Depalatalisation of /gʲ/ and /kʲ/ in the Ḥarbi dialect in Medina: patterns of variation and change

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Abstract

This research investigates sociolinguistic variation and change in the dialect of the Ḥarb tribe in Medina (west of Saudi Arabia). The dialect belongs to the North-West family of dialects. Two of the salient features of this dialect are examined in this research: 1) the traditional palatalised [gʲ] and the innovative velar stop [g] as two variants of the variable (g) and 2) the traditional palatalised [kʲ] and the innovative velar stop [k] as two variants of the variable (k). These two features are investigated in this research regarding three social factors: age (young, middle-aged and old), gender (male, female) and levels of contact (high, low). To date, these features have not been investigated as sociolinguistic variables in the city of Medina.

The analysis presented in this study comes from large-scale research, and the data were obtained through sociolinguistic interviews with 43 native speakers distributed over three age groups from both genders. The level of speakers' social contact (low/high) was also measured. Regarding linguistic factors, the data were coded for the preceding and following sounds. Data were analysed using Rbrul statistical software.

Concerning the variable (g), women were found to be ahead of men in using the innovative [g] at 82% and 67%, respectively. Contact was returned as the most significant factor, with high-contact speakers leading low-contact speakers in using non-traditional variants at 96% and 53% for low-contact speakers. Age was found to be significant, with the young and middle-aged being the most innovative groups at 80% and 74%, respectively. The oldest group favoured the palatalised [gʲ] at 66%. Respecting linguistic factors, Rbrul returned the preceding and following environments as significant.

The variable (k) at the beginning was treated as two variables, as it occurs in the stem and the suffix. Subsequently, stem and suffix tokens were grouped and analysed together due to the small number of tokens in the suffix. The results show that women (91%) and speakers with a

high level of contact (95%) led the change in using the innovative feature [k]. Regarding age, there was no great difference in the use of the innovative variant [k] across all of the age groups. Middle-aged and young speakers scored 86% and 85% respectively, whereas old speakers scored 79%. The results show the traditional palatalisation variants [gʲ] and [kʲ] are changing in the speech of Ḥarbi clans in Medina and there is a tendency to use the innovative and supra-local forms [g] and [k].

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Consonants

IPA	EALL	Arabic	
ʔ	ʾ	ء	Voiced glottal stop, e.g. *ʔaktib* ‘I write’.
b	b	ب	Voiced bilabial stop, e.g. *bard* ‘cold’.
t	t	ت	Voiceless dento-alveolar stop, e.g. *tamurˁ* ‘dates’.
θ	t̲	ث	Voiceless interdental fricative, e.g. *θa:bit* ‘steady\proper name’
ʤ, ʒ	j, ǧ	ج	voiced post-alveolar fricative, e.g. *ʤibal* ‘mountain’.
ʒˁ	ʒˁ	ج	Front emphatic fricative, e.g. *ʒˁa:mʕa* ‘university’
ħ	ḥ	ح	Voiceless pharyngeal fricative, e.g. *ħama:m* ‘pidgin’
x	x	خ	Voiceless velar fricative, e.g. *xamsa* ‘five’.
d	d	د	Voiced dento-alveolar stop, e.g. *digi:g* ‘flour’.
ð	d̲	ذ	Voiced interdental fricative, e.g. *ði:b* ‘wolf\ proper name’.
r	r	ر	Voiced alveolar trill, e.g. *riʤil* ‘foot’.
rˁ	rˁ	ر	Emphatic alveolar, e.g. *rˁukba* ‘knee’.
z	z	ز	Voiced alveolar fricative, e.g. *za:wya* ‘corner’.
s	s	س	Voiceless dental fricative, e.g. *sayya:rˁa* ‘car’.
ʃ	š	ش	Voiceless alveo-palatal fricative, e.g. *ʃams* ‘sun’.
sˁ	ṣ	ص	Voiceless velarised alveolar fricative, e.g. *sˁafħa* ‘page’
dˁ	ḍ	ض	Voiced velarised dento-alveolar stop, e.g. *dˁaw* ‘light’.
tˁ	ṭ	ط	Voiceless velarised dento-alveolar stop, e.g. *tˁari:g* ‘street’.
ðˁ	ḍ̲	ظ	Voiced velarised interdental fricative, e.g. *ðˁa:bitˁ* ‘police officer’.
ʕ	ʿ	ع	Voiced pharyngeal fricative, e.g. *ʕe:n* ‘eyes’.
ɣ	ġ	غ	Voiced uvular fricative, e.g. *ɣa:ba* ‘forest’.
f	f	ف	Voiceless labio-dental fricative, e.g. *faʤrˁ* ‘dawn\proper name’.
q	q	ق	Voiceless uvular stop, e.g. *qamarˤ* ‘moon’.
k	k	ك	Voiceless velar stop, e.g. *kurˤsi* ‘chair’.
kʲ	kʸ	ك	Voiceless palatalised velar plosive, e.g. *kʲi:s* ‘bag’.
l	l	ل	Voiced dental lateral, e.g. *lo:n* ‘colour’.
m	m	م	Voiced bilabial nasal, e.g. *maktab* ‘office’
n	n	ن	Voiced alveolar nasal, e.g. *nu:rˁ* ‘light’.
h	h	ه	Voiceless glottal fricative, e.g. *huda* ‘proper name’.
w	w	و	Voiced labiovelar glide, e.g. *wagt* ‘time’.
j	y	ي	Voiced palatal glide, e.g. *jalʕab* ‘he plays’.
g	g	ق	Voiced velar stop, e.g. *gidir* ‘cooking pot’.
gʲ	gʸ	ق	Voiced palatalised velar plosive, e.g. *gʲidi:m* ‘old’

Vowels

IPA	EALL	
e:	ē	Example: *be:t* ‘house’
a:	ā	Example: *ba:b* ‘door’.
i:	ī	Example: *fari:g* ‘team’.
u:	ū	Example: *sˤu:rˤa* ‘picture’.
o:	ō	Example: *ħo:ʃ* ‘backyard\courtyard’.
I	i	Example: *ʔisim* ‘name’.
U	u	Example: *ʃuggah* ‘apartment’.
A	a	Example: *sama:ʔ* ‘sky’.
ɔ:	ɔ:	Example: *barˤrˤɔ:d* ‘tea pot’.

Introduction

The Western Saudi Arabian dialects, also known as West Arabian Arabic, consist of two distinct dialects: 1) the Hijazi dialect spoken by the urban population and 2) the Bedouin dialect spoken by the tribal population. Although both dialects are spoken in the Hijaz region in the west of Saudi Arabia, the term Hijazi dialect most often applies to the urban variety spoken in cities such as Jeddah, Medina, Mecca and Yanbuʕ. The urban Hijazi dialect appears to be related to the Arabic dialects in Upper Egypt and North Sudan (Ingham 1971). Studies that have investigated the Hijazi dialect in general, such as: Bakalla (1973) in Mecca, Ingham's account (1971) of the Meccan dialect, and Abu Mansour (2011 and 2006) in Mecca. Other studies investigated the Ḥarbi dialect, such as: Il-Hazmy (1975) Al-Mozainy (1981), and Hussain (2017). Hussain's research (2017) is the first variationist sociolinguistic research to be done in Medina. Medina is considered a rich context to be investigated; as asserted by Hussain (ibid: 258), the Medina dialect is closely connected with the ethnicities of its communities. She added:

> "The Bedouins are distinguished from the urban group as they epitomise the sharing of a sole identity, origin and culture whereas the urban group is an immigrant-based community originating from a range of geographical and cultural origins. Accordingly, the Bedouins and the variety they speak symbolise conservatism and retention of traditional trends while the urban community and their dialect represent change and innovation".
>
> Hussain (2017: 257).

The Arabic varieties spoken by the Bedouin tribes in North Hijaz are considered another dominant dialect alongside Hijazi Arabic in the region of Hijaz. The dialect of the North Hijazi tribes has close affinity with other Bedouin dialects in Jordan, Sinai and the Negev Desert (Rudolf 2011). However, the dialect of the Ḥarb tribe in Al-Medina is an excellent representative of the Bedouin dialects north of Hijaz. Apart from Hussain (2017),

there are no other variationist sociolinguistic studies of Medina. Therefore, the present research tries to fill the gap of the dearth of the sociolinguistic studies in the Bedouin community in Medina. This research is a sociolinguistic investigation based on empirical data drawn from the Ḥarbi dialect in Medina. The aim is to investigate dialect variation and change in relation to linguistic and social factors. This study concentrates on two variables: the depalatalisation of the stop velars (g) and (k). 1) The variable (g) has two variants: the palatalised [gʲ] and the velar stop [g]. 2) The variable (k) has two variants: the palatalised [kʲ] and the velar stop [k]. Sociolinguistic interviews were conducted and audio recorded for this research. This dialect is considered a Bedouin dialect (Prochazka, 1988). The Ḥarbi dialect is divided into: Hijazi and Najdi; according to Ingham (1982ii: 112) the Ḥarbi dialect is a "central Najdi with Hijazi overlay".

The current thesis is based on the Labovian variationist principles, that variation and change in languages are systematic and not arbitrary processes. In addition, this variation has constraints, these constraints are both linguistic and social (Labov, 1966).

The introduction presents the aim of the study and the significance of the study. The hypotheses and the research questions will be presented, followed by the organisation of the thesis.

The significance of the study

This study aims to contribute to this growing area of sociolinguistic research in the Arab world by exploring Bedouin dialects in north Hijaz, investigating variation and change in the dialect with the impact of social factors into the dialect also to provide future researchers with information in the sociolinguistic field. These contributions are listed below:

- As long as the Bedouin communities are considered to be conservative, and this conservativeness can affect the dialect, thus it was important to study the Bedouin dialect there.
- I hope that my research is going to add to the pictures in sociolinguistic research, especially with the dearth of studies in some parts of the Arabian Peninsula and in a more specific phase, Medina and Mecca. This research is the second sociolinguistic research carried out in Medina after the study of Hussain (2017).
- The thesis explores the depalatalisation of both variables (k) and (g) where there is dearth of studies on describing and investigating the palatalisation of these two sounds.
- Still the palatalised forms [gʲ] and [kʲ] are produced in the dialects of speakers from both genders across all age groups especially among speakers of low level of contact. Interestingly, that even young speakers are producing the palatalised forms which might means the proudness of those speakers in showing their affiliation as member of the Ḥarbi tribe.

- This study investigates the correlations and links between the dialect of the Ḥarb in Medina and social factors including age, gender and contact to provide a clear picture of how these factors have linguistically affected the dialect.
- This study is considered as a base for coming or future research regarding variationist studies in general and for Bedouin dialects in particular.
- The current findings for female are similar to the universal trend, that female are the innovators and inclined to use the innovative linguistic variants. Milroy and Milroy (1991) maintained that women favour the supra-local forms while men prefer the traditional and the local forms (See also Labov, 1991).

- The current research shows the role of contact in retaining and acquiring the innovative linguistic variants (See Trudgill, 1986).
- Also, contact has never been investigated in and sociolinguistic study in Medina.
- This research is based on empirical data analysed by Rbrul. According to Bayley (2002: 118) quantitative modelling enables the researcher to examine the forms of the linguistic variable and their preferable surrounding linguistic environments along with the social constraints. He added that the set of data enables the researcher "to make statements about the likelihood of –occurrence of a variable form and any one of the contextual features in which we are interested" (ibid, 2002: 118).
- This thesis introduces some of the distinctive features in Harbi dialect, e.g. definite article *aj-*, and the emphatic *ǧi:m*. Also, introduces some uncommon features which are different from the supra-local features in the Saudi dialects such as: rounding and diphthongs.

Research Questions

1 Is the traditional dialect of the Ḥarb tribe in Medina undergoing a process of change? If so, in which direction?

2 What are the social and linguistic correlations?

3 Is there a regional koineisation in Medina? To what extent does it affect the traditional dialect of the Ḥarb?

Outline of the chapters of the thesis

The content of this thesis is organised in 7 chapters, including a separate introduction:

Chapter 1: introduces the history of Medina and the social profile for the Ḥarbi tribe in Medina.

Chapter 2: presents the methodology that was followed for data collection, beside a description of the social variables under investigation (age, gender and level of contact).

Chapter 3: presents the literature review for both variables: the velar (g) and (k).

Chapter 4: introduces the first variable which is (g) along with the data, the results and the findings.

Chapter 5: provides discussion and findings for the second variable (k).

Chapter 6: presents some distinctive and uncommon linguistic features that were found in the Ḥarbi dialect.

Chapter 7: presents the conclusion of the research, summarising the results for both variables and the future plan.

1 Chapter one: Historical Background

1.1 The history of Medina

Medina is the second holiest city for Muslims around the world, which has made it a major hub of population mixture over the centuries. In this chapter, a brief history of Medina along with general information will be provided. Furthermore, a brief account of the history of the Ḥarbi tribe that reside in Medina will be given.

1.1.1 Ancient history and the arrival of Islam

Ancient Arabic sources agree that Medina has a very long history that can be traced back to its first inhabitants, Yaṯrib Bin Mahlaīl, the Amaliqide, in the fifth century B.C., as mentioned by the early Arab historians al-Samhūdi and Ibn Kaṯīr. Before the arrival of Islam, in the seventh century, Medina was mentioned in several references and sources and known as Yaṯrib (Al-Sharif, 2003: 241).

Several natural conditions have made Medina an important city to attract immigrants from different areas. It is a fertile desert oasis land with abundant water, vegetables and fruits, in addition to natural paths and roads that link Medina with Najd and Mesopotamia. Another aspect of the importance of Medina in pre-Islamic era is that it links Yemen with the Levant in trade routs that used to launch two trade journeys every year to transport goods between these places, one in the summer season to the Levant and another in the winter season to Yemen. The geographical position and the trade journeys show that Medina was open to various languages and dialects.

During the 5th century BC Medina received the first known migrants which comprised of three northern Jewish tribes, namely Banu Qaynuqā, Banu Naḍīr and Banu

Qurayḍa. The Jewish settlers were the dominant group; they monopolised the gold trade, building forts and making swords (Bin Ṭuma 2015). The situation was changed during the second and third centuries, when the first Arab tribes emigrated from Yemen: Banu ’Aws and Banu Xazrağ, as a result of the destruction of the Ma’rib dam of Yemen. At the beginning, the Arab tribes were allied with Jewish rulers, but then they revolted and became independent. After long conflicts between them toward the end of the 5th century, the Jewish population lost control of Medina and Banu ’Aws and Banu Xazrağ took over and became rulers of the city. The conflict to control the city continued among the Arab tribes.

The arrival of Islam is another important event of the history of Medina. In 622 AD prophet Mohammad and his seventy companions, the Muhāğirūn (advisors and relatives), escaped from Mecca, in a journey, the Hiğra, seeking sanctuary in Medina. The local inhabitants of Medina (’Aws and Xazrağ) took prophet Mohammad and his followers into their homes; consequently, the prophet called them ’Anṣār (helpers), and the tribal names ’Aws and Xazrağ were no longer used. These events transformed the social structure, religious and political landscape of the city completely, making Medina the centre of Islamic radiation and the first capital of the Islamic world. In 622 AD prophet Mohammad built his mosque (Prophetic mosque) and it was the first unit of the Islamic urbanization structure; since then, the mosque became the centre of Medina and the city remained the capital of the Islamic empire, which started with the Rashidun Caliphates (the wise Caliphates), for nearly four decades (Bin Ṭuma 2015).

1.1.2 Middle Ages

After the establishment of the Islamic empire in Medina, it rapidly expanded into Egypt, Iraq, Persia and the Levant. However, it wasn’t long before this empire collapsed, and a civil war erupted over the issue of succession between Muʻāwiya, who moved the capital

from Medina to Damascus and established an Umayyad dynasty in 662 AD, and Ali, a cousin of prophet Mohammad. At the beginning of the Umayyad reign, Arabs split over this issue; some felt that the Muslim empire should be ruled by ’ahl al-bēt (the Prophet Mohammad’s family), while others felt that the new leader must be appointed by the community and should not be hereditary.

Consequentially, this issue left a major impact over the social structure in Medina. Because Medina was the home of the prophet Mohammad and his family, and his burial place; a large opposition movement started against the Umayyad state led by the ’Anṣār (’Aws and Xazrağ) in which they became a threating political opposing to Mu‘āwiya’s regime in favour of Ali who claimed his right to rule the state. The ’Aws and Xazrağ and some other tribes in Medina, such as Muzaina, allied and started an uprising against the regime, this alliance was named ‘Ḥarb’ (Bin Ṭuma, 2015). This tribal alliance was described as forming a new elite local political hegemony in Hijaz. In 683 AD, Yazīd (the second Umayyad ruler) sent an army of 10,000 soldiers to subdue this movement which resulted in Umayyad control of Medina, Mecca and the rest of the Hijaz region (Al-Sharif, 2003).

Despite the fact that Medina was no longer the capital city of the Islamic state after the establishment of the Umayyad rule in Damascus, it preserved its position and its sentiment in the Islamic world. At the end of the Umayyad and beginning of the Abbasid era, Medina witnessed a considerable measure of prosperity and the Prophet’s mosque received special attention and expansion as Medina and Mecca became destinations to pilgrims from different parts of the Islamic world every year, many of whom settled in the two cities.

In 1516 AD under the leadership of Silīm I during the Ottoman empire, the region of Hijaz including Mecca and Medina was administered by šarīfs (descendants of Hasan bin Ali,

the grandson of Prophet Mohammad). The Sultan allowed the šarīfs to administer the Hijaz region in exchange for loyalty to the Ottomans. The Sultan then adopted the title: Custodian of The Two Holy Mosques, to strengthen the legitimacy of the Ottoman empire in Hijaz and in the Muslim world. This situation remained until 1916 when Sharif Hussain announced the 'great revolution' (the Arab revolt) against the Ottomans in Mecca, which resulted in expelling the Ottoman army from the Arabian Peninsula. Sharif Hussain then, founded the Hashemite Kingdom of Hijaz and was acclaimed as the King.

1.1.3 Modern Age

This Kingdom had a short life before being conquered by the neighbouring resurgent Sultanate of Saud in Najd creating the Kingdom of Najd and Hijaz in 1925. Ibn Saud then, integrated the Southern, Eastern and Northern parts with Najd and Hijaz in 1932, and has ever since been officially named the Kingdom of Saudi Arabia under the leadership of the Saudi dynasty. Riyadh was named as the capital of the new Kingdom of Saudi Arabia, which was then a small settlement with no more than 20,000 inhabitants (Wahim, 1982).

At the beginning, the new Kingdom was one of the poorest countries in the Middle East relying on agricultural and pilgrimage revenue. In late 1938, vast reserves of oil were discovered in the Eastern part of the country alongside the Arabian Gulf. This discovery of oil provided Saudi Arabia with economic prosperity and development starting across the country. Manufacturing and cultural life rapidly developed, especially in Hijaz where the first newspaper and radio station were built. Medina, in addition to being the second holiest city and the destination after Mecca, became one of the most important cities in the west of the country and the capital of the newly established province of Medina.

Due to its religious and commercial position and mass migration from different parts of the world, Medina became a major cosmopolitan city. Development in manufacturing took place

across the city especially during the expansion of the Prophet's Mosque, which started in 1985 and was completed in 1992. The area of the Mosque became 1.7 million square feet and the capacity of the mosque was increased to over 1.8 million people.

1.2 Geography and social structure of Medina

The province of Medina is located in the north-western part of Saudi Arabia in the region of Hijaz (24 6' N, 39 6' E) and shares border with Najd to the east, Tabūk province to the north, Mecca province to the south. Its position is considered to be an important geographical link that connects south, east and north of the Arabian Peninsula. Medina province consist of six major administrative towns; Yanbu', Xēbar, Badr, 'al'Ula, 'al-Ḥnākiyya, 'al-Mahd in addition to Medina city, the capital of the province. The province of Medina is home to a number of major tribes, namely Ḥarb, Ǧuhaina, Muṭēr and Bani Rašīd. The homeland of these tribes extend to Muṭēr territory in the south-east, Ǧuhaina tribe in the North-West, Bani Rašīd tribe in the North and Ḥarb tribe in the Western part of the Province to the Red Sea and the Eastern part as far as 'al-Qaṣīm province. According to the 2010 CDS report the population of the province is 1,781,733 (See map 1 below).

Map 1: Map of Saudi Arabia that shows the location of Medina.
Retrieved from: https: www.pinterest.com/pin/5246694253

Three different topographies that can be found in the province; 1) mountainous areas (’s-Sarawāt mountains) that extend along the Western part of Hijaz from ’al-‘Ula in the north to Yemen in the south, 2) coastal areas along the Red Sea in the West, and 3) volcanic areas in the middle and eastern parts of the province including oasis and valleys such as, ’al-Ḥamḍ and ’al-‘Aqīq.

Medina is the capital city of the province which sits at the north-eastern part of the region, to the east of the Red Sea, which lies about 180 km away from it. The city is situated on a flat mountain plateau at the junction of three valleys, and it is surrounding by a number of mountains; ’Al-Ḥuğğāğ (pilgrims’ mountain) to the west, ’Uḥud to the north and ‘Ēr (caravan mountain) to the south, therefore, there are large green areas in the middle of dry mountains. The city is about 620 meters above sea level and it covers an area of 50 square kilometres. The land of Medina is desert oasis of fertile agricultural lands surrounded by rocky areas and mountains from all sides.

Up to two or three million people visit Mecca for Ḥaǧǧ (Pilgrimage) in a specific four days of the year to perform spiritual worship, after that, pilgrimages go to Medina for ziyāra (visit), to historical and religious sights Prophet's mosque and 'al-Baqī' (See Map 2 below) (the old cemetery of Medina), and the mosque of quba, the first place of worship founded in Islam. The visit to Medina used to be only two months of the year, then the Saudi government opened it the whole year and the number of visitors according to Medina Development Authority (MDA) exceeds eight million people annually.

Map 2: Map of Medina that shows the Prophet's mosque and 'al-baqī'; source: https://earthobservatory.nasa.gov/images/91953/medina-saudi-arabia

This has made Medina a very cosmopolitan city and a popular destination for migrants. The neighbourhood areas around the Prophetic Mosque are the most crowded and cosmopolitan areas and includes communities from a wide mixture of social backgrounds, most importantly tribal (including Ḥarb, Ǧuhaina and Muṭēr) and non-tribal (the indigenous people of Medina). Also, there are migrants from different parts of the world, from elsewhere in the Arabian Peninsula, the Levant, Egypt, North Africa, different part of Africa, Pakistan, India and Burma. This mixture of backgrounds and languages has existed for decades.

As the city became more crowded, which caused shortage of housing and parking. Many of its inhabitants, including the Ḥarb tribe, migrated from the centre to neighbouring areas, which although close to the city centre, were far enough from the crowded area. A new phenomenon appeared as a result of migration from the centre of Medina; each tribe and ethnic group chose to live in a specific area.

In 2009, the government began ~~a~~ large-scale new projects to develop the city and expand the Prophetic Mosque. The government persuaded home-owners to sell their properties to make more space to develop and expand the city as it received migrants from different parts of the country. Consequently, people were forced to move from the central areas to newly built districts. Nowadays, the central parts of Medina around the Prophetic mosque consist mostly of hotels that cater for visitors.

1.3 Economy

Although Medina was known in early Islamic times for metalworking, jewellery, and armoury, those industries were never large-scale, and most activities were connected with

agriculture until the mid-20th century. Principal activities came to include automobile repair, brick and tile making, carpentry, and metalworking.

Medina before the discovery of oil in 1938, had a very independent and stable economy in comparison with Najd and other regions of Saudi Arabia. Farming, and growing vegetable and dates, livestock-keepers were also key points of the economy that most of the population worked in and exported their products to other regions. The city is very well known for its date palms; about 139 varieties of dates were grown in the area, which were processed and packaged for export to different parts of the world.

For irrigation, mechanical pumps have been used since early of the 20th century during the Ottomans who virtually replaced the old draw wells. Drinking and agricultural water is supplied by an aqueduct from a spring in the southern part of the city where the oasis and fertile lands are. In addition to the plentiful supply of subsoil water at no great depth, a number of important valleys meet in the vicinity of Medina and bring down torrents of water during the winter rains. Hence, the commercial markets in Medina were very active, which brought the city's inhabitants in regular contact with different parts of the Arabian Peninsula and beyond that. There were many daily and weekly markets (sūq) such as sūq al-Manāxa that had formerly been a camel trading venue and sūq al-xān which specialized in different local products of dates, vegetable, jewelleries and clothes. These two famous markets no longer exist as they were destroyed for the development and expansion projects that have been taking place recently.

The commercial situation was also active in villages around Medina, where markets

were run by tribal communities. The Ḥarb tribe attended and owned regional markets such as the ones west of Medina, ʾal-Frēš, Badr, ʾal-Msayǧīd, and Bīr Qēḍi. These markets played important roles in strengthening the commercial ties with Medina and in linking it to the port of Yanbu on the Red Sea. The situation now has changed; all of these markets are attended by other neighbouring tribes, and therefore contact with others has rapidly increased.

