linguistic factors. Based on the P values, the most highly significant factor group is age with (p = 1.5e-54) followed by level of contact (p = 5.36e-27) and gender with (p = 1.18e-26). The significant linguistic factor groups are in the following order: the following phonological environment with (p = 7.32e-06), the number of syllables (p = 0.0176) and the final syllable stress (p = 0.0195), as the least significant factor.

The results presented above indicate that:

1. The behaviour of most of the factor groups in this model, which were returned significant, is quite similar to their behaviour in the logistic regression (below Table 5.2).
2. When a word is followed by a vowel, speakers tend to use the [a:t] variant more than when it is followed by a consonant or occurs in a pausal position, where the lenited forms are favoured, for example:

   θala:θ sanawa:t arbaʕ 'three or four years' (followed by a vowel).
   tegel sʿabba:ba:j# 'they look like waitresses' (in pausal position).
   waħdeh min amdarsa:j (/l/ in *al-mdarsa:j* is deleted) *tugu:l* 'one of the teachers said' (followed by a consonant).

3. Polysyllabic words slightly favour the non-lenited variant more than disyllabic words.
4. An interesting result is the link between the speakers' tendency to use the [a:t] variant and whether the final syllable is stressed or not. This factor seems to be an important indicator that lenition would be preferred in unstressed final syllables. It only emerges as significant when the variable is treated as continuous i.e. in the linear regression model only.

5. Age is highly significant factor group. Younger speakers, who score (2.97) on a scale of 1 to 3, tend to use the non-lenited variant [a:t] more than middle-aged and older speakers.
6. Male speakers appear to favour the non-lenited (koineised/predominant) variant more than female speakers.
7. The role of contact in determining which variant is used is significant, as well, i.e. speakers with high levels of contact favour the [a:t] variant more than low levels of contact speakers.

This overview of the linear regression model confirms the hypothesis proposed regarding the influence of the density of contact between Ha'ili speakers and speakers from different dialectal backgrounds on the use of (a:t) variable. Also, the age pattern shows a consistently rising pattern, with the youngest speakers being the most innovative and leading the change toward the non-lenited variant while the older speakers are the most conservative group. The gender pattern seems to contradict the pattern found in different languages and communities, including other Arabic dialects, where, in the case of change in progress, women lead the linguistic change by favouring the use of the koineised and supra-local (and prestigious) forms more than men, which in the case at hand would be the [a:t] variant. Further discussion will be added after presenting the logistic regression model, below.

5.6.2 Feminine plural suffix (a:t) as binary variable

In this sub-section, the (a:t) variable is analysed as binary in which the values are [a:t] as a non-lenited form vs. any lenited form [a:h] and [a:j]. The result of this model is displayed in Table

(5.2)[74] below. The overall usage of the non-lenited variant [a:t] is high (73%, N= 782) compared to the lenited variants [a:h] and [a:j] (27%, N= 288).

In this run, the application value is [a:t]. The R^2 value is (0.702) indicating that this model explains around two third of the variability of the whole data. Rbrul returned the three social variables, the following phonological environment and the number of syllables as significant factor groups. The most highly significant factor group is age with (p = 1.26e-60) followed by gender (p = 1.87e-34) and level of contact (p = 2.04e-29). The following phonological environment (p = 3.4e-07) is the most significant linguistic factor group followed by the number of syllables as the least significant factor group (p = 0.0204).

[74] A positive log-odds value (> 0) and factor weight (above 0.5) show that the application value is favoured, whereas negative log-odds value (< 0) and factor weight (below 0.5) indicate that the application value is disfavoured. A log-odds value of (0) and factor weight of (0.5) would mean that preference of the application is neutral (Johnson, 2009).

Table 5.2: Rbrul results of the correlation between the use of (-a:t) and the independent variables_(Binary).

				R^2= 0.702 Application value [a:t] (Binary)
Following sound	**No. of Tokens**	**Mean [a:t]**	**Log- Odds**	**Factor Weight**
Vowel	190	0.95	1.13	0.76
Consonant	664	0.69	-0.56	0.36
Pause	216	0.69	-0.57	0.36
(p = 3.4e-07)				
Number of syllables				
Polysyllabic	819	0.76	0.25	0.56
Disyllabic	251	0.65	-0.25	0.44
(p = 0.0204)				
Age				
Younger	300	0.98	2.64	0.93
Middle-aged	402	0.74	-0.33	0.42
Older	368	0.52	-2.31	0.09
(p = 1.26e-60)				
Gender				
Male	475	0.91	1.26	0.78
Female	595	0.59	-1.26	0.22
(p = 1.87e-34)				
Level of contact				
High	440	0.89	1.19	0.77
Low	630	0.62	-1.19	0.23
(p = 2.04e-29)				
Preceding sound	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Stress	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Variant position	**[ ]**	**[ ]**	**[ ]**	**[ ]**
Word with definite article (al-)	**[ ]**	**[ ]**	**[ ]**	**[ ]**

The results displayed above show that the main linguistic factor influencing this

variable is the following phonological environment. Such results reflect the findings mentioned by Abboud (1979, 1964) and Ingham (1982, 2009). The table shows that the [a:t] variant is most likely to occur when followed by a vowel (FW 0.76). However, when it is followed by a consonant or occurs in pausal position, [a:t] is disfavoured with (FW 0.36) and (FW 0.36), respectively. There is no difference between the two environments as shown from the FW results (both have FW 0.36). Consequently, both phonological environments, following pauses and consonants, are effective promoters of lenition, i.e. the lenited variants [a:h] and [a:j] occur more frequently in these environments, e.g.:

*alawwala:**h** **w** atta:lja:**h** #* 'the elders (f.pl.) and the youngsters (f.pl.)'

*baʕðˁ alkalima:**j** **ħ**atta* # 'even some words'

As opposite to

*ħinna bana:**t** **w** niʃtiʁəl* 'we are young female workers (lit. we are girls and we work)'

As can be seen in the first two examples, /t/ of the *–a:t* is in coda position which is considered a weak position and thus lenition is expected to apply in these environments. On the other hand, when /t/ occurs pre-vocalically (third example), it is in the onset position where we do not expect lenition to apply.

Lenition of /t/ is also found in different varieties of other languages. In Australian English, for example, in an informal conversational speech style, /t/ can be lenited to [ʔ] in similar environments, i.e. before a pause and pre-consonantal final position, e.g. *Celt from* > *Celʔ from* and *different #* > *differenʔ* (Tollfree, 2001, p. 59). The same is also true for Liverpool English, in final position /t/ can be lenited to [h] or even elided completely when it is preceded by a short weak vowel, e.g. *makɨh* 'market' (Watson, 2002, p. 200).

In addition to the following phonological environment, the statistical analysis indicates that word length, as a linguistic factor, significantly affects the lenition process. When the suffix *-a:t* occurs in polysyllabic words, (a:t) is more likely to be realised as [a:t] (FW 0.56)

than in disyllabic words (FW 0.44), e.g. *bnaj.ju.wa:t* 'little girls' vs. *ki:.sa:j* 'tea cups'. Hence, in the HA dialect, lenition appears to be mildly disfavoured in polysyllabic words, while fortition is mildly favoured in this type of words.

In the literature, the number of syllables in a word appears to condition the lenition process. In Liverpool English, lenition is more common in monosyllabic function words than polysyllabic words, though it can occur in the latter under certain phonological conditions (Watson, 2002, see § 5.4). In Latin American Spanish, syllable-final /s/ is prone to deletion in polysyllabic words more than monosyllabic words, in both function and content words. In his study, Fox (2006, p.115) proposes that "…there is an average of more than 10% greater deletion rate for words with 2 or more syllables in comparison with words that have only one syllable.". Also, the deletion rate in polysyllabic words is relatively constant, i.e. it increases as the number of syllables in a word increases (ibid., 2006). This is also true for Cuban Spanish, in which Terrell (1979) suggests that word length significantly affects /s/-lenition. He analysed words binary as polysyllabic and monosyllabic words, and found that polysyllabic words are more likely to have a lenited /s/ than monosyllabic words (Terrell, 1979). However, in Caleño Spanish, when words were analysed using gradiant measurements of the word length, i.e. by the number of phonemes, word length was not selected as a significant predictor of /s/ realisation (File-Muriel and Brown, 2010, p.53). From the examples given above, it seems that each variety has its own linguistic constraints on lenition which may or may not be applicable to other varieties.

