Dialect Contact and Koineisation in Riyadh: A study on the Dialect of Alqarni Tribe

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Dedication

To my father, Mohammed Alqarni, your strength, generosity, and faith in me have been the foundation of everything I have achieved. You showed me the value of knowledge and perseverance, and I carry your lessons with me every day. I love you dearly, and I thank you with all my heart for being the reason I could reach this point.

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Abstract

This study investigates the linguistic outcomes of dialect contact among Qarni speakers who migrated from Balqarn in the southwest of Saudi Arabia to Riyadh, the capital and largest urban centre of the Kingdom. Within the framework of quantitative sociolinguistics, it examines how sustained interaction with speakers of different dialects has shaped the retention, modification, and loss of salient Qarni features. The analysis focuses on four variables that distinguish the Qarni dialect: the affrication of /k/, the use of the definite article *m*-, the realization of /dʒ/, and the third person singular feminine verbal suffix *-an*. The data are drawn from sociolinguistic interviews with 26 Qarni speakers in Riyadh, stratified by migratory cohorts, gender, and degree of contact. Speech samples were transcribed using the International Phonetic Alphabet (IPA) and analysed through both qualitative and quantitative methods, including multivariate and mixed-effects modelling.

The findings show that three highly marked and salient Qarni features, the *m*- article, the realization of /dʒ/, and the verbal ending suffix *-an*, have largely receded and survive only in lexically constrained or relic contexts. By contrast, the affrication of /k/ displays ongoing variation. In particular, the affrication of /k/ demonstrates divergent trajectories: near-complete deaffrication in stem position, but residual variation in the second person singular feminine suffix, influenced by morphophonemic environment and social factors. Across variables, the unmarked supralocal forms are increasingly favoured, reflecting processes of levelling and dedialectalization. Overall, the study provides empirical evidence that Riyadh is a locus of dialect convergence in Saudi Arabia. The case of the Qarni speakers demonstrates how migration, social integration, and contact dynamics foster the erosion of localized markers and the diffusion of socially neutral variants. These patterns contribute to the ongoing emergence of a supralocal variety in Riyadh and enrich our understanding of koineisation and language change in the contemporary Arab world.

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Guide to phonetic and transcription system

This thesis uses two transcription systems: the International Phonetic Alphabet (IPA) for phonemic and phonetic forms, and the *Encyclopedia of Arabic Language and Linguistics* (EALL) system for transliterating names and places. Examples cited from previous studies are rendered in the symbols used in the original text. The table below outlines the symbols employed throughout.

Consonants:

Arabic	EALL	IPA	Description
أ	ʾ	ʔ	voiced glottal stop
ب	b	b	voiced bilabial stop
ت	t	t	voiceless dento-alveolar stop
ث	ṯ	θ	voiceless interdental fricative
ج	ǧ/j	dʒ	voiced post-alveolar affricate
ح	ḥ	ħ	voiceless pharyngeal fricative
خ	x	χ	voiceless uvular fricative
د	d	d	voiced dento-alveolar stop
ذ	ḏ	ð	voiced interdental fricative
ر	r	r	voiced alveolar trill
ز	z	z	voiced alveolar fricative
س	s	s	voiceless dental fricative
ش	š	ʃ	voiceless alveo-palatal fricative
ص	ṣ	sˤ	voiceless velarised alveolar fricative
ض	ḍ	dˤ	voiced velarised dento-alveolar stop
ط	ṭ	tˤ	voiceless velarised dento-alveolar stop
ظ	ẓ	ðˤ	voiced velarised interdental fricative
ع	ʿ	ʕ	voiced pharyngeal fricative
غ	ġ	ʁ	voiced uvular fricative
ف	f	f	voiceless labio-dental fricative
ق	q	q	voiceless uvular stop
ك	k	k	voiceless velar stop
ل	l	l	voiced dental lateral
م	m	m	voiced bilabial nasal
ن	n	n	voiced alveolar nasal
ه	h	h	voiceless glottal fricative
و	w	w	voiced labiovelar glide
ي	y	j	voiced palatal glide
تس	ć	ts	voiceless dental affricate
دز	ǧ	dz	voiced dental affricate
ڤ	g	g	voiced velar stop

Vowels and diphthongs:

Vowels	EALL (Long)	(Short)	IPA (Long)	(Short)	Diphthongs
	ā	a	aː	a	aj
	ē	e	eː	e	aw
	ō	o	oː	o	
	ī	i	iː	i	
	ū	u	uː	u	

Introduction

The Arabic-speaking world is characterized by remarkable linguistic diversity, with numerous regional dialects differing across geographic, social, and historical lines. While these varieties are generally mutually intelligible, they exhibit significant phonological, morphological, and lexical differences that are often shaped by patterns of migration, education, and urbanization. In recent decades, sociolinguistic research has increasingly turned its attention to the effects of dialect contact within Arabic-speaking communities, particularly in rapidly expanding urban centres. As speakers from different regions converge in major cities, their dialects are brought into direct contact, resulting in processes such as dialect levelling, koineisation, and the reallocation of linguistic variants.

One such context is the city of Riyadh, the capital of Saudi Arabia, which has witnessed dramatic demographic and linguistic transformations in the wake of the country's post-oil economic development. Once a relatively small settlement, Riyadh has evolved into a major political and economic hub, attracting internal migrants from across the Kingdom. Among these are speakers from the Qarni tribe, originally from the mountainous region of Balqarn in the southwest of the country. The Qarni dialect, shaped in relative isolation and marked by morphophonological features not typically found in Najdi Arabic, has now come into sustained contact with other Saudi varieties spoken in the capital. While these dialects are mutually intelligible, they differ in salient phonological and morphosyntactic features that carry distinct social meanings. Riyadh offers a compelling context for the study of dialect contact and change. This contact setting presents a valuable opportunity to explore the outcomes of dialect convergence and the emergence of new linguistic norms in an urban, socially diverse environment.

This thesis investigates the linguistic consequences of dialect contact resulting from the migration of Qarni speakers to Riyadh. In particular, it explores how specific phonological and morphological features of the Qarni dialect are retained, modified, or lost in the speech of those who now reside in the capital. Drawing on insights from variationist sociolinguistics and the theory of koineisation (Trudgill 1986; Siegel 1985), the study aims to understand the patterns and social motivations behind dialect change in this contact setting.

Previous studies on Arabic dialect contact have examined koineisation in cities such as Amman (Al-Wer, 2007), Jeddah (AlEssa, 2008), and Ha'il (AlAmmar, 2017), but the case of Riyadh remains underexplored, particularly with respect to southern tribes like the Qarni tribe. The research focuses on four key linguistic variables that distinguish the Qarni dialect: (1) the affrication of /k/ to /tʃ/, (2) the use of the definite article *m-* versus the standard *l-*, (3) the realisation of /j/ versus /dʒ/, and (4) the third person singular feminine verbal suffix *-an* versus *-at*. These variables were chosen for their salience in marking dialect identity and their potential for indexical meaning in social interaction. The analysis considers how these features are distributed across speakers according to three social variables: migratory cohorts, gender, and, most critically, level of social contact with non-Qarni speakers in Riyadh.