After the discovery of oil, the province of Medina witnessed growth and prosperity. A number of asphalt roads were established to connect the city with different areas; new roads were built between Mecca, Jeddah and Yanbu, another extends north through the Hijaz region to connect the city with Jordan. The city is served by Prince Mohammad airport that was built in 1975, which used to handle domestic destinations only, but today it serves international destinations, mostly to Islamic and Arabic countries. Public services also witnessed improvements; three public hospitals were established and a number of private hospitals, schools, malls and universities. Jobs opportunities for both women and men increased in different domains.

The Islamic university was established in 1973 by King Faisal and is open to students from different parts of the Islamic world to study for free. Taiba university was also established. Both universities became learning centres for students not only from Medina province but also from the northern region of Tabūk. Another important factor that supports the province commercially is the harbour on the Red Sea and the industrial petroleum city of Yanbu, established in 1975. The economy and the population of the province rapidly increased; in Yanbu a large number of expatriates work in the oil refineries and petrochemical industries, mostly from Asia, the Middle-East, North America and Europe. Therefore, many international schools were opened in Medina and Yanbu.

1.4 Education

Unofficial schools that were held at the Prophet's Mosque are considered to be one of the oldest forms of Education in the Peninsula. Education in these schools was only limited to Islamic and Quranic readings given by 'ulama (clerics). During the Ottoman era, official education was poor and not paid much attention; the financing of schools was voluntary, supported by merchants and some local families. In the 1900s, the Ottoman founded 'ar-rāšdiyyah schools which had branches in Hijazi cities including Medina (Hafid,1935). This school was named after the governor of Hijaz, Rušdi Buk, and it was equal to secondary level of education (ibid).

At the end of Ottoman control of Hijaz, nonreligious subjects were also taught in kuttāb schools specializing in Quran memorization, sometimes including arithmetic, foreign language, and Arabic reading in the curriculum. Many students joined formal education, and many more schools were opened, such as 'ar-Rāqiya and the school of 'aṣ-ṣaḥrā', which was one of the famous schools in the province, opened in 'al-Msayğīd village 70 kilometer west of Medina, and remained open until the beginning of the establishment of the Saudi Kingdom.

Officially, the first Saudi school for formal education in Medina appeared in 1933. Since that time, schools have been established in a number of cities and villages and it was limited to men only. An important stage of the education history of Saudi Arabia is the provision of education for girls, which was at the beginning with strong opposition by extremists in 1950s. Then, publicly funded education for girls began, initiated by Crown Prince Faisal and his wife Iffat, and the first school for girls in Medina was established in 1959. Higher education became available in Medina through the establishment of the Islamic University in 1961; it was limited to sharia and Islamic studies. Various subjects became

available when a branch of King Abdul-Aziz University was established in Medina in 1976, which later became Taiba University in 2003.

1.5 Ḥarb of Medina

Ḥarb is a large tribe whose homeland straddles the two major regions that comprise the modern Saudi State, namely Najd and Hijaz. To the extent that it is possible to speak of a 'Ḥarb dialect', the sheer expanse of the tribe's land compels us to expect a huge amount of variation in the traditional forms, structured according to geographical location, mobility and contact with other groups.

The specific sub-group of the Ḥarb studied in the current research are a settled community and have always maintained a tribal social structure. Over the decades, their community experienced change in their physical environment as the city of Medina began to expand and to undergo re-planning. The immediate result of this transformation is that the Ḥarb dispersed across the whole city, which eventually affected the cohesion of their community and increased incidents of interaction with members of the urban group. Additionally, the spread of education and new types of employment in the state and the private sectors contributed to further social change in the Ḥarb community's lifestyle and daily activities. Nowadays, the Ḥarb community in Medina, similar to other Saudis, work in different work sectors, such as commerce, private jobs and the governmental sector.

To sum up, this chapter provides general information about the contexts of the study. The purpose is to give a background for the investigation for the dialectal changes and variation of the Ḥarb tribe in Medina. The following chapter deals with the methodology adopted for this research.

2 Chapter two: Methodology and data collection

2.1 Introduction

Two main challenges face researchers in the field of language variation and change: to obtain good quality data, and to provide a representative sample of speakers. This chapter will shed light on the methodology that was used in this study and how the data were collected. Section 3.1 will detail the sample and techniques adopted to recruit participants, while section 3.2 determines the relation between the researcher and the speech community, explaining how the researcher obtained access to the community and was able to elicit spontaneous natural speech data in the presence of a recording device. Section 3.3 discusses the sociolinguistic interviews conducted in this study and the data collection procedures and coding techniques. Finally, the social and linguistic variables are thoroughly dealt with in sections 3.4 and 3.5 respectively.

2.2 The sample

It is important in any sociolinguistic research to decide on how to obtain the sample of the study, and this sample should be representative of the group under investigation (Milroy and Gordon, 2003: 30).

In addition, the interpretation and examination of the linguistic data produced by speakers is a main concern of sociolinguistic research. To conduct a study in sociolinguistics, the researcher has to follow a valid method in selecting speakers from the community under investigation in order to ensure the reliability of the results. Additionally, it is important for the researcher to know how to access the community under study (ibid, 2003). The sample of

speakers in sociolinguistic research is mainly drawn using two methods: random sampling, and judgment sampling. Researchers can follow either method based on the characteristics of the community under investigation and the requirements of the research.

The first method, the random sampling procedure pioneered by Labov (1966), is designed to allow everyone in the community an equal chance to be represented in the study in order to attempt to eliminate bias. Representatives of the community are selected randomly in this method. For example the researcher can use the electoral register or local telephone directories to choose them. Then, the researcher can select random individuals from this list to take part in the study – for example, every 10^{th} individual could be selected. However, many sociolinguists who criticise this approach argue about the validity of this method, for example Chambers (1995: 39) maintains that random samples are difficult to manage and often unnecessary.

Milroy and Gordon (2003) summarise the two main limitations of this approach; firstly, linguistic studies usually rely on a small number of participants, making it more difficult for the researcher to make generalisations about the whole community based on such numbers, regardless of how strictly scientific the original sampling process is. Secondly, the majority of sociolinguists avoid using this approach because there is a possibility that some subjects who are selected may prefer not to participate when approached by a stranger; or may simply withdraw because of health issues or death, making it difficult for the researcher to replace them in a manner truly consistent with the original random sampling approach. Moreover, this approach encourages the researcher to, for example, select participants randomly from telephone directory lists only and therefore would exclude all members of the community who do not have landlines. Schilling (2013) also notes that not all individuals who are randomly selected will necessarily agree to take part in the study. Random samples

are not suitable for the current research. This is similar to Al-Shehri's (1993) study on Al-Shehri family members in Jeddah as an insider to the community. He relied on members of his family to reach the participants to conduct the interviews for his study[1].

As a result of the reasons outlined above, many researchers avoid using a random sampling approach at the fieldwork stage, and instead rely on the more practical and potentially more valid judgment sampling approach, also known as quota sampling. As Milroy and Gordon (2003:30) argue, the selection of participants and the relative importance of the social dimensions which may influence the speech of the community under investigation rely on the researcher's own judgment and his\her own knowledge of that community.

Many researchers, such as Trudgill (1974) in Norwich; and Al-Wer in Sult (1991) and in Amman (2007), investigate their own communities[2], as they have the advantage of insider knowledge about these communities. Other researchers may gain knowledge or a closer look at the community through frequent visits before conducting the study, or fewer more extensive visits to the community under investigation (e.g. Penelope Eckert in Belton High, Detroit; Lesley Milroy in Belfast; Horesh in Jaffa). For instance, Eckert spent two years observing the sample in the school in Detroit until she decided to choose 69 participants out of 200. The crucial point about this aspect is that in sociolinguistic research projects it is very important for researchers to have a full understanding of the communities they are investigating in order to allow them to utilise the most effective parameters within which to select the sample of participants. For example, Eckert (2000) took part in long-term observation of the daily interactions and activities of the students at Belton High which

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[1] See Al-Ghamdi (2014) and Al-Aodini (2019).

[2] Recent researchers who studied their communities include: Al-Essa (2008), Al-Ghamdi (2014), Al-Ammar (2017), Al-Bohnayyah (2019), and Al-Aodini (2019).

enabled her to determine the relative importance of the students' social categorisation inside the school (Jocks and Burnouts), and its relationship with linguistic variation in their speech and in the larger community (suburb of Detroit). In this research, I am an insider to the community, and a member of the Ḥarb tribe in Medina, where I was born and raised in Medina.

The judgment sampling method "involves identifying in advance the types of speakers you want to study and then obtaining a certain number of each type of speaker- for example, older, middle- aged, and young speakers; males and females; African American and Whites" (Schilling, 2013: 35). The social variable cells in this approach are guaranteed to be filled according to the research questions, whereas the random sampling method tends to fill these cells inaccurately (Schilling, 2013).

In this investigation, I have used the 'judgment' or 'quota' sampling approach (due to the reasons given above) to determine a sample from the Medina speech community. One useful reason for choosing this approach is that this study involves different social factors, namely age, gender and the level of contact that speakers have with different speech community members, and therefore judgment sampling is more suitable for my study as it ensures that all of the social factor cells will be filled with equal numbers of participants. Being a member of the community and native speaker of the dialect, and therefore possessing valuable knowledge about the community under investigation in this study is a very important point that effectively helped and enabled me to draw an adequate sample across each of the social variables (age, gender and level of contact).

Based on my knowledge of the speech community and through the help of members of the family, I was able to access a sufficient number of participants. This method of being introduced to potential participants through a network of people within the community is

known as ‘friend of a friend’, and has ‘a snow ball effect’ in reaching the participants. The participants are from the Ḥarb tribe in Medina who speak the Hijazi Ḥarbi dialect[3]. Most of the older group were born in villages around Medina and moved to the city at a young age, while all speakers selected in the middle age and young groups were born and raised in the city of Medina. I excluded members of the Ḥarb tribe in Medina who speak the Najdi variety; who originally moved to Medina from Najd.

When deciding on the number of participants in the sample the researcher has to bear in mind that the nature of sociolinguistic research is different to other fields of social science. According to Milroy and Gordon (2003: 28-29) it is not necessary for the sample to be large in linguistic studies; rather, a carefully drawn sample of less participants is sufficient in order to achieve a representative sample. They added that most of the linguistic studies in the literature were comprised of small sample, e.g. Labov’s New York study and Trudgill’s (1974) in Norwich. Sankoff (1980) added that big sample for sociolinguistic studies can cause problems particularly in the analysis.

As Schilling (2013) argues, such a large sample size is not necessary or realistic in sociolinguistic research because it is not practical for three reasons; firstly, most other social science research uses questionnaires to collect data, while sociolinguistic research chiefly uses recorded interviews as the tool through which to collect data, which requires more time and effort. Secondly, questionnaires and other similar tools can often be easier to process at the data extraction stage than the method that sociolinguistics uses which involves time-consuming transcription of interviews. The third reason why a large sample size is not realistically achievable in sociolinguistic research is that it takes a lot of time to analyse linguistic data both qualitatively and quantitatively, more so than other types of data. My

[3] The dialect of the Ḥarbi members in Hijaz is different to that of Ḥarbi members in Najd, for more explanation see Il-Hazmy (1975) and Ingham (1982ii).

sample in this study totals 43 participants, distributed according to the social variables, which is an adequate number in sociolinguistic research.

Most of the participants who took part in this study were born and lived in Medina, while most of the older group migrated to Medina when they were teenagers. The participants are distributed across three age groups: 18-39, 40-59 and 60+. Each age group consists of an equal number of males and females; with one exception of the middle-aged speakers from the high level of contact male group which has only three speakers; meaning the sample comprises a total of 21 male and 22 female speakers (see Table 2.1). The fact that I am a male researcher made it easier for me to collect data from the male participants, most of whom welcomed me into their homes and allowed me to use my recorder. Whereas, it was more difficult to record and gain access to females, who often needed permission from their male partner or a close relative to be recorded in an interview. The community of the Ḥarb in Medina is tribal and conservative, so I had to seek help from female assistants to interview female participants.

2.3 The researcher

The researcher's status in the community under investigation is very important, it determines their ability to be accepted by speakers in that community. It is also important in determining the quality of the data obtained from the participants selected to take part in the study. For example, being an insider or a member of the community often plays a big role in facilitating access to the community and encourages the production of natural and casual speech in interviews. When the field worker is known to the community, speakers may be less formal and cautious, thereby produce the desired casual-style data. Milroy (1987: 80) claims that "the closer the field worker is matched to subjects in terms of various social attributes, the

more successful he or she is likely to be".

In this study the researcher and his female assistants belong to the Ḥarb tribe of Medina and therefore share linguistic and social values with the community. I also belong to the Ḥarb tribe, and my parents are both from the same tribe; they were born on the outskirt of Medina and moved back to the city in early age and have since then lived in Medina throughout. I was born and lived all of my life in Medina.

The fact that both of my parents are from the Ḥarb tribe helped enlighten me more about the community and made it easier for me to access the community as they are known to most of my participants. What helped gain the trust of my participants is that most of my informants know my family and myself personally so I am not a stranger to most of them. The majority of my informants were friends, relatives, neighbours, or friends of friends, and were therefore willing to take part in the study and welcomed me into their homes to meet them and their families, and more importantly allowed me to use my tape-recorder during the interviews. These family or tribal connections also helped to reduce power relations between myself and the subjects, in which a feeling of intimacy and belonging to the same tribe predominated throughout most of the interviews. They were aware that they were helping me and were excited to do so.

Labov (1972) points out a crucial issue, namely that the researcher in sociolinguistics has to determine his\her ability to understand rapid talk in the dialect under investigation. Labov (1972: 215) states that "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". The fact that I speak the koineised dialect of the Ḥarb tribe in Medina and have an excellent knowledge of the traditional dialect of the tribe in Hijaz through my parents and elderly members of family helps in this respect. In addition, I have a deep knowledge of

the customs and social values of the Ḥarb in Medina, giving me the ability to understand rapid conversations of speakers from different age and gender groups. Commenting on her research in Belfast, Northern Ireland, Milroy (1987: 33) further emphasises that "the researchers needed to know a great deal about local values and the local social system before they could even begin their analysis".

Sharing the same dialect with my informants helped me to meet the purpose of this project, which focuses on the linguistic changes of the traditional dialect of the Ḥarb tribe in the Hijazi city of Medina, and whether there is any sign of koineisation within the urban Hijazi dialect. What it meant by Koineisation here is the language change taking place in Medina as a result of the contact between Bedouin and Urban dialects. The permanent adoption of features of the urban Hijazi dialect and long-term accommodation will be examined by investigating the presence of urban Hijazi variants in the speech of Ḥarbi members as they speak to each other. This would be very difficult to achieve if the fieldworker was of another ethnicity or spoke the urban Hijazi variety, as participants may feel the need to accommodate to their interviewer and may produce speech that does not reflect their real usage of the dialect. Otherwise, their linguistic behaviour may have been an instance of short term accommodation. The case with the participants who speak the traditional dialect was different, as most of these informants did not feel uncomfortable in speaking the traditional dialect of the Ḥarb tribe. Therefore, the linguistic match between the interviewer and the speakers ensures that they will feel comfortable to produce as natural speech as possible, so benefitting the aim of the study.

The biggest obstacle faced by male researchers in Middle Eastern societies is to gain permission and access to the informants' homes to conduct interviews with females, as many families often refuse that. This explains why females are either underrepresented or not

represented at all in some sociolinguistic studies in the Middle East conducted by male interviewers. Middle Eastern societies in general vary differ in their level of conservativeness; for example, the Saudi culture is ~~a~~ very strict in this regard, and the idea of recording women is often unacceptable. Several male Saudi Arabian sociolinguists have reported problems recruiting women speakers (e.g. Al-Jehani (1985), Al-Shehri (1993) and Kahtani (1993) in Jeddah. Some male sociolinguists in Jordan have faced similar difficulties, such as Abdel-Jawad (1981) and Alkhatib (1988), who both had to seek help from female assistants to conduct the interviews and record women. The same difficulty might face female researchers when conducting interviews with male speakers; for instance, Alqahtani (2015) and Al-Ammar (2017) report similar obstacles. Although the researcher in this study is male, females are well represented in it; in fact (as noted above) the total number of female informants is 22 while there are 21 male participants. The reason I was able to include the required number of female speakers was that of seeking help from a female assistant to conduct the female interviews. Although I sought help from a female assistant, I personally conduced two interviews with two women who are close relatives of mine. In section 2.4 below, I will present the distribution of the participants in the present study.

2.4 The Participants

All of my participants are from the Ḥarb tribe in Medina; this tribe has many subtribes in the Hijaz region and in Medina where this study was conducted. When drawing up my sample I tried to interview at least one person from each of these subtribes in the city of Medina.

In order to represent the different generations of Ḥarbi Medina, the participants in this study were classified into three age groups: young 18-39, middle age 40-59, old 60+; two gender groups: ‘female’, and ‘male’; as well as two levels of contact: ‘high’ and ‘low’. The

rational behind using this age division is to record dialect differences between three generations: grandparents, parents and grandchildren. The distribution of participants in terms of the three social variables, age, gender and level of contact, is illustrated in Table 2-1.

	Young		Middle age		Old		Total
	18 - 39		40 - 59		60+		
	H	L	H	L	H	L	
Male	4	4	3	4	3	3	21
Female	4	4	4	4	3	3	22
							Total= 43

Table 2-1 The distribution of the participants.

For the old age 60 + participants (6 with high level of contact, 3 males and 3 females; and 6 with low level of contact, 3 males and 3 females), both males and females from the low and high contact group had either completed their basic schooling which is between 6-12 years old, reading and writing, or had left school at secondary school which is between 13-15 years old. Three of the male speakers (two with high level of contact, who were educated to university level, and one with low level of contact) work in government institutions and ministries. For the middle age group, all of the male speakers were educated until university level, and work in different sectors, apart from one male speaker from the low contact group who did finish his high school and worked on his farm. The number of the participants in the middle age female group was eight (four high contact and four low contact). Five of them (four high contact and one low contact) are educated to university level and work as school

teachers or as civil servants in other domestic domains. The other three female speakers with low contact, finished high school and remained unemployed housewives. Sixteen participants were included in the young age group (8 with high contact, 4 males and 4 females; 8 with low level of contact, 4 males and 4 females). Most of the participants in this group were either studying at universities or working in different state sectors and companies. Two young females from the low level of contact and one from the high level of contact have finished their high schools and stayed at home, and later became housewives looking after their children. One of the young male participants with low level of contact left high school and worked as a trader for his father's livestock.

2.5 Data collection procedures

2.5.1 Social interviews

Variationist sociolinguists have traditionally used the sociolinguistic interview technique as a method to collect reliable data. Labov (1966 and 1972) and other sociolinguists developed this approach in collecting data. Additionally, in sociolinguistic research, interviews are the most popular method for data collection (Milroy and Gordon, 2003). Alternative methods of collecting sociolinguistic data, such as survey and participant observation techniques, are more structured and less flexible and so the sociolinguistic interview method is most commonly adopted. One of the main advantages of the sociolinguistic interview is that it allows the researcher to collect large quantities of casual natural speech for analysis in a relatively short time, which is considered to be essential for most sociolinguistic studies (Milroy and Gordon, 2003, p. 57).

In this method, the researcher is able to initiate a free conversation with the participants and design appropriate questions to keep the conversation going. The main goal

of the interview as Labov has clarified is "to record with reasonable fidelity from one to two hours of speech from each speaker" (1984: 32). The interviews in this study lasted between approximately 40 minutes to a maximum of 90 minutes each, while one group interview of four people lasted for about 180 minutes of conversation between all participants, which gave each participant enough time to produce sufficient sample of speech.

The 'observer's paradox' is one of the most important potential problems that a researcher has to control for. Labov (1972) maintains 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).

The 'observer's paradox' thus implies that the speakers' linguistic behaviours may be affected by the presence of the researcher, which is obviously counterproductive to the aim of obtaining natural samples of speech. Sociolinguists have devised techniques to circumvent or at least reduce the influence on the participants' linguistic choices (Labov, 1972). For instance, since the presence of the recording device is often distracting for the interviewees, thus encouraging more formal-style of conversation, the researcher here can divert the attention away from the recording device through strategies such as having snacks, tea and/or breaks throughout the interview. Other techniques that Labov introduced that the researcher can use to engage the participant in the conversation and to divert their attention from the fact that they are being interviewed include talking about topics that trigger strong emotions. The 'danger of death' question is one of the most effective topics that Labov has established in order to engage the participants emotionally by narrating their own stories, and he notes that through this method the participants are likely to maintain the spontaneity of the narration (Labov, 1972, p.93). Trudgill (1974) also used a similar technique in his Norwich study,

where he asked participants to recall events where they had a ‘good laugh’. The idea is that speakers are likely to relax and thus lapse into casual speech when narrating such stories. These techniques are used by sociolinguists to elicit less self-conscious and more relaxed speech from the speaker.

One element of my attempts to collect, as much as possible, natural and spontaneous speech data in the current research was to have a prior introduction between the interviewer (myself) and the interviewees, usually through a friend of a friend, and this helped to increase familiarity and reduce the observer’s paradox during the interviews. Schilling (2013: 192) states 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: 192).

As Milroy and Gordon (2003: 58) stated “[S]uccessful interviewing requires careful planning”. Therefore, before meeting the participants, I prepared different topics that I felt will encourage spontaneous and natural speech. In all of the interviews, I explained to the participants that we could discuss any of the topics that were prepared prior to the interview, and to express their own opinion and thoughts freely, or that they could choose any topic they wanted to discuss. The more interests that I had in common with the interviewee the less need there was for the pre-prepared topics; for example, the conversation with some of the participants that I have known for more than ten-years was naturally relaxed and we did not need to discuss the topics I prepared.

However, where less of a pre-existing relationship existed, lists of possible topics were prepared for the different age groups in an attempt to elicit natural speech data. For

instance, young males spoke about sports, work, travelling with friends, their studies, hobbies and technology. Work, studies, fashion, social media and TV series were the main topics that young females talked about. Middle-age males and females mainly talked about their children; the difficulties and responsibility in raising them and worrying about their futures, as well as talking about their younger years, their jobs, travelling, while the male speakers were also interested in the politics of the region. Older speakers of both genders were excited to be asked about their lifestyle in the past and to compare it to the prevalent social activities nowadays, as well as the changes which have occurred in Medina over the years.

The following list includes examples of questions and topics that I used in the interviews. Some of the content of the speakers' responses were used in interpreting the results, as will be explained in the course of this thesis. (in particular in chapters 4 and 5):

1 Personal information

- Age
- Brief information about their siblings
- Marital status
- Number of children

2 Pilgrimage season

- Do you leave\stay in Medina in this season?
- What were the activities or contemporary business that you have had in this season?

3 Social activities and friends

- Where do you spend your free time?
- What are the activities you usually have with your friends?
- Travelling with friends.

- Where\how do you spend Islamic celebrations (the two Eids)?

4 Past memories

- Which school did you go to?
- A memorable school trip.
- What do you remember of the old sights of Medina before they were demolished?
- How has the city changed after the expansion of the Prophet's Mosque?

In order to reduce the possible limitations of the interviews, I relied on some strategies that helped to initiate relations to gain trust from the interviewees. For example, I did not know most of the participants personally, so I had to be introduced by common friends at the beginning, as a guest in the interviewee's homes where the interviews would be conducted, and included the common friends in the conversations. The idea of including the mutual friends to the conversations was a way to gain trust from the interviewees.

Data were collected within a four-month period, from October 2014 to January 2015. I used Sony recording devise to audio record the interviews.

2.6 Ethics

Before leaving to carry out the fieldwork and recording participants, ethical approval was provided by the Language and Linguistics department at Essex University; and consent forms were given to the participants before the recording sessions took place. The consent form was complete with instructions explaining the research aims and goals, and what the informants' participation in the study would involve, including that a recording device would be used. Additionally, I briefly explained the main points of the study and why it was important to study their dialect. The consent form was also explained to the participants including that

their participation was voluntary, and that they could withdraw their consent at any time during the course of the project without providing any reason. I also mentioned in the consent form and told participants orally that any information given in this project, such as names and personal information, will be kept confidential and not be revealed to anyone other than the researcher. Once participants confirmed that they were happy to take part in the research with my great appreciation, they were handed a copy of the consent form to sign. Some of the participants took the issue of signing the consent form very seriously and refused to participate in the study. I did not use a written consent form with the ones that did not want to sign, but instead I explained to them the aims project and interviews and obtained their consent orally. Also, the participants were informed that their participation was for educational purposes and their role would be of a great help to the research. I started the interviews by gaining oral consent from the participants and stating that they were free not to continue the interview.