In the HA dialect, words with the feminine plural suffix *-a:t* were analysed as either disyllabic or polysyllabic words, since monosyllabic words are not available. And because polysyllabic words can include the class of disyllabic words, the comparison between monosyllabic and polysyllabic words mentioned in previous studies is not quite comparable to the case in HA. Nonetheless, the results for the non-lenited variant [a:t] in HA did show that

word length is significant predictor of /t/ realisation (albeit the least significant among the other factor groups, p = 0.0204), with the non-lenited variant [a:t] is slightly favoured in polysyllabic words (FW 0.56) and occurs at a relatively high rate 76% compared to the disyllabic words where [a:t] is disfavoured (FW 0.44) and occurs at rate of 65%.

A further step was performed to determine the impact of this factor as it interacts with syllable stress, (explained in §5.6.3) below.

5.6.3 The correlation between stress and number of syllables

According to Hock, 1991, Kirchner, 1998 and Honeybone, 2012, stressed syllables trigger qualitative fortition, whereas unstressed syllables are associated with lenition. Thus the behaviour of stress in this variable in the HA dialect is worth exploration; even if Rbrul did not return it as a significant predictor in the logistic regression model. In the dialect of HA, the possible stress parameters in words with the feminine plural suffix *-a:t* include:

1. The ultimate syllable receives stress if it is CVVC such as

   CVV.**'CVVC** → *ka:.* *'sa:j* # ‘tea cups’

   CVC.**'CVVC** → *ʃab.'ba:t* # ‘popular social meeting’.

   CV.**'CVVC**.CVV.CVC.**'CVVC** → *ba.'na:t.ʕa:.dij.'ja:t* # or *ba.'na:h.ʕa:.dij.'ja:h* # ‘ordinary girls’.

2. Stress falls on the penultimate syllable if it is heavy and the ultimate syllable is not CVVC, as in:

   CVC.**'CVV**.CVV.CVC. **'CVVC**.CVV → *dʒaw.'wa:.la:.tan.'nu:k.ja:* ‘Nokia mobiles’.

   'CV.CVV.**'CVC**.CVC → *'ba.na:.'taw.wal* ‘girls in the past’

3. The antepenultimate syllable receives stress if the penultimate syllable is not heavy, and if the ultimate syllable is not CVVC such as

   CV.**'CVV**.CV.CVV.**'CVC**. CV.CVC → *mu.* *'ħa:.ðˤa.ra:.* *'tal.qi.sim* ‘the department lectures’.

We notice from the above illustration of stress rules in HA that the final syllable with the suffix *-a:t* is not always stressed. If *-a:t* is followed by a vowel, /t/ resyllabifies and becomes the onset of the following syllable in connected speech as in *tˁal.ʕa:.taw.wal* 'old journeys'. In this example, fortition, viz. variant [a:t], is triggered due to the change in its phonological environment from weak (coda) to strong (onset) position. On the other hand, when *–a:t* is followed by a consonant (in connected speech) or occurs in pausal position, /t/ remains in its final position as in *ba.'na:h.ʕa:.dij.'ja:h* # 'ordinary girls' and *bana:h* 'girls'. Here, lenition, viz. variants [a:h] and [a:j], is triggered due to the occurrence of the suffix *–a:t* in weak (coda) position.

These phonological rules are summarised below:

-a:t → a:t/-V

-a:t → a:h, a:j / - C (in connected speech); - #

A cross tabulation is created to understand the relation between final stress and number of syllables factors and their impact on the realisation of (a:t) variable, see the following Table (5.3).

Table 5.3: Cross tabulation of the use of [a:t] variant by number of syllables and stress

	Final syllable is stressed	**Final syllable is unstressed**	**Total**
Disyllabic words	0.61 (213)	0.84 (38)	0.65 (251)
Polysyllabic words	0.74 (660)	0.83 (159)	0.76 (819)
Total	0.71 (837)	0.83 (197)	0.73 (1070)

Before illustrating the data in Table 5.3, it is beneficial to recall the result of final syllable stress shown in the linear model regression (Table 5.1). The non-lenited variant [a:t] is likely occured in stressed final syllables more than in unstressed ones. Regarding the number of syllables results, [a:t] is slightly favoured in polysyllabic words (see Table 5.1 and 5.2). Bearing these results in mind, the cross-tabulation between these two factors (table 5.3) indicate that /t/

is realised mostly as [a:t] both in disyllabic as well as polysyllabic words when the final syllable is unstressed, i.e. usually in pre-vocalic position and when the final syllable is not superheavy. On the other hand, when the final syllable is stressed, [a:t] occurs more in polysyllabic (74%) than disyllabic (61%) words. The general results of this cross-tabulation indicate that the realisation of (a:t) in the HA dialect is slightly affected by both stress and number of syllable factors.

5.7 Feminine plural suffix (a:t) and social variables

This section presents the correlation between the linguistic variable (a:t) and the social factors: age, gender and level of contact.

5.7.1 Feminine plural suffix (a:t) and age groups

Table 5.4: Rbrul results of the realisation of (a:t) as [a:t] by age group (p = 1.26e-60) (p ≈ 0)

Age Group	No. of Tokens	Mean [a:t]	Log- Odds	Factor Weight
Younger	300	0.98	2.64	0.93
Middle-aged	402	0.74	-0.33	0.42
Older	368	0.52	-2.31	0.09

Table 5.5 displays the distribution of the non-lenited variant [a:t] of the (a:t) variable by three age groups representing three different generations (older, middle-aged, younger). The Rbrul analysis returned this independent variable as highly significant (p = 1.26e-60). The results in this table demonstrate a steady increase in using [a:t] in the younger generations. Younger speakers highly favour the non-lenited [a:t] form, showing almost categorical usage 98%, followed by middle-aged speakers who use [a:t] at about 74% of the time. Older speakers, on the other hand, appear to use both variants [a:t] and [a:j] and [a:h] almost equally (52% [a:t] and 48%[a:j] and [a:h]). These results indicate that the (a:t) variable is undergoing change in progress toward the innovative 'non-lenited' variant [a:t] led by young speakers who almost

shift completely to the [a:t] variant. Such results are not surprising given that the lenition of (a:t) is a marked feature, local and specific to the HA dialect. Such results support the claim that supra-local and koineised features spread and diffuse at the expense of localised and marked features (cf. Labov, 1972; Trudgill 1986; J. Milroy et al., 1994 and Kerswill, 2002)

5.7.2 Feminine plural suffix (a:t) and gender

Table 5.6 displays the difference between male and female speakers in the use of the [a:t] variant.

Table 5.5: Rbrul results for [a:t] realisation by gender (p = 1.87e-34) (p ≈ 0)

Gender	No. of Tokens	Mean [a:t]	Log- Odds	Factor Weight
Male	475	0.91	1.26	0.78
Female	595	0.59	-1.26	0.22

Rbrul returned gender as statistically significant factor (p = 1.87e-34). The gender pattern for this variable makes for interesting reading, with male speakers fairly strongly favouring the innovative variant [a:t] (FW 0.78) while female speakers disfavour it (FW 0.22). Male speakers are ahead of female speakers in using the innovative variant [a:t] across all age groups (see Table 5.7 below). This result means that for this specific variable men are in fact the leaders of the change from the 'local' lenited variants to the 'supra-local' non-lenited one. Such findings appear at odds with general findings regarding gender-differentiated patterns and language change, where female speakers have generally been found the leaders of the linguistic change in the direction of innovative 'supra-local' variants. However, some recent studies have shown a similar gender pattern observed regarding the behaviour of female and male speakers in HA. A case in point is Al-Hawamdeh (2016), who found that both younger and older women behaved more conservatively than men toward the palatalisation of /k/ by using the traditional variant [tʃ] more than men. She attributes their conservative linguistic behaviour to the norms of local traditions. Women have the responsibility to maintain and pass these traditions and

customs onto the next generation, thus their usage of the local dialect can be symbolic of maintaining the local traditions and customs. Such linguistic behaviour may be associated with "… a particular type of prestige, that of the local, well-connected person." (Hawamdeh, 2016, p.117). According to Al-Hawamdeh (2016), the relative immobility of the women in the community she studied is another factor that explains the conservatism of women's linguistic behaviour in her study.

In order to understand the linguistic behaviour of male and female speakers regarding the use of the [a:t] variant, a further analytical step was performed. A cross tabulation between age groups and gender is displayed in (Table 5.7) below:

Table 5.6: Cross tabulation of the use of [a:t] variant by age group and gender.