The data was collected through sociolinguistic interviews with 26 Qarni speakers living in Riyadh, stratified by gender, migratory cohorts, and contact. The interviews were transcribed using the International Phonetic Alphabet (IPA), and the results were analysed using the statistical software R. The data was subjected to both qualitative and quantitative analysis. This study contributes to Arabic sociolinguistics by documenting an underrepresented dialect community undergoing contact-induced change. It provides empirical evidence that supports the view that Riyadh is developing a new supralocal variety, emerging not through wholesale accommodation to the Najdi norm, but through levelling and

koineisation processes that favour unmarked, socially neutral forms. By tracing the trajectories of phonological and morphological change among Qarni speakers, the thesis highlights the complex interplay between linguistic variation, social integration, and identity in the context of urban migration.

The thesis is structured as follows. Chapter 1 presents the historical and demographic background of Riyadh and the target community (Balqarn). Chapter 2 outlines the theoretical frameworks relevant to variation and dialect contact. Chapter 3 describes the methodology, data collection, and the procedures of data analysis. Chapters 4 through 7 present the core analyses of each linguistic variable. Finally, the Conclusion (chapter 8) synthesizes the findings and discusses their broader implications for the study of Arabic dialectology and sociolinguistics.

Chapter 1

The sociolinguistic profile of Riyadh

This chapter provides the necessary background for understanding the social and linguistic settings of the present study. It is divided into two major parts: the social context and the linguistic context.

The first part outlines the social context by presenting a detailed overview of Riyadh, the capital of Saudi Arabia, in terms of its geographic location, historical development, political role, patterns of urban expansion, and the social, cultural, and economic transformations it has undergone from the pre-oil era to the present. Special attention is given to processes of internal migration and urbanisation, which reshaped Riyadh's demographic composition and created the conditions for intensive dialect contact. This section then turns to Balqarn, the hometown of the Qarni tribe, whose members constitute the focus of this study. The discussion covers the geography and topography of Balqarn, its population and social structure, economic activities, and patterns of education. It also addresses the migration of Qarni families to Riyadh within the broader context of rural-to-urban migration in Saudi Arabia.

The second part introduces the linguistic context, beginning with an overview of Najdi Arabic, the variety spoken by the indigenous people of Riyadh and across the central region of Saudi Arabia, followed by a description of the Qarni dialect spoken in Balqarn. The presentation of both dialects highlights their salient phonological and morphological features, with reference to previous scholarly accounts.

By situating the study within this dual context, the chapter establishes the social, historical, and linguistic foundations necessary to interpret the variation and change investigated in subsequent chapters.

1.1 The social context

1.1.1 Riyadh (location, history and people)

Riyadh, the capital of the Kingdom of Saudi Arabia, is located in the centre of the Kingdom, between longitudes 43 ° -46° East and latitudes 38°-24 ° North (See Map 1). This location is in the middle of the Arabian Peninsula (Samarkandi, 2013), which has given it a strategic dimension at various points in its history since ancient times. Four main roads depart from it, connecting it to various regions of the Kingdom and abroad, on two axes: the first axis consists of the Riyadh-Jeddah road on one side and the Riyadh-Dammam road on the other, linking Najd with the eastern and western regions of the Kingdom. The second axis is the northern route, Riyadh-Zulfi, which connects the capital with Qassim, Hail, and Tabuk. To the south, the Riyadh-Aflaj-Dawasir road links the capital with Najran and Yemen. Riyadh is also connected to Dammam by railway and to international destinations via King Khalid International Airport. Beyond its central role within Saudi Arabia, Riyadh's position in the Arabian Peninsula allows for further connectivity through international roads linking it with neighbouring Gulf states, including Kuwait, Bahrain, Qatar, the United Arab Emirates and with Yemen, Iraq, Jordan, Syria and Lebanon (Saleh, 2003).

Map 1.1. A map of Saudi Arabia showing the location of Riyadh (Source: Google Maps accessed on the 6th of April 2025).

The city of Riyadh was established on the ruins of the historic settlement of Ḥaǧr, which had been inhabited by the tribes of ṭasm and ǧadīs. Following the decline of the Abbasid state, political unrest spread across the Arabian Peninsula, leading to the weakening of Ḥaǧr. Reduced rainfall further contributed to its decline, and by the tenth century AH (16th century CE) it had fragmented into a cluster of small, scattered villages, including muqrin, miʿkāl, ʿawd, al-baniyya, al-sulayʿa, ǧabra, and al-xarāb. From this period onwards, the name Ḥaǧr gradually disappeared as the names of these villages became more prominent. By the twelfth century AH (18th century CE), the settlement came to be known as Riyadh, a name derived from the orchards and gardens that once surrounded Ḥaǧr (Al-Jasser, 1966).

The landforms of the region have played a fundamental role in determining the location and development of Riyadh. The city lies at an altitude of approximately 600 meters above sea level, on a plateau that forms part of the greater Najd Plateau. This plateau extends westward from the ṭuwaiq mountain range to the dahnā desert belt in the east and slopes gently eastward

(Al-Kulaib, 1990). The Ḥanīfa Valley, which runs to the west of the city, together with its tributaries al-Baṭḥā and al-ʾAysan, as well as the rocky hills of the eastern ʿĀriḍ Plateau, have served as natural boundaries guiding Riyadh's urban growth. The city's elevation ranges between 500 and 900 meters above sea level. Riyadh draws its water from four aquifer systems: the silt deposits of Ḥanīfa Valley, the Niṣāh formations of Niṣāh Valley, limestone formations in the surrounding mountains, and the Manjur formation, in addition to desalinated water supplies that meet residents' drinking needs (Al-Sharif, 1973).

The city is bordered by three major deserts of the Arabian Peninsula: The Great Nafud to the north, the Rubʿ al-xālī to the south, and the dahnā to the east. These surrounding deserts contribute to the frequent sand- and dust-laden winds that affect the city. The prevailing winds come from the north, northwest, and southeast. The city's street layout, oriented primarily along north–south and east–west axes, was designed to reduce exposure to the strongest winds (Daghestani, 1985).