2.7 Coding procedures

Forty-three participants were audio-recorded, the average time of each interview was 40 minutes. Approximately, 28 hours of recorded conversations were analysed. I extracted the relevant tokens for the two variables in this study and analysed them. The two variables (g) and (k) where dealt with as binaries, (g) is either the palatalised [g^{j}] or the velar stop [g]; (k) is either the palatalised [k^{j}] or the velar stop [k]. Around fifty to sixty tokens of each variable were extracted from each speaker. The variables under investigation were coded in two separate Excel Spread sheets with the linguistic and the social factors.

Later, the data was analysed using Rbrul software version 3.5.1 (2018-07-02) "Feather Spray". This software was used for regression analysis, and for running cross-tabulations between different factors.

2.8 The social factors

The social factors in the present study are: age, gender and level of contact. Sections 2.8.1, 2.8.2 and 2.8.3 provide details about these factors as they apply to the current research.

2.8.1 Age

Age is an important social factor in sociolinguistic studies, and the inclusion of different age groups in a sample gives a study depth in time (Al-Wer, 2006). Furthermore, I hypothesise that the use of the traditional variants vary across age groups in this research.

There are two methods used to investigate changes in languages or dialects over time; the real time and apparent time methods (Milroy and Gordon, 2003). The real time method investigates linguistic change by collecting data from a speech community at different periods in time. According to Eckert (1997) the real time method is divided into two ways of re-studying the same speech community: panel and trend studies. Trend studies show change in progress, while panel studies show change in an individuals' life span (153). Blake and Josey's (2003) investigation of Martha's Vineyard (a replication of Labov's 1963 study in Martha's Vineyard and Al-Qouz (2009) (which follows Holes' work in Bahrain (1980, 1983 and 1987)) are examples of trend studies.

Real time studies take longer to confirm the results, while apparent time studies provide quicker results for the researcher (Labov, 1994). Examples of recent apparent time studies in Arabic-speaking communities include Al-Essa (2008) in Jeddah, Al-Hawamdeh

(2016) in Sūf, Al-Ammar (2017) in Hail, Hussain (2017) in Medina and Al-Bohnayyah (2019) in Al-Ahsa. The apparent time method has been chosen to investigate age in this study.

As asserted above, age is an essential factor in dialect variation and change. In general, and especially if change is taking place, older speakers retain the local and traditional linguistic forms, while the younger generations are considered the innovators.

Eckert (1997) explains that community cohorts can be grouped by age *etically* and *emically*. The etic grouping divides speakers by "equal age spans", while the emic grouping divides "speakers according to some shared experience of time" (155). Age in this study is grouped etically as explained below.

Three age groups were formed to distribute the participants in this study, as illustrated in Table 2-2 below.

Age group	Young	Middle-aged	Old	Total
	18 - 39	40 - 59	60 +	
Number of speakers	16	15	12	43

Table 2-2: Division of the sample by age.

The younger generation (18-39) represents the generation that was born and lived in a period of economic growth. The middle-age group (40-59) is the generation that grew up after the economic shift, and most of them had the opportunity to continue their education to college level and work in different sectors. Most of the old age group (60+) are uneducated,

while two of them are educated until university level and one of these two has a master's degree and works as a lecturer. Some of the participants in this group were born before the oil discovery in 1938 and some of them were born after. The participants in this group worked as shepherds, farmers and in different services in the Pilgrimage season. Later, some of them received training courses from the government and worked in the state sector.

2.8.2 Gender

As demonstrated in numerous studies around the globe, including studies of variation in spoken Arabic, gender is an important social factor for consideration in sociolinguistic research. The differences that have been recorded in sociolinguistic research along gender lines have been explained in a variety of ways, mostly focussing on societal norms and expectations.

Data from Labov (1966) and Milroy and Milroy (1997) have shown that speaker's gender is an essential consideration in variationist studies, and it is important to employ it as a social factor. Differences have been identified between males and females in their use of linguistic features. Labov (1991) summarised and categorised the findings of three decades of research under 'principles', as outlined below.

Principle I a: In stable variables, men use a higher frequency of non-standard forms than women (205).

Principle I b: In change from above, women favour the incoming prestige form more than men (213).

Principle II: In cases of change from below, women are most often the innovators (215).

According to Trudgill (1972: 180) women in general use more of the standard and prestigious linguistic features than men, while Milroy et al (1991) report that women tend to use 'supra-local' forms more consistently than men who in their turn opt for 'localised' linguistic forms more frequently. According to Eckert (1989), 'marginalisation' is a key notion; marginalised groups are 'status-bound', and therefore tend to accumulate symbolic capital, including linguistic symbols, as a way of asserting their membership in the group. Deprived of real power, she explains, women must resort to symbolic means to assert membership and legitimacy in their communities of practice.

The early findings in sociolinguistic studies in Arabic contexts have shown that women use less standard linguistic features than men, as in the study of Abd-el-Jawad (1981) in Amman and Al-Khatib (1988) in Irbid. Ibrahim (1996) cleared up a misunderstanding in the early findings of Arabic studies in terms of uncritically considering the 'standard variety' in Arabic to be analogous in its status to the standard varieties in modern European languages. He added that in every Arab region there are local standards, which differ from the 'formal standard'; and that it is these local standard varieties that dictate the trajectory of linguistic change in Arabic. Viewed in this way, Ibrahim suggested, the findings from Arabic in fact do not contradict findings of gender-differentiated patterns in western communities, viz. Arab women do tend to (i) use linguistic features which are considered more prestigious; and (ii) lead in most linguistic changes. Al-Wer (1997) and and Haeri (1997) lend further support to Ibrahim's conclusions. More recent research on Arabic has consolidated Ibrahim's interpretations (see for instance, Al-Essa (2008), Alqahtani (2015), Abu-Ain (2016) and Al-Ammar (2017)[4].

[4] Females were ahead in using the innovative feature [a] for the feminine ending *–ah.*

As sociolinguistic research findings accumulated, it became obvious that either males or females can be ahead in leading the change toward the prestigious or non-prestigious linguistic forms depending on the local situation in the speech community itself. Additionally, gender has impact on language as it is associated with different life experiences according to Milroy and Gordon (2003: 108) "[G]ender affects language differently in different generations because of various life experiences". For instance, the study of Mees and Collins (1999) in Cardiff found that women were using a glottal stop in place of /t/ more than men. In Arabic-speaking communities, Ismail (2008) found younger men in the neighbourhood of Shaghor in Damascus to be ahead of the women in leading change in (r) lenition. Similarly, in the town of Sūf in Jordan, Al-Hawamdeh's (2016) study found that female speakers retained their traditional features of develarisation of /l/ and the palatalisation of /k/ in the stem and in the feminine suffix /-ik/, both of which are stigmatised features, more frequently than the men in the same community.

On the other hand, several other studies on Arabic did confirm the generalisation that women use more prestigious forms and lead in linguistic change, e.g. Al-Wer (2007); Al-Essa (2008); Alqahtani 2015; and Al-Wer & Alqahtani (2016).

2.8.3 Level of contact

Language contact is an everyday social phenomenon whereby speakers of different dialects and languages interact with each other. Britain (2013) states that everyday face to face interaction leads to linguistic convergence. During contact, speakers of different varieties of the same language tend to accommodate to each other in terms of linguistic norms and "items may be transferred from one of the varieties to the other" (Trudgill, 1986: 1).

According to Britain (2013: 209), the phenomenon of contact mainly depends "on short-term accommodation fossilizing into long-term acquisition". Trudgill (1986: 3) maintains that in short-term accommodation speakers converge in their linguistic features to gain positive and trustworthy evaluations from others. He adds that during long-term accommodation speakers tend to adopt the salient features in the target variety first.

There are numerous studies that have focused on the effect of contact on linguistic variation and change, both in the west and in Arabic-speaking communities, e.g. Britain (1991) in the Fens in Eastern England; Al-Essa (2008) in Jeddah; Al-Wer (2007) in Amman; Al-Ghamdi (2013) in Mecca; Horesh (2014) in Jaffa; Abu-Ain (2016) in Saḥam in Jordan; and Al-Ammar (2017) in Hail in Saudi Arabia.

The current study provides an important opportunity to advance the understanding of contact as a social factor in sociolinguistics in Medina. Contact has never been investigated through a sociolinguistic study in Medina. Whilst Hussain (2017) carried out an investigation in Medina in which she compared between the two major communities (Bedouin and Urban), the social factors that she dealt with were age and gender. This thesis will provide a deeper insight into measuring the effects of differing levels of contact among the Ḥarb tribe in Medina.

It was hypothesised in the current study that speakers who have high levels of contact with others from different dialect backgrounds (especially the Urban Medinis) are more likely to be innovative in their linguistic usages than speakers with lower levels of contact.

In devising a scale to measure contact, I followed Al-Essa's (2008) index and modified it to suit the participants and the community of Medina. Five criteria were used to determine the level of contact:

- Formal relationships at school and\or at work.
- Neighbourhood (Ḥarbi or non-Ḥarbi).
- Close friendships with non-Ḥarbi urban Medinis and non-Ḥarbi tribes.
- Kinship and intermarriage in the family.
- Travelling outside the city.

Each participant was assigned a score of either 0 or 1 for each of the criterion. The scoring system for all of the criteria is as follows:

When the participants scored 3, 4 or 5 then their level of contact is considered high, whereas when scoring 1 or 2 their level of contact is low (see Table 2-3 below). What is meant by high level of contact is when their neighbours, relationships at school and\or work, marriage and close friends are from non-Ḥarbi communities, as well as if they travel outside the city. On the other hand, low level of contact is when participants do not travel, have relations at school/work, marriage, neighbours and close friendships from Ḥarbis.

The highest score attained by any participant was 5 and the lowest score was 1. None of the participants scored 0 because they all have some degree of contact outside of the Ḥarbi tribe. Participants who scored 1 and 2 are considered to have low levels of contact, while those scoring 3, 4 and 5 are considered to have high levels of contact.

To evaluate these criteria, questions were asked in order to obtain the required information from the participants. Sometimes, there was no need to ask the participants some questions due to my prior knowledge about the speakers. Examples of these questions are listed below:

- How long have you been living in Medina?

- Do you have regular meetings with members of the Ḥarb tribe?
- Do you have friends from the other tribes?
- In which neighbourhood do you live? Are your neighbours of the Ḥarb or of non-Ḥarbi tribe?

The table below displays the distribution of the speakers based on their level of contact.

	Index	Number of speakers	Total
High level of contact	Score 3, 4 and 5	21	
Low level of contact	Score 1 and 2	22	
Zero level of contact	Score 0	None	43

Table 2-3: The distribution of speakers by their level of contact

2.9 The linguistic variables

The current study investigates the usage of two linguistic features: palatalisation of /k/ and /g/ in the dialect of the Ḥarb tribe in Medina.

2.9.1 /g/

The first variable is the velar stop (g), with two variants: the innovative variant [g] and the traditional Ḥarbi palatalised [gʲ]. The variant [g] is a supra-local feature in Saudi Arabia.

Examples: *gili:l* ~ *gʲili:l* 'little'.

gidi:m ~ *gʲidi:m* 'old'.

ga:l ~ gʲa:l ‘He said’.

2.9.2 /k/

The second variable is (k) which behaves differently in the stem and in the suffix, and is therefore coded separately according to its position either in the stem of the word or in the suffix *-k*. (k) has two variants; the velar stop [k] and the palatalised [kʲ].

Examples of (k) in the stem is:

ke:f ~ kʲe:f ‘how’.

kinna ~ kʲinna ‘we were’.

ka:mil ~ kʲa:mil ‘Kamil, proper noun’.

(k) in the suffix:

ragm-ik ~ ragm-ikʲ ‘your number F.SG’.

bint-ik ~ bint-ikʲ ‘your daughter F.SG’.

ʔubu:-k ~ ʔubu:-kʲ ‘your father M/F.SG’.

Traditionally, the palatalised [kʲ] in the Ḥarbi dialect in Medina used to carry gender distinction in consonant clusters in the suffix, but that is no longer the case; for example, *maktab-k ~ maktab-kʲ,* the addressees of either of these two forms could be male or female. The variant [k] is also a supra-local feature in Saudi Arabic.

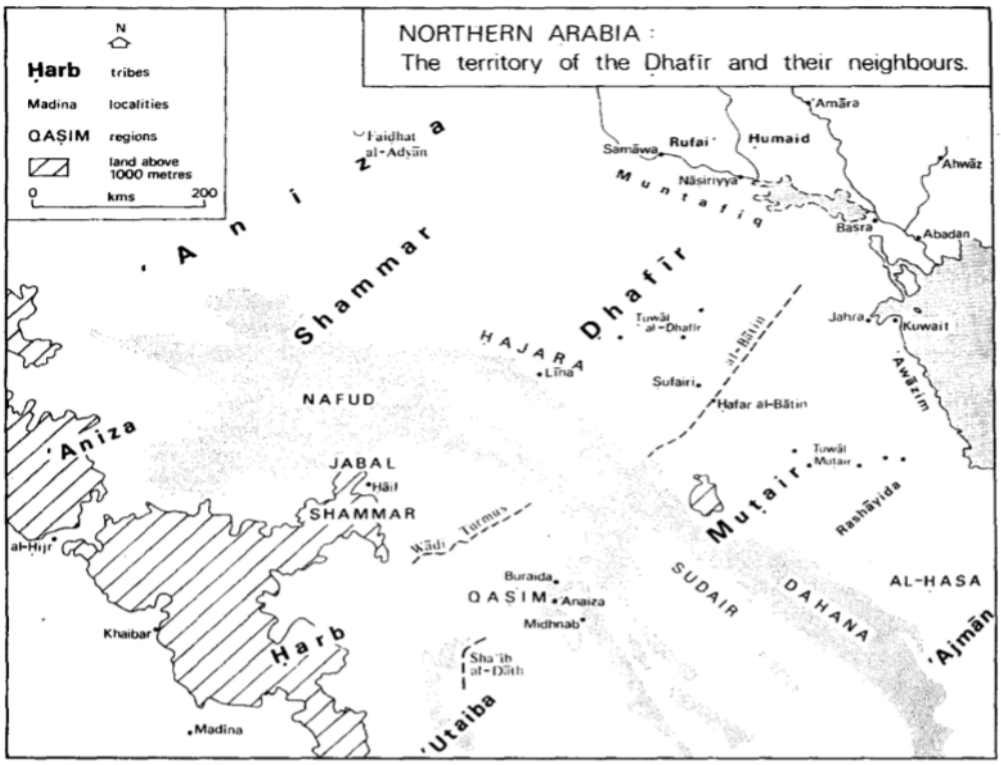
3 Chapter three: Literature review of (g) and (k)

3.1 Introduction

The variation involving /g/ and /k/ in the Ḥarbi dialect in Medina is different from that of most dialects in Arabia, as both sounds have traditional palatalised counterparts /gʲ/ and /kʲ/. Both can be fronted or palatalised to [gʲ] and [kʲ]; and can also be realised as the velar stops [g] and [k] as in many other Arabic dialects. The Ḥarbi dialect in Hijaz can be described as being "central Najdi with Hijazi overlay" (Ingham, 1982: 112). In geographical terms, according to Ingham (2006: 326) the Najdi dialects comprise the following:

> "i. The speech of the sedentary population of the areas of Central Najd and of Qaṣīm and Jabal Šammar to the North and Najrān and Bīša to the south.
>
> ii. The speech of the main Bedouin tribes of those regions, i.e. ʿAnizah, ʿUtaybah, Subayʾ, Suhūl, Bugūm, Dawāsir, Ḥarb, Muṭayr, ʿAwāzim, and Rašāyidah in the centre, Šammar and Ḏafīr in the North, and Gḥaṭān, Āl Murrah, and ʿIjmān in the south and east.
>
> iii. The speech of the emigre Bedouin tribes of the Syrian desert and the Jazīrah of Iraq of ʿAnizah and Šammar extraction".

See Map 3 below for the distribution of the tribes mentioned above in the Arabian Peninsula as well as the location of the Ḥarb tribe (adapted from Ingham, 1982: 246).



Map 3: The distribution of tribes in the Arabian Peninsula, and the location of the Ḥarb tribe (adapted from Ingham, 1982: 246).

Additionally, Ingham (2006: 326) divided the Najdi dialects into four groups:

> "i. Central Najdi. The dialects of Central Najd and associated Bedouin tribes, also the ʿAnizah of the Syrian desert.
>
> ii. Northern Najdi. The dialect of Jabal Šammar and of the Šammar tribes of northern Najd and the Jazīrah.
>
> iii. Mixed Northern-Central. The dialect of Qaṣīm and of the Ḍafīr tribe.
>
> iv. Southern. The dialect of Najrān and the Gḥaṭān tribe of the south and of the ĀlMurrah and ʿĀjmān tribes of the east".

Returning to Ingham's definition of the Ḥarbi dialect in Hijaz, that it has a 'Hijazi overlay', according to studies into the Meccan dialect by Ingham (1971), Abu-Mansour (2006), and Hussain (2017), Hijaz is an area comprised of both urban and Bedouin

communities. In other words, both communities' dialects differ, as in the case of the Meccan and urban Medini Hijazi. According to Abu-Mansour (2006):

> "Meccan Arabic belongs to the West Arabian (Ḥijāzī) group of dialects; however, it is substantially different from the Bedouin dialects of the Ḥijāz and Tihāma, and displays several characteristics of the sedentary dialects."
>
> (ibid, 2006: 179).

Hussain (2017) described the dialect of urban Hijazi as similarly affected by the surrounding countries and cultures. As Ingham (1971) stated, the Meccan dialect is influenced by Egypt, Sudan and parts of the Levant. I mention Mecca here because Mecca and Medina are the major cities in Hijaz along with Jeddah, and thus share Hijazi features (with some differences of course).

As the focus here is on the variables /g/ and /k/, there follows a discussion of these sounds in the literature. Ingham (1982: 112) stated that the fronted forms of /g/ and /k/ in the Ḥarbi dialect are palatalised to /gʲ/ and /kʲ/, and not affricated to /dz/ or /ʤ/ and /ʦ/ or /ʧ/ as in the other Najdi dialects. It has previously been observed by Il-Hazmy (1975: 27) that the Ḥarbi dialect shares important linguistic features with adjacent dialects (in the north central part of Arabia), in particular the ʿAnaza, ʿOtaiba and Shammar. To my knowledge, the depalatalisation of [gʲ] and [kʲ] has never before been investigated in the Ḥarbi dialect in sociolinguistic research. There have though been studies of the Ḥarbi dialect in the past – by Il-Hazmi (1975), who did mention the palatalisation of these two sounds in his account of the Ḥarbi dialect, Al-Mozaini (1981), Ingham (1982 and 1986) who described some of the dialectal characteristics of the Ḥarbi tribe, and more recently Hussain (2017) who carried out

a comparative sociolinguistic study between the urban and Ḥarbi dialects in Medina.

In the dialect of the Ḥarb tribe in Hijaz the variables (g) and (k) each have two variants; (g) has the traditional palatalised variant [gʲ] and the innovative variant [g], while (k) has the traditional palatalised [kʲ] and the innovative [k]. Some examples for both variables are listed below:

(g) examples:

talgʲe:nih ~ talge:nih ‘you will find it F.SG’.

gʲa:law ~ ga:law ‘they said’.

jabgʲa:li: ~ jabga:li: ‘there will remain for me’.

gʲidi:mah ~ gidi:mah ‘old’.

ðˤajgʲah ~ ðˤajgah ‘tight’.

ʔalaħħigʲ ʕala addawa:m ~ ʔalaħħig ʕala addawa:m ‘so that I managed to do it on time F/M.SG’.

digʲi:g ~ digi:g ‘flour’.

(k) examples:

In the stem:

kʲiða ~ kiða ‘like this’.

jimkʲin ~ jimkin ‘may be’.

jakʲðbu:n ~ jakðbu:n ‘they are lying’.

aðˤðˤiħi:kʲ ~ aðˤðˤiħi:k ‘laughter’.

ʔakʲal ~ ʔakal ‘he ate’.

kʲa:n ~ ka:n ‘was’.

kʲibi:r ~ kibi:r ‘big or old’.

In the suffix:

jiʕtˤi:-kʲ ~ jiʕtˤi:-k ‘to give you M/ F.SG’.

la: jhimm-ikˤ ~ la: jhimm-ik ‘not to worry you M/ F.SG’.

gasˤd-ikˤ ~ gasˤd-ik ‘you mean M/F.SG’.

fam-kˤi ~ fam-ki ‘your mouth F.SG’.

jdʒi:-kʲ ~ jdʒi:-k ‘he will come to you M/ F.SG’

maʕ-akʲ ~ maʕ-ak ‘with you M/ F.SG’.

baʕd-ikʲ ~ baʕd-ik ‘after you M/F.SG’.

ʕind-akʲ ~ ʕind-ak ‘with you M.SG’.

It is clear from the examples listed above that palatalisation occurs in all of the linguistic environments present in the data, but is especially common in the vicinity of high vowels.

In the course of this chapter the process of palatalisation will be discussed, with the inclusion of different dialectological and descriptive studies in relation to the variables (g) and (k). Furthermore, more detailed descriptions will be provided for both variables.

3.2 Palatalisation

Palatalisation is a linguistic feature that can be found in languages such as English (Ladefoged, 2005), Arabic, as in the palatalisation of /t/ in Cairo (Haeri, 1994), the palatalisation of /k/ in Jordan (Al-Wer, 2007 and Al-Hawamdeh, 2015), and San'ani Arabic (Watson, 2002)), Chinese, French, Romanian, Ethiopian, and others. According to Rogers (2000: 205), "[p]alatalised consonants have the front of the tongue more towards the palatal region than normal, that is having a high front unrounded vocalic position".

Palatalisation is a "phonological process that has output segments produced with an articulation in or close to the palatal region" (Zeroual 2006: 524). Zeroual adds two meanings for palatalisation:

> "Palatalisation involves the shift of the articulation of a consonant towards the palatal region before front vowels, especially [i], and the glide [j].
>
> Palatalisation adds a palatal articulation, generally considered secondary, before front vocoids, without changing its primary articulation (e.g. /k/, /g/ > /k^{j}/, /g^{j}/). In the second case, as the phonetic transcriptions show, an off-glide separates the palatalised consonant from the following vowel".
>
> (ibid: 524).

This means that palatalisation can be used in two different ways: either 1) as a secondary articulation or 2) as a process that may or may not have a secondary articulation, e.g. when under certain conditions a sound will move towards the palatal position. This could have a secondary articulation, such as from [t] to [t^{j}], or a different kind of change could happen, such as from [t] or [k] to [c]; therefore, in this situation there is no secondary articulation (Rogers, 2000). The case in my data in relation to the palatalisation that is present in the traditional forms is similar to the second meaning explained by Zeroual (2006) above.

Indeed, as was stated by Haeri (1994: 94), "palatalisation is a cover term embracing a

number of phonological processes". It is difficult to find a singular definition for the phenomenon, because of the variety in its usage and the fact that it includes many phonological processes (Bhat, 1978). In a description of palatalisation in English, Roca and Johnson (1999) note that it occurs before i+vowel, as in words like *impression*, *digression*, *diffusion,* and *confusion*. Kochetov (2011) states that English has three kinds of palatalisation: 1) coronal palatalisation, which comprises the alternation of [t, d, s, z] with [ʧ, ʤ, ʃ, ʒ], e.g. perpe[t]uity - perpe[ʧ]ual, 2) velar softening, which is the sound change from velar stops [k, g] to coronal fricatives or affricates [s] and [ʤ], e.g. medi[k]ation – medi[s]ine, and analo[g]- analo[ʤ]y and 3) spirantisation, when there is a change from the alveolar stop [t] to the fricative [s] or [ʃ].

Furthermore, according to Bhat (1978) there is a difficulty in finding a definition for palatalisation that will satisfactorily cover all examples, but he provides two conditions for it. Firstly, the environment that will encourage palatalisation will be a "palatalising environment" – he lists these sounds: 1) front vowel, 2) palatal semivowel and 3) palatal consonants. Secondly, the resulting sounds will be palatal sounds or have a secondary palatal articulation (49). Additionally, Bhat (1978) adds that there are three types of palatalisation: fronting, raising and spirantisation; and they are differentiated according to a) the environments that encourage them, b) consonants that are affected by them, and c) the languages or dialects that endure these changes (50). He adds that the strongest environment that affects palatalisation is a following front vowel, especially the high and mid front vowels /i/ and /e/, and also a semi vowel /j/ (52-60). In addition, a preceding stressed front vowel encourages palatalisation too. He notes that there is a limitation in the way that front vowels will palatalise the following consonants. Haeri (1994) reports that the most favoured environment for palatalisation, according to her data concerning Cairo Arabic, is a following high front vowel or glide.