	Female	**Male**	**Total**
Older	0.28	0.80	0.52
Middle-aged	0.59	0.94	0.74
Younger	0.96	1.00	0.98
Total	0.59	0.91	0.73

Across all three age groups, male speakers are the leaders in adopting the change to the innovative variant [a:t] (91%), especially young male speakers who use the innovative variant categorically (100%), i.e. the change seems to have been completed in their speech. Younger female speakers are the most innovative group in using the [a:t] variant across the three female generations (96%). On the other hand, older female speakers are the most conservative group; they only use the innovative variant [a:t] (28%) of the time. Their male counterparts, however, appear much more advanced in using the [a:t] variant (80%). The difference between the linguistic behaviour of male and female speakers in this age group is intriguing and can be attributed to the social situation of both genders.

Such gender pattern is relatively uncommon, as the evidence from the conducted studies that have similar pattern is relatively low compared to those studies where females lead the

change. For instance, in non-Arabic communities, Thomas' (1989) study on a Welsh mining village (Pont-Rhyd-Y-Fen) found that older women use the local linguistic features more than older men. Thomas (1989) attributes this linguistic behaviour of women to their social network patterns; they appear to have close-knit networks limited to the local community, whereas men have wider social networks due to their jobs which bring them into direct contact with speakers from different dialectal backgrounds.

With respect to studies conducted on Arabic communities, Jebeur (1987) studied the variation in the speech of rural immigrants in Rades, a Tunisian town. He investigated the use of urban dialect features by the rural immigrants. Regarding the use of monophthongs (as urban feature) versus diphthongs (as rural feature), Jebeur (1987) found that convergence to the urban linguistic features is linked to the social contact level of the rural immigrants. He noticed that older female speakers are more conservative toward the rural variants as a result of their relatively low level of integration into the urban community.

Al-Essa's (2008, 2009) investigation of the outcomes of dialect contact of Najdi speakers in Jeddah showed that the older Najdi women are the most conservative group regarding the traditional features of Najdi Arabic. She explained their linguistic behaviour as being a result of the social restrictions of the Najdi community in Jeddah, thus older women have lower levels of contact with the Ḥejazi community and consequently a low level of exposure to the target features. Several years later, those social restrictions were eased as shown in the linguistic behaviour of the younger generations who gained more contact with the Ḥejazi community allowing them greater access to the target features. Thus, there is an increase in use of the target features among younger female speakers. Similar findings occur for the (a:t) variable in the current study, with older women using the innovative [a:t] (28%) of the time, while middle-aged and younger female speakers use it (59% and 96%) respectively. The

younger groups are exposed more than the older group to the target feature [a:t] via interaction with people from different dialectal backgrounds in and outside the local community.

Another interesting gender pattern is reported in Ismail's (2008) study. She investigated variation and change in the use of (r) in two neighbourhoods in Damascus: Shaghoor (an inner-city neighbourhood) and Dummar (a suburban neighbourhood). She used the concept of life mode to explain the linguistic behaviour of the two communities. Ismail found that in Shaghoor younger male speakers are leading the linguistic change toward the innovative variant due to their employment situation in the locality. At the time of her research, all female participants were unemployed except for one, while the male participants worked as market sellers, which in turn brought them into daily interaction with customers from all over the city of Damascus.

A final example of a similar gender pattern is reported in Al-Qahtani's (2015) study of linguistic variation in the use of two ancient features in the Tihamah Qahtani dialect spoken in two villages in'Asīr province, southwest Saudi Arabia. With respect to use of the (ɮˤ) variable, older female speakers were found to be more conservative than their male counterparts. Al-Qahtani attributes this difference to the local community restrictions, as older men are more mobile and do not face restrictions on travel outside of the village, while the older women's social activities are restricted to the local community. The same social "restriction" also applied for the younger female speakers; but, due to the development in the education sector through the opening of new schools and colleges, younger female speakers do come into more frequent face-to-face interaction with speakers (both teachers and students) from different dialectal backgrounds and to the target feature [ðˤ]. Moreover, their negative attitudes toward the social restrictions are thought to motivate them to use the innovative variant more than their male counterparts, who are quite conservative. Al-Qahtani (2015) noticed that younger male speakers use the local features as a way to reflect the authenticity of their products (honey) that they sell

in the city. They express stability in life mode and income, besides their positive attitudes towards their life in their local community.

In all of the cases outlined above the use of the traditional features, particularly in the speech of women, is linked to the social situation of women and men in the community and with whom they interact. Therefore, in the following section I investigate the influence of social interaction on speakers' linguistic behaviour regarding this variable (a:t).

5.7.3 Feminine plural suffix (a:t) and level of contact

The level of contact with people from different dialectal backgrounds either inside or outside the city is used as one of the social variables in this study. Table (5.8) illustrates the differences in use of the innovative variant [a:t] of the feminine plural suffix based on speakers' level of contact with people from different dialectal backgrounds.

Table 5.7: Rbrul results for [a:t] realisation by level of contact (p = 2.04e-29) (p ≈ 0)

Level of contact	No. of Tokens	Mean [a:t]	Log- Odds	Factor Weight
High	440	0.89	1.19	0.77
Low	630	0.62	-1.19	0.23

The Rbrul analysis returned this variable as statistically significant (p = 2.04e-29). The findings show that the use of the non-lenited variant [a:t] by high contact speakers is much higher than by low contact speakers. Speakers who have frequent contact with people from outside the community/new comers to the city favour the innovative variant [a:t] (FW 0.77), and use it 89% of the time. On the other hand, low contact speakers, who interact less frequently with outsiders and maintain close social relationships within the local community of Ha'il, use the [a:t] variant 62% of the time, (FW 0.233). The linguistic behaviour of Ha'ili speakers (both high and low contact speakers) shows a similar pattern to the one reported in other studies which have discussed the density of face-to-face interaction between people from different communities.

In order to build a clear picture of these findings, a cross-tabulation between level of contact, age, and gender is presented below.

*Table 5.8: Cross tabulation of age group, gender and level of contact in the use of [a:t]. * The number in parenthesis represents the number of tokens.*

			The application value is **[a:t]**
High level of contact			
	Female	Male	Total
Older	0.55	0.90	0.74
Middle-aged	0.95	1.00	0.98
Younger	1.00	1.00	1.00
Total	0.82 (208)*	0.96 (232)	0.89 (440)
Low level of contact			
	Female	Male	Total
Older	0.10	0.68	0.34
Middle-aged	0.47	0.88	0.60
Younger	0.94	1.00	0.97
Total	0.47 (387)	0.85 (243)	0.62 (630)

As illustrated in Table 5.9, male speakers in both high and low contact groups are ahead of female speakers in using the non-lenited innovative variant [a:t]. High contact male speakers use [a:t] more than their female counterparts in the older group (90% vs. 55%). For the younger group, however, both genders have completely shifted to the non-lenited variant [a:t]. Middle-aged speakers used the innovative variant at a very high rate; the change is completed in the speech of men and nearly completed in women's speech. For the low contact speakers, [a:t] is frequently used by the younger age group. Younger male speakers use [a:t] all of the time, just ahead of their female counterparts who use it 94% of the time. Middle-aged low contact male speakers use the innovative variant almost double the amount of the female speakers in the same group, at 88% and 47% respectively. Similar linguistic behaviour is also found in the speech of the oldest group, with men using the [a:t] variant 68% of the time, considerably more than women who use it only 10% of the time in their speech.

Such results require a deeper analysis of the social structure/interaction within the community under investigation. The gender pattern found for this variable reminds us of the importance of the social meaning/value associated to different variants.

In the Ha'il community, the linguistic behaviour of older generation males and females can be expected, given that the lifestyle of males and females is often quite different. As mentioned earlier, older men are more mobile than women. In their adulthood, men were working/teaching in the city or outside the city and were more likely to be exposed to the target feature through the different people that they interacted with. On the other hand, women were expected to bear children and maintain their homes, they might be engaged in some social activities but only within the local community, i.e. they had less chance of exposure to the target feature [a:t][75]. Such situation would certainly affect their linguistic behaviour. Since the lenited variants [a:h] and [a:j] are peculiar to the HA dialect and are present in none of the surrounding spoken dialects, Older male speakers were expected to avoid using these 'local' lenited variants in face to face interactions with speakers from different dialectal backgrounds, especially outside of the local community, probably to avoid misunderstanding. Al-Essa (2008, 2009) presumes that the reason why Najdi speakers might abandon the marked variants in their face-to-face interactions with Ḥejazi speakers is partly due to their need to be understood. Additionally, male speakers might be aware of the salience of these variants outside of the local community. In my study, older men went through situations where they were more motivated to converge to the [a:t] variant than women, who only interacted with their families and friends within the local community –women rarely found themselves under pressure to abandon the local form. Thus, women appear to be more conservative in using the local variants than their male counterparts, which is proven by the statistical results presented in Table 5.9.