1.1.2 Riyadh in the modern era

Riyadh remained one of the emirates of Najd until it came under the rule of Dhaham bin Dawas, the ruler of Manfūḥa [1], shortly before the middle of the 18th century CE. During his reign, the name Riyadh came into common use, replacing the older name Ḥağr, which persisted only in reference to a small part of the old city. Under Dhaham's rule, Riyadh experienced notable urban development, including the construction of a defensive wall around its scattered neighbourhoods, the building of a palace for the emirate and government, and the establishment of several fortifications. Many of these structures were later destroyed during the turbulent

[1] Manfūḥa is an ancient town that has been inhabited for thousands of years. It was home to the Bani Qais bin Thaʻlaba bin Kar bin Waʾil. The name derives from the word "nafḥ," meaning "gifts," and the land was divided among the descendants of Qais bin Thaʻlaba. Manfūḥa lies between Wadi Ḥanīfa to the east and Wadi Al-Baṭḥā to the south, forming an obtuse angle at the meeting point of the two valleys (Al-Sulaiman, 2012).

events the city underwent, culminating in its seizure by Prince Abdul Aziz bin Muhammad bin Saud in 1773 CE (Al-Hattlani, 1996).

With the establishment of the Second Saudi State in 1824 CE, Prince Turki bin Abdullah Al Saud designated Riyadh as the new capital. During this period, Riyadh assumed the political role previously held by Dirʿiyya during the First Saudi State and enjoyed a period of relative calm and stability through a policy of conciliation with the Ottoman Empire. However, the city also endured episodes of chaos, looting, and instability during the power struggle between Khalid bin Saud and Abdullah bin Thunayan, which led to a decline in its social and economic conditions. Stability was restored with the return of Faisal bin Turki to power, as security was reestablished, and economic conditions improved accordingly (Darwish, 1983).

During the Second Saudi State, agriculture in Riyadh depended primarily on rainwater and wells, which resulted in production levels fluctuating according to the availability of water. Crop yields varied from year to year depending on rainfall. In the surrounding desert areas, people grazed livestock and camels wherever water could be found. Bedouin groups moved seasonally in response to rainfall, expanding pastures and increasing livestock numbers. When rains ceased, they relocated to areas with wells and groundwater. Bedouins relied heavily on their animals to meet daily needs: they consumed their meat, drank their milk, produced clothing from their wool, and used them as a means of transportation. Livestock were also used for bartering and formed the basis of commercial exchange between nomads and urban dwellers, as well as with farmers.

With the restoration of security under Imam Faisal bin Turki, commercial centres reemerged, and trade flourished in Riyadh. Markets offered both agricultural and pastoral products alongside handmade items such as jewellery and textiles (Al-Hattlani, 1996).
Merchants traveling to Riyadh used several established trade routes through the Najd region. The most important included:

1. The Buraidah-Riyadh Road, the longest and most difficult route, which passed largely through the Sudair region.
2. The Al-Qassim-Riyadh Road, which passed through Al-Muḏnib and reached Al-ʻUyaynah (Lorimer, 1975).

Alongside domestic trade, foreign trade from Najd became increasingly active with Iraq, the Levant, Yemen, Egypt, Persia, and India. Imports to Riyadh included coffee, frankincense, and silver-hilted swords from Yemen; sugar, spices, and silk from India; weapons and coral from Egypt; and fabrics from Basra and Najaf. In return, Najdi merchants exported dates, camels, sheep, ghee, hides, and cloaks to Basra and Najaf (Lorimer, 1975).

Industry, however, did not occupy the same central role as agriculture, pastoralism, or trade in Riyadh's economy. Still, several crafts and industries were practiced, particularly the manufacture of copper and iron utensils, including daggers, knives, and coffee pots made from copper and tin. Other crafts included the production of tents, water skins, horse saddles, slippers, mats, and rugs (Al-Hattlani, 1996).

The financial resources of Riyadh, capital of the Second Saudi State, were limited to zakat (a mandatory Islamic charitable tax), spoils of war, and fees collected from pilgrims. These sources were generally sufficient to cover the city's expenses, and the financial system in Riyadh closely resembled that of Dirʿiyya in both income and expenditures. By 1862 CE, the city's population had grown between seven and eight thousand inhabitants, consisting of both tribal and urban residents (Al-Ajlan, 1977).

Following the collapse of the Second Saudi State, the Rashidi dynasty rose to power and gained control of Riyadh in 1887 CE. The Battle of Harimla marked the final attempt by Riyadh's rulers to reclaim the city, but the effort failed. As a result, Riyadh ceased to be the capital of a state and remained under Rashidi control for a period. Imam Abdul Rahman bin Faisal relocated to Kuwait, where he lived for approximately ten years, until his son Abdul Aziz

resolved to restore Al Saud rule. In 1902 CE, Abdul Aziz led a successful campaign to recapture Riyadh, reestablishing it as the capital, this time of the Third Saudi State (Wahba, 1967).

1.1.3 Riyadh as an administrative centre

Riyadh's administrative development can be divided into three main stages (Al-Hattlani, 1996):

- **The first stage (1902-1924 CE):** this stage extends from the entry of King Abdulaziz into Riyadh until his entry into the Hijaz. During this period, the city's affairs were managed through King Abdulaziz's special council, known as the *ǧamāʿa*, which oversaw its branches and departments. At this stage, there was limited opportunity to establish the foundations of a formal state apparatus, since the individual's affiliation with the tribe, with its autonomous authority, laws, and deeply rooted customs, was stronger than the connection to the authority of the state. Furthermore, Riyadh lacked experienced administrative cadres, which restricted institutional development.
- **The second stage (1926-1953 CE):** this period began with the conquest of Hijaz and its unification with Riyadh and continued until the centralization of administration there and the establishment of the Council of Ministers. During this stage, the administrative and organizational burden expanded following the integration of Hijaz. The *Basic Instructions* issued during this period served as the constitution of the state. Hijaz was chosen as the base for laying the foundations of the administrative structure because it was better prepared for the emergence and development of governmental agencies. Hijaz had long-standing administrative traditions established under the rule of the Ashraf, and Jeddah had diplomatic representation from Britain, France, Austria, Russia, the Netherlands, Belgium, and Iran. While the royal court remained in Riyadh, the state effectively had two capitals: Riyadh, the capital of the Kingdom of Najd and its Dependencies, and Mecca, the capital of the Kingdom of the Hijaz. Riyadh, however, functioned as the primary administrative centre from which state policies were issued.

- **The third stage (1953 CE-present):** This stage marks Riyadh's path toward modern administrative organization. The turning point was the royal decree of 1953, which established the Council of Ministers composed of all state ministers responsible for overseeing their respective ministries. This decree created a centralized authority to regulate the functions of the administrative apparatus and to issue directives in a manner comparable to modern administrative systems. One of the most notable features of this stage was the division of the country into administrative regions, although tribal councils continued to perform their traditional role within clans (Abu Aliyah, 1985).