3.2.1 Palatalisation in the contemporary Arabic dialects

Both palatalised sounds [gʲ] and [kʲ] in the present research project consist of two segments:

Stop + off-glide

According to the trajectory of the sound change found in the current data (see chapters 4 & 5), the off-glide is disappearing and the stops remain. Lass (1984: 177) maintains that stop sounds can undergo lenition as in the formula below:

1. Stop > Fricative > Approximant > Zero
2. Voiceless > Voiced

Accordingly, it may be surmised that the change that seems to be affecting the traditional forms in the dialect under investigation in my research is a case of 'fortition' since the trajectory is in the direction of the stop variants (right to left). Fortition can be described as "strengthening" (ibid: 177).

Watson (2004) described palatalisation in Cairene and San'ani Arabic, for instance palatalisation in Cairene is encouraged by the sounds /j/, /i/, /i:/, and /e:/; and she added sometimes also by the epenthetic vowel /ɪ/, e.g. *nadʲja ~ naʤja* 'proper female name', *intʲi ~ intʃi*'you F.S', and *gidʲi:d ~ giʤi:d* 'new'.

Watson added that palatalisation in Cairene is triggered by a glide and least likely to be caused by a long-mid vowel /e:/. Additionally, palatalisation was triggered in the presence of word final /i:/ and word medial /i/.

Palatalisation in San'ani is different from Cairene. In San'ani it occurs with a following glide /j/ and is always a weak palatalisation (it has a secondary articulation). Watson also noted that palatalisation in stop dorsals is encouraged by a following glide and long palatal vowel /i:/, e.g. *kʲi:lu:* 'kilo', *adʲja:n* 'religions', *akʲja:s* 'bags', and *ha:ði:kʲ* 'that F.SG' (258). In San'ani palatalisation of /k/ occurs if preceded by /i:/.

There are number of sociolinguistic variationist studies that have been carried out on palatalisation in the Arab world, such as Haeri (1994) in Cairo and Al-Hawamdeh (2015) in Sūf, Jordan. Haeri (1994) studied weak and strong palatalisation for both the stop [t, d] and emphatic [dˁ, tˁ] groups. She found that there is a relation between social (age, gender, social class and education) and linguistic factors (long and short high vowels, and the semi glide /j/), and the use of palatalisation. Additionally, the study reports that women palatalised more often than men, and that it is a feature innovated by women.

In a recent research study conducted by Al-Hawamdeh (2015) in Sūf, a Jordanian Hōrani location, investigated palatalisation in the stem of the word for the sound /k/ and the feminine suffix /ik/. Palatalisation is considered the local and old form in the dialect of Sūf, while [k] and [-ik] are the new or innovative forms. Her data shows that female participants in the study palatalised more often than their male counterparts, and men in the study are leading the change in using the innovative forms [k] and [-ik].

3.3 The velar stops /g/ and /k/ in Saudi dialects

Before describing these sounds in relation to the present data, it is important to mention the trajectory of the two sounds in the present data. Both variables have palatalised variants: the voiced palatalised velar plosive [gʲ] and the voiceless palatalised velar plosive [kʲ]. The

palatalised variants [gʲ] and [kʲ] are moving back towards the velar stops [g] and [k]. Thus, the sounds are losing the glide/palatal element; this is a process of depalatalisation.

Prochazka described /g/ and /k/ in some of the Saudi dialects in terms of affrication, such as in the dialects of Bani Bisher, Bal-Qarn and Hofūf[5] where /g/ and /k/ are affricated to [ʤ] and [ʧ], respectively, and mentioned the palatalised [gʲ] and [kʲ] in the dialects of Ghamid and the palatalised [gʲ] in Zahran. He also maintains that in Al-Qouz and Sabya /k/ will be palatalised only in the feminine suffix *–(i)kʲ*.

Johnstone (1963) investigated the affrication of /k/ and /g/ in the Arabian Peninsula and South of Iraq, with his account being based on the dialect of ʿUnaizah. In most of the dialects in this area, /k/ is realised as [k], and /q/ is voiced to [g], but in the vicinity of front vowels /k/ is fronted as [ʧ], and /g/ is also fronted as [ʤ] or [dz]. This affrication will be blocked in the vicinity of emphatics and back vowels, e.g. *gałb* 'heart'.

3.3.1 The variable (g)

In some Arabic dialects [g] is a realisation of the phoneme /q/, which is realised as a uvular stop [q] in Classical Arabic (henceforth CA). Al-Wer and Herin (2011: 60) state that "[O]ften (q) is considered the most salient of all variables as can be witnessed by the fact that its variants are frequently used to label dialects".

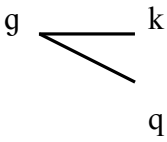
Across the contemporary Arabic dialects /q/ developed in different ways. [q] is retained in Northern Iraq, North Africa, some parts of Yemen and Oman (Holes, 2004). The [g] variant is a Bedouin feature (Abd-el-Jawad, 1986; Al-Nassir, 1993 and Palva, 2006). Palva (ibid: 402) maintains that [g], which is a voiced reflex of *q, is a common Bedouin

[5] A city in Al-Ahsa region in the Eastern province in Saudi Arabia.

feature – but is not limited only to Bedouin dialects, since it is present in sedentary dialects, as in the Sharqijja province east of the Nile, the southern villages in Palestine, and to the east of the Jordan river.

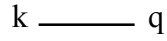
Behnstedt (2006: 585) mentions that [q] is not a variant that is found in Egypt; it is found in the Moroccan dialects where both [q] and [g] are used. The same situation is found in Iraqi dialects, where /q/ has different reflexes: [q], [g] and [k].

According to Cantineau (1960: 100), there was a triad in the Semitic language for the velars:



The /q/ was uvular more than velar, but later in Old Arabic this triad lost the uvular in favour of either /g/ or /gʲ/ which has a secondary articulation or off-glide joining it.

After the break within the velar triad, there remained only two phonemes in old Arabic, the voiceless velar /k/ and the uvular /q/ (ibid: 100):



Studies which have described or investigated the case of /q/ in contemporary Arabic dialects include Sallam (1980), Al-Wer (1991, 2007), Al-Tamimi (2001), and Herin (2013). The following section will draw on some of these studies in describing in the phenomenon.

/q/ in contemporary Arabic dialects

According to Al-Nassir (1989), Sibawayh described *qāf* as a uvular sound that has a phonetic value G. Al-Nassir added that in modern Arabic it has different realisations /q, g, ʔ, ʤ, k, ʧ, ɣ/. He included the opinion of Rabin (1951, pp. 125-126) that the old *qāf* in the early Qur'anic recitation was a voiced uvular plosive [G]. In one lexical item, *qāf* is pronounced as [k] in Baghdadi Arabic, e.g. *ka:til* for *ga:til* 'killer' (Al-Nassir 1985: 75-76).

Sallam (1980) carried out a study on the variable (q) among 40 educated Arabic speakers, from Jordan, Egypt, Syria, Palestine, and Lebanon. He concluded that the use of the variant [ʔ] is an indication of urbanisation. The variant [q] was used among speakers from different nationalities. He added that speakers tended to avoid [k] and [g] as they are regional features (ibid: 94).

Prochazka (1988: 17) described some of the Saudi dialects: 1) the Southern Hijazi and Tihami dialects, and 2) the Najdi and Eastern dialects. He described the realisation of /g/ there, stating that it can be [g], [ʤ] and [dz] in the vicinity of front vowels, e.g. *ʤi:meh* 'value' in the dialect of Bal-Qarn, *jigbil* in Rufaidah and *jiʤbil* in Bal-Qarn 'he will arrive'. In addition, /g/ can be heard as [dz] in Ruwaili dialect e.g. *dza:dir* 'able' and *dza:ʕid* 'sitting'. Also, /q/ is the variant used in the dialects of Druz, Syriac and some other Palestinian dialects (Al-Wer 1991: 70).

In general, /q/, in the dialect under investigation and in Saudi Arabia, is always pronounced as [g] with the exception of words borrowed from the standard, or religious words. Given that the original sound of /g/ is /q/, studies that have dealt with this sound from descriptive and sociolinguistic perspectives are discussed in the following lines.

In the Gulf

In the dialect of the Shi:'a (*Baħārna*) in Bahrain, CA /q/ is pronounced as /k/ in the speech of the rural *Baħārna*, while the urban *Baħārna* pronounce it as /g/, which is similar to the Sunni variety in Bahrain (Holes, 2006: 242).

In Kuwait, /q/ is realised as [g] and in the environment of front vowels it is fronted and affricated to [ʤ], e.g. *ba:ʤi* 'remainder' (Holes, 2007: 610). In some cases, standard items containing /q/ are realised with [ɣ] (Johnstone 1967: 29). The same distribution can be found throughout the Gulf.

The case of /g/ in Jordan

Al-Wer (1991) maintains that the variants of the variable /q/ in Palestinian Arabic are considered to be markers showing the social group to which a speaker belongs, be it rural, urban or Bedouin. The variants are [k] for the rural, [ʔ] for the urban, and [g] for the Bedouin Palestinians. The researcher added that the variable (q) was an example of sociolinguistic variation due to the description she included from Ibn Xaldūn in his famous book '*ʾal-muqaddimah*'. Throughout the expansion of urban communities, there was contact between different varieties, Arabic, Persian, Syriac, and Berber, and /q/ existed as a marker in the 14th century (ibid: 60). Ibn Xaldūn mentioned that the sound of /q/ was a voiceless uvular plosive /q/ in the urban areas, whereas Sibawayh described the sound as voiced sound /g/, and Ibn Xaldūn described the voiced sound as a Bedouin feature. According to Ibn Xaldūn the sound /g/, which is a Bedouin feature, was stigmatised (ibid: 62).

Al-Wer (1991) investigated four variables in Jordan, in the towns of Sult, Ajloun and Karak, and in total she interviewed 116 female speakers divided into four age groups. (q) was

one of these variables. In Jordan the variable (q) has four variants: [g], [ʔ], [k], and [q]. The variant [g] is a linguistic feature of indigenous Jordanians and "a symbol of identity" (ibid: 71). Whereas, [ʔ] is an urban and prestigious feature that is used in the cities of the West Bank in Palestine. [k] is a rural Palestinian feature, and [q] is a feature of CA.

The variant [g] is the traditional Jordanian form, whereas [ʔ] is the non-local Palestinian variant. Age and education were the major social factors, but in the event they did not determine the preference in use of [g] or [ʔ]. It seemed that social networks played a bigger role in retaining (or not) the traditional variant [g]. In close social networks the local variants were retained (in this case the use of [g]).

The results showed that there is variation between [g] and [ʔ] based on the age and education level of the speakers. But the crucial factor was the amount of contact the speakers had with other dialects, and the "nature of their relations with the local communities" (ibid: 197). Women in Sult were adopting the non-local variants more than the women in the two other towns because Sult is very close to Amman, where they have opportunities for contact with Palestinian speakers.

In addition, the use of the variant [q] was lexically conditioned, and there is no variation between [q] and [g] and between [q] and [ʔ]. It also appeared that the speakers were treating it as a separate phoneme, and educated speakers were using it for some topic discussion. [q] appeared in the speech of educated speakers more than in the speech of less educated ones. In sum for this study, the results showed that although there is an increased tendency towards the use of [ʔ], speakers generally stuck to their traditional Jordanian feature [g].

Al-Wer (2007) also investigated /g/ in Amman, Jordan in a later project. Her variable (g) has two variants: the traditional Jordanian variant [g], and the innovative and Palestinian

variant [ʔ]. Due to contact between Jordanian and Palestinian speakers in Amman, there is an increase in the use of [ʔ] especially among females. Among the second generation, females were adopting [ʔ], while the males retain their [g]. The use of these two variants in the third generation was having a gender association and it was inherited from the second generation. The inherited features undergo "redefinition of social context, and refunctionalisation of the variants" (ibid: 66). Female speakers were using [ʔ] consistently, while the case is different among male speakers dependent upon whether they were Jordanians or Palestinians. [g] is retained among male Jordanians, and [ʔ] remains in use among Palestinians. But [ʔ] was used by both Jordanians and Palestinians if the interlocutors were females, and [g] was used in the mixed groups from both Jordanians and Palestinians. So, the interlocutors seem to determine which variant to use.

However, according to data collected from different parts of Jordan Al-Wer and Herin (2011: 62) state that [g] appears in all of the traditional Jordanian dialects, suggesting that "the variation of Qaf is a relatively recent development in Jordanian dialects and that it emerged as a result of contact with non-local dialects" (ibid: 65).

Another research project in Jordan was carried out by Al-Tamimi (2001), who investigated the phonological and phonetic variation in the speech of 72 rural migrants in Irbid. She used a random sampling method in the south of Irbid (*al- ǧanūbi* zone), to find out the degree to which the speakers maintain their rural speech or whether they shift to the Palestinian and urban varieties. The researcher investigated four linguistic variables, in relation to four social factors: age, gender, social class and education; (q) was one of the variables investigated. The study shows that the most important social factors were gender and social class, and that women were the innovators. Women were found to be using the urban features more than men, although according to the researcher the contact of women is

restricted socially, culturally and religiously too. Furthermore, the higher the social class, the less likely speakers are to produce rural features. Males were proud in using their feature [g] because to them it is "a marker of the Jordanians" (ibid: 107), while female speakers were using the regional prestigious urban [ʔ]. To the female speakers the use of [ʔ] encompasses "a high degree of 'finesse'" (ibid: 107).

3.3.2 The variable (k)

Sibawayh (1999 version) described the place of articulation of /k/ as lower than the position of /q/. Cantineau (1960: 101-102), mentioned that old Arabic grammarians listed [ʤ] as a disapproved or denounced variant for /k/, but he was inclined to believe that the sound was actually [ʧ], because /k/ is voiceless (and so is /ʧ/) while /ʤ/ is voiced. For instance, Sibawayh listed seven unfavoured sounds and one of them is the /k/ which was pronounced between *ǧīm* /ʤ/ and *kāf* /k/. Ibn Durayd (vol. 1, p. 5 cited in Al-Nassir 1985: 39) described this realisation of /k/ as being between *ǧīm* /ʤ/ and *kāf* and peculiar to the dialect of Yemen. Al-Nassir (ibid: 40) suggested that this realisation of /k/ as in Yemen might be the voiced counterpart of /k/ i.e. [g]. In addition, Cantineau (1960: 101) refers to the two phenomena called by the medieval grammarians *–k*: *kaškaša and kaskasa,* (of the feminine suffix). *kaškaša* is the alternation between /k/ and /ʧ/ or /ʃ/ or /ʃi/. *kaskasa* is the alternation between /k/ and /ts/ or /s/ or /si/.

Cantineau (1960) added that the velars can be realised in different Arabic dialects as [ʧ] or [ʃ] or [ts] or [s] in the vicinity of /i/, /e/ and /a/, the distribution is as below:

- In southern Syria, /k/ can be [ʧ] in all environments in *Suxne* oasis, e.g. *ruʧba* 'knee' and *ʧursi* 'chair'. In the rest of this region /k/ is affricated conditionally in the vicinity of front vowels.

- In two areas in Algeria: Kabylia and Mountains areas of Northern Tlemsen, [ʧ] is found, e.g. *bu:ʧ* 'your father'.
- In Oman and Yemen, /k/ in the suffix only when it is adjacent to front vowels is either [ʧ] or [ʃ].
- In rural Jordanian dialects, the /k/ can be [ʧ] in the vicinity of high front vowels and high back vowels (ibid: 104-105).
- /k/ can be followed by an off-glide /^{w}/ in Saida in Lebanon and Tadmur in Syria, e.g. *lu:k^{w}an* 'if' and k^{w}urr 'donkey'.
- He added that sometimes /k/ is geminated to /g/ in Tunisian Arabic, e.g. *jigdib* > *jikdib* 'to tell lies' (106).

Holes (1991: 653-654) listed the geographical distribution of the second person feminine singular pronoun in the contemporary Arabic dialects in the Peninsula as follows:

- The Southern feature *–if* is found in the North and North-east of Yemen and in the South of Arabia. Also, this feature is found in Al-Ahsa and Bahrain.
- (i)k(i) in Yemen and Saudi Tihāma "a long north-south coastal corridor in which the 2nd fem. sing. reflex is a velar –(i)k(i), which is in some areas palatalised to –(i)k'(i). This corridor extends at least as far as Mecca, which, however, appears to be a different dialect type from that of the southern end of the 'corridor'" (654). He added that the feminine suffix, the Old Arabic *–ki*, is a western Arabian feature.
- *–its* which is a central and north-central Arabian feature and the same feature is found in Bisha.
- *–its* in the Syrian desert, lower Iraq and Khuzistan.
- *–itʃ* is a northern and eastern feature.

3.3.3 (k) in some descriptive and variation studies

Some studies show that /k/ can be emphatic in some dialects as described by Prochazka (1988 and 1990) in Al-Qaṭīf in the Eastern Province and in ʾAbu T̲ūr in Al-Ahsa, /k/ and /g/ can be both plain and emphatic, especially when preceded by /o/, e.g. *dogˁgˁ* 'hit!' and *waladokˁ* 'your son' (1990: 63).

In Saudi Arabia, in Jizan in the mountain of Fayfa and also in Manibah on the border with Yemen, /k/ is affricated to [ʧ], e.g. *ʧalbin* 'dog', *laʧa* 'for you', *jaħiʧʧ* 'he rubs', and *ʧabdin* 'liver'. But, according to Alfaifi and Behnstedt (2010), in the upper mountain of Fayfa the reflex of /k/ is not [ʧ] but [ts] as in the dialects of North Arabia.

In Oman, /k/ remained as a velar stop in Muscat and Baṭina, while it is palatalised and affricated unconditionally in some mountainous villages. Also, it is affricated to /ʧ/ in the vicinity of front vowels in Bedouin dialects in Ṣūr, north of Baṭina in Oman and near the boundary of UAE (Holes 2006: 479). In Bahrain, the rural Shi'a (*Baħārna*) affricate /k/ to /ʧ/ unconditionally, e.g. *ʃo:ʧ* 'palm tree thorns' and *dˁuħʧ* 'laughter' (Holes 2006: 242). Furthermore, there is a gender distinction in the feminine suffix –(i)k, and it shows sectarian differences in Bahrain. According to Holes (ibid: 247) in the dialect of the Sunnah it is *–ik* (2^{ND}. SG.M) and *-iʧ* (2^{ND}. SG.F); in the dialect of urban Shi'a *–k* (2^{ND}. SG.M) and *-ʃ* (2^{ND}. SG.F); in the dialect of rural Shi'a it is *-ʧ* (2^{ND}. SG.M) and *-ʃ* (2^{ND}. SG.F).

In Kuwait, the velar /k/ is affricated to [ʧ], e.g. *ʧibi:r* 'big' (Holes 2006), and to [ʧ] and [ʤ][6] (Johnstone 1967). In Qatar, Bahrain and the dialect of the Trucial coast /k/ is also affricated to [ʧ], but there is an exemption in Qatari Arabic for the affrication of /k/ in the vicinity of front vowels, where /k/ will remain velar, e.g. *wika:d* 'surely', *kala:m* 'speech'

6 For more examples see Johnstone (1967: 31).

and *kilma* ‘word’ (36). Holes (1991) reported that there is a small group of *Baħārna* in the village of ʿAli for whom the /k/ has developed to a palatalised /kʲ/.

3.3.4 The two variables (k) and (g) in studies in Saudi Arabia

This section introduces some studies that have been carried out for both variables (k) and (g) in Saudi Arabian dialects. Some of these studies are descriptive and others are sociolinguistic.

Al-Essa (2008) investigated the affrication of /k/ and /g/ in the stem, as well as affrication in the feminine suffix *–ik/–its*. The /g/ and /k/ in the Najdi dialect are realised as [dz] and [ts] in the vicinity of high vowels, e.g. *tse:f ~ ke:f* ‘how’ and *ṭri:dz ~ ṭiri:g* ‘road’ (136- 137). Al-Essa investigated the linguistic changes that happen as a result of contact between Najdi and Hijazi speakers in Jeddah in relation to age, gender and contact.

The results regarding age show that the majority of speakers, especially among the young age-group, used the velar variants. The affricate features were disappearing especially in the stem; Al-Essa (2008) notes that the affricate variants have become “relic features which survive in the speech of some old speakers, and in some of the first generation of speakers born in Hijaz” (138-139). In relation to contact, the speakers with higher contact and more frequent interaction with the urban Hijazi speakers adopted the Hijazi features, while speakers who affricate both variants had low contact with the urban Hijazi community. In sum, the deaffrication of both /k/ and /g/ in the speech of Najdi speakers in Jeddah is undergoing dialect leveling due to “over-stigmatization and comprehensibility” (ibid: 142).

In her research, the affricated Najdi variant of the feminine suffix *-its* occurs in the vicinity of front and back vowels, e.g. *ʔummits* ‘your mother F.S’, and *ʔubu:ts* ‘your father F.S’. The suffixes in the Najdi dialect are: *-ik* M.S, and *–its* F.S., while the suffixes in the urban Hijazi are *–ik* F.S. and *–ak* M.S. Her data shows that there is an increase in the use of the urban

Hijazi suffix *–ik* among Najdi speakers in Jeddah, and they also used *–ki*. For reasons of accommodation and comprehension, those speakers have changed the affricate *–ts* to /k/. Another interesting contact phenomenon in this community is the use of intermediate and mixed variants, namely [–ki] along with [–ik]. Al-Essa (2008) explains that "to maintain the gender distinction and achieve maximal comprehension, they use [–ki] along with [–ik] and extend the use of [–ki] to both consonant and vowel final words." (159). The results overall show a change in progress among the different age-groups. Speakers with higher levels of contact with urban Hijazi deaffricate the suffix to *–ik*, and female speakers use less *–its* than male speakers.

In her dialect description of Haili Arabic, Al-Ammar (2017: 38) mentioned that the affrication/palatalisation of the voiced velar stop /g/ and the voiceless velar stop /k/ involves the shift of /g/ to [dz], and /k/ to [ts] in the vicinity of front vowels, e.g. *dzidda:m* 'in front of' and *tsibi:r* 'big'. She added that /g/ is only palatalised in coda position when preceded by high front vowels, e.g. *tˁiri:dz* 'a road' and *midzbil* 'he is coming'. /k/ is also affricated in the feminine suffix –ik as [–ik] and [–its], e.g. *be:tits* 'your house'.

In his description of the Al-Murra[7] dialect, Ingham (1986: 274) maintains that /k/ does not undergo fronting to [ts] or [ʧ] and /q/ to [ʤ] or [dz]. But it is *–iʃ* not *–ik* in the feminine suffix, which is common in Southern Arabia.

Il-Hazmi (1975) stated that the palatalisation of both /k/ and /g/ is found in Hijazi Ḥarbi. Il-Hazmi described the dialects of the Hijazi Ḥarb and the Central Najdi Ḥarb. His research was a dialect description based on data from 40 participants, 26 of whom were from

[7] It is a Bedouin tribe of eastern and southern Arabia (Ingham 1986).

the Hijazi Ḥarb, but his sample did not include any female participants. It is worth noting that the Hijazi Ḥarb participants in his thesis are from different parts of Northern Hijaz, while my participants are only from Medina. In his research, he mentions that palatalisation occurs in Najdi Ḥarb in /g/ as [gʲ], and [dʲ] also can be heard as a variant of /ʤ/ especially among sheep and camel rearing Ḥarbi Bedouin. Also, among the Hijazi Ḥarbi group the /ʤ/ can be pronounced as [dʲ] especially word-initially, e.g. *dʲimal* 'camel', and *dʲibal* 'mountain'. But also it occurs word-medially, e.g. *wa:dʲid* 'much' (53). In relation to [gʲ] instead of [ʤ], which is out of the scope of the present research, Il-Hazmi explained that this variant occurs in all the positions of the syllables, e.g. *rigʲaʕ* 'he comes back', *ʔagʲna:b* 'strangers', *ʔalgʲizi:ra* 'al-ʤazi:ra which is the homeland of the northern Shammar tribe', *gʲa:* 'he came', and *rigʲa:lin* 'man' (55).

He described /k/ and /g/ in the dialect of his participants, noting that both sounds can be palatalised. Overall, he maintains that /k/ is retained as a voiced velar stop, but among the mountain Ḥarbi Bedouin Banū Masrūḥ, Banū Sālim, Banū ʾAjjūb, and Banū ʿAmru there is a palatalised [kʲ], and this sound occurs within the vicinity of the vowels /a, i, u, a:, i:, e:/. Some examples in which this sound occurs word-initially include *kʲinna* 'we were', *sikʲkʲa* 'road', *makʲkʲ* 'Mecca', and *kʲi:s* 'sack'. Also, this sound occurs word-finally, in e.g. *fakʲkʲ* 'he opened', and *mbajri:kʲ* 'a proper name' (ibid: 56). According to his data, there is a branch of the Ḥarb living in a place named *al-Xabt*[8] for whom the palatalised [kʲ] does not occur in the vicinity of /u, a, i/, e.g. *bukra* 'tomorrow' and *ba:ku:r* 'long curved stick' (57).

In relation to /g/, again the Bedouin of the mountains produced the palatal [gʲ] which occurs in the vicinity of /a, i, u, a:/, e.g. *gʲamħ* 'wheat', *ligʲi* 'he found', *na:gʲa* 'she camel' and gʲiltlak 'I said to you'.