[75] A similar case is found in Al-Qahtani (2015), mentioned earlier.

The linguistic behaviour of the older speakers affects the linguistic behaviour of the next generation who were in their middle ages at the time of data collection. In addition to the influence of the older generation, the huge developments in the educational and socio-economic sectors contribute to the increasing use of the [a:t] variant by both genders. The natures of the jobs offered to both genders are different; males are free to pursue careers either inside or outside the city while women are less involved in jobs in the wider national public sphere (e.g. politics and the civil service), and limited to work in the city or the nearby villages within the province, mostly as teachers. Thus, women who are less mobile than the men encounter relatively high rates of occurrence of the 'local' lenited variants. Male speakers in this generation are engaged in several social and occupational activities that bring them into face-to-face interaction with different types of speakers and thus motivate them to use the [a:t] variant. Consequently, the [a:t] variant diffused gradually in male speech, to greater levels than with their female counterparts. Chambers (1995) and Eckert (1997) propose that adults in the job market come under the pressure of the "marketplace dialect", i.e. they are expected to use the 'common/ standard' linguistic features rather than the local ones. Through more frequent engagement in the wider 'standard language linguistic market', male speakers are likely to have developed particular awareness to the use of this marked local feature (lenited forms of [a:t]), which works as further pressure on them to adopt the 'standard/ supra local' form [a:t]. I suggest that a combination of all of these factors, as outlined above, explains the findings that it is the male speakers who have led the change towards [a:t] across the generations.

Furthermore, the 'social meanings' that are associated with the usage of the lenited variants provide clues to the gender-differentiated pattern found in the case of this variable in Ha'il community. The fact that women overall frequently use the lenited variants more often than men has given rise to a general perception that the lenited variants are markers of 'women's speech', which represents further pressure on men to avoid using these variants. A

similar case of 'frequency of usage' leading to the emergence of public perceptions and the emergence of gender-differentiated pattern of usage is reported by Al-Wer and Herin (2011). They provided an analysis of the well-known association in Jordan between women's speech and the use of [ʔ] (of (q)), and men's speech and the use of [g] instead. I argue therefore that in addition to the fact that in Ha'il historically men have had more access to the target feature, they consciously avoid using the lenited variants ([a:j] and [a:h]) because such variants are perceived as markers of 'women's speech' –an association that in the first place emerged as a result of frequency of usage-. By comparing the results of gender pattern found in this variable to those of the (ah) variable, we notice that when there is no overt social meanings associated with the use of either the local [e] or supra-local [a] variants, women appear to lead the change away from the local variant [e] (particularly younger female speakers) (see §4.8.2).

In the younger generation almost all four groups behave similarly (Table 5.9). With the exception of women in the young low contact group, the use of the innovative variant [a:t] is categorical. In this generation, the local marked feature seems to be almost levelled out, the change toward the innovative variant [a:t] is nearly completed. Beside the social developments, this linguistic behaviour can be attributed to the social expansion and technological revolution, which has occurred in recent times. The young speakers are more open to the world via social media. They are provided with different means of interaction with people from different dialectal backgrounds through gateways such as university, travel, scholarships, and job opportunities abroad. Male speakers in particular advance the pattern established by the previous generation (Middle-aged). They are aware of the social annotations of the lenited variants. For example, one of the interviewed male participants from the low-contact group commented on the speech of his friend, by saying that "He speaks in a way similar to his sisters". Thus, the change from the lenited variants to the non-lenited one appears to be above the level of consciousness. An additional factor that motivates young speakers of both genders

to use the [a:t] variant is the influence of the supra-local dialect emerging in the capital city Riyadh, a variety which does not have variation in this variable, i.e. (a:t) is realised as [a:t] only. Thus using the [a:t] variant may be associated with the notion of "urbanness" (Horesh and Cotter, 2015).

Concerning the behaviour of both genders in each contact group, we noted that the gap between the older and younger male generations in the high contact group is very little (10%), and in the low contact group the gap between the three age groups increases by a rate of (20% and 12%). Such linguistic behaviour may insist on the influence of the 'social meanings' associated with the lenited variants [a:h]/[a:j] as markers of 'women's speech'. In the case of women, however, we noted much larger jumps between the three generations in both groups (high and low). Such difference in the linguistic behaviour of the three age groups can be attributed to the differences in the socio-economic situation for each generation. Their social interactions, interests and attitudes also play a role in determining their use of the variable. For example, old female speakers are less mobile and their social interaction is limited to the local community more than the two younger groups, and thus they might encounter less social pressure to use the 'innovative' [a:t]. Middle-aged female speakers have a wider social interaction since they have to bear both job's and family's responsibilities. They are affected by the use of technology, which increases the amount of exposure to the [a:t] variant more than older group. Young female speakers are more advanced in their social interaction through different gateways, e.g. the university and social media. Their opportunity to be exposed to the innovative feature [a:t] is higher than the two older groups. Moreover, they have positive attitudes toward modern lifestyle, and are trying to align themselves with the general modern trends (with some social and cultural restriction) in the country, especially those in the modern cities. Their divergence from the local variants can be interpreted as a symbol of these positive attitudes. These factors are likely to influence their linguistic choices. Therefore, it is not

surprising to find that young female speakers are more advanced in using the innovative, supra-local [a:t] variant than older females groups.

The difference between the two middle-aged speakers (high contact 95% and low contact 47%) is due to the difference in the amount of exposure to the innovative [a:t] variant. Most of the participants in low contact group are teachers in the local schools in the city. Their social interaction is quite close and limited to the local community compared to their high contact counterparts who are advanced in using [a:t] as they have wider social interaction with members from outside the local community.

5.8 Summary

In this chapter, I have examined the findings of the realisation of /t/ in the feminine plural suffix *-a:t*. Evidence from previous descriptions of the HA dialect (mainly Ingham, 1982 and Abboud, 1964) shows that there is variation in the use of the feminine plural suffix *-a:t*, thus, (a:t) has two lenited variants [a:h] and [a:j]. This variable is traditionally considered as Ṭay' dialect feature, according to the Arab grammarians. The results confirm that the current variation found in HA is part of an ongoing sound change from lenited 'local' variants to a non-lenited 'innovative' variant [a:t]. The data suggest a strong correlation between using the innovative 'supra-local [a:t]' and age, gender, and level of contact of the speakers. Younger speakers appear to be the leaders of the linguistic change toward the supra-local [a:t] – in this age group, the change from the local variants [a:h] and [a:j] towards the innovative one is almost complete. Interestingly, the results show a gender pattern different from the pattern found in most of the studies from a variety of languages and communities where women are more innovative in using the supra-local and koineised variant than men. In the HA community, female speakers appear more conservative in the use of the 'innovative' [a:t] than male speakers, who favour the [a:t] variant and are in the vanguard of linguistic change toward the supra-local variant. Such

results are explained with reference to the following factors: density of face-to-face interaction, mobility and the social value (overt stigmatisation) associated with the use of the local variants, which in turn motivate male speakers to reduce their use of the local variants to minimum levels.

With respect to the linguistic factors, previous studies of this feature suggested that lenition of /t/ is favoured in pausal position or when followed by a consonant. The lenited variants of *-a:t,* [a:h] and [a:j], are blocked when followed by a vowel. The results here corroborate these linguistic conditions. The number of syllables and the status of the final syllable (stressed/unstressed) have been examined but the results suggest that they have a minor influence on the lenition/fortition processes occurred to /t/ in feminine plural suffix *–a:t*.

Chapter 6 Conclusion

The present study investigated the variation and change in the use of two traditional linguistic features found in the dialect of Ha'il, a city in northern part of Saudi Arabia. The framework of analysis adopted in this study is the Labovian Variationist sociolinguistic paradigm. The linguistic variables under investigation are: the realisation of the feminine ending (ah) and of the feminine plural suffix (a:t). These two variables had not previously been examined sociolinguistically in HA. This study examined the influence of linguistic as well as social factors (gender, level of contact and age) on such variability. The data were obtained through informal sociolinguistic interviews with 47 native Ha'ili speakers living in the city of Ha'il. The speakers were categorised into three age groups (older, middle and younger), two gender groups (male and female) and two levels of contact (high and low) with speakers from different dialectal background. Rbrul software was used for the quantitative analysis of the spoken data obtained.