In summary, Riyadh's administrative system evolved as a product of the wider administrative developments in Hijaz and was closely tied to the political transformation of the country. After the completion of the founding stage in 1925 CE and the unification of the Kingdom under the name "Kingdom of Saudi Arabia" in 1932 CE, the administrative structure expanded with the establishment of ministries for Defence, Finance, and Interior, along with the creation of new governmental bodies and agencies. This rapid growth in administrative organization followed models of planning inspired by developed countries, while also accounting for the specific needs of Saudi society and its Arab-Islamic foundations (Al-Shahil, 1984).

1.1.4 Riyadh's political role

Riyadh's political role began when it served as the nucleus of a small emirate rather than the capital of an independent state with recognized borders. From Riyadh, the movement to unify the country began, marking the shift from tribal fragmentation to state-building. Armies departed from the city to subdue rival tribes, while political leaders introduced policies designed to create a stable society in place of the former Bedouin-based structure. Prince Abdulaziz's determination to re-enter Riyadh in 1902 CE marked the starting point of building a new state on the foundations of a collapsed order. At this stage, Riyadh represented the core of effective

political authority, functioning as the primary political entity of the emerging state, with the king and his council exercising both legislative and executive powers (Al-Zarkali, 1977).

As Riyadh's political influence expanded, surrounding powers with vested interests, particularly Britain, began addressing King Abdulaziz directly. This was especially the case after the integration of Al-Aḥsā and Al-Qaṭīf, which brought it into closer proximity to Kuwait, Qatar, and Bahrain. Riyadh also engaged in conflicts with the Ottomans through its struggle against Ibn Rashid. Offers of recognition and alliances soon followed from Britain and France, reflecting the strategic importance of Abdulaziz's position, which was rooted in Riyadh. Although the features of the new state had not yet crystallized in a conventional form, Riyadh remained the central political entity in the regional balance of power (Al-Hatlani, 1996).

In its unifying role, Riyadh compelled the Ottomans to acknowledge the new reality following Abdulaziz's restoration of the city, which effectively ended Ibn Rashid's control. Ottoman attempts to counter this development by supporting Ibn Rashid with military forces failed in the battles of Al-Bukayriyah and Al-Shanana in 1904 CE (Al-Rayhani, 1980).

Nevertheless, Riyadh faced significant challenges. The Ottomans incited tribal uprisings by supplying groups with weapons and financial support in retaliation for their expulsion from Al-Qassim after the death of their ally Ibn Rashid at Rawdat Muhanna in 1906 CE. For example, the Emir of Buraidah rebelled despite previously pledging loyalty to Riyadh. In response, Riyadh launched a punitive campaign, forcing his surrender and reaffirming the city's authority (Al-Badawi, 1977).

Riyadh then turned its attention to Al-Aḥsā, seeking to wrest it from Ottoman control. Communication between Riyadh and Britain underscored the strategic importance of this move, particularly as the local population had grown discontent with Ottoman rule and expressed a desire to join Riyadh. Taking advantage of the Ottoman Empire's preoccupation with wars in North Africa and the Balkans in 1914 CE, Abdulaziz led an attack on Ottoman forces in Al-

Aḥsā, relying on semi-regular troops . The campaign succeeded, securing Al-Hofuf and leading to the surrender of the remaining Ottoman garrisons in the region (Al-Rayhani, 1980).

The integration of Al-Aḥsā added a new dimension to Riyadh's political standing and international relations, bringing it into direct contact with neighbouring emirates and Kuwait. This development required Riyadh to recalibrate its strategies in order to align with its growing aspirations for state-building (Al-Zarkali, 1977).

After the First World War, Riyadh's territory (encompassing Najd, Qassim, and Al-Aḥsā) was positioned between two regional rivals. In the north, the Al-Rashid of Hail retained influence over the Jabal Šammar region, while in the west Sharif Hussein exercised power over Hijaz and its dependencies. The conflict with Sharif Hussein culminated in the Battle of Turbah in 1919 CE, in which Abdulaziz's forces decisively defeated Hussein's army. This victory reshaped the regional balance of power in favour of Riyadh by neutralizing Hussein's military ambitions and allowing Abdulaziz to focus on the Al-Rashid. It also marked a turning point in the struggle for dominance, tipping the scales against the Sharif of Mecca. Despite British resistance to further expansion, Abdulaziz consolidated his gains by declaring the integration of Turbah, Al-Kharmah, and surrounding areas. The withdrawal following the battle became a decisive factor in the eventual incorporation of the region into Riyadh's authority five years later (Al-Rayhani, 1980).

After the Battle of Turbah, Riyadh turned its attention northward to subjugate Jabal Šammar and its surrounding areas, which had long caused unrest due to the ongoing conflict between supporters of Riyadh and loyalists of the Al-Rashid. In 1920 CE, Riyadh prepared a military campaign against Ḥaʾil, the capital of the Al-Rashid, and by 1921 CE the city had submitted to Riyadh's authority. The unification process continued with the entry of Riyadh's forces into Jeddah in 1925 CE, followed by the proclamation in 1926 CE of the *Kingdom of Hejaz and the Sultanate of Najd and Its Dependencies*. Attention then shifted southward, where

Riyadh sought to secure its borders with Yemen. Diplomatic efforts resulted in a treaty of friendship and good neighbourliness with the Yemeni Imam in 1930 CE, and in 1933 CE the Taif Agreement was concluded, establishing cooperation and mutual defence between Riyadh and Yemen (Al-Manea, 1982).

Through this pioneering role in unifying Najd and its neighbouring regions, Riyadh gradually formed a cohesive political entity. By the early 1930s, this process culminated in the foundation of the modern state, which assumed the name *Kingdom of Saudi Arabia*. This achievement was the product of successive campaigns that integrated or brought under Riyadh's control key regions: beginning with Al-Qassim, followed by Al-Aḥsā and access to the Gulf, the Hijaz and the Red Sea, the defeat of the Al-Rashid in Ḥaʾil, and finally the settlement with Yemen through the integration of Asir (Abu Aliyah, 1985).

Riyadh was unique among the cities of the Kingdom in that it served as the base of the Saudi state. Its central location provided strategic proximity to both the Gulf and the Red Sea, as well as to the geopolitical arenas of international rivalry in the Arabian Gulf. In pursuing the unification of the peninsula, Riyadh mobilized human resources drawn from the strength of tribal solidarity and the fervour of religious conviction (Wahba, 1967).

1.1.5 Urban expansion in the pre-oil period and the oil era

Riyadh underwent significant urban development, evolving from a small town into a relatively modern city even before the discovery of oil. With the onset of the oil era, the city was transformed from a traditional settlement into a major political, economic, and cultural hub.