8 This branch of Ḥarb is from the Banū Sālim.

Il-Hazmi's study only mentioned palatalisation in general terms from a descriptive perspective as his study is a dialectological one, while the current research investigates sociolinguistic variation in the use of these features and possible change that they are undergoing, as will be explained in the data chapters (4 and 5).

3.4 Summary

This chapter has discussed the linguistic phenomenon under study which is the palatalisation of /g/ and /k/ in the Ḥarbi dialect in Medina along with examples from the data. The velar stops /g/ and /k/ in this dialect have palatalised counterparts [gʲ] and [kʲ] which are considered to be the traditional forms. The trajectory of the two sounds, along with description of the phonological process was provided. Furthermore, different descriptive and sociolinguistic studies of the variables have been discussed in this chapter.

4 Chapter Four: The variable (g)

4.1 Introduction

This chapter will focus on the variable (g) which has two variants, [g] and [gʲ]. This sound is realised as the uvular plosive /q/ in Standard Arabic. The [g] variant has almost replaced /q/ in the dialects of Saudi Arabia, but /q/ is retained in words borrowed from the Standard and religious words, e.g. *Qur'an*, *fiqh* 'Islamic jurisprudence', and *maqu:lah* 'saying'. In general, /q/ has different realisations in contemporary Arabic dialects; it is [ʔ] in Cairo Arabic (Haeri 1997), [g] in Omani Arabic (Holes 2006), Jordanian Arabic (Al-Wer 2006) and Yemeni Arabic (Watson 2004), and [q] in Baghdadi Christian and Jewish Arabic (Abu-Haidar 2006).

In general, [g] is a common feature of the Bedouin dialects across Arabia (Palva, 2006). The Ḥarbi dialect is considered to be a Bedouin dialect which has replacement of /q/ with [g]. But an interesting finding in the present study is the depalatalisation of the traditional Ḥarbi [gʲ] toward the stop [g]. As mentioned in Chapter 3, fronting of [g] to [gʲ] is a case of palatalisation (more explanation is provided in chapter 3).

4.2 The variable (g) in the current study

The quantitative findings and analysis of the variable (g) will be presented in this chapter. Rbrul software (Ezra, 2009) was used alongside Excel spread sheet in order to analyse the data and to identify correlations between the factor groups (the dependent variable (g) and the social factors: age, gender and level of contact). A regression analysis was run in order to obtain relative factor weights and P values between the linguistic and social factors.

As mentioned above, (g) has two variants; the velar stop [g] – which is the dominant feature in Saudi Arabia – and the palatalised [gʲ], which is a traditional feature of the dialect spoken by the Ḥarb tribe in Medina. Some examples from the data are listed below:

gʲiri:b ~ giri:b ‘close’.

wirgʲa:n ~ wirga:n ‘Wirgān, name of a mountain’.

gʲabil ~ gabil ‘before’.

wasgʲ ~ wasg ‘above’.

jigʲif ~ jigif ‘he stands’.

wigʲaf ~ wigaf ‘he stood up’.

wattifigʲ ~ wattifig ‘and I agree’.

sˁa:digʲ ~ sˁa:dig ‘honest’.

digʲi:gʲ ~ digi:g ‘flour’.

gʲisim ~ gisim ‘department/part of something’.

4.3 Other variants of (g) in the data

Other variants for (g) were found to occur in the speech of just one informant from the old age group, with a low level of contact. This speaker has five variants for (g): [g], [gʲ], [dz], [dʒ] and [d]. He produced *da:l* for *ga:l*, ‘he said’, but this sound occurred only in this one lexical item. As such, it might be useful to further investigate this with a broader sample in the future.

What also has been found is that [g] was realised as [ʤ] in seven tokens from three different speakers:

masʤa ~ masga ‘waterfall’.
jibʤi:k ~ jibgi:k ‘(God) protect you’.
ʤa:l ~ ga:l ‘he said’.
innija:ʤ ~ innija:g ‘camels’.
jwaʤʤif ~ jwaggif ‘to stop’.
tinʕiʤid ~ tinʕigid ‘to be tightened’.
ʕiti:ʤ ~ ʕiti:g ‘old’.
ʤiribt ~ giribt ‘being closer’.

Two of these three speakers are from the older group (72 and 78 years old), and the other is a younger speaker (21 years old), but all have very low levels of contact. The younger speaker has a very high amount of contact with these two old men, who are relatives of his. The younger speaker recently finished his secondary schooling and is currently not working.

Another interesting token from the data occurred in a geminate word, *ʃigga* ‘flat’. In this token, one participant from the middle-aged group with low levels of contact lenited the first [g] to [j], while the second [g] was aspirated with an off-glide /ʲ/, so producing the realisation of this word as *ʃijgʲa*. The first [g] shifts to palatal articulation, in this case [g] > [j]. For the second [g], a secondary articulation, the off-glide [ʲ], is added (see Zeroual 2006: 524).

Furthermore, it was noted that three of the speakers pronounced the word *gili:b* ‘well’ as *dzili:b*. The explanation of the occurrences of [ʤ] and [dz] among Ḥarbi speakers in Medina might be that the dialect is considered by Ingham (1982) as Najdi dialect with Hijazi overlay given that these two variants are Najdi features. As the territory of the Ḥarb tribe

extends from Hijaz to Central Najd as described by Il-Haazmi (1975), this might allow Najdi features to be retained\transferred to members of the tribe in Hijaz, especially with family relationships and intermarriages. Another possible explanation of the appearance of this feature among Ḥarbis is that coming to contact with other tribes who have this feature such as ‘Anizah and Shammar (ibid: 39).

The variant [d] appears in one word in the data *da:l* ‘he said’, which might be similar to the variant in Upper Egypt and the eastern Delta in which [d] is a reflex of [g] that originated from the Arabic *ǧi:m*, but the [d] in the current data appears as a reflex of [g] which originated from the Arabic /q/. This feature might arouse as a result of contact with the North-West Bedouin group of Arabia, about which to my knowledge there is a dearth of studies in this area. De Jong (2011) states that the dialect of the Bedouin in Ḥijaz has close affinity with other Bedouin dialects in Jordan, Sinai and the Negev Desert (de Jong, 2011). Since this feature occurs only once in the data, it might be a relic feature of the Ḥarbi dialect in Hijaz.

4.4 Coding protocol

In total I extracted and coded 2354 tokens of the two variants from the interview data. Four factor groups were coded for this variable: linguistic constraints (‘preceding sound’, ‘following sound’), ‘age’, ‘gender’ and ‘level of contact’. Some other linguistic factors were initially coded for, including the number of syllables in the word in which the token occurred, and the position of the token in the syllable (coda or onset). However, these were later

excluded from the model for two reasons: they showed no significance, and the number of tokens was seriously unbalanced.

It took more than one step in order to find the model which best fit the data. I coded for the following factor groups:

1- Preceding environment: the preceding sounds in the first run were coded individually, and I also coded for pauses. The variable (g) occurred after the following consonants: /b, d, ð, ħ, ðˤ, h, f, g, gʲ, t, ʒ, l, k, m, n, ʕ, ɬ, tˤ, rˤ, r, sˤ, s, ʃ, j, w, x, z/. The (g) variable occurred after the following vowels: /a, aː, ɑ, ɑː, i, iː, aj, ajj, aw, eː, u, uː, ɔː, oː/. The consonants were later re-coded according to their place of articulation, which seemed a logical decision especially in view of the imbalance in the number of tokens in each environment when coded individually (see Table 4-1 below).

Preceding	[g]	[gʲ]	Total	Example	Gloss
Pause	126	47	173	# ga:lat	She said
ʕ	11	7	18	taʕgi:d	Complicating something
a	491	109	600	magalli	He didn't tell me
ɑ	6	0	6	ʔɑga:bilhum	I meet with them
a:	62	12	74	ba:gyatlik	Something left for you
ɑ:	24	5	29	assawwɑ:g	The driver
aw	16	5	21	fawgʲ	On top
aj	0	1	1	rzajgʲa	Proper name
ajj	3	1	4	dgʲajjgʲa:t	Very small things
b	20	8	28	yibgʲi:kʲ	(God) save you
d	24	8	32	sˤa:dgʲah	She is right
ð	3	1	4	ya:xið gʲili:l	He takes a little
ðˤ	1	0	1	arˤðˤ gimatha	A piece of land that it worth….
e:	0	7	7	ʔal-ħle:gʲa	Al-Hlega 'Name of a mountain
f	11	0	11	fgisim	In a department
g	121	2	123	adugg	I am Calling\knocking
gʲ	2	19	21	ħagʲgʲat	That belong to (genitive exponent)
h	13	11	24	maʕa:h gitˤʕa	He has a part
ħ	4	5	9	liħgat	She caught up
i	192	128	320	kallamni gʲabil	He called me before
i:	47	31	78	digʲi:gʲa	One minute
ɣ	0	2	2	mafi inta:ɣ gʲaffalat	There are no products
k	5	2	7	ysallmu:nik gitˤʕa	They give you a text
l	130	51	181	algma:ʃ	Material\fabric
ɬ	0	1	1	tɣaɬgʲih	You finished from it
m	33	15	48	mga:bala	Interview
n	78	22	100	min gariya	From a village
ɔ:	5	3	8	sawwɔ:g	Driver
o:	11	0	11	fo:g	On top
r	26	17	43	nu:r guba	A shop's name
rˤ	26	1	27	ʔazzarˤga	The blue
s	14	10	24	yisgu:nih	They water it

ʃ	5	0	5	ʔe:ʃ ga:lat	What did she say
sˤ	7	0	7	yasˤglunih	To pour it
t	68	16	84	tgu:l	She say
tˤ	4	0	4	banħutˤtˤ gasˤdi:r	We will put foil
u	67	5	72	ʔugsum	I swear
u:	35	8	43	su:g	Shopping mall
w	14	9	23	wgutˤʕat	Part of something
x	1	1	2	ta:ri:x gʲidi:m	An old history
j	45	15	60	ygʲa:llih sme:r	He is called Smeer
z	9	8	17	ʔɑlɣa:z gʲidi:ma	Old riddles
Total	1760	594	2354		

Table 4-1: Examples of [g] and [gʲ] preceded by consonants and vowels.

- Consonants were grouped as: emphatic (sˤ, rˤ, tˤ and ðˤ), dental (t, d), bilabial (b, m, f, w), coronal (ð, n, s, l, z, ʃ, ʒ, r), velar (k, g, gʲ), dorsal (x, h, ħ, ʕ). The diphthongs /aj, ajj/ and /aw/, /aww/ were coded separately. The semi-vowel /j/ was left on its own and not conflated with the consonants or the vowels, because according to Bhat (1978) and Zeroual (2006) /j/ triggers palatalisation. The emphatics in the preceding environment include /tˤ, rˤ, sˤ and ðˤ/; /r/ in this dialect has two realisations: plain /r/ and emphatic /rˤ/, similarly to Palestinian Arabic (see Younes 1992). Examples from the data include: *marˤgu:g* 'a traditional dish' and *rˤguba* 'neck'. The vowels I coded for are: high front, mid front, low front, high back, high-mid back, low-mid back and low back.
- I then ran the modelling with all of the consonants conflated into the above given groups. The semi-vowel /j/ and the diphthongs were left in separate groups. Following initial runs which showed no effect of 'emphasis', I conflated the emphatics (sˤ, rˤ, tˤ and ðˤ, 39 tokens), with their plain counterparts, the coronals. Later, the semi-vowel /j/ and the diphthongs /aj/ and /ajj/ were conflated with the high front vowels. For the

semi vowel /w/ and the diphthongs /aw/ and /aww/ I grouped them with the high back vowels. In relation to the vowels, some vowels have very low numbers of tokens, thus they were grouped as: 1) mid front and high front, 2) low-mid back with low back vowels, and 3) the high-mid back vowels (11 tokens) with the high back vowels.

- The consonants were grouped as: bilabial, coronal, dental and back consonants. Back consonants comprised the velar /k, g, gʲ/ and dorsal /x, h, ħ, ʕ/. After a number of initial runs and based on the results obtained, I conflated the bilabial, coronal and dental to front consonants as one factor group called 'front consonants'. This was the last model and I considered it to be the final run. This final run will be presented in the finding and result section below.

2- Following environments: similar to the steps carried out above, I followed the same procedure for the following environment. In the first run the following sounds were coded individually, and I also coded for pauses. In the pool of data, the variable (g) occurred after the following consonants: /ʔ, b, d, ð, ħ, ðˤ, h, f, g, gʲ, ʤ, l, k, m, n, ʕ, ɬ, tˤ, rˤ, r, sˤ, s, ʃ, x, w, j, z/. Sounds were re-coded according to their place of articulation mainly because of the differences in the numbers of tokens (see Table 4-2 below). The (g) variable occurred after the following vowels: /a, aː, ɑː, i, iː, aj, ajj, aw, eː, u, uː, oː/. Table 4.2 shows the environments and number of tokens.

Following	[g]	[gʲ]	Total	Example	Gloss
ʔ	3	3	6	ħagg ʔa:xir sana	This for the last year
Pause	68	24	92	alħagg ħagg#	What is right is right
ʕ	45	14	59	ʔawaggʕu	I sign it
a	475	193	668	tgarbiʕ	She makes a mess
a:	100	34	134	ga:ʕid	He is sitting
ɑ:	17	13	30	migɑ:ðˤi	Shopping
aw	5	11	21	ligʲaw	They found out
aj	0	1	1	dgʲajgʲa:t	Very small
ajj	1	0	1	gʲajjidawh	They tighten him up
b	27	7	34	atisˤaddagbaha	I gave it up
d	44	14	58	nya:gʲ dxajjil	Dkhajjil's camels
ð	2	2	4	fawgʲ ði:k	On top of these
ðˤ	2	0	2	tigðˤi:n	You finish (female)
e:	17	7	24	lige:taha	I found it
f	17	1	18	fassagf	On the cealing
g	129	1	130	tˤaggaha	He hit her
gʲ	3	18	21	ywagʲgʲif	He stops over
h	14	9	23	algʲhawa	The coffee
ħ	3	0	3	tˤiri:gʲ ħazra	Road name
i	251	120	371	gʲidi:m	Old
i:	67	30	97	gi:mat	The price of
ʒ	3	1	4	marzu:gʲ ʒa	Marzug came
dʒ	1	0	1	bindig dʒaddi	My granddad's gun
k	6	3	9	ʃigag kibi:ra	Big flats
l	22	6	28	ħagla	Riddle
m	30	7	37	ðu:g maʃalla	Taste it, God bless
n	15	4	19	ħallagna:h	We cut it off
ɔ:	12	12	24	mitgɔ:ʕid	He is retired
o:	5	0	5	go:fal	Type of bird
r	20	13	33	tagri:ban	Approximately
rˤ	49	1	50	yagrˤabli	He is my relatives
s	10	1	11	ʔugsum	I swear
ʃ	10	1	11	ndugg ʃa:hi	We drink tea
sˤ	10	2	12	ʔagsˤid	I mean

t	37	17	54	alwagt	The time
tˤ	22	0	22	ha:ði nugtˤa	This is a point
u	106	3	109	ygulu:n	They say
u:	76	7	83	tgu:l	You say
w	28	10	38	bʔagwa	Stronger
x	0	1	1	tðˤa:yigʲ xwiya:h	It teases his friends
j	7	3	10	mwaffagʲ ya rˤabb	May god grant you the best
z	1	0	1	yinsa:gʲ zay kiða	It can be ridden like this
Total	1760	594	2354		

Table 4-2: Examples of [g] and [gʲ] followed by consonants, vowels and pause.

- After grouping the consonants according to their place of articulation I ran the modelling. I decided to group the sounds as some appeared only a few times, such as the high-mid back vowel /o:/ (5 tokens). Other sounds also had very small numbers of tokens which could have skewed the results.
- Therefore, I combined the emphatics (86 tokens) with the coronals (144 tokens). Coronal, bilabial and dentals were left in separate factor groups, I grouped the vowels into back vowels (u, u:, o:, ɑ:, aw), low front vowels (a, a:), and high front vowels (i, i:, aj, ajj, e:). 'Pause' was left as a separate factor (see Table 4-3 below).

	logodds	Number of tokens	[g]%	Factor weight
Back vowels	0.829	265	82%	0.696
Back consonants	0.750	338	84%	0.679
Bilabial	0.123	109	78%	0.531
Dental	0.027	23	87%	0.507
Coronal	-0.339	230	73%	0.416
Low front	-0.346	831	71%	0.414
Pause	-0.427	92	73%	0.395
High front	-0.618	466	67%	0.35

Table 4-3: Rbrul results for the following environments after grouping the sounds.

- Finally, and based on the results obtained, I grouped the bilabials, dentals and coronals as 'front consonants'. The vowels were also later conflated into 'back vowels' and 'front vowels'. This step finalised the model, and the final run will be discussed in the findings and discussion section 4.5 below.

3- Age: age was coded as: young (18-39), middle-aged (40-59), and older (60+).

4- Gender: male and female.

5- Level of contact: high and low.

As such, there were five factor groups in the final model: 1) preceding sounds: front consonants, front vowels, back consonants and back vowels, 2) following sounds: front consonants, front vowels, back consonants, back vowels and pause, 3) age (three factors), 4) gender (two factors) and 5) level of contact (two factors).

4.5 Findings and discussion

This section will present the quantitative analysis of the data. The results are shown in Table 4-4 below.

R^2= 0.5		The application value: [g]		
Preceding sound (P= 3.61e-08)				
	logodds	Number of tokens	[g]%	Factor weight
Back-vowels	0.869	190	86%	0.705
Back-consonants	0.444	243	79%	0.609
Front-consonants	-0.305	666	72%	0.424
Front-vowels	-0.375	1081	73%	0.407
Pause	-0.633	174	73%	0.347
Following sound (P= 5.38e-17)				
	logodds	Number of tokens	[g]%	Factor weight
Back-consonants	0.773	338	84%	0.684
Back-vowels	0.637	265	82%	0.654
Front-consonants	-0.160	362	76%	0.46
Front-vowels	-0.624	1297	70%	0.349
Pause	-0.626	92	73%	0.349
Gender (P= 3.22e-25)				
	logodds	Number of tokens	[g]%	Factor weight
Female	0.639	1155	82%	0.655
Male	-0.639	1199	67%	0.345
Age (P= 8.63e-23)				
	logodds	Number of tokens	[g]%	Factor weight
Young	0.573	857	80%	0.639
Middle-age	0.373	890	74%	0.592
Old	-0.946	607	66%	0.28
Contact (P= 1.35e-171)				
	logodds	Number of tokens	[g]%	Factor weight

High Low Grand mean: 0.748	1.943 -1.943	1156 1198	96% 53%	0.875 0.125

Table 4-4: Rbrul results for the correlation between the use of [g] and the independent variables.

The results from the table show that the usage of the innovative feature [g] (the application value) is considered to be high (N= 1760; tokens, 74 %) in comparison to the number of tokens for the traditional feature [g^{j}] (N= 594; tokens, 26 %).

Rbrul returned the following as significant factors:

'Level of contact' (P= 1.35e-171), 'gender' (P= 3.22e-25), 'age' (P= 8.63e-23), 'following sound' (P= 5.38e-17) and 'preceding sound' (P= 3.61e-08). It can clearly be seen that the 'level of contact' is highly significant as the P value shows.

The table above shows that Rbrul returned the 'preceding sound' as significant (P= 3.61e-08). The velar stop [g] was preferred after back vowels (86%, FW 0.705), and the back sounds (79%, FW 0.609). With regard to the following environments, [g] was favoured when followed by back sounds (82%, FW 0.684) and when followed by back vowels (82%, FW 0.654). Given that [g^{j}] is fronter than [g], and the trajectory in my data is from the traditional palatalised [g^{j}] toward the stop [g], this process can be called depalatalisation, thus:

[g^{j}] ⟶ [g]

According to Bhat (1978) fronting occurs before front vowels. So, the above results make perfect sense in terms of the arrangement of factor groups, with back sounds strongly favouring the incoming back velar stop [g] while the environment that favours palatalisation most, front sounds, disfavours depalatalisation. We must not, however, overlook the fact that

even in the environment that favours the palatalised variant the rate of usage of the innovative velar variant is quite high: 70% - 76%, which clearly shows that the change is at an advanced stage of progression.

With respect to the social variables, the results show a high level of usage of the incoming variant by all age groups, with the youngest generation ahead of all groups in the rate of usage; the middle age group slightly favour the change (FW 0.59) and use [g] at 74%; the old age group strongly disfavour [g] (FW 0.29) and use it at 66%. Women favour the application value [g] (FW 0.67) and use it at a rate of 82%, while men disfavour [g] (FW 0.34) and use it at 67%. Finally, with respect to contact, there is a clear and sharp divide between the two groups: the high contact group strongly favouring [g] (FW 0.87) and use it at 96%, while the low contact group strongly disfavour the incoming variant [g] (FW 0.12) and use it at 53%.

It is notable that although the younger speakers are ahead in using the innovative [g], they do still use the traditional variant [gʲ] (20%). Nonetheless, it is obvious that the change towards the koine, supra-local form [g] is at an advanced stage; even the old speakers produce [g] with 66 %. Thus, the use of [g] is widespread across all three age groups. The marginal retention of the palatalised variant [gʲ] by the youngsters is an indication that this traditional feature continues to be transmitted to the younger generation, and may be used as a symbol of group identity, specifically a symbol of 'tribal affiliation'. The palatalised realisation is a salient feature, a 'shibboleth' of tribal affiliation within the city. For instance, as an insider to the community, whenever I hear a stranger with palatalised [gʲ] in his/her speech the first thought that comes to my mind is that they are likely to be from the Ḥarbi tribe.

To shed more light on the behaviour of the correlation between the use of the incoming variant and the social factors, cross tabulations are presented and discussed in the next section.

4.5.1 Cross-tabulations of the Social Factors

The results of the cross-tabulation of age and gender appears in Table 4-5 below.

	Young	No. of tokens	Middle-age	No. of tokens	Old	No. of tokens	Total	No. of tokens
Female	90%	411	88%	421	66%	323	82%	1155
Male	72%	446	62%	469	66%	284	67%	1199
Total	80%	857	74%	890	66%	607	74%	2354

Table 4-5: Cross-tabulation between age and gender for [g].

It is clear from the cross tabulation above that young females are the most advanced users of [g] at 90%. There is a considerable rise in the use of the incoming feature between the old female group on the one hand, and the middle age and younger female groups on the other. In comparison, we notice a modest rise in the rate of usage across the generations in the male group, with a slight dip (of 4%) in the case of the middle age male group. The young males' rate of usage (72%) is only slightly higher than the male group's average (67%), and lower than the overall mean of usage of the incoming variant (74%). Noticeably, the old male

and female groups behave identically with respect to this variable, i.e. there is no gender distinction among the old group. Gender however becomes the major organising factor in the middle and young groups, with the male middle and young groups remaining fairly conservative while the middle and young female groups increase their usage of the innovative feature sharply, thus diverging from both the male group *and* the older age group overall.

Several recent studies in various locations in Saudi Arabia and the Levant (e.g. Al-Essa, 2008; Al-Ghamdi, 2014; Alaodini, 2019; Albohnayya, 2019; Abu Ain, 2016 and Alqahtani, 2015) reported a similar pattern. In Alqahtani's (2015) study in Tihamat Qaḥṭān a reversal of the gender pattern was found: older female speakers were the most conservative of all groups, while younger female speakers were the most innovative. She also found, identically to my results above, that the younger male speakers behaved very similarly to the older male group, while the younger women diverged sharply from the behaviour of the older women and the older group generally. Commenting on Alqahtani's results, Al-Wer (manuscript) writes:

> *The intersection of age and gender in the two generations shows that the gap between women and men in the older generation is very small, while the gap in the younger generation is relatively large. In other words, in the older generation, women and men have a shared norm, while the younger generation show distinct norms based on gender. There is strong anecdotal evidence based on stories frequently told by older speakers that interaction and communication between the sexes was much freer in their youth than it is today. Consequently, the striking linguistic divergence between the young men and women can be seen as a reflection of social segregation.*
>
> Al-Wer (manuscript, p.15).

Al-Wer thus suggests that the extreme divergence in the younger group based on gender is a reflection of social change. Specifically, she notes the effect of the rise in religiosity throughout the Arab world, which has contributed to, inter alia, increased social segregation between women and men within their communities. In Saudi Arabia in particular,

preventing women and men from intermingling in public life (schools, universities, the workplace, restaurants, etc.) is presented in the religious discourse, and publicised as such in the official media, as a 'virtue' and a core element of religiosity. It is therefore not at all surprising to find an increase in the salience of gender as a sociolinguistic category, as reported in this and other studies.

The overall gender patterns displayed in table 0.5 above simultaneously agree with the general pattern found in numerous sociolinguistic studies, namely that women tend to use supra-local features (here [g], which is the norm in all Saudi locations) more consistently than men who have been reported to opt for localised features (here [g^{j}], which is peculiar to a few varieties) (see J. Milroy et al 1994).