This study hypothesised that the use of these linguistic variables varies across age and gender groups. Level of contact, as a social factor, between HA speakers and speakers from different dialectal background inside or outside Ha'il city also contributes to the linguistic variation found in the HA dialect. The statistical analysis of these two variables showed that there is ongoing change in progress toward the supra-local koineised variants led by younger speakers. Therefore, the feminine ending (ah) has two variants: 'local/traditional' variant [e] and 'supra-local/koineised' variant [a]; and the feminine plural suffix (a:t) has two variants: 'local/traditional' variants [a:h] and [a:j] and 'supra-local/koineised' variant [a:t].

The rest of this chapter summarises the main findings.

The realisation of the feminine ending (*ah)*

Traditionally, the feminine ending *-ah* is raised unconditionally in the HA dialect. It involves fronting and raising of short /a/ to /ɛ/ or /e/ in all linguistic environments, even after guttural or emphatic sounds (Abboud, 1979, p. 489). Such conditions differ from the raising conditions found in many other Arabic dialects, especially Urban Levantine dialects in which the feminine ending *–ah* is raised except after back or emphatic/velarized consonants. The results of Rbrul runs showed that the preceding sound is the only linguistic factor that affects this variable. The low vowel realisation [a] is favoured after only /j/ and /w/ sounds. In the vicinity of dorsal and emphatic sounds, which induce lowering in dialects that show conditional raising of *-ah*, [a] is either neutral or mildly disfavoured. The coronal and labial sounds promote the raising process, which is broadly in line with the conditions mentioned by the medieval grammarians and resent studies that coronal and labial sounds trigger raising. Such arbitrariness in the results of the preceding phonological environments may indicate another scenario to the change occurred in HA. According to Al-Wer (2016), the linguistic change reported in some Arabic dialects is either a reversal of the historical change (i.e. already has internal linguistic constrains), or socially motivated change (i.e. 'sudden' replacement of the local/ traditional variants by supra-local ones). In the case of HA, lowering /a/ in HA appears not to be a reversal of the historical change which is motivated by general tendency of raising after coronal and labial sounds, but a 'sudden' replacement of the raised vowel /e/ by the lowered vowel /a/ which is not yet integrated to the HA system, such change is socially induced.

With respect to the social factors, the findings agreed with the research hypothesis. All the social factors (age, gender and contact level) were returned statistically significant. The age patterning indicates that younger speakers are leading the change toward the supra-local variant [a], while older speakers are the most conservative group in using the traditional 'local' variant [e]. Women are found to slightly favour the lowered variant more than men. Such linguistic behaviour of males and females may indicate that the two variants [a]/[e] have no associated

overt 'negative' social meaning which might motivate speakers to abandon it, or there is such meaning but has not diffused yet. Speakers with High level of contact use the innovative variant [a] significantly and more frequently than those with low level of contact. Cross-tabulations of the three social factors indicate that younger female speakers from High contact group are the leader of linguistic change toward the use of [a]. These results can be explained in relation to the social situation and the role of men and women in the community. For older speakers, level of contact appears to mildly affect their use of the raised 'local' variant, which can be attributed to their social condition. They are either retired or unemployed and socialise with the local community. Older male speakers are more mobile than their female counterparts in both 'levels of contact' groups. However, they maintain high levels of the localised feature [e]. Level of contact, on the other hand, appears to strongly affect the middle-aged speakers' linguistic behaviour. Men are more mobile than women in this group. High contact speakers either work outside the city (mainly men) or work in mixed environment of people from different communities (both men and women). Low contact male speakers are limited in jobs to the local community, though they are free to pursue careers either inside or outside the city if they wish. Low contact female speakers work as teachers in the city or the surrounding villages within the province. This group socialise with their relatives, colleagues or next-door neighbours who are community insiders. Young speakers are more advanced in using the lowered 'supra-local' variant. Their social lifestyle is different from the older generations. They are considerably more mobile, and have wider and more varied social networks in general. Thus, they have greater opportunity to be exposed to the target feature.

The realisation *of the feminine plural suffix (a:t)*

The second variable is the realisation the feminine plural suffix (a:t). In the traditional HA dialect, /t/ in the feminine plural suffix *-a:t* is lenited to either [h] or [j]. This lenition process is considered to be a feature of the Ṭay' dialect (Ingham, 2009; Al-Šamsān, 2012; Al-Swaida,

1998). The results of Rbrul runs reveal that there is variation in using this variable (a:t) and this feature is undergoing change in progress, led by young speakers, from the lenited 'local' variants [a:j] and [a:h] to the non-lenited 'supra-local/ innovative' variant [a:t]. According to previous research, lenition of *–a:t* is linguistically constrained by 'the following environment'. The lenited form are favoured when followed by a consonant across word boundary or in pausal position. The results reveal that [a:t] variant is found to be favoured when followed by a word beginning with a vowel, and disfavoured when followed by a consonant or in pausal position. These results conform to the conditions of lenition reported in the literature (Ingham 1982; Abboud, 1964). Additionally, number of syllables factor appeared statistically significant. The [a:t] variant is found to be favoured in polysyllabic words more than in disyllabic words. Based on the correlation between number of syllable and stress results (§ 5.6.3) and the stress rule in HA, /t/ can occurs in stressed or unstressed syllables in polysyllabic and disyllabic words. I thus argue that these two linguistic factors seem to have minor impact on the lenition/fortition process in HA.

Regarding the social variables, the research hypotheses are supported by these findings that show that age, gender, and level of contact are statistically significant. The age patterning strongly indicates that younger speakers are leading the change toward the supra-local variant [a:t]. Except for low contact young female speakers (95%), all younger speakers use the innovative variant categorically, which may indicate that the change is almost complete in this age group. With respect to the gender variable, women appear more conservative in the use of the lenited variants than men who favour the [a:t] variant. This gender-differentiation pattern is different from the general pattern found in other sociolinguistic studies, where women are more innovative in using the 'supra-local/koineised' variant than men. In the community of Ha'il city, male speakers favour the [a:t] variant in all age groups and are in the vanguard of linguistic change toward the supra-local variant. Men's linguistic behaviour can be attributed to

the following factors: face-to-face interaction and mobility. Men are more mobile than women. They are free to pursue careers inside or outside the city, and most of their workplaces are mixed environments. They are exposed to the target feature more often than women. Regarding female group, Younger female speakers are more advanced in using the innovative and supra-local [a:t] variant than older female generations due to difference between younger, middle-aged and older women in their social interactions, interests and attitudes. Also, the opportunities for young women to be exposed to the innovative feature [a:t] are higher than those of older groups.

An interesting factor, which provides us with another clues to the gender-differentiated pattern found in the case of (a:t) variable, is the social meaning associated to the use of the lenited local variants [a:j]/ [a:h]. Since the lenited variants are marked features used only within the local community, male speakers, who are mobile and interact with people from different dialectal backgrounds in different degrees, are more motivated to abandon them in favour of the supra-local variant. Thus, women appeared to use the lenited variants more frequently than men, such condition in turn promotes the emergence of a general perception that these variants are markers of 'women's speech'. This perception become widespread over the three male generations, creating more pressure on men to avoid using these variants. In other words, as result of the frequent usage of these variants by female speakers, a general perception emerged, that the local variants are markers of 'women's speech'; which in turn motivate male speakers to use the non-lenited variant instead.

By comparison, in the case of the variable (ah), it was the women who were slightly ahead of the men in leading the change away from the local variant [e] (particularly younger female speakers) (chapter 4, §4.8.2); we noted in this case the absence of overt social meanings in the variation between the local [e] and supra-local [a] variants, while in the case of [a:h] and [a:j], there is a strong stigma associated with their use by men in particular. Thus, It is probable

that the lead by men in the change away from [a:h]/[a:j] is a reflection of this social value (overt stigmatisation).

Supra-local dialect

As a result of urbanisation and modernisation, which took place in the country as whole, frequent and regular contact between speakers of different dialectal backgrounds is likely to lead to social as well as linguistic reconstruction. This in turn may lead to the emergence of regional standard 'koineised' varieties associated with the dialects of Riyadh and Jeddah. Several recent studies conducted in different regions in Saudi Arabia indicate the emergence of such regional levelled dialects. In this study, a progressive levelling process of local/marked features has been observed in favour of the supra-local ones found in the dialect spoken in Riyadh ([a] instead of [e] in the feminine ending *–ah* and [a:t] instead of the local [a:j] and [a:h] in the feminine plural suffix *-a:t*). People, especially young speakers who were born and raised in an era of social stability and economic prosperity, are motivated to abandon the local variants and use the supra-local variants. Additionally, they are aware of the emergence of *ʔal-lahdʒah al-be:ðˁa* 'the neutral (lit. white) dialect', the dialect in which localised features are levelled out and are motivated to use it with people from different dialectal backgrounds.