In its early stages, Riyadh was a walled town, distinguished by its traditional markets and closely-knit neighbourhoods that reflected its historical character. Prior to the oil boom, the city retained its modest scale, but following the discovery of oil, rapid economic growth and urban expansion reshaped its structure. Population growth and major infrastructure projects accelerated this transformation, positioning Riyadh as the central administrative and cultural

capital of the Kingdom and the wider region. During the first decade of the twentieth century, Riyadh's urban framework remained similar to that of the late nineteenth century. The town retained a circular shape with a diameter of less than three-quarters of a kilometre and an overall area of approximately 0.4 km². Expansion occurred mainly eastward toward Bāb al-Ṯumayrī and southward into agricultural lands (Al-Hatlani, 1996).

In the second decade, the city's shape shifted into a north–south rectangle covering approximately 0.9 km², as recorded in Philby's 1920 map. This period also witnessed the emergence of new built-up areas between Riyadh and Manfūḥa, marking the beginning of outward urban sprawl (Philby, 1960).

The third decade brought broader political changes in the Kingdom, which positively affected the capital's development. Riyadh's area nearly doubled within less than a decade, and new neighbourhoods began to form. By the fourth decade, an isolated residential quarter appeared in the south, about three kilometres from the city centre, known as ʿAtīqa, established by migrants from surrounding villages and desert regions. Urban growth continued with the spread of scattered residential clusters surrounded by orchards, separated by open land (Al-Hathloul, 2000).

The fifth decade was marked by rapid development and expansion beyond the old city walls. Major infrastructure projects included the opening of the Riyadh–Dammam railway line in 1950 and the city's first airport. The early 1950s also witnessed the relocation of government ministries to Riyadh, beginning in 1955, after administrative buildings were constructed along Airport Road in the northern part of the city. This encouraged expansion northward toward Al-Nāṣiriyya and other areas surrounding the airport, confirming the city's directional growth in that period (Al-Hatlani, 1996).

In the sixth and seventh decades, expansion accelerated further. By the 1960s, the city extended from the airport in the north to the Al-Shifa district in the south, a distance of about

16 kilometres, and nine kilometres east–west from the railway station to Wadi Ḥanīfa. The urbanized area reached nearly 85 km². A major milestone occurred in 1968, when Riyadh's first comprehensive master plan was commissioned and completed in 1972. This plan envisioned coverage of 204 km² over twenty years, but the rapid growth of the capital, especially after 1975, quickly exceeded these projections. This leap was largely fuelled by the surge in oil revenues (Al-Washmi, 2003). Several factors contributed to this accelerated growth:

- The connection of Riyadh to the oil-rich eastern provinces by rail and highway networks, facilitating movement of goods and people.
- The relocation of ministries and government departments from the western region to Riyadh, strengthening its administrative role and drawing migrants from across the Kingdom.
- The dramatic increase in state revenues from oil production. Daily oil output rose from 10,777 barrels in 1939 to 476,735 barrels in 1949, reaching 8.4 million barrels by 1976. This influx of resources enabled massive investment in infrastructure and urban projects.

From 1976 to 1991, Riyadh experienced an unprecedented urban renaissance, tied closely to economic growth and state-led development spending. By the early 1990s, the city's population had reached approximately 2.8 million, occupying an area of 600 km², with a density of around 4,666 persons per km² (Samarkandi, 2013).

During the period from 1992 to 2010, beginning in the early 1990s and continuing into the present, the city of Riyadh experienced substantial population and urban growth. This stage was marked by the rapid development of residential neighbourhoods, governmental institutions, and both public and private facilities. Major infrastructure projects were undertaken, including the construction of bridges, highways, and ring roads encircling the city. In addition, King

Khalid International Airport was established in the north of the capital, and Riyadh was connected by railway lines to industrial areas and ports along the Arabian Gulf.

By the end of the first decade of the twenty-first century, the city's area had expanded to approximately 1,249 km². Between 2005 and 2010 alone, Riyadh grew by 206 km², with expansion concentrated on the outskirts of the city, particularly in the northern and northeastern municipalities, where large tracts of flat land facilitated new urban development (Samarkandi, 2013).

1.1.6 Educational and cultural activity in Riyadh

Before the reconquest of Riyadh by the Al Saud, education in the city was limited to *kuttabs* (traditional Qur'anic schools) and scholarly circles in mosques, where instruction focused primarily on Islamic sciences such as Hadith and jurisprudence. After Riyadh was restored in 1902 CE, education received increasing material and moral support. The rulers promoted both religious and practical instruction by encouraging Bedouins to settle in villages, where mosques served as centres of study, preaching, and guidance. Study circles were held after each prayer, while *kuttabs* focused on memorizing the Qur'an and teaching basic literacy. The rulers also sponsored the publication and distribution of religious books at their own expense and offered financial rewards to students of knowledge (Abu Aliyah, 1985).

By 1912, Riyadh had become a centre of learning for tribal chiefs, who were encouraged to study in the city's Great Mosque under scholars prepared by King Abdulaziz for this purpose. These leaders later returned to their tribes to spread religious teachings. In this way, King Abdulaziz transformed the perception of knowledge among the tribes, shifting it to being understood as an active pursuit tied to responsibility and leadership (Wahba, 1967).

The neighbourhood of Duxna played a particularly important role in the intellectual life of Riyadh as it became a hub of scholarly activity, hosting councils where the scholars and others gathered. In addition, it contained numerous *kuttabs*, and its intellectual climate attracted

students from across the country. It became rare to find a ruler or judge who had not studied in Riyadh in the *kuttabs* and mosques of Duxna , especially in the period before the introduction of formal education (Al-Hatlani, 1996).

In summary, education in Riyadh during this period remained primarily religious in nature, with little attention given to modern sciences. This reflected the prevailing mindset of the population, which was not yet prepared to embrace modern forms of education. The system was characterized by its private and informal nature, rather than by formal government institutions.

Riyadh paved its way toward modern education by drawing on the expertise of educational cadres from Egypt and Syria, either by sending Saudi students to study in those countries or by attracting teachers from abroad. In 1929 CE, King Abdulaziz established the Directorate of Education to oversee this task, followed by a royal decree creating a special administration to supervise and organize education, called the General Directorate of Education. This represented the first step in establishing a national educational system in the Kingdom. The process continued with the establishment of the Ministry of Education in 1953, mandated with developing policies and programmes to ensure the spread of education in all its forms (Abu Aliyah, 1985).

Between 1953 and 1979, the education sector expanded rapidly. Key developments included the establishment of King Saud University in 1957, the Kingdom's first university, as well as the opening of specialized institutes and colleges in Sharia, teacher training, and technology. In 1960, education for women was formally introduced with the creation of the General Presidency for Girls' Education. The state also launched a series of five-year development plans, which gave particular importance to education. From 1980 to 2015, the education system underwent further diversification and integration. This period saw the expansion of universities across all regions of the Kingdom, the establishment of the Ministry

of Higher Education to oversee them, the growth of foreign scholarship opportunities through the Custodian of the Two Holy Mosques Program (initiated in 2005), the introduction of computer-based curricula in schools, and an increased emphasis on technical and vocational training under the General Organization for Technical and Vocational Training (Al-Dahish, 1986).