4.5.2 Cross-tabulation of age, gender and level of contact

The participants in the present research were also divided according to their level of contact as was explained earlier in chapter 2. Table 4-6 below shows the effect of this variable across the sample overall.

Contact (P= 1.35e-171)				
	logodds	Number of tokens	[g]%	Factor weight
High	1.943	1156	96%	0.875
Low	-1.943	1198	53%	0.125

Table 4-6: Results for the realisation of [g] according to level of contact.

The ‘level of contact’ was chosen as significant by Rbrul (P= 1.35e-171), and the use of [g] was found to be much more advanced among speakers with high levels of contact (96%, FW 0.87).

Cross-tabulations, Table 4-7, were carried out in order to examine the correlation between all social factors (‘age’, ‘gender’ and ‘level of contact’).

Contact = High			
Gender			
Age	Female	Male	Total
Young	96%	99%	97%
Middle-age	99%	100%	99%
Old	95%	88%	92%
Total	97%	96%	96%
Contact = Low			
Gender			
Age	Female	Male	Total
Young	83%	45%	63%
Middle-age	76%	39%	54%
Old	36%	38%	37%
Total	67%	41%	53%

Table 4-7: cross-tabulation of the level of contact, age and gender for the use of [g].

From the cross-tabulations above, it can be seen that speakers from both genders with high levels of contact are the most innovative in using high levels of the supra-local variant [g]. The percentage use of both male and female speakers in all of the age groups are more-or-less the same, 96% and 97%, respectively. The older male speakers with high levels of contact are lagging slightly behind in this respect, using [g] 88% of the time. It is clear from the results in the table above that 'level of contact' is a very important indicator, as the differences in the use of the innovative form [g] between speakers with high and low levels of contact highlight, at 96% and 53% respectively.

It is notable that the most conservative group is the older group from both genders (male 38% and female 36%), along with male speakers from the middle age group (39%). Overall, females from all age groups with low contact are ahead in using [g], at 67 %. Another interesting result is that the low contact younger females use [g] 83 % of the time, and are ahead of their male counterparts (45 %) in doing so. This is particularly interesting because most of the sociolinguistic studies that have investigated contact, such as Al-Essa (2008), Abu Ain (2016), and Al-Ammar (2017), have found that youngster are the most advanced users of the innovative variants and their use of the traditional variants is much less. But, by looking at the results here, we can see that the younger males with low contact maintain the traditional form [g^{j}] 55 % of the time (see Table 0-7 above). From this cross-tabulation we can conclude that [g^{j}] has not been completely levelled-out ("a widely used term in dialectology to denote the process by which, over time, a reduction of variants of the same variable occurs" (Britain, 2010: 194); but rather it is 'alive and kicking', albeit among specific groups, those who maintain in-group social contact most frequently. It is extremely interesting to find a relatively high rate of usage of [g^{j}] (55%) among a young group (male). This is an indication that despite the strong social pressure towards the elimination of minority peculiar features, such as the palatalised form, it continues to be transmitted across

the generations within the Harbi group. Further, comparing the results between the high contact group who strongly favour (FW 0.87) the pan-Saudi koine form [g] and use it almost categorically (96%) and the low contact group who strongly disfavour [g] (FW 0.12) and use it considerably less frequently (53%) clearly demonstrates the strong effect of socialisation within/outside group members; by extension, it illustrates the function of tight-knit, in-group social networks as a 'norm-enforcement' mechanism (L. Milroy 1980 & 1987).

As mentioned in the introduction chapter, it was hypothesised that speakers with high levels of contact are likely to be the most innovative in using [g]. The rationale behind this is the conservative nature of the Saudi society, and the segregation between males and females. Levels of contact differs between males and females, men usually have more contact with others at work, in schools, mosques, and with pilgrims, than women. In the case of Medina, as mentioned above it is the second holy city and is a cosmopolitan city. During the Hajj and ʿUmra, pilgrims arrive in Medina needing lots of services. These seasons are always a very important time for locals in terms of the economy, in which they do services for pilgrims. In relation to the participants in the current study, older women had lower levels of contact than older men, and the reason behind this is likely that women used to stay at home working domestically. On the other hand, older men used to go out for work, mostly in agriculture, in trade, doing some services for pilgrims[9], and as shepherds. In contrast, women used to stay at home and mix mainly with relatives and close neighbours.

Also as explained earlier, the community of Medina is divided as Bedouin and urban. The two groups do not have strong relations; for instance, although they meet and may mingle in schools and at the workplace, intermarriage is very rare between them. That said,

[9] Services such as guiding pilgrims to some historical places and hosting them in their houses, and selling food and drink.

the idea of intermarriage between Bedouin and urban is less uncommon now than in the past, because while previously the two communities lived in isolated districts, the situation is different now as both communities live in mixed districts, but the social divide continues to exist.

Overall, the life of the older speakers used to be more difficult, with less job opportunities available and only simple education, limited to Qur'anic recitation and learning the alphabet (and only available in the main for boys). In other words, there were no official schools and girls were usually not allowed to take part in even these basic studies.

In relation to the middle-aged group, the speakers born and raised after the discovery of oil, most (of both genders) have been educated and went to official schools. Also, in the 1970s they had opportunities to join scholarships to study abroad. Therefore, this group has had greater contact with people from a variety of dialectal backgrounds.

As for the younger age group, they have had considerably more opportunities and higher levels of prosperity than the older and middle-aged groups. Further to the prosperous life resulting from the economic growth of the country, younger speakers' levels of contact have increased to include their relatives as well as friends from both inside and outside of the country due to the impact of the social media. Education is widespread, and attending institutions of higher education at home or abroad has become the norm for most Nonetheless, based on my field notes and observations, it is notable that a very important point in regard to younger Ḥarbi speakers with 'low contact' profile here is that I have noticed that they mainly mix with members of the Ḥarb tribe, even at school, which explains the relatively high level of maintenance of the traditional features. Thus, this mix encourages the use of the traditional palatalised Ḥarbi variant.

4.6 Summary

This chapter has presented shown the results and the analysis for the variable (g), which has two realisations in the Ḥarbi dialect in Medina: the palatalised [gʲ] (the traditional form) and the velar stop [g] (the innovative form).

The data show that there is an influence of both linguistic and social factors in the overall preference for the innovative feature [g]. The variant [g] occurs most commonly after back vowels (86%, FW 0.705) and back sounds (79%, FW 0.609); and before back sounds (84%, FW 0.684), and back vowels (82 %, FW 0.654).

The social factors in this investigation were all found to be significant, the overall proportion of the use of the innovative variant was 74% and this seems to show a change in progress toward the koine or the supra-local feature [g] in Saudi Arabia. Young women are leading the change towards [g] (82%, FW 0.655). Moreover, [g] is more likely to be produced by speakers who maintain higher levels of contact with speakers outside of the tribe (96%). Interestingly, however, although the level of contact in the older male group is generally higher than the older females, the older male speakers still retain their traditional form [gʲ] at a very similar rate (62%) as the older women (64%).

5 Chapter five: The variable (k)

5.1 Introduction

This chapter introduces the second variable in this study, (k), which has two variants: the traditional Ḥarbi palatalised [kʲ] and the innovative velar stop [k]. The variable (k) is first treated here as two variables: a phonological variable in the stem; and a morphophonemic variable in the suffix. A separate analysis conflates all tokens as one phonological variable since, as will be explained in the course of this chapter, palatalisation of [kʲ] in the suffix in the Ḥarbi dialect in Medina does not carry gender information.

5.2 The variable (k) in the current research

Before presenting the results and the analysis, a description of the occurrence of /k/ in the dialect will be provided along with examples. As noted above, the palatalisation of /k/ can occur in the stem of the word as well as in the suffix *–k*, as illustrated in the examples below.

1. The variable (k) in the stem has two variants: [k] and [kʲ]:

ke:f ~ kʲe:f 'how'.

bre:k ~ bre:kʲ 'Brek, proper noun'.

kiða ~ kʲiða 'this way'.

ka:nat ~ kʲa:nat 'she was'.

taktib ~ takʲtib 'she writes'.

kiθi:r ~ kʲiθi:r 'a lot'.

jimkin ~ jimkʲin 'may be'.

massikatni ~ massikʲatni 'she made me responsible for doing something'.

maktab ~ makʲtab ‘office’.

ʔakli ~ ʔakʲli ‘my food’.

2. The variable (k) in the suffix comes in the forms: *–ik* F.SG, *–ki* F.SG, *–ak* M.SG and *–k* M/ F.SG which can be used to address both gender. In terms of phonetic quality, the /k/ in all of these forms can be palatalised [kʲ] and non-palatalised [k], both realisations can be used with both genders (masculine and feminine). The *–ki* is feminine only (female addressee) and the [k] in this form can be palatalised or not palatalised. Examples are listed below.

xa:l-ik ~ xa:l-ikʲ ‘your uncle F.SG’.
ħa:l-ki ~ ħa:l-kʲi ‘your situation F.SG’.
ʔawrˁa:g-ak ~ ʔawrˁa:g-akʲ ‘your paper M.SG’.
ʤazmat-k ~ ʤazmat-kʲ ‘your shoes F/M.SG’.

However, the preceding vowels carry gender distinction. The suffix *–k* is preceded by the short high front vowel /i/ when addressing a female, and is preceded by /a/ when addressing a male, regardless of whether the palatalised variant is used or not. When the suffix *–k* follows a word that ends in a consonant either form ([k] or [kʲ]) can be used with both genders, e.g. *maktab-k ~ maktab-kʲ* ‘your office F/M’. Examples from the data include:

flu:s-ik ~ flu:s-ikʲ ‘your money F.SG’.

be:t-ikʲ ~ be:t-ikʲ ‘your house F.SG.

fista:n-ik ~ fista:n-ikʲ ‘your dress F.SG’.

zwa:ʤ-ik ~ zwa:ʤ-ikʲ ‘your wedding F.SG’.

tˤiri:g-ak ~ tˤiri:g-akʲ ‘your way M.SG’.

gultl-ak ~ gultl-akʲ ‘I told you M.SG’.

ʒibtl-ak ~ ʒibtl-akʲ ‘I brought you M.SG’.

ʔuxt-ak ~ ʔuxt-akʲ ‘your sister M.SG’.

walad-k ~ walad-kʲ ‘your son F/M.SG’.

sajja:rat-k ~ sajja:rat-kʲ ‘your car F/M.SG’.

maktab-k ~ maktab-kʲ ‘your office F/M.SG’.

The coding protocol for (k) in the stem is presented in the following sections along with the findings and discussion.

Coding Protocol of (k) in the stem

The total number of tokens I coded for this variable in the stem was 1414. Tokens were coded in Excel sheet format (csv), to prepare them for the analysis in Rbrul software. Four factor groups were coded for: linguistic constraints (preceding sound, following sound), age, gender and level of contact. Other linguistic factors were also initially coded, such as the number of syllables in the word in which each token occurs, and syllable position (coda or onset), but they were later removed from the analysis as they seemed not to have an effect on the variation found.

More than one step was carried out to find out the best model. Below is a summary of the steps taken to decide on the best final model.

1. Preceding environments: in the first run I coded for the preceding sounds individually, and pause was also coded. In the pool of data, (k) occurred after the consonants /ʔ, tˤ,

sˤ, ð, k, r, b, f, rˤ, l, m, s, ʃ, w, h, n, ħ, j, g, t, ʕ, d, θ, ðˤ, z/, and the vowels /u, u:, a, a:, i, i:, e:, aj, aw/. I initially ran the modelling with the preceding sounds coded in this way, however the results were peculiar as some sounds occurred only in one token, or very small number tokens (See Table 5-1 below).

Preceding	[k]	[kʲ]	Total	Example	Gloss
ʔ	1	0	1	taʔki:d	Emphasis
Pause	76	16	92	# kul marra	Every time
ʕ	3	1	4	alkaʕki	Proper noun
θ	1	0	1	wθalu:θ kullaha	‘Tuesday all day
a	332	47	379	barˤaka	Bless
a:	65	5	70	ʔama:kinhum	Their places
aw	6	1	7	law kullukum	If all of you
aj	14	5	19	laykʲin	But
b	13	3	16	arˤrˤa:tib ka:mil	The whole salary
d	4	4	8	yzi:d kul marˤrˤa	Increases everytime
ð	10	0	10	yaðkrˤu:nih	They remember him
ðˤ	0	1	1	ʔarˤðˤ kibi:rah	A big land
e:	2	7	9	brˤe:k	Proper name
f	6	2	8	tixtilif kta:btih	His writing is different
g	2	1	3	marzu:g kwayyis	Marzu:g is fine
h	13	6	19	ʕindih kama:	He also has
ħ	12	2	14	ðˤiħk	Laugh
i	126	36	162	aftikir	I remember
i:	5	2	7	ʔaddihi:k	Fights/lots of work
k	75	7	82	yfakkir	He thinks
l	61	8	69	alkulliyya	The faculty
m	65	18	83	mkammil	He finished
n	47	13	60	ʕiʃri:n kʲi:lu	20 kilos
r	10	1	11	Turki	Proper name
rˤ	18	2	20	yarˤkab	He rides
s	33	7	40	yaskʲit	He stops talking
ʃ	23	7	30	miʃkila	Problem
sˤ	7	0	7	sˤku:k	Contracts
t	41	12	53	Yitkallam	He speaks
tˤ	3	0	3	ħatˤtˤ kartu:n	He puts a carton
u	59	1	60	ʃukrˤan	Thanks
u:	13	0	13	mabrˤu:k	Congratulations

w	25	4	29	wkʲiða	Like this
j	20	4	24	ykallim	He is on the phone
Z	0	1	1	azzkʲa:m	The flue
Total	1192	224	1414		

Table 5-1: Examples of [k] and [kʲ] preceded by consonants and vowels.

- Later, consonants were re-coded according to their place of articulations and grouped into: emphatic (sˤ, rˤ, tˤ and ðˤ), bilabial (b, m, w), velar (g, k), coronal (r, t, d, n, l, s, z, ʃ), dental (ð, θ, f) and dorsal (ħ, h, ʕ, ʔ). The vowels I coded for are: high back, low front, mid front and high front. The semi vowel /j/, diphthongs /aj/ and /aw/ were left individually, and the pause tokens were coded for to see if they encourage palatalisation as explained by Bhat (1978) and Zeroual (2006) (See chapters 3 and 4).
- After I ran the modelling the results showed that, the application value [k] is favoured when preceded by velar, emphatic, /aw/, low front, bilabial sounds and pauses. However, some factors have very low token numbers, such as: the diphthong /aw/ (7 tokens), mid-fronts /e:/ (9 tokens), /aj/ (19 tokens), semi vowel /j/ (24 tokens) and the dentals (20 tokens). Therefore, the tokens for diphthong /aw/ were grouped with the high back vowels, the semi vowel /j/ and diphthong /aj/ were grouped with the high front vowels, and tokens of /e:/ were grouped with the high front vowels. Consonants were grouped as coronal and dorsal. The modelling was run again and the results are shown in the Table 5-2 below.

	logodds	Number of tokens	[k]%	Factor weight
High back	0.664	89	89%	0.66
Low Front	0.269	448	88%	0.567
Dorsal	0.198	124	86%	0.549
Coronal	-0.089	450	81%	0.478
0	-0.355	92	82%	0.412
High front	-0.687	208	77%	0.335

Table 5-2: Modelling for preceding environments before grouping the consonants.

Due to the low number of tokens for the consonants, I decided to group the consonants into back sounds (dorsal) and front sounds (coronal). I divided the vowels into front vowels (low front and high front) and back vowels (high back). Again, pause tokens were left in a separate factor group. The final run is shown in the next section.

2. Following environments: similarly, steps were carried out for the following environments. The consonants which occurred after (k) were: /ʔ, ð, k, kʲ, r, b, f, rˤ, l, m, s, sˤ, ʃ, w, h, n, ħ, j, g, t, ʕ, d, θ, z, x, i, iː, a, aː, eː, ɔː, oː/. The first run was carried out with all the individual sounds ungrouped. These environments along with examples and number of tokens are displayed in Table 5-3 below).

Following	[k]	[kʲ]	Total	Example	Gloss
ʔ	1	0	1	maʕak ʔaħad	anyone with you?
Pause	18	2	20	atturˤk	The Turks
ʕ	2	0	2	almalik ʕabdalla	King Abdulla
Θ	8	1	9	ʔakθarˤ	More
a	308	50	358	taba:rˤakʲ	Bless
a:	99	15	114	ka:nu	They were
b	25	2	27	kba:rˤ	Big
d	2	0	2	mitʔakkda	I am sure/female
ð	2	5	7	kʲðajja	Like this
e:	20	16	36	kʲe:f	How
f	5	3	8	kfa:ja	Enough
j	1	0	1	ʃakk galbi	My heart hesitated
h	1	0	1	ʔalmutaħarrik ha:ða	This one is moving
ħ	2	1	3	ytaħakħak	He is scratching
i	212	87	298	yimkʲin	May be
i:	28	10	38	alkʲi:s	The bag
k	88	0	88	albakka:ri	Family name
kʲ	6	2	8	ʔafakkʲir	I am thinking
l	27	7	34	takʲlifat	The cost
m	11	1	12	ħikma	Wisdom
n	7	0	7	siknat	She moved in
o:	2	0	2	yaddi ko:nat	My hand was
ɔ:	4	5	9	mikʲɔ:n	Place
r	9	2	11	bdu:n ðikʲr asma:ʔ	Without naming
rˤ	25	0	25	yakrˤhu:nih	They hate him
s	11	2	13	maksu:rˤ	Broken
ʃ	1	0	1	kʃifaw ʕale:h	They checked on him
sˤ	1	0	1	mirtibik sˤaħħ	He is very confused
t	29	10	39	yaktub	He writes
u	173	0	173	kubbi:h	Throw it away\female
u:	43	1	44	yaðˤħuku:n	They laugh
w	13	1	14	kwajjis	Very good

x	0	1	1	almalik xa:lid	King Kalid
j	4	1	5	mikʲya:l	Scale
z	3	0	3	yirkzu:naha	They stand it up
Total	1191	224	1414		

Table 5-3: Following sounds that occur after [k] and [kʲ].

Later, consonants were re-coded according to their place of articulation because of the low number of tokens of some factors. The vowels that occurred after (k) were /u, u:, o:, a, a:, i, i:, e:/. I coded for the tokens that were followed by pauses as well. The semi vowel /j/, diphthongs /aj/ and /aw/ were left in separate groups (cf. Bhat, 1978 and Zeroual, 2006).

- Consonants were grouped as: emphatic (sˤ, rˤ, tˤ and ðˤ), bilabial (b, m), velar (g, k), coronal (r, t, d, n, l, s, z, ʃ), dental (ð, θ, f) and dorsal (ħ, h, ʕ, ʔ, x). The vowels I coded for are: high back, mid back, high front, mid front and low front. The semi vowel /j/, diphthongs /aj/ and /aw/ were left in separate groups. After grouping the consonants according to their place of articulation, a model was run.
- Some tokens in this run have very low numbers, such as the: emphatics (26 tokens), the diphthong /aj/ (1 token), semi vowel /j/ (5 tokens). Therefore, I conflated the semi vowel /j/, and diphthong /aj/ with high front. The mid back vowels (11 tokens) and diphthong /aw/ were grouped with high back vowels, and mid front vowels grouped with high front vowels. The consonants were grouped into: dentals, bilabials, coronals (including emphatics), and dorsal (including velar sounds).
- Later, consonants were grouped into coronal and dorsal. The modelling was run and the results were as follows:

Following sounds	Log-odds	Number of Tokens	[k]%	Factor Weight
Dorsal	0.974	105	96%	0.726
High-back	0.883	253	93%	0.707
Pause	0.317	20	90%	0.579
Low-front	-0.307	473	86%	0.424
Coronal	-0.488	210	84%	0.38
High-front	-1.379	350	71%	0.201

Table 5-4: Modeling after grouping the consonants according to their place of articulation.

As for the preceding environments, the consonants were grouped into front and back consonants. I also divided the vowels into front and back vowels. The pause tokens were left in a separate group. The final run is shown in section 5.3 below.

5.3 Findings and discussion

This section shows the quantitative analysis of the variable (k) in the stem. The results are shown in the Table 5-5. The usage of the innovative [k] (the application value) is very high (1192 tokens), in comparison to the number of tokens of the traditional form [k^{j}] (just 224 tokens).

Rbrul returned the following as significant factors:

Contact (P= 4.49e-48), gender (P= 4.39e-22), following sound (P= 1.33e-16), age (P= 1.44e-10) and preceding sound (P= 0.00295). This is similar to the results for the previous variable (g), with contact found to be the most significant factor group.

R^2 = 0.57.		Application value: [k].		
Preceding (P= 0.00295)				
	Log-odds	Number of Tokens	[k]%	Factor Weight
Back vowels	1.814	80	97%	0.86
Back consonants	-0.154	124	86%	0.462
Front consonants	-0.478	450	81%	0.383
Pause	-0.576	92	82%	0.36
Front vowels	-0.606	670	84%	0.353
Following (P= 1.33e-16)				
	Log-odds	Number of Tokens	[k]%	Factor Weight
Back vowels	1.562	228	97%	0.827
Back consonants	0.723	105	96%	0.673
Pause	-0.352	20	90%	0.413
Front consonants	-0.763	213	84%	0.318
Front vowels	-1.170	850	79%	0.237
Gender (P= 4.39e-22)				
	Log-odds	Number of Tokens	[k]%	Factor Weight
Female	0.857	770	91%	0.702
Male	-0.857	646	76%	0.298
Age (P= 1.44e-10)				
	Log-odds	Number of Tokens	[k]%	Factor Weight
Middle-age	0.618	530	86%	0.65
Young	0.283	534	85%	0.57
Old	-0.901	352	79%	0.289
Contact (P= 4.49e-48)				
	Log-odds	Number of Tokens	[k]%	Factor Weight
High	1.421	728	95%	0.806
Low	-1.421	688	71%	0.194
Grand mean = 0.842				

Table 5-5: Rbrul results of the correlation between the use of [k] and the independent variables (linguistic environments, age, gender and level of contact).

The table above shows that the velar stop [k] was favoured after back vowels (97 %, FW 0.86). In relation to the following environment, [k] is favoured when it is followed by back vowels (97 %, FW 0.827) and back consonants (96 %, FW 0.673).

From the results, it is clear that the trajectory of the change affecting (k) in the data is the following:

[kʲ] → [k]

According to the above trajectory, the sound is moving from the palatalised [kʲ] to the de-palatalised supra-local form [k]. As the results show, the application value [k] is favoured by back vowels in the preceding sounds, and by back vowels and back consonants in the following environments. Bhat (1978: 49) stated that palatalisation is favoured in the environment of front vowels, semi-vowels and palatal consonants.

The variant [k] can also be affricated in this dialect to [ʧ], e.g. *ʧe:f* 'how?' and *la:ʧin* 'but'. Ingham (1982) classifies the Ḥarbi dialect as a Najdi variety with a Hijazi overlay, and this type of dialect affricates /k/ to [ʧ], and/or [ts]. The current data show that some speakers affricate the /k/ to [ʧ] and this occurs in 19 tokens in the speech of two male speakers. However, due to the small number of affricated /k/ in the data, it was not considered in the quantitative analysis as the main concern of the present research is to investigate the variation between palatalised and non-palatalised sounds only. Below are the 19 examples which have affricate [ʧ], or as the Medieval grammarians called it *kaškaša* (see Sibawayh, 1999 version). The affrication of /k/ occurs in the stem and the suffix.

In the suffix:

wiʃb-itʃ ‘what is wrong with you ? F.SG’.

gle:b-itʃ ‘your heart F.SG’.

wle:d-itʃ ‘your son F.SG’.

ʕlu:m-itʃ ‘your news F.SG’.

ʧe:f-itʃ ‘how are you ? F.SG’.

ʃuɣl-itʃ ‘your work F.SG’.

In the stem:

miʧa:n ‘place’.

yaʧʧalna ‘looking after us’.

ʧannak ‘it seems that you M.SG’.

ʧðajjah ‘like this’.

ʧe:f ‘how’ (occurred twice in the data).

yaʧtbu:nih ‘they write it’.

bʧe:ra:t ‘baby female camels’.

birʧah ‘swimming pool’.

ði:ʧ ‘that. DEM.SG.F’.

la:ʧin ‘but’ (occurred twice in the data).

ʧɔ:nak ‘if you M.SG’.

These examples occurred in the speech of two participants, a father (72 years old) and his son (21 years old). It is especially interesting that the young speaker is affricating like his father even in words such as *la:ʧin* ‘but’, which occurs as *la:kin* even in the varieties that normally affricate to [*ʧ*] . This suggests that this young speaker might be accommodating to

his father's dialect. Accommodation theory is based on the idea that speakers accommodate or amend their speech to minimise the differences and increase the similarities between theirs and their interlocutors' dialects (Giles, 1987). Furthermore, both the father and the son have a low level of contact with outsiders. Different studies, such as Al-Essa (2008) and Al-Ammar (2017) have also reported that speakers with low level of contact tend to retain local linguistic forms.