Further research

This study investigated two linguistic variables found in the traditional dialect of Ha'il. Based on the findings, these two traditional variables have local variants and supra-local 'koineised' variants. The overall results of the study indicate that there is a change in progress toward the innovative forms as a result of modernisation/urbanisation affecting speakers' social life and interactions. Future sociolinguistic investigations involving children would help follow up on the progression of these linguistic developments.

The HA dialect contains several traditional features that require further investigation and which have not been covered by sociolinguistic research yet, For example:

1) Augmentative noun forms peculiar to HA such as *bwa:t* for *be:t,* 'a big house'.
2) The realisation of the 3rd person singular feminine verbal suffix *–at* (perfect tense): *ga:mat* > *ga:meh* 'she stood up'.
3) The palatalisation of /k/ and /g/ to /ts/ and /dz/, respectively, (e.g. *katf* > *tsatf* 'shoulder' and *gidir* > *dzidir* 'a pot').

Also, the issue of the emergence of *ʔal-lahdʒah al-be:ðˁa,* 'white dialect', needs to be investigated in order to test whether there is such a dialect, and to describe its linguistic features and determine its influence.

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Appendices

Appendix [A]: Samples of speech

- ***Low-contact older male speaker:*** He was talking about the difference between the present and the past with respect to: respecting elderly people and how people were socially connected in the past.

*... gabəł **assajja:ra:t** jartsab ħma:ruh muʕuh χerdʒuh w muʕuh ma:wh w isstiʕda:duh# we:n? ga:l ʔəmməl lij mn **arreðˁa:ʕeh**# ib bagʕa: lij snete:n ma: dʒi:tah w abaru:ħ azu:rah ib bagʕa: ʕala ħma:r χamsu tisʕi:n ki:lu# w hij ʔəmm **reðˁa:ʕeh**# halħi:n ʔummuh illi tˁa:lʕin min batˁnah ma:lah **gi:meh** ʕinnduh# ʔummuh illi hu min batˁnah ma:lah **gi:meh** ʕinnduh# **ʔaldʒeddeh** ma:lah **gi:meh**# ʔawwal **aldʒeddeh** muqaddaseh# **ʔalxa:leh** muqaddaseh ʔalli tegəsˁ serruh awwal jsamma.. dʒeddetij# muqaddaseh# jizu:rah meθel ma: jizu:r ħari:muh alli# al# ʔalʕedʒezz alli **grajba:h** luh liannuh hij **fla:neh** gasˁsˁat serruh sˁa:rat dʒeddetin luh .....*

(in the past) before the cars, a man ridded his donkey (preparing himself for travelling) by putting his carpetbag and taking all what he needs. And (when you ask him where are you travelling to?), he responded that he intends to visit his foster mother in Baqʻā who he had not visited for two years. On his donkey, he travels to Baqʻā which is 95 Km (away from Ha'il city). (he visited her even if) she is his foster mother. However, currently, (the boy) does not respect his mother, even his grandmother. In the past, the grandmother was highly appreciated (lit. precious), the aunt was highly appreciated, his mother's midwife, who also called grandmother, was highly appreciated. He was responsible to visit her besides his close female relatives, because, she was his mother's midwife.

*ʔawwal la: nezal aðˁʕajjif ʕinnd alfala:li:ħ jaʕarfu:nuh ðˁuru:fuh mahij msa:ʕdetuh# ha:ða balmo:sem jχsˁsˁisˁ luh **nχaleh** ha:ði **mini:ħeh** jalgetˁa lagtˁ#*

In the past, when the poor man came to the farmers, they knew his condition and helped him. One (of the farmers) might allocate one palm to be cultivated by this poor man.

*ʔaðkər ʔadharat **addi:reh** w leħidz alʕarab dʒu:ʕ ..... w awwal jiʕi:ʃu:n ʕala alħemme:ðˤ w jiʕi:ʃu:n ʕala aldʒahag w jiʕi:ʃu:n ʕala alħuwwa, jiʕi:ʃu:n ʕala alχa:fu:r χa:fu:r# azzarʕ# aʃʃeʕi:r jigesˤsˤinnuh alħari:m w jidʒibinnuh w jkabb ib zibi:l ʕala **suffreh** w jidʒi:bu:n **rðˤumeh** w **melħeh** w ra:ʕjat albe:t teħikk **arðˤumeh balmelħeh** w alubu jdzalba aʃʃeʕi:r welja: χałasˤ ga:l lal weʁda:n dzarbu ku:law lama: taʃbuʕu:n# χa:fu:rin χaðˤar#*

I remembered that (in the past) people in the town suffered from poverty. In the past, people relied (in their food) on several types of plants and green barley grains. The women cut the green barley and placed it on a mat and seasoned it with salt. The mother seasoned it with salt while the father was stirring the green barley until it become ready to eat. Then he called for the children to come and eat until you feel full (become not hungry). It was green barley.

*ʔawwal albadu la: wardaw ʕala alma ʕinndaham arrbaʕ χams ʕaʃer θema:n raʕa:ja#.. jazʕabin ha **albana:t** killihin ʕiʃri:n θala:θi:n bent jagðˤəbin ha arrʃa jazʕabin alma mna aldzeli:b w arrdʒa:l jesˤəbbu:nuh la albaʕa:ri:n#*

When the nomands/Bedouin, who have about four, five, ten, eight herds/flocks, came to wells' area, about twenty to thirty girls were responsible to fetch the water from the well while men poured it for the camels.

- ***Low contact older female speaker:*** she was talking about how to make a car (as a toy for the boys), what were the available cosmetics, perfumes and how they decorate the room in the past.

*w aħad ib **dʒiri:deh**# **ʔaldʒiri:deh** ʕesb annaχal... jisˁi:ru:n ʕala nafss alʕasi:b ħagg annaχal w jamʃu:n.... w ha:ða baʕaðˁham dʒuwa:li:l aaa# ʔazze:t dʒuwa:li:n azze:t awwal la:minnaham ʁajjaraw ze:t **assajja:ra:j** jadʒdiʕu:nhin meθl alħi:n albannʃirij ha:ts jadʒdaʕhin dʒuwa:li:l meθel ʃufti dʒuwa:li:l **ʕa:ffeh** hallħi:n ze:t algalij# ʔalħadi:d nafsuh# ha:ða weʃ jaʕamlu:n jigesˁsˁu:nuh min fo:g wla: gasˁsˁo:h min fo:g jiħetˁtˁu:lluh ʃuftij nʕu:l **azzanu:beh** ʔallah jkarrmits jiħetˁtˁehin meθl **alkafara:j** jiħetˁtˁu:nihin jigesˁsˁu:nihin ib sikki:n meθl **alkafara:h** w jħetˁtˁu:n ilha:ldʒa:lu:n ha:lli dʒa:lo:l azze:t ha:ða# jiħetˁtˁu:lluh **kafara:j**# weʃ alli jiħetˁtˁu:n jiħetˁtˁu:n nafs ʕasi:b annaχal ha:ða jwaχru:n ʕnuh ʔall# weʃesmuh ....aaa.. alʕasi:b jsˁi:r bass ʕasˁa jdʒardu:nuh jaʕni .... ha:ða assajja:reh#*

And one (a boy) may use the palm branch (as a car/bicycle). They ride the palm branches. Others may use the empty oil gallons, which were thrown after changing the cars' engine oil. They were thrown besides the garage. They were gallons similar to *Afia* (food brand) cooking oil gallons nowadays, which were made of steel. (The boys) take off the top layer of the gallon and cut a rubber shoes (in circle shape) to make tyres for this gallon. Then, they fit palm branches after removing their leaves, as sticks (to pull the car)… and this was the car (for children in the past).

*la: ma:buh illa **keħleh** tˁeħi:n jiħetˁtˁinnah ballmekħəl keħl atˁtˁeħi:n w ʕəgəb tˁalaʕ alwerss alli jiħatˁtˁ ba:.... arro:dʒ ....*

No, there was only *koħel* (powdered eyeliner) to wear. They (women) put the *koħel* in a special pot called *Mekħal.* After that, the lipstick became available.