Cultural life in Riyadh followed a similar trajectory of gradual development. Prior to these reforms, the city lacked art centres, exhibition halls, museums, or cultural clubs, apart from the literary club located in the Riyadh Scientific Institute. Recognizing this gap, the state began investing in cultural infrastructure, particularly libraries. The Saudi Public Library was established in 1953 under the supervision of the Mufti, Sheikh Muhammad bin Ibrahim Al Sheikh. Subsequent libraries were opened by the Riyadh Municipality, later affiliated with the Ministry of Education, and by the Ministry itself. Among the most notable cultural facilities were the National Library in central Riyadh (1968), the King Abdulaziz Foundation (1975), and the Culture and Arts Society (1972), which aimed to promote cultural and artistic development. Newspapers and a growing range of scientific and cultural magazines also played a role in shaping Riyadh's intellectual life (Al-Jasser, 1966).

1.1.7 Development of economic and financial activity in Riyadh

Economic activity in Riyadh prior to the discovery of oil, and the subsequent transformations it brought, was characterized by simplicity, shaped largely by the desert environment. The economy was based primarily on herding, which depended on rainfall, and on primitive forms of agriculture. Trade was limited in scope, confined mostly to transactions with neighbouring villages in Wadi Ḥanīfa. This modest economic base was reflected in the revenues of the Riyadh treasury, whose first regular resource was customs duties on imports. These revenues were insufficient to meet the city's needs (Al-Hatlani, 1996).

1.1.7.1 Economic activity

Grazing

Herding was historically the most common occupation in Riyadh, reflecting the nomadic lifestyle and the desert environment of the region. With the onset of urbanization and the growth of new professions, herding gradually declined, surviving mainly among Bedouins living on the outskirts of the city. Livestock, however, continued to be regarded as a measure of wealth, with value determined by the type and number of animals owned. Camels held the highest status, followed by goats, sheep, cows, donkeys, poultry, and horses. Until the discovery of oil, pastures remained the foundation of Riyadh's economy, after which herding diminished in significance (Touchell, 1955).

The profession faced recurring challenges, including fluctuating rainfall, overgrazing, and the loss of pastureland caused by the construction of roads and the spread of urbanization. In response, the state introduced programs aimed at improving grazing lands, organizing herding practices, planting forage crops, fertilizing the soil, and promoting the settlement and development of desert areas (Draaz, 1965).

Agriculture

Agriculture has historically been a central pillar of Riyadh's economy and development. The city was surrounded by nearly two thousand farms to the south, west, and northwest. These farms relied heavily on palm cultivation, as dates were the primary staple food for much of the population. Wheat was the second most important crop, while vegetables, such as squash and onions, were produced in smaller quantities. Farming depended on rainfall and wells for irrigation (Al-Washmi, 2003).

As Riyadh modernized, agriculture began to adopt more scientific methods. The state imported machinery to dig wells, thereby expanding irrigation capacity. In 1962, the government established the Agricultural Bank in Riyadh to finance agricultural projects and provide support for farmers. Riyadh's farms benefited from significant state investment, leading

to greater productivity. Many farms shifted to vertical expansion in crop production, while also incorporating livestock and poultry alongside vegetables and legumes (Al-Banyan et al., 1980).

Industry

Riyadh emerged as the leading industrial centre of central Saudi Arabia, ranking high in both the number of industrial establishments and the size of the workforce. Its status as the political capital, combined with its economic prominence and rapid urban expansion, made it a natural hub for industrial activity. Industrial zones developed primarily around the Riyadh–Dammam railway station, where two major industrial areas were established.

The first was located east of the city centre and west of the railway station, and included workshops, handicrafts, and light industries. The second, situated approximately three kilometres south of the old city along Al-Kharj road, was home to factories producing cement, tiles, and other building materials, industries that played a vital role in supporting urban growth. About ten kilometres further south, additional facilities were established, including an oil refinery and a gypsum factory. These industrial areas, together with Riyadh's expanding markets and improved transportation networks, were key factors encouraging settlement and growth in the city (Al-Jawhara, 1989).

Prominent industries in Riyadh included food production, such as dairy products, flour, sweets, halva, ice cream, and soft drinks. Equally important were industries related to building materials (cement and gypsum), furniture and furnishings, petroleum products, plastics based on petroleum derivatives, and electricity (Al-Hatlani, 1996).

Commerce

Trade has historically been a central pillar of Riyadh's economy. One of the most significant outcomes of the political stability achieved under King Abdulaziz was the guarantee of free trade, which allowed the city to prosper after periods when insecurity had hindered commercial activity. The markets of Riyadh served as the main venue for trade, particularly in the old city

and the areas east of it, stretching between King Faisal Street and Al-Baṭḥā Street. These districts represented the most important commercial sectors in Riyadh during the early modern period. Even with the establishment of new commercial centres in emerging neighbourhoods, this traditional area remained a major commercial hub, alongside Al-Ṣafā Square, the heart of the city, and the Dīra district (Al-Washmi, 2003).

In finance and business, Riyadh's monetary system reflected the broader economic transformation of the state. At the establishment of the Third Saudi State, multiple currencies circulated in the capital, including the silver riyal, the copper qirsh (issued by the Hashemite government in the Hijaz), the English gold pound, the Majidi coin, and the Maria Theresa dollar. This changed in 1928, when King Abdulaziz issued the first Saudi currency, inscribed with the title "King of the Hijaz and Sultan of Najd." On January 24 of that year, the Saudi riyal was minted, becoming the country's official unit of currency. Thereafter, the riyal remained the basis of the Saudi monetary system, with adjustments made under successive rulers. The minting, printing, and issuance of currency became the exclusive responsibility of the Saudi Arabian Monetary Agency (Al-Hatlani, 1996).

The financial sector of Riyadh expanded rapidly during the mid-twentieth century. National banks were established to meet the needs of a growing economy, beginning with Al Rajhi Bank in 1937, one of the oldest and most prominent financial institutions in the city. By the 1950s, some banks were established as Saudi joint-stock companies, including Riyadh Bank in 1957, which was jointly owned by citizens and the state, and the Saudi National Commercial Bank. A key factor behind the success of Riyadh's banking system was the policy of free currency exchange, which facilitated commerce. Ultimately, Riyadh's economic prominence rested on its dual role as both the capital of the country and the leading economic centre of Saudi Arabia, offering a wide range of job opportunities and attracting labour and investment (Al-Hatlani, 1996).