From the above examples, it can be said that affrication occurs in the vicinity of high front vowels and in one token with back vowel, e.g. *ʧɔ:nak* 'if you'. Watson (2004: 16-17) attests that /k/ is affricated to /ʧ/ in northern Palestine, Jordan and Iraq in the vicinity of front vowels. In the dialect of Salt in Jordan, the affricated /ʧ/ is also attested in the vicinity of high back vowels, dyūč (plural of dīč 'cock') (Al-Wer and Herin, 2013: 58). Affrication in Jordanian and Iraqi dialect is conditioned, in front and high vowel environments generally; whereas in rural Palestinian, affrication of k is unconditional.

All of the social factors were returned as significant (age, gender and level of contact). Gender was returned as a highly significant factor (P= 4.39e-22). As with the previous variable, female speakers are ahead in using the innovative variant [k], their average usage being 91 % (FW 0.70). Meanwhile, the male speakers' average usage is 76% (FW 0.30). Thus, the female speakers are leading the change (see below) toward the use of the innovative variant [k]. According to Labov (1991: 215) and Trudgill (1972:180) women are often the innovators in language change and tend to use standard and prestigious linguistic features more often than men.

The table also shows the distribution of the innovative variant [k] among the three different age groups (young, middle-age and old). Rbrul returned age as statistically

significant (P= 1.44e-10). The results show the increased usage of [k] among the middle-age and young groups (86 %, FW 0.65 and 85 %, FW 0.57, respectively). The middle-age group is slightly ahead of the young group in their mean use of [k]. The old speakers come last in the use of [k] (79 %, FW 0.289). These results indicate that [kʲ] is undergoing a change in progress toward the stop [k], led by the middle-age and young speakers.

The results of the young and the middle-age speakers are very close, this means that the variant [kʲ] is still in use across all age groups. The change is clearly very advanced; according to the figures, even the oldest speakers use the incoming variant [k] predominantly.

With respect to contact, the statistical results show a clear lead in the use of [k] by the high contact group (95%), while the low contact group strongly disfavour [k] (FW 0.19) although they use it at a relatively high rate (71%).

In order to illuminate the picture further regarding the behaviour of the various age, gender and contact groups, we now turn to the results of the cross-tabulation of these variables.

5.4 Cross-tabulation of age, gender and contact

A cross-tabulation of age and gender is shown in Table 5-6 below.

	Young	Tokens	Middle-age	Tokens	Old	Tokens	Total	Total tokens
Female	91%	285	98%	280	81%	205	91%	770
Male	78%	249	73%	250	76%	147	76%	646
Total	85%	534	86%	530	79%	352	84%	1414

Table 5-6: Cross-tabulation (mean and counts) between gender and age in the use of [k].

The table shows that middle-aged women are ahead of all other groups in using [k] (98%), followed closely by younger women (91%), and older women (81%). All male groups lag behind all female groups. Noticeably, even the older women use the innovative feature more frequently that the young men; and the women's overall mean (91%) is higher than the men's (76%) by a clear margin. In other words, regardless of age, women lead this change. Gender in this case is the most important predictor. This result is clearly in line with findings in numerous other studies around the globe, including studies on Arabic-speaking communities (see section 2.8.2, chapter 2).

According to Tagliamonte (2012: 32) in general women are inclined to avoid stigmatised forms, although she adds that men and women do not avoid stigmatised forms all of the time. In the Medina context, palatalised [kʲ] is not stigmatised, judging by the fact that it does not receive overt commentary by the local population. However, it is a marked feature of the Ḥarbi dialect in Medina and is different from the supra-local linguistic feature in Saudi Arabic, viz. [k]. So, in this case too, similarly to the case of the variable (g), we find women opting for the supra-local variant, while men use the localised marked feature statistically more significantly (J. Milroy et al 1994). Although women are ahead in using [k], they still maintain some usage of the palatalised [kʲ] across all age groups.

Many previous studies in Arabic-speaking communities have also found that women were ahead of men in using the innovative features, such as, Alqahtani (2015) whose research found that young females are ahead in adapting the innovative features [ðˤ] and *l-article*; and Al-Ammar (2017) who found that women were slightly ahead of men in using the innovative feature [a] for the feminine ending *–ah*; similarly the results of the study of Abu Ain (2016) in Jordan showed that young females were ahead in using the innovative features [i] and [l].

Turning to the cross-tabulation of age, gender and level of contact, the results are displayed in Table 5-7.

Proportion of Variant = [k]			
Contact = High			
	Female	Male	Total
Young	94%	98%	96%
Middle-age	99%	97%	98%
Old	94%	89%	92%
Total	96%	95%	95%
Contact = Low			
	Female	Male	Total
Young	88%	56%	74%
Middle-age	96%	59%	76%
Old	64%	45%	58%
Total	85%	56%	71%

Table 5-7: Cross-tabulation between age, gender and level of contact for the use of [k].

From the cross-tabulation above it can be seen that speakers with high levels of contact are the most advanced users of [k], across all of the age groups and in both genders, with their use of the variant ranging between 92 % and 98 %, i.e. close to categorical. Whereas the use of [k] among speakers with low levels of contact varies considerably according to their age and gender. Interestingly, among the low contact group the young male speakers use [k] in just 56 % of the time, in comparison to 88% by their female counterparts, and a 'whopping' 96% by the middle age low contact women. Even the old age women in the low contact group use the innovative feature (64%) more consistently than any of the male low contact age groups. These results consolidate the conclusion that 'gender' in the case of this variable is the major organising category. The old male speakers are the most conservative group; they use the palatalised variant [k^{j}] at a rate of 55%.

I now turn to the results of the analysis of /k/ in the suffix.

5.5 The morphophonemic variable (-ik)

Recall that the 2nd person singular suffix *-ik* in the Ḥarbi dialect shows gender distinction in the forms: *-ak* 2M.SG versus *-ik* 2F.SG. In both forms, [k] can be palatalised, thus: *-ikʲ ~ ik* (feminine) and *-akʲ ~ -ak* (masculine). Another form for the suffix is *–k*, which does not show any gender distinction in the dialect, regardless of whether the *–k* is palatalised or a velar stop, which occurs after a vowel, as in the examples below.

ʔubu:-kʲ ~ ʔubu:-k 'your father M/F.SG'.

ʔuxu:-kʲ ~ ʔuxu:-k 'your brother M/F.SG'.

When the word ends with a consonant only *–k* is added without vowel insertion; in these items gender is not marked morphologically. Examples are below.

matˁʕam-k ~ matˁʕam-kʲ 'your restaurant M/F.SG'.

ra:tib-kʲ ~ ra:tib-k 'your salary M/F.SG'.

musˁħaf-kʲ ~ musˁħaf-k 'your copy of the holy Qur'an M/F.SG'.

xa:tam-kʲ ~ xa:tam-k 'your ring M/F.SG'.

In some words, however, if the word ends with a consonant, *–ik* (fem) or *–ak* (masc) are used; [k] in this case, as outlined above, can be palatalised or non-palatalised in both forms. Examples are below.

ʔaxba:r-akʲ ~ ʔaxba:r-ak 'how are you? M.SG'.

ʔaxba:r-ikʲ ~ ʔaxba:r-ik 'how are you? F.SG'.

ʕind-akʲ ~ ʕind-ak 'with you M.SG'.

ʕind-ikʲ ~ ʕind-ik 'with you F.SG'.

ʔasʔal-ikʲ ~ ʔasʔal-ik 'I ask F.SG'.

ʔasʔal-akʲ ~ ʔasʔal-ak 'I ask M.SG'.

Another group of items that behaves in this manner are nouns that end in the feminine ending *–at,* as in the following examples.

zami:lat-kʲ ~ zami:lat-k 'your female colleague M/F.SG'.

sajja:rat-kʲ ~ sajja:rat-k 'your car M/F.SG'.

ʤazmat-kʲ ~ ʤazmat-k 'your shoes M/F.SG'.

mazraʕat-kʲ ~ mazraʕat-k 'your farm M/F.SG'.

sa:ʕat-kʲ ~ sa:ʕat-k 'your watch M/F.SG'.

Thus, in this dialect the range of the 2nd person singular suffixes include all of the following forms: *-ik/-ikʲ*, *-ak/-akʲ*, *-k* and *–kʲ*. To make things more interesting, a new form seems to be spreading, possibly originally borrowed from the dialect of Jeddah, namely *-ki*, which is used when addressing females only, and can be palatalised or non-palatalised, more explanation in regard to this variant is provided in the lines below. This form is mentioned in Al-Essa's (2008); she considers it some form of an intermediate variant when used by Najdis who live in the Hijazi city of Jeddah. Examples from my data include the following:

xa:tam-kʲi ~ xa:tam-ki 'your ring F.SG'.

dallat-kʲi ~ dallat-ki 'your coffee thermos F.SG'.

wald-kʲi ~ wald-ki ‘your son F.SG’.

maktab-kʲi ~ maktab-ki ‘your office F.SG’.

The Table 5-8 below shows the numbers of the different forms of the suffix (k) that occurred in the data collected for this project.

-ak	*-akʲ*	*-ik*	*-ikʲ*	*-k*	*-kʲ*	*-ki*	*-kʲi*	Total
130	6	94	16	109	25	17	1	398

Table 5-8: The occurrences of the different suffixes.

From the table above, it can be noted that there is a relatively low number of tokens (398) of the suffix in comparison to the number of tokens in the stem (1414). Collecting more tokens would require careful research design since these forms are marked for person (2nd singular) and in many cases for gender. A possible method of collecting more naturally occurring tokens would be to have two speakers interacting with each other, or mixed gender group interviews where speakers are encouraged to interact with each other, rather than a one-to-one interview with a researcher.

Because of the relatively low number of tokens in the pool of data, distributed over four different forms, no statistical testing was carried out. Instead, counts and percentages were calculated. In what follows, I will provide some detailed commentary on the occurrence of the various forms.

The table shows that -*ik* occurs in 110 tokens, 14 palatalised and 96 non-palatalised. The palatalised –*ik*^{j} appears among female speakers with low level of contact in 13 tokens. Furthermore, it occurs more with female speakers with low level of contact; the occurrence of this palatalised form was found mostly in the speech of three young sisters with low level of contact (10 tokens). The palatalised -*ik*^{j} occurs once among five non-palatalised –*ik* in the speech of a middle-aged female with high level of contact. In relation to old female speakers, the palatalised -*ik*^{j} appears twice in the speech of an old female with low level of contact. Male speakers did not produce -*ik*^{j}.

Regarding the suffix –*k*, it occurs in 134 tokens in the data, 109 were non-palatalised and 25 were palatalised -*k*^{j}. Male speakers produced this suffix form 82 times, 60 non-palatalised and 22 palatalised -*k*^{j}. The palatalised form was produced by the speakers with low level of contact (7 by young speakers, 2 by middle-aged, and 13 by old speakers). Female speakers produced this form 52 times, 50 non-palatalised and 2 palatalised. The palatalised form was produced by two speakers from low level of contact, one is middle aged and the other one is old.

Regarding the suffix –*ak*, it occurs in 136 tokens in the data. Male speakers produced the form –*ak* 123 times, 117 with non-palatalised and 6 palatalised tokens. The male speakers who produced the palatalised -*ak*^{j} are from the low level of contact group (4 middle aged and 2 old speakers). Female speakers produced the form –*ak* 13 times and did not produce the palatalised -*ak*^{j}.

The form –*ki* occurs in 18 tokens in the data, of which 17 tokens were non-palatalised -*ki* and one was palatalised -*k*^{j}*i*. This form was produced only by female speakers. In the data, no male speakers produced –*ki*. Three young speakers (2 with high contact and 1 with low contact), six middle-aged (3 with high level of contact and 3 with low level of contact) and

two old speakers (both with low level of contact) produced *–ki*. The palatalised *-kʲi* was produced by one of the old females who was aged 67, and she had low level of contact.

Although, I assume that the *–ki* suffix is not part of the traditional dialect, it is found in the speech of two old females. The occurrence of this form of suffix in this dialect might be an effect of the supra-local dialect of Hijaz, Ingham (1982) did not mention the suffix *–ki* in his account as a traditional form in the Ḥarbi dialect. It may be the case that this form is new to the dialect. Additionally, Holes (1991) mentioned that *–ki* is a western feature in Saudi Arabia.

Ingham (1982: 74) described the Najdi dialect and in his account differentiated between the central and the northern Najdi dialects. He described the suffixes in Old Arabic, central and northern Najdi as:

“Old Arabic	Central Najdi	North Najdi
-ak	-(i)k/ (a) k	-ak
-ik	-(i)ć	-ić”

A cross-tabulation was run between age, gender and the two variants [k] and [kʲ]. See Table 5-9 below.

Variant = [kʲ]

Gender	Young		Middle-age		Old			
	Tokens	[kʲ]%	Tokens	[kʲ]%	Tokens	[kʲ]%	Tokens	%
Female	16	33 %	2	4 %	4	8%	22	46 %
Male	7	15 %	14	30 %	5	10 %	26	54 %
Total	23	48 %	16	33 %	9	19 %	48	100 %

Variant = [k]

Gender	Young		Middle-age		Old			
	Tokens	[k]%	Tokens	[k]%	Tokens	[k]%	Tokens	%
Female	59	17%	58	16%	46	13%	163	46%
Male	75	21%	89	25%	23	7%	187	53%
Total	134	38%	147	42%	69	20%	350	100%

Variant = Total

Gender	Young		Middle-age		Old			Total
	Tokens	%	Tokens	%	Tokens	%	Tokens	%
Female	75	19%	60	15%	50	13 %	185	47%
Male	82	21%	103	26%	28	7%	213	54%
Total	157	39%	163	41%	78	20%	398	100%

Table 5-9: Cross-tabulation of the two variants [k] and [kʲ] in the suffix by age and gender.

The table above shows the counts and the percentages of the occurrences of the two variants [k] and [kʲ] in the suffix. The use of [kʲ] is far less, 12% (48 tokens), than the use of [k] at 88% (350) tokens. Interestingly, the young speakers use palatalised [kʲ] more often than the old speakers, regardless of gender. If change is taking place in this variable, male speakers are leading in using [k] in the suffix (53%, 187 tokens), particularly in the middle-age group. Old male speakers produce [k] in the suffix less than the other age groups from both genders. Interestingly, young females were found to be using [kʲ] more often than the young males in the suffix, 33% and 15% respectively. Five young female participants produced 16 tokens of [kʲ]; two of them have high levels of contact and produced one token each. The other three speakers have low level of contact and produce 14 tokens between them. All of the young females are educated to university level. On the other hand, the four young male speakers who produce 7 palatalised tokens between them, were all educated to university level and all have low level of contact.

Another cross-tabulation was run between all of the social factors (age, gender and level of contact) and the innovative variant [k], (see Table 5-10 below).

Contact = High			
	Female	Male	Total
Middle-age	96%	100%	98%
Old	100%	100%	100%
Young	94%	100%	97%
Total	96%	100%	98%
Contact = Low			
	Female	Male	Total
Middle-age	96%	77%	83%
Old	87%	64%	80%
Young	63%	85%	75%
Total	81%	79%	80%

Table 5-10: Cross-tabulation of the level of contact, age and gender in the use of [k].

From the above cross-tabulation it can bee seen that participants with high level of contact produce [k] 98% of the time, and more often than speakers with low level of contact (80 %). Females in the low contact group are slightly ahead of males in using [k] in the suffix (81% and 79% of the time respectively).

Because the main concern in this project is the variation between [k] and [kʲ], and since all suffix forms can occur with either variant, I decided to group the suffix with the stem and run a statistical model.

The section below shows the results for the variable (k) after conflating the stem and the suffix tokens.

Conflating the stem with the suffix (Final run)

The results of the conflated 1812 tokens of the variable (k) in the stem and the suffix in relation to the linguistic and the social factors are shown in the Table 5-11 below.

R^2= 0.498

Application value: [k]

Preceding (P= 0.00183)

	Log-odds	Number of Tokens	[k]%	Factor Weight
Back vowels	1.765	93	97%	0.854
Back consonants	-0.190	132	86%	0.453
Front vowels	-0.466	987	85%	0.386
Front consonants	-0.502	510	82%	0.377
Pause	-0.608	92	82%	0.353

Following (P= 1.71e-15)

	Log-odds	Number of Tokens	[k]%	Factor Weight
Back vowels	1.477	231	97%	0.814
Back consonants	0.080	164	92%	0.52
Pause	-0.058	107	87%	0.485
Front consonants	-0.431	359	86%	0.394
Front vowels	-1.067	953	79%	0.256

Gender (P= 1.01e-17)

	Log-odds	Number of Tokens	[k]%	Factor Weight
Female	0.662	955	90%	0.66
Male	-0.662	859	78%	0.34

Age (P= 1.57e-09)

	Log-odds	Number of Tokens	[k]%	Factor Weight
Young	0.154	691	85%	0.539
Middle-age	0.562	693	87%	0.637
Old	-0.717	430	80%	0.328

Contact (P= 1.24e-52)

	Log-odds	Number of Tokens	[k]%	Factor Weight
High	1.306	900	96%	0.787

Low	-1.306	914	73%	0.213
Grand mean: 0.85				

Table 5-11: Rbrul run after grouping the stem with the suffix.

Rbrul returned all factor groups, linguistic and social, as significant. Similar to the results obtained for the variable (k) in the stem, both the preceding and following environments were returned as significant. The variant is most likely to occur when preceded by back vowels (97 %, FW 0.854). In relation to the following environments, [k] is more likely to occur before back vowels (97 %, FW 0.814) and back consonants (92 %, FW 0.52). The innovative variant [k] occurs 85 % of the time in the whole dataset. Female speakers and the high contact group are in the lead.

5.6 Summary of the findings of (g) and (k)

Below is a summary of the most important findings of the analysis of the two variables investigated in the current study.

1. The overall usage of the incoming forms is 74% for (g) 85% for (k).
2. Contact is the most important social factor, especially among the young age groups, their contact has become wide-ranging than was the case for their ancestors.
3. The trajectory of the change found in the two variables is the same; namely in the direction of the non-palatalised variants.
4. Younger women lead both changes. Within each gender group, young speakers are in the lead.

5. The palatalised forms occur more often in the speech of speakers with low level of contact.

6 Chapter six: Distinctive features in the Ḥarbi dialect in Medina

6.1 Introduction

The aim of this chapter is to describe some of the distinctive features of the Hijazi Ḥarbi dialect in Medina and the neighbouring areas in the west of Saudi Arabia. As explained in the introduction, the Ḥarb tribe is a very large tribe divided into two geographical groups; Hijazi and Najdi Ḥarbi; the Hijazi group shares some linguistic features with the urban variety that is spoken in the Hijazi cities of Medina, Mecca, Jeddah and Yunbu. The other group's dialect of Ḥarb tribe (Najdi Ḥarbi), is considered to be a Najdi variety due to the long contact with North Najd dialects. Generally speaking, the Ḥarbi dialect in both areas (Hijaz and Najd) are considered as Bedouin dialects.

The following are some features I found in the data I collected for the current research. To my knowledge, except for rounding and diphthong, these linguistic features have not been covered before in the literature.

1- The definite article *aj-*.
2- Emphatic *ǧi:m* [ʒˁ].
3- Rounding of the long vowel /a:/ in word medial position, e.g. *as-sawwɔ:g* 'the driver'.
4- The diphthongs /aj/ and /aw/.

6.2 The definite article aj-

The common definite article in Arabic is *al-*. According to Al-Nassir (1985), *Lām* /l/ functions as a definite article in Arabic. There are prefix definite articles in all of the Arabic dialects. The definite article is: *(ʔ) vl-*, e.g.: *al-bāb* 'the door'. In some Yemeni dialects, the

definite articles are: *ʔam-, im-, an-, in-*, also ʔam- was recorded in South Arabia in the dialect of *Ṭayyʾ* (Rabin, 1951: 34-37, 50-51, 205 cited in Zaborski, 2006: 187). Zaborski (ibid: 187) added that there are other types of the definite article: *hal-* and *han-* in some Proto-Arabic dialects and he mentioned the Leḥyanite dialect as an example; these two definite articles are found nowadays in varieties in Lebanon, Syria and Tunisia. The researcher added that other forms of definite articles in some contemporary dialects are: *il-/əl-* and *lə-* in the dialects of Damascus and Muslims in Tunisia, e.g. *lə-kbi:r* 'the big one'.

There are two realisations of the definite article *-al*: 1) when the *l-* is followed by 'the Moon Letters' (*al-ḥuru:f alqamarijjah*), viz. non-palatal sounds, e.g. *al-ʤabal* 'the mountain'. 2) when *l-* is followed by 'the Sun Letters" (*al-ḥuru:f aʃʃamsijjah*), viz. palatal sounds, /ʃ, n, t, r, s, sˁ, θ, d, ð, z, tˁ, ðˁ), it will be assimilated to the sounds that follow, e.g. *as-sijja:ra* 'the car'.

Alqahtani (2015) investigated the definite article in Tihāmat Qaḥṭān in ʿAsīr, south of Saudi Arabia. The definite article there is *m-* which is similar to the one that was mentioned above by Zaborki in some Yemeni dialects, e.g. *m-qamar* 'the moon', *m-qamħ* 'the wheat', and *m-hawa* 'the air'.

Al-Sheyadi (forthcoming) in her investigation in Suwaiq, a coastal city in Oman, found another form of the definite article there, namely null definite article, e.g. *ba:b* 'the door'.

There is another interesting form that was found in the current data from the Ḥarbi dialect, namely *aj-* e.g:

aj-ʒˤa:mʕa ~ al-ʤa:mʕa ‘the university’.

aj-ʒˤa:rˤrˤ ~ al-ʒˤa:rˤrˤ ‘proper noun, name of a place’.

aj-gisˤi:d ~ al-gisˤi:d ‘the poem’.

aj-ʒˤibal ~ al-ʒˤibal ‘the mountain’.

Four tokens were found for this variable, produced by an old speaker aged 78, with low level of contact. There are two ways of explaining the origin of this feature. It can either be ‘phonological’, resulting from some sort of lenition, vocalisation, of /l/ > /j/; or it might be one of the relic features of the dialect itself. Obviously, the latter possibility does not exclude the former, i.e. it may have originally started as a sound change that was focused and became a characteristic feature of the dialect.

6.3 Emphatic ǧi:m

There are many relisations for the Arabic *ǧi:m* in the contemporary Arabic dialects, including [g], [ʤ], [ʒ], [j]. Studies on *ǧi:m* that were carried out in Saudi Arabia are: Al-Shehri (1993), Hussain (2017), and Al-Aodini (2019). None of the listed studies mentioned the occurrence of the emphatic *ǧi:m* in Saudi dialects.

Il-Hazmi (1975: 53) who wrote an account of the Ḥarbi dialect, described other variants for /ʤ/ in the dialect. One of these variants he reported was [d], found in the dialect of the Bedouin Hijazi Harbi group. In the current data, I recorded the following instances of [dʲ]: *djmal ~ ʤamal* ‘camel’, *djba:l ~ ʤabal* ‘mountain’ , *wa:djid ~ wa:ʤid* ‘many/much’.

In my data as a whole, Arabic *ǧi:m* has seven variants, [ʤ], [ʒ], [g], [j], [dʲ], [gʲ] and emphatic [ʒˤ]. In relation to [j], it was found in five tokens only, listed below:

rˤijadʒi:l ~ rˤidʒadʒi:l ‘men’.

masjid ~ masdʒid ‘mosque’.

msaji:d ~ mse:dʒid ‘a little mosque’.

ʕa:jiz ~ ʕa:dʒiz ‘helpless’.

ʃjarˤa ~ ʃdʒarˤa ‘tree’.

Il-Hazmi (1975: 54) listed another variant for *ǧi:m,* namely [k] in one word: *asˤnadʒ* as *asˤnak* ‘deaf’, but this variant did not occur in my data.

Emphatic [ʒˤ] is a traditional form of /dʒ/ in the Ḥarbi dialect in Hijaz. In terms of phonetic quality, it fricative, emphatic and fronted. Examples are below.

ʒˤba:l ~ ʒba:l ‘mountains’.

ʒˤda:rˤ ~ ʒda:rˤ ‘wall’.

ʒˤa:b ~ ʒa:b ‘he brought’.

ʒˤimʕa ~ ʒˤimʕa ‘proper noun’.

ʒˤa:dda ~ ʒa:dda ‘a way’.

rˤiʒˤʒˤa:l ~ rˤiʒʒa:l ‘a man’.

This feature is found across all age groups and among male and female speakers.

The next features I will describe are the rounding of long vowel /a:/ word-medially and the diphthongs /aj/ and /aw/; these features are not peculiar to this dialect, but they are not very common linguistic features and not supra local forms in Saudi Arabia.