*.... w buh aʃja: jaχaltˁinnihin ħari:m.. ha:ða ħagg **azzawa:dʒa:h**# jidʒibinnuh jaʕni jimkin θala:θ tanwa:ʕ arrbaʕ tanwa:ʕ.....*

There were perfume mixtures special for weddings, mixed by women (specialised women), and consist of three or four types (of perfumes).

- ***Low contact middle-aged male speaker:*** he was talking about the social gathering events in Ha'il and how they differ from gathering events the past. Also, He was explaining the way of making and serving the coffee.

alidʒtima:ʕa:t *jaʕni#* ***maʃhu:reh*** *ħa:jil ba:l* ***ʃabba:t*** *...* ***maʃhu:reh*** *bal* ***ge:la:t*** *b* ***tˁalʕa:t*** *albarr# ...* ***ʕaʃareh*** *χamstˁaʕaʃ jiru:ħu:n dʒimi:ʕ ib* ***sijja:ra:t*** *w jimreħu:n hna:k .... w* ***aʃʃabba:t*** *le:lijjan* ***ʔistira:ħa:t aʃʃabba:t*** *le:lijjan min baʕd alʕiʃa w na:s mn alʕasˁər ... fi:h baʕðˁ* ***alħa:ra:j*** *mħa:fðˁi:n ʕaljah baʕd almaʁreb...baʕðˁ* ***alħa:ra:t*** *ma: hu kellah*

The social gathering events, do you mean? Ha'il is very popular in these events and in the picnics. (For the picnics) ten or fifteen persons go as a group by (their) cars and spend a night there… And the social gathering events (called *aʃʃabba:t*) are held daily after Al-Isha' or after Al-Aser prayers …. Some neighbourhoods have these local meetings regularly after Al-Maghrib prayers. Some neighbourhoods do so.

w balle:l ma:fi:h ***ʃabba:t*** *wala ʃaj ʔumma alʔa:n la: ʔeχtalaf alħi:n bass aʃʃi:ba:n akba:r aw* ***alħa:ra:t*** *jiʃəbbu:n balesbu:ʕ marre ... ħatta* ***assa:ʕe waħdeh*** *θente:n balle:l*

(In the past) There were no such meetings in the night; today the situation has changed. Older people or the (old) neighbourhoods have these events once a week, these social gathering events last until 1:00-2:00 after midnight.

halħi:n mawdʒu:d ʕinndana fa hu jħames lak gidda:mak halħi:n mawdʒu:d# jaħams ***aghaweh*** *w jidiggah w jizajjil lak* ***haghaweh*** *w jisˁiblak# .. gidda:mak jzajnu:n* ***aghaweh*** *gidda:mak jzajnu:n aʃʃa:hi w jisˁibu:l lak.... ka:n jidʒi:bah χaðˁra w jiħetˁtˁah b* ***almeħma:seh*** *w jħarkah jħarkah ħatta innah tistewij w jitˁalʕah la: bredeh hu naffsuh daggah aw ʕinndaham ka:n tˁuwa:ħi:n jidʒi:bu:nah baljadawijjeh ʔi:h* ***tˁa:ħu:neh jadawijjeh*** *ʔaw jidiggah ba annedʒer w jfawħah w jiħetˁtˁ alhe:l w jχallija ʃwe:n w jisˁəbb ...* ***ha:ðˁreh*** *ʔabad kelliʃ dʒidi:d ma:fi:h jaʕni mn awwal minams* ***matˁħu:neh*** *wella* ***madgu:geh*** *la: la:…*

Until now we have (this habit) that the man roasts (the coffee) in front of you. He roasts the coffee, grinds and pours the coffee (in the pot) and serves you (the coffee). In front of you, they

make both coffee and tea and serve you. (He was talking about the process) (The man) brings the green (raw) coffee beans and roasts them and lets them cool down, then he himself grinds some coffee, (in the past) they had manual grinders. Yes, manual grinder or he grinded them using the mortar, then cooks the coffee and the cardamom for a while then pours it… Ready… everything is new/fresh; the coffee is not already grinded, no… (i.e. this process is in the presence of the guest)

- ***Low contact middle-aged female speaker:*** she was talking about the social gathering events in Ha'il and how easy they became. Also, she commented on the preparation for the trips.

ʃabba:t *alħi:n wallah kala:feh# jaʕni aldʒi:ra:n iŋtˁaʕaw ʔalgara:jib iŋtˁaʕaw halħi:n ma:fi:h….. bannesbe l ʕa:jlatna* ***aldʒamʕa:j balisstira:ħa:jh#*** *dawrijjah ʕaʃa:n ma: nengətˁeʕ# ħamu:leti w χawa:lij w ħatta dʒi:ra:nana:* ***dawrijja:h*** *balistira:ħeh jimkin tasmeʕi:n behin χałasˁ inti bass ʕale:ts attanðˁi:m al...tista:giri:n istira:ħeh w tratbi:n alʕaʃa kelluh gatˁtˁijjeh ʃufti ma:fi:h ma: taʕazmi:n anna:s mahij mints ʕazi:meh ʔih bass jisˁi:r murattab barna:madʒ murattab kell marreh ʕala ʕa:ʔileh#.....ʕa:d teχta:ri:n jabin ʔistira:ħeh ʁa:ljeh ke:fehin …*

Nowadays, these events are costly. The neighbours, relatives rarely hold such events. Regarding my family, we regularly hold these events in rest houses to keep in touch. These events involve my husband's family, my relatives and even my neighbours. I think you heard about them. (in these events) You only responsible of the organisation of the event renting the rest house and preparing the dinner, gathered amount of money are used for paying the food and the rent. You do not need to invite people, all of them are participating the event. It depends only on the organisation, which is assigned to one family each time they meet. They are free to choose which rest house to book either expensive or not.

dʒamʕa:j *babbju:t ma:fi le:ʃ liʔannah kala:feh law tabij tsajjer ʕale:ts alʕasˁər waħdeh tədeg ʕale:ts alʕasˁər alħi:n ga:lat ʔabidʒi χałasˁ …ʔinnti* ***muwaðˁðˁafeh*** *ma: nemtij aðˁðˁəhər gaʕattij tfakri:n weʃ aħətˁtˁlah wella reħti taʃri:n# taʃri:n min maʕa:mel ha:l χəbəz fetˁa:jer* ***ħalawijja:t*** *jaʕni testiħi:n tugulin tabi tidʒi:nan# na:dir halħi:n jaʕni ʔanna:s jidʒu:n ʔilla mkalmi:n wala jidʒu:n ʔilla b ʔidʒa:ze ʔi ma:fi fa sˁa:rat alisstira:ħa:j halħi:n tˁɬaʕat lanna:s ra:ħeh jaʕni sˁara:ħe ʔi: bass....*

Such events are not held at houses because it is costly. If someone planned to visit you in the evening and called you for this visit, you will exaggerate in preparing for this event, buying pastries and sweets. You will feel wary that it will not be enough. Now, almost all people phone you before coming in the holiday. Thus, the idea of rest house events becomes easier and more practical for people.

tangəli:n nafss waðˁʕits balbe:t lalbarr w innti kellah sa:ʕete:n tabi:n farʃa:j tabi:n mara:tsi tabi:n ðara: tabi:n rwa:g .... kell alli balbe:t tabi tangəli:nuh laʔ w ***albana:t*** *marretin tˁalaʕna: lalbarr ...* ***ʔalbana:h*** *tˁa:gga:****tin annaðˁðˁa:ra:t aʃʃamsijjeh*** *w* ***alqubbaʕa:j*** *w dsu:s w ʃi:la:n* ***mtalaflefa:h****....*

You transfer the same condition in your house with you in your trip, which only lasts for about two hours. You need rugs, cushions, and partition…. You need to take every thing with you (in your journey). Furthermore, in one of our journeys, the girls were wearing sunglasses, sunhats, gloves and scarves protecting themselves…

- ***Low contact young male speaker:*** he was talking about the most attractive thing for him and the youth, the social gathering events and cars.

jaʕni ***alwana:seh*** *w kiða w* ***arro:ħeh*** *w* ***aldʒajjeh*** *w* ***assafarijja:t*** *w kiða w fi:h na:s jaʕni jihtammu:n ballebs... jqadsu:n allebs jaʕni w* ***alma:rka:t*** *w kiða w* ***alħa:dʒa:t*** *ha:ði....*

Enjoyment, travelling and so on. Also, there are some young people who remarkably care about the cloths brands and these things.