1.1.8 Social development in Riyadh

The origins of Riyadh's inhabitants can be traced to Bedouin tribes whose roots extend across the Arabian Peninsula. Among the most prominent are the tribes of Anza, Otaiba, and Harb, followed by Šammar, Dawasir, Muṭayr, ʿAjmān, Bani Murra, Qaḥṭān, ʿAwāzim, Sahūl, and Subayʿ. Population divisions in Najd historically reflected the region's economic structure: pastoral Bedouins engaged in herding; semi-pastoral Bedouins combined herding with seasonal harvesting of agricultural crops; rural villagers practiced farming; and urban dwellers in cities and market towns specialized in trade and crafts (Al-Fawal, 1974).

Riyadh historically contained all these social types. In fertile areas suitable for cultivation, agricultural communities with strong tribal affiliations developed, while groups located along caravan and transport routes formed commercial societies. Some of these also engaged in traditional crafts closely tied to trade. The best representatives of this type were found in Najdi towns such as Riyadh, Ḥāʾil,ʿUnayza, Buraidah, and Šaqrāʾ(Abu Aliyah, 1985).

1.1.9 Community structure and population composition

Najdi society was organized around a hierarchy of social units: the family, the clan, the sub-tribe, the tribe, and finally the larger tribal confederation. The family was the basic nucleus of Riyadh society, whether in desert or urban settings. The man held authority within the household, responsible for providing, protecting, and managing its affairs, including care for extended kin such as the elderly, widows, and orphans. This responsibility derived from Bedouin customs that reflected the challenges of desert life. Women also played a vital role: in addition to motherhood and childrearing, they contributed to household and community life by making tents, spinning wool, sewing clothing, and preparing food (Al-Fawal, 1974).

At the wider level, the tribe served as the primary unit of social organization, maintaining great influence over its members. Tribal councils, composed of respected elders, assisted in decision-making and conflict resolution. The population of Riyadh combined this

traditional Bedouin system with families who migrated to the city in search of livelihood but lacked clear tribal roots. The transformation of Riyadh, from capital of a state, to a sultanate, and eventually to the kingdom, had a profound effect on its social composition. The city became a major attraction for migrants: Riyadh accounted for 25.3% of total internal Saudi migrants, making it the leading destination within the Kingdom. This influx gave rise to new neighbourhoods, many of which were named after the regions from which their inhabitants originated (Al-Banyan et al, 1980).

Migration to Riyadh took several forms. Circular migration referred to the temporary movement of young workers seeking income before returning to their home regions, representing 3.21% of total non-Saudi migrants. Family migration was also common, with households relocating to join breadwinners employed in Riyadh. The majority of migrants originated from the central region, owing to its geographical proximity, while southern migration ranked second, driven by the search for improved social and economic opportunities. Migrants from the western region were largely employed in government jobs, while smaller numbers came from the north. The eastern region contributed the least, given the availability of employment there following the discovery of oil (Al-Lahidan, 1986).

Population growth accelerated dramatically during the oil boom of the 1960s, with the most rapid increase occurring in the 1980s. Between 1980 and 1990, the population nearly doubled, reaching 2.3 million. By the late 1990s, Riyadh had expanded in both size and population, consolidating its role as the Kingdom's demographic centre (Ministry of Municipal and Rural Affairs, 2019).

1.1.10 Neighbourhood structure and population density

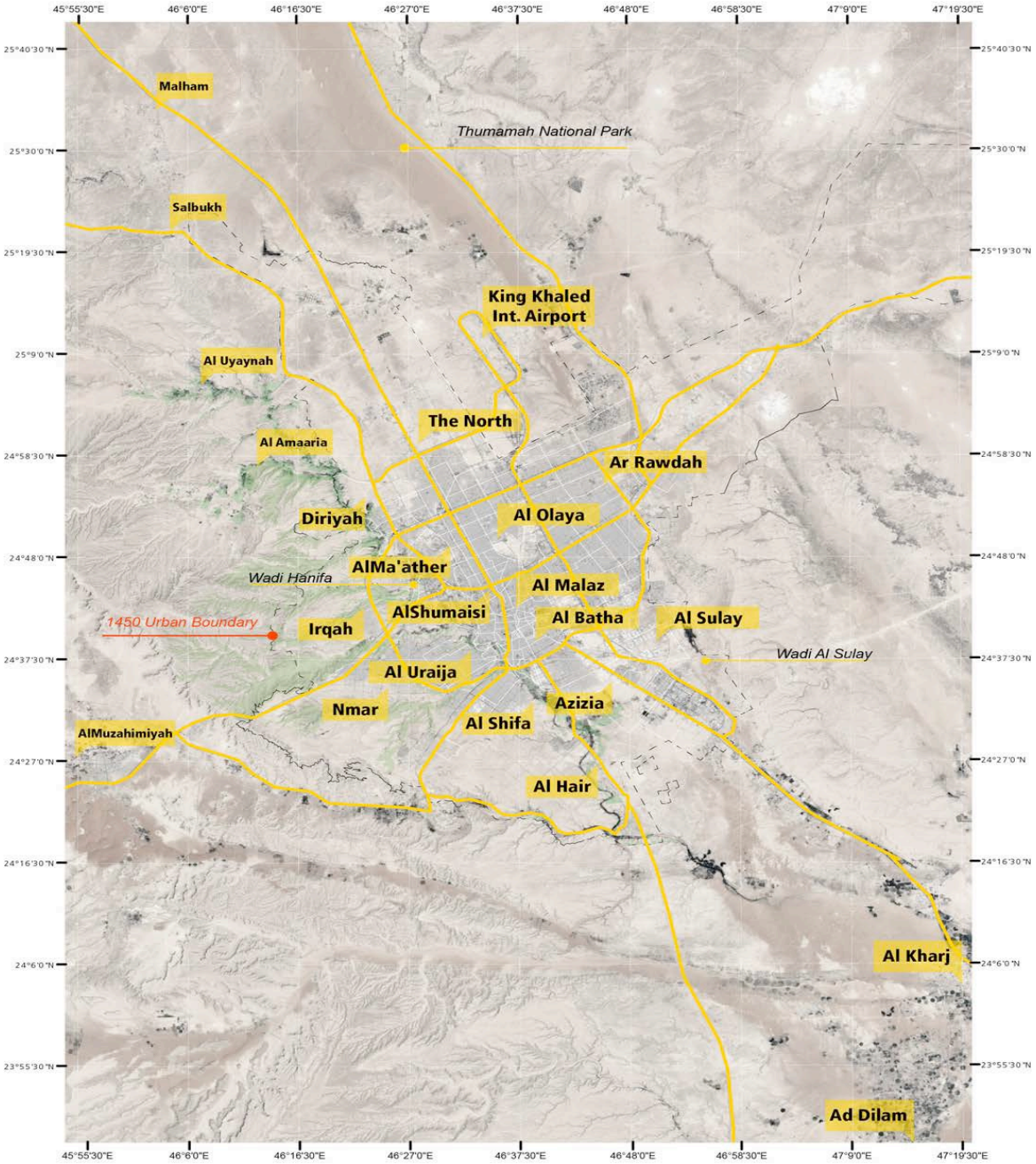
Population density varied considerably between the old city and newer districts. In the historic core, density ranged between 200 and 300 persons per hectare, rarely falling below 150. By contrast, density in the newer districts averaged between 30 and 100 persons per hectare. Older

neighbourhoods tended to be more densely populated, while density gradually decreased in the central commercial district and in recently developed residential areas (Al-Fawal, 1974).