6.4 Rounding of long vowel /a:/

Two doctoral theses at the university of Essex have recently examined rounding of the long vowel /a:/ in word medial position in the Eastern province of Saudi Arabia. These are by my colleagues Albohnayyah (2019) and Alaodini (2019). Rounding is also found in the Ḥarbi dialect in Medina. Rounding was found in the data in 22 tokens, by male and female speakers across all age groups with low and high levels of contact. The 22 tokens are listed below.

njɔ:g ~ nja:g ‘camels’.

sirˁgɔ:n ~ sirˁga:n ‘a name of a mountain.

gɔ:bal ~ ga:bal ‘he met’.

sawwɔ:g ~ sawwa:g ‘driver’ (3 tokens).

ʔawrɔ:g ~ ʔawra:g ‘papers’.

taqɔ:ʕud ~ taqa:ʕud ‘retirement’.

algɔ:jla ~ alga:jla ‘the afternoon’ (two tokens).

migɔ:ðˁi ~ miga:ðˁi ‘grocery’.

bɔ:gi ~ ba:gi ‘remain’.

nalgɔ:h ~ nalga:h ‘we find it’.

gɔ:l ~ ga:l ‘he said’ (two tokens).

tˁalɔ:g ~ tˁala:g ‘divorce’.

sɔ:ʕa ~ sa:ʕa ‘an hour\ hand watch’ (two tokens).

gɔ:nsˁi:nih ~ ga:nsˁi:nih ‘having hunted it’.

mqɔ:wil ~ mqa:wil ‘instructor’.

al gi:l wal gɔ:l ~ al gi:l wal ga:l ‘gossip’.

6.5 Diphthongs /aj/ and /aw/

In many contemporary Arabic dialects, the diphthongs /aj/ and /aw/ are replaced by /e:/ and /o:/. Although diphthongs in Saudi Arabian dialects are not common, it was investigated in the studies of Al-Shehri (1993), Al-Ghamdi (2014) and Alqahtani (2015). Al-Shehri (1993) carried out research on a group of Al-Shehri tribe that immigrated to Jeddah, His speakers varied between diphthong and monophthong realisations. Diphthongs are also found in the Ghamdi dialect in Al-Baha in the southern part of Saudi Arabia. Al-Ghamdi (2014) investigated a group of Ghamdi immigrants to Meccah, and maintained that the immigrants' heritage dialect contained diphthongs, e.g. *lawn* 'colour' and *bajt* 'house' (Al-Ghamdi, 2014: 71). Also, they are retained in the Tihāmi Qaḥtˁāni dialects in ˁAsīr, also in the south, e.g. *bajt* 'house', *sˁajf* 'summer', and *jawm* 'day' (Alqahtani, 2015: 51).

Some examples of the diphthongs /aj/ and /aw/ found in the current data such as:

/aj/

bajt ~ be:t 'house'.

allajl ~ alle:l 'the night'.

ʔar-rħajli ~ ʔar-rħe:li 'proper noun, name of a tribe'.

ʔal-frˁajʃ ~ ʔal-frˁe:ʃ 'proper noun, name of a village'.

wajnih ~ we:nih 'where is he'.

/aw/

ħawʃ ~ ħo:ʃ 'house garden'.

lawn ~ lo:n 'colour'.

fawg ~ fo:g 'above'.

ʔal-mawt ~ ʔal-mo:t ‘death’.

gawm ~ go:m ‘folk’.

6.6 Summary

This chapter has presented some features that are distinctive in the Ḥarbi dialect, namely the definite article aj- and the emphatic *ǧi:m*. Furthermore, the chapter presented some other linguistic features that are not common in Saudi Arabia and different from the supra local forms, such as: rounding of the long vowel /a:/ in word medial position and the diphthongs. These features are variable in my data, but because of time limitation and the relatively low number of tokens in some cases, they were not analysed properly. It is hoped that appropriately designed future research would provide a comprehensive account of variation in their use among the community members in Medina.

7 Chapter seven: Conclusion

This research is a sociolinguistic investigation that adopted a quantitative analysis using Rbrul software to examine linguistic variation and change in the use of two sociolinguistic variables among the Ḥarbi group in Medina. The two sociolinguistic variables are: the velar stops (g) and (k). The research investigates the depalatalisation of both (g) and (k). Both variables are velar stops and have palatalised counterparts [g^{j}] and [k^{j}]. The palatalised counterparts are not part of the supra-local forms or the koinised forms in Saudi Arabia. Despite the fact that the palatalised forms are not part of the supra-local forms, according to the data they are still in use across all age groups. Both variables are velar stops, and the results from the statistical analysis are similar.

In relation to the first variable (g), it has two variants: the traditional palatalised Ḥarbi variant [g^{j}] and the innovative and supra-local variant [g]. The statistical analysis of this variable and the correlation between dependent and independent variables of the data show that the innovative [g] is favoured when preceded by back vowels (86 %) and back consonants (79 %). Also, it is favoured when followed by back consonants (84 %) and back vowels (82 %) too. In terms of the innovative [g] and the social factors (age, gender and level of contact), all the social factors returned as significant. Female participants were ahead than their male counterparts 82 % and 67 % respectively. In relation to age, young speakers were the innovators among all age groups with 80 % in comparison to 74 % for middle age speakers, and 66 % for old speakers. Thus, young speakers are also leading the change toward the innovative form. Speakers with high level of contact were the most speakers use [g] with 96 %; this might indicate that the change here is complete among speakers with high level of contact.

The second variable (k) was analysed as two variables as it occurs in the stem (*kiða ~ kʲiða* 'this way') and the suffix (e.g. *ʔaxba:rikʲ ~ ʔaxba:rik* 'how are you?). Later, both tokens in the stem and the suffix were grouped together and analysed. The variable (k) in both the stem and the suffix has two variants: the traditional palatalised Ḥarbi [kʲ], and the stop velar [k]. [k] in the stem is likely to occur after back vowels 97 %, also it occurs before back vowels 97 % and back consonants 96 %. Again, female speakers are ahead from male speakers, 91 % and 76 % respectively. In terms of age, middle age speakers were slightly ahead of young speakers 86 % and 85 %. Level of contact was a significant factor, as speakers with high level of contact are the leaders of the change 95 %; again, as we have seen in the previous variable, this might indicate that the change is complete among speakers with high level of contact. At a later stage, the (k) tokens in the stem and the suffix were grouped together. After grouping the stem tokens with the suffix tokens, [k] is favoured when preceded by back vowels, and when followed by back vowels and back consonants. All social factors were significant; females are leading the change along with young speakers, and speakers with high level of contact.

In sum, the statistical analysis for both variables (g) and (k) has shown that there is a change in progress toward the supra-local forms. Females are ahead and young speakers are ahead in using the innovative forms (see Trudgill, 1972, and Labov, 1991). Furthermore, as it was expected that contact has an effect on the dialect, speakers with high level of contact are the innovators in using [g] and [k]. As maintained by Trudgill (1986: 39 - 40) that during face to face interaction, usually speakers try to reduce differences between their dialects; not only this, but they adopt some linguistic features from the interlocutors. The situation has become different in the country since the discovery of oil, with urbanisation, schools, jobs, transportations, thus contact has increased, and contact is not anymore limited as before. Contact has increased with other speakers from different varieties. Furthermore, speakers are

diverging from their traditional forms, and this is probably due to the regional koinisation toward the supra-local forms that started to affect the traditional Ḥarbi dialect. This process of koinisation occurs when the local forms are levelled out in favour of the new and supra-local forms; this is similar to other studies as: Al-Essa (2008), Alqahtani (2015), Hussain (2017), and Al-Ammar (2017). Interestingly, females and males across all age groups still produce the palatalised forms in their speech. Both palatalised forms distinguish the Ḥarbi dialect (Ingham, 1982).

Ḥarb is a large Bedouin tribe which has branches in both Najd and Hijaz. This geographical distribution of the tribe means that the dialect of Ḥarb displays a large amount of variation facilitated by both geographical distribution, mobility and contact. This variability in the traditional dialect(s) is apparent even in the speech of the relatively small sub-group studied in this thesis. Not only do we find contact-induced variation, the source of which in the first place is undoubtedly face-to-face interaction with the city's other sector of the population, the urban group, but also of the type that we may call 'inherent variability', which is illustrated through the presence of more than one traditional Ḥarbi form, e.g. affricate variants in addition to the palatalised variants of the velar stops; and a range of traditional realisations of *ǧīm*. As a relatively marginalised community sharing space with a dominant prestigious urban community, it is almost inevitable for the speakers of the Ḥarbi dialect to converge towards the speech of the urban Medini group and to level out features in their dialect that are marked, such as the palatalised velar variants.

The results with respect to de-palatalisation of the velar stops investigated in this thesis precisely show this: both features are undergoing change in progress, away from the traditional palatalised variants and in the direction of the non-palatalised velar stops, which are typical of the speech of the urban group as well as the dominant dialects in the cities of the western region.

However, the results for both variables (g) and (k) have shown that participants do still use the palatalised forms [kʲ] and [gʲ] among all age groups, both genders with both levels of contact. This indicates that the members of the Ḥarbi group attach some positive social values to their distinctive traditional forms [gʲ] and [kʲ] (cf. Labov's (1963) finding in Martha's Vineyard, where the locals were proud to showcase their local feature, the centralisation of the diphthongs /aj/ and /aw/ in order to distinguish themselves from the tourists visiting the island). Alqahtani's (2015) research findings indicate, similarly, that the members of the communities she studied in Tihamat Qahtan maintained distinctive old features despite strong pressure towards the adoption of majority, city and prestigious variants, namely the koineised forms used in the largest city in the region (Abha).

One way of looking at the results of the current research is to consider them as part of a general process of koineisation that is affecting a number of dialects in Saudi Arabia, as demonstrated in recent previous studies (see for instance, Hussain (2017), Al-Essa (2008), Al-Ghamdi (2015), Al-Ammar (2017), Albohnayyah (2019), Al-Aodini (2019) among others). Koineisation does not necessarily obliterate dialect differences, but significantly reduces heterogeneity. According to Miller (2004):

> "Koineization usually, but not always, implies that the most peculiar features of each contact dialect are dropped and that the regular/most common features are selected instead. This implies a certain degree of leveling, but without radical restructuring, unlike pidginization. To speak in terms of koineization rather than language mixing or → pidginization means that the varieties in contact are considered to be sub-varieties of the same linguistic system".
>
> (ibid, 2004: 593).

It was shown in the results that the level of contact played an important role in the maintenance of, or divergence from, the local forms. Indeed, the amount of contact with speakers of other dialects has generally increased over the course of decades in Saudi Arabia

in general, due to the prosperity that came after the discovery of oil in particular, which, inter alia, resulted in much improved transportation systems (road networks) and channels of communications.

Contact with other varieties was present in Medina even before the oil discovery because of the Prophet's holy mosque and the resultant contact between the locals and pilgrims. Locals used to offer services to the pilgrims, but these services were limited to men. Thus, men used to have outside contact considerably more than women. Women's contacts used to be limited to relatives and neighbours. Despite the fact that social pressure on women to observe traditional ways of behaviour in general, their contacts with outsiders has increased considerably, mainly through the spread of schooling and higher education. Therefore, their social networks have expanded to include a wider mixture of backgrounds. This is reflected in the clear lead of the female speakers in this research, especially the younger women, are using the innovative non-palatalised koine forms.

Members of the tribe used to reside close to each other in the same neighbourhood or district. Accordingly, most of the time their neighbours were of the same tribe. The expansion of the city centre has resulted in the dismantling of most of these neighbourhoods, which has forced most families to move to newly constructed mixed estates. This development has affected the cohesion of the tribe, and has inevitably brought its members into more frequent daily contact with members of other groups within the city. We see the effect of contact quite clearly in the current research: members of the tribe who have non-Ḥarbi neighbours, have travelled away for education or work, maintain close friendships with members from other groups (viz. the high contact group) use the incoming variants more often than the low contact group. It is also worth remembering that internal migration from all over Saudi Arabia to Medina has been increasing at a fast rate particularly because of the thriving businesses associated with the annual pilgrimage, which contributed to linguistic

heterogeneity, and thus increased opportunities of contact with speakers of a large variety of dialects.

Economically, Medina was famous for farming, especially in producing dates. As the state and private employment sectors expanded, they attracted a large number of the tribe's members inside the city as well as from the surrounding villages. This has led to diversification in the lifestyle of many members of the tribe, and subsequently their socialisation patterns. The linguistic change found in the current research may be seen as a reflection of the social change experienced by the tribe generally.

Recommendations for further research

Further research could usefully explore the following features and groups:

1- The use of affricate variants of /g/ and /k/.
2- The definite article *aj-*.
3- The variation between diphthongs and monophthongs: /aj/ ~ /e:/ and /aw/ ~ /o:/.
4- My data showed considerable variation in *ğīm,* with no less than five different variants in current usage; an investigation of this particular variable would be particularly interesting.
5- Investigating different Ḥarbi groups according to locality and sub-tribe as social factors would contribute to a better understanding of the variability present within the Ḥarb dialect, and how it correlates with social factors.
6- More investigation for the rounding of long vowel /a:/ word-medially would be interesting, especially that rounding occurs in the speech of young females.
7- An issue that was not addressed in this study was dialect transmission; the investigation of this issue would require the inclusion of young children and teenagers.

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9 Appendices: Samples of speech

Appendix 1:

Speaker 1: Old male

*…blahʒat al-ħrˤu:b ismaha afʃaddah, yħamlu:n ʕal-albiʕi:r xams wʕiʃri:n **kʲ**i:lu θumm yrˤayyħu:naha. fa ygulu:n latˤtˤawwil afʃaddah, ʕaʃa:n ma-yħarˤiʃ ðˤharˤih al-ħiml. afʃaddah tixtilif misa:fatha ʔiða **kʲ**a:n albiʕi:r ma-ʕale:h ħiml, tsˤi:r atˤwal. al-ħrˤu:b mitxasˤsˤisˤi:n bal-ʒamma:lah, lannuhum be:n almidi:na wmak**kʲ**a walmidi:na wʒidda, ywasˤsˤlu:n alħiʒʒaʒ wiyʒi:bu:nhum.*

This, in our Ḥarbi dialect we call it *ʃaddah* in which they load on the camel and cross a distance of 25km, then they would stop for some rest. We would do this every 25km, and we assert to each other that not to exceed this distance without a break, otherwise the camel will get seriously hurt. The *ʃaddah* differs from a camel to another, for example, the unloaded camels will easily exceed 25km without break stops. Ḥarbi members are specialise in this and in giving the pilgrims lift to Mecca and Jeddah and back to Medina, because their territories lay between these cities.

*la ʒa:t alamtˤarˤ: yarslu:n wa:ħid ygulu:lih rˤu:ħ ʕiss-lina arˤrˤibi:ʕ. θum yrˤu:ħ lal-mantˤi**gʲ**a ʔalli **kʲ**a:nat mibriga, baʕad ma-yarʒaʕ ygulluhum fih rˤibi:ʕ alli yiʃbiʕ alħalɔ:l, walla alħala:l walbaʕa:ri:n, yaʕni alʕiʃb akθarˤ.*

When rain seasons comes, in the past, people would send one of them to the area in which they saw thunderstorm to check if there is enough water and grass for the herds. When the

messenger comes back, he would say the grass is enough for the herds only or for the herds and the camels, which means there is a lot of grass.

*ʕind ma-yatˁlʕu:n lal-furˁˁaʕ ħaggʲathum, **k**ʲa:nt fi:h **k**ʲaθrat assba:ʕ ʔaððya:ba wannmɔ:rˁa. fa **k**ʲa:naw yiʒu:n ʕind asˁsˁxu:rˁ al-**k**ʲibi:ra alli ygulu:llaha ʔarˁrˁidaf. yabnu:n ħawlaha wixallu:n-laha madxal wɔ:ħid, ʕaʃa:n ma tiʒi:hum assma:ʕ.*

People in the past, go to the top of the mountains where they live, there are a lot of wild predators; wolves and Arabian tigers. They would build their homes around the big rocks and make only one entrance to the house, in case not to make predators come from behind.

ʔalmazrˁu:ʕa:t, hum yazrˁuʃu:n alggʲamħ walħintˁa, baʕaðˁha ʕθiriyya tatˁlaʕ ʕala-lmitˁarˁ. wiyxazznu:n minha lassana alʒa:yyah yazrˁuʃu:nha, ʔalbðu:rˁ walħbu:b ha:ði yħafðˁu:naha fmixɔ:zinhum wyadfnu:nha farˁrˁuma:d.

At the agricultural level, in the old days, they plant flour and wheat, and some of the wheat grow from the rain by itself. They would collect it and make food, some of what left will be stocked underground or buried in the ach for the next year.

Appendix 2:

Speaker 2: Old female

*ma rˁrˁa ubu:k na:yim farˁa:s alʒˁbɔ:l, ygu:l yam sˁalle:t asˁsˁibħ…..ygu:l mafi:h ma:ʔ bass intiyammam **k**ʲiða……wala-anna:**g**ʲah tirzim tirzim, whɔ:ði tgu:m, wana aʃbaħ wal-assbɔ: taħat θne:n ygnisˁin alibil min warˁa yabin ʕyɔ:laha. ygu:l wana agu:m adarbi alħasˁa ʕale:ha whiyy taʃrˁid*

once your dad was asleep on the top of the mountain, said: when he woke up to prey early morning he saw two of the female camels hitting their foot on the ground and making noise, and I looked from the top I saw two wolves trying to attack the baby camels from behind. Then, I through big rocks down toward the wolves in which they run away.

*waxað yo:m min alayya:m whu yanzil min alʒˤbɔ:l alli warˤa ʕarˤab namma:y, ygu:l wnimt wyam darˤe:t wala-libil maʕanhin, wrˤawwaħ ydawwir alibil waxað yawme:n ma-li**g**ʲi:ha, bass ʕindih nɔ:gte:n mwalldɔ:t. wbiʕde:n waminnih ʒˤa wala:ha figisbɔ:n ʕind ʕarˤab namma:y ðalħi:n. wʒˤa…alʕilm lubu fahad ʔinn-alibil ðˤɔ:ʕat wʒˤɔ:h. ʕad-ʕallimih balgisˤsˤa.*

He once (your dad) was asleep at night in the mountain that not far from *Namma:y*'s village. When he woke up, the camels where disappearing and he went two days searching after them, did not find them. When he found them in the mountain of *gisbɔ:n* after days of looking, he found that two of the female camels already delivered two babies. *Abu-Fahad* the owner of the camels knew about the lost and the babies so he came.

***k**ʲa:n ħayɔ:t ʕawwɔ:ðˤ yiʃtiɣil fatˤtˤɔ:yif, **g**ʲa:law axwɔ:nah ʒi:baha ʕindana nrˤabbi:ha. ʕa:d huw ka:n yiʃtiɣil bazzaffa hna:**k**ʲ **k**ʲill yawm yʒˤi:b **g**ʲarʃe:n, biʕde:n **g**ʲall mafi ʃuɣul. wzawʒˤtih tʒˤi:b dmɔ:θ txarizha biryɔ:l.*

When *ʕawwɔ:ðˤ* was alive, he was working in Taif, his brothers told him to leave his daughter with them to look after her. He, there, was working as watering people in the streets, and he would earn two coins a day. Then, the work was little, in which the wife had to get fabric and sew it and sell it by one Riyal.

Appendix 3:

Speaker 3: Middle age male

darˤrˤast tˤulla:b fassamhu:di min masˤurˤ w as-su:da:n, madrˤasat ʒa:liya:t tuʕtabarˤ. liʔan alaħya: alli ħawlih alʔaʒa:nib fi:ha kiθi:r, mʃakkʲala almadrisa. tħasˤsˤil falfasˤil xams aw ʕaʃrˤ sʕudiyyi:n wal bagʲi:n aʒˤa:nib. wla fiðˤe:t asʔal kul wa:ħid ʕan anniðˤ:m attaʕli:mi ʕinduhum. ʔafðˤal ʃay masˤurˤ w as-su:da:n, la min mana:hiʒˤ wla min tˤari:gʲat taʕli:m wla min ihtima:m….ʔaʃʃurˤtˤa hiy tamsakʲ alamn ʔarˤbaʕ wʕiʃri:n sa:ʕa ʕind almadrisa. ʔay giðˤiyya tsˤi:r ʕal-atˤtˤa:lib masʔu:liyyat alamn alli barˤrˤa.

I taught students from Egypt, Sudan, etc. at *assamhu:di* school. The school was international because the area is a cosmopolitan. You could find in the class five or ten Saudis and the rest would be from different countries. When I have free time, I would ask the non-Saudi students about the education systems at their countries. I found Egypt and Sudan are the best, the contents of their books and the methodological approach to teaching. Also, because the police is outside of the school 24\7 dealing with any problems or misbehavior students make.

ʕa:m θal:θ w ʕiʃri:n kunt fal-gʲa:ħah, ʔarˤbaʕ w ʕiʃri:n w xams w ʕiʃri:n kunt fwa:di ri:m, ʔaxat snite:n hna:k w nigʲalt. ʔattirm alawwal nda:wim asˤsˤubħ wattirm aθθa:ni nda:wim baʕd aðˤðˤuhurˤ, dawɔ:m misa:ʔi, le:kʲin amʃi min hina yimkʲin ʕaʃirˤ w nusˤsˤ.

In the year 2004, I was teaching in the village of *Al-gʲa:ħah*, 2005 and 2006 I moved to the villages in Reem valley. In there, the first term I would go to work in morning and the second term I go to work in the afternoon, so I take-off from home about 10:30 in the morning.

gʲa:law falɣa:lib ʔiða dxalaw ʕala ħsa:bak alli ʕalayh albayt w ħasˁsˁalaw θama:n miyya walla tisiʕ miyyat alf xaðawha. wiða ma-ħasˁsˁalaw ʃay turˁfaʕ awrˁɔ:gak aθθubu:tiyya larrya:ðˁ wyiʒˁi:k tamalluk.

They told me, mostly, in a death situation we check your bank account, if we found SR800,000 and above it will be taken, if nothing or less your paper will go to the ministry in Riyadh and they will issue pardon paper in which the house will be yours, and nothing will be paid to the bank.

Appendix 4:

Speaker 4: Middle age women

*ʕala fikra ʕinti ma-tadri:n inni basawwi dars namu:ðaʒ?... alisbu:ʕ alʒa:yy, ʔalmudi:ra tˁlubat minni wgult mani msawwi:h lwaħdi, ma-ʕalay minha ʕale:h darˁaʒa:t aw la. tˁalabat minni muʃa:rˁaka waʕʒibatni-lfi**kʲ**ra. daxalat miʕi ʕafa:f w ba**kʲ**allim mumkin mwaʒʒihti.*

By the way, you do not know that I will do a model-classroom? It will be next week. The head of the school told me that, and I told her I am not going to do it by myself…..I do not care if it is graded or not. She required me a contribution and I like the idea. *ʕafa:f* will be presenting with me, and I might tell me supervisor to attend.

*ʕala ʔayya:mi ana albank ma-ka:n ya:xuð dufʕa ʔu:la, ʕatˁa:ni xams miyyat alf wasaddidha sitmiyya ʕala ʕaʃrˁ sanawa:t….ʔudxuli ʕala mawqiʕ albank ʕala ħa:sibat alʒazi:ra wuktibi rˁa:tbi**kʲ**, tiʒˁi:k annisbah wkamm tadfiʕi:n kul ʃaharˁ. yaʕni inʃa:lla albnu:k titan:fas da:m alħuku:ma batwazziʕ iska:n.*

Earlier in my time, the bank did not use to take upfront payments, the bank gave me SR 500,000 and I pay it back 600,000 over ten-years… all you need to do is to go to the bank web-side and fill in your information (salary, etc.) the online calculator will provide you the percentage of interest and how much you should pay monthly. God willing, that will be competition between banks, because the government is working on the housing projects.

ʔismiʕi ʕala tˤa:ri ha:ði-lmuwaʒʒiha, mu zay aθθa:niya:t ytˤubbu:n faʒˤʔah ma-yitˤtˤisˤlu:n kaʔinnuhum bayimsuku:n almuʕallima bal-ʒˤurˤm almaʃhu:d.

listen, by the way, she is unlike our supervisors, where they pop-in the classroom without appointment as they want to trap us, she call the teacher and take an appointment with her and take her permission to come to the class.

*ʔaham ʃay arˤrˤabtˤ falxams warˤbiʕi:n digʲi:**g**ʲah, yaʕni ana batiʲ**k**ʲallam ʕan mana:tˤiʲ**g**ʲ almamliʲ**k**ʲa ʔalida:riyya wbaħutˤtˤ xari:tˤa, wkul waħda batgu:l darsaha*

The coherence of the education is the most important in the 45 minutes in the classroom. For example, I will give an overview of the administrator governors of Saudi Arabia and I will provide a map, later, everyone gives her own talk.