..... kell isbu:ʕ tˁa:lʕi:n ib ***ðebi:ħeh****.....waɬɬah ʃu:faj* ***sˁara:ħa*** *jaʕni.... fi:h kaða* ***ʃabbah*** *bass innuh ma:hu* ***ʃabbe*** *jaʕni da:jim mertibətˁ bah bass* ***alʔasa:sijje*** *ʔalli ʔana maʕham* ***istira:hat*** *ahalij....ma:jin ʕale:ham* ***marreh****#..... baʕðˁ* ***almarra:t*** *jaʕnij jidʒu:n* ***istira:ha:t*** *ʕja:l χawa:łij akkba:r w… jaʕni tsˁi:r* ***ʃabba:t*** *jaʕni na:s jaʕni ma: nʕarifham ħinna...*

Each weekend, we have lamb meat on dinner/lunch with friends. Actually, there are more than one social gathering event that I am involved in, but the main one that I frequently attend is my family one. We are so close to each other. (Responding on a question about who can come to this event) sometimes, other groups of my older cousins' and brothers' friends may join us. I mean that some of these groups are not close friends to us.

....wałłah ʃu:faj ***sˁara:ħa*** *jaʕni na:s* ***muʕajjane*** *jaʕni jiħebbu:n* ***alħa:dʒe*** *ha:… gasˁdits jaʕni assiba:qa:t?.... wella jtidʒa:karo:n b afðˁał* ***sijja:re*** *jaʕni?....b* ***sˁara:ħe*** *ha:ði jaʕni ʕinnd aʃʃaba:b...fi: na:s jaʕni* ***assijja:re*** *tgu:m w tagʕid ʕinnduh w fi: na:s la ʔaham ʃaj* ***assijja:reh*** *twasˁsˁel lalmeka:n alli ʔabij w jasˁbər ʕaljah jaʕni tadʒles muʕuh θalaθ* ***sanawa:t*** *arrbaʕ ma: ʕinnduh* ***meʃkeleh#*** *fi:h na:s la: talge:nuh kell set iʃhu:r* ***sijja:reh****#*

Actually, there are certain people adore this thing, do you mean competing in races or the competition with respect to the best car (type/ model/brand)?. Actually, there are some young people who care about the car model while other focus on the practical aspect, the most important thing is that they can go wherever they want via the car they own (no matter what its brand/model is). They keep their cars for three or four years without any problem, while (the former) group may change their car even every six months.

...ʔawwal ***ħa:dʒe*** *ʕinndaham attasˁri:f ʕinndaham tasˁri:f assiju:l ʃaj χaja:li w ʕinndaham aʃʃewa:reʕ neðˁa:fat aʃʃewa:reʕ .....*

(Responding on a question about the most wonderful thing you like in a city you visited) The first thing is the storm water drainage system, it is amazing. Also, they have (good) clean streets.

- ***Low contact young female speaker:*** she was talking about her account on the Instagram application, her purchasing experience on the Internet and her sister's view about socialising with neighbours.

ma: hu alli maθalan ma: ʔanazzel illa ʃaj ***kaʃχeh*** *wella ʃaj ze:n la: ʕa:di illi asˁawruh ...* ***ħsa:ba:t*** *atˁtˁabχ# asˁlan law tadχeli:n ħsa:bi kelluh* ***məðˁi:feh ħagga:t*** *tˁabχ jaʕni jtifannanin w kiða... ʔi:h*

I do not post very charming pictures, any picture I take, I post. Cooking accounts (the most preferring accounts for her) and if you check the following list in my account you will find most of them are cooking accounts. They are professional/creative in cooking and so.

.... tisˁi:r ***ta:dʒirah*** *tibi:ʕ.... hu mawqeʕ wa:ħid w fa:ʃel* ***sˁara:ħe*** *nedemna kellana...ʔi jaʕni gahar alli jaʕarf bedu:n* ***ta:dʒireh*** *bedu:n ʃi:n ʔarχasˁ# .....ʔi: alʔamazo:n tisˁi:r* ***ta:dʒireh****#... laʔanni* ***ðˁa:mneh*** *nafss* ***alma:rkeh*** *mahu ʔaj kala:m# .....ʔana reħt il nafss mawqeʕ* ***alma:rkeh*** *jaʕni alli bah nʕu:l w ʃenatˁtˁ w kiða w tˁalabt minnah w dʒa:betah ze:n#.....*

Via a female dealer, … we tried one website only and it was disappointing experience for all of us. It is frustrating… if you know (how to buy directly from the official website) without a reseller or anything, it will be cheaper… (She insists on the importance of using approved websites) yes via Amazon website, there is a reseller…(by ordering via them) I will be ensured that it is the same 'authentic' brand and not a replica one. I entered the website that has the shoes and bags (that she search for) and ordered through this reseller who provided me with a good quality products.

sˁerna neʃu:f ***mode:la:t*** *thabbel...sudzdz# qasam jaʕni* ***albana:t*** *awwal* ***ʕa:dijja:t*** *feʕlan albent teħissi:nah fusta:nah ze:n.. wałłah mne:n lits wałłah min* ***sˁu:re*** *mna alinistigra:m wella jaʕni* ***mumaθθila:t*** *wella zaj kiða#.... feʕlan aħiss anna:s taʁajjarat aðwa:qaham sˁa:rat* ***ze:neh*** *jaʕni#....*

We noticed nice dress designs … really, the girls in the past were dressing normal/common designs… actually you find a girl with beautiful dresses and when you ask her from where you

took this design, she replays that it is from the designs on the Instagram, especially world celebrities… I really feel that people' styles are improved.

hij tugu:l jimkin innah tsˤi:r ***mdarseh*** *fa: tsˤi:r ma:hi* ***fa:ðˤja*** *asˤlan tsajjer w tatˤlaʕ bass walaw law hij* ***mdarseh****# ʔixti* ***mdarsah*** *alħi:n tugu:l ʕa:dij adʒles jaʕni ʔabij na:s# ʔabij atˤlaʕ# sudzdz#...*

(My sister) told me that (her neighbour) may be a teacher, so she is busy and has no time for socialising (with other neighbours). However, even if she is a teacher… My sister is a teacher and is willing to socialise with others, really!.

Appendix [B]: Rbrul results for the preceding phonological environment factor in Models (5, 6)

Model 6				R^2= 0.687 **The application value is** [a]
Preceding sound	**No. of Tokens**	**Mean [a]**	**Log- Odds**	**Factor Weight**
j	303	0.413	0.571	0.639
Dorsal	393	0.318	0.307	0.576
Emphatics	290	0.259	-0.091	0.477
Coronal	830	0.289	-0.299	0.426
Labial	275	0.233	-0.487	0.38
(p = 2.11e-05)				

Model 5				R^2= 0.683 **The application value is** [a]
Preceding sound	**No. of Tokens**	**Mean [a]**	**Log- Odds**	**Factor Weight**
j	303	0.413	0.539	0.632
Dorsal	339	0.316	0.149	0.537
Emphatics	290	0.259	-0.118	0.471
Labial	329	0.249	-0.247	0.439
Coronal	830	0.289	-0.323	0.42
(p = 0.000519)				

Appendix [C]: Codes used in Rbrul analysis

Dependent variables	Realisation	Code
1. (ah) variable	[a] Lowered [e] Raised	a e
2. (a:t)	[a:t] Non-lenited [a:h] Lenited [a:j] Lenited	t /3 h /2 j /1
Independent variables Factor groups (ah) Preceding	dorsal, coronal, labial and emphatics	dorsal, coronal, labial and emphatics
Following	dorsal, coronal, labial and emphatics, pause, front vowel	dorsal, coronal, labial and emphatics, pause, front vowel
Part of speech	Adjectives, Nouns Adverbs	Adj N Adv
Classification of the words	Vernacular borrowed from standard Arabic Pure vernacular	s v
(a:t) Preceding	dorsal, coronal, labial and emphatics	dorsal, coronal, labial and emphatics
Following	Consonant Vowel Pause	c v p
Number of syllables	Polysyllabic Disyllabic	Polysyllabic Disyllabic
Stress position	On first, second, third, fourth, fifth syllable	1,2,3,4,5
Variant position	Coda Onset	Coda Onset
Final syllable stress	Stressed Unstressed	s u
Definite article *(ʔ)al-*	With definite article Without definite article	with no
Level of contact	High Low	h l
Gender	Female Male	f m
Age	Older Middle-aged Younger	o m y