With the expansion of Riyadh, various neighbourhoods emerged that were similar in their basic functions and composition. Most developed into relatively large residential districts with integrated community services and facilities, though their characteristics varied. Certain sectors of the city acquired distinctive functions, such as the governmental district, the industrial sector, and the commercial and business areas (Abu Aliyah, 1985).

The composition of Riyadh's neighbourhoods often reflected their functional role. At the core stood the old city centre, which concentrated much of Riyadh's commercial activity and municipal services, and thus most of the related employment. This central area is bounded by Imam Faisal bin Turki Street (Al-xazzān Road) to the north, King Saud Street (Al-Baṭḥā Road) to the east, Tariq bin Ziyad Street and Al-Dahna Square to the south, and Imam Saud bin Abdulaziz Street to the west. Within these boundaries lie most of the historic neighbourhoods, including Al-Šumaysī, Maʿkal, Al-Dahna, and Al-Zahra.

Other neighbourhoods were distinguished by income levels. Al-Nasiriya developed as the district of palaces and residences of the royal family, while North Al-Murabbaʿ was settled by high-income residents. Al-Malazz was designed as a residential area for high- and upper-middle-income groups, whereas Al-ʿUlayša attracted upper-middle-income residents. Manfūḥa was inhabited largely by moderate- to low-income households, while Atiqa and Ġubayra became associated with lower-income populations (Al-Banyan et al, 1980) (see Map 2).



Map 1.2 Boundaries, neighborhoods and key infrastructure (Riyadh Municipality, 2019)

1.1.11 Characteristics of Riyadh society before the oil era

Najdi society was marked by simplicity in all aspects of daily life, from architecture and furnishings to clothing. Men wore plain white cotton garments and head coverings known as *ġutra* or *šimāġ*, also made of cotton. Wealthier men distinguished themselves with the use of perfumes, the *siwak* for oral hygiene, and slippers crafted from camel leather or palm fronds.

Women typically wore the *ʿabāya* over their clothes, and their adornments were modest: *kuḥl* for the eyes, vegetable oil to groom their hair, and simple rings of gold or silver. Within this setting, the family functioned as a closed unit, with the husband acting as the representative link between household and society, bearing responsibility for decision-making and safeguarding the family. Loyalty to the family remained a central value (Al-Fawal, 1974).

1.1.12 Riyadh society after the discovery of oil

The discovery of oil marked a transformative turning point in modern Saudi history, reshaping Riyadh's society economically, socially, and culturally. The influx of wealth fostered new patterns of consumption and lifestyle and gave rise to a new social class comprised of capital owners, contractors, merchants, and company proprietors. Yet, despite these changes, many social traditions persisted. Riyadh's population continued to be divided into three major social groups:

1. Tribalists: those belonging to recognized and established tribes.
2. Xuḍayriyyīn: individuals whose origins remain debated, though most are not associated with a specific tribe.
3. Former slaves: many of whom had African origins due to the slave trade of the time; they were later emancipated and integrated as free citizens.

One social practice that endured, and continues to some extent today, is the prohibition of intermarriage across these categories. In particular, women were traditionally prohibited from marrying outside their own social group or class (Al-Hattlani, 1996).

1.1.13 Internal migration and urbanisation in Riyadh

Internal migration in Saudi Arabia, particularly the large-scale movement from rural areas to major cities such as Riyadh and Jeddah, has been one of the most defining social processes of the modern era. From the unification of the Kingdom under King Abdulaziz in 1932, Riyadh's

status as the political and administrative capital made it a natural focal point for rural migrants seeking greater stability, education, and economic opportunity. This trend intensified after the discovery of oil in the 1930s and the subsequent oil boom of the mid-20th century, which transformed the Saudi economy and rapidly expanded the country's urban infrastructure. The oil wealth generated jobs in government, construction, education, and the service sector, creating unprecedented opportunities that drew people away from subsistence farming, pastoralism, and small-scale trade in rural villages. Riyadh and Jeddah became magnets for these movements: Riyadh because of its political centrality and concentration of state institutions, and Jeddah because of its historic role as a commercial port and gateway to the holy cities of Mecca and Medina.

The waves of internal migration that followed profoundly reshaped the demographic and spatial profile of Riyadh. By the second half of the 20th century, the capital had grown far beyond its old walled quarters to accommodate new districts designed for diverse social groups. Entire neighbourhoods reflected the socioeconomic backgrounds of their residents: Al-Nasiriya, home to palaces and elite families; Al-Malazz and Al-ʿUlayša, where middle- and upper-middle income families settled; and Manfūḥa, Atiqa, and Ġubayra, which absorbed large numbers of lower-income migrants from tribal and rural backgrounds. This pattern of settlement echoed broader processes of urbanisation across Saudi Arabia, where rural migrants clustered in neighbourhoods that matched their economic means and social networks. Jeddah experienced a comparable transformation, as its old Hijazi neighbourhoods integrated newcomers from Najd, the south, and the Eastern Province, producing a social mosaic that combined long-standing Hijazi urban traditions with the customs and dialects of migrants.

Beyond altering the physical and economic structure of these cities, internal migration transformed their social fabric and cultural life. Riyadh's population, which once reflected a relatively homogenous Najdi character, became increasingly diverse, as migrants from across

the Kingdom introduced new cultural practices, kinship ties, and dialects. The demographic shifts blurred older regional boundaries and created new urban identities rooted in shared participation in the modern economy rather than strictly tribal or local affiliations. Nonetheless, traces of social stratification persisted, especially in matters of kinship and marriage, where tribal origin or regional background continued to influence social interaction and mobility. This dual dynamic, of diversification on one hand and enduring traditional boundaries on the other, shaped the complex identity of Riyadh as both a modern metropolis and a society still deeply rooted in custom.

In sociolinguistic terms, these migration flows provided the essential demographic foundation for dialect contact and potential koineisation in Saudi Arabia. As speakers of Najdi, Hijazi, southern, and eastern dialects came into daily interaction in schools, workplaces, and markets, new conditions for language contact were established. For younger generations raised in Riyadh or Jeddah, exposure to diverse speech varieties led to gradual accommodation, levelling of highly marked regional features, and the diffusion of supralocal variants associated with prestige or mutual intelligibility. Over the last 60 years, this internal migration has not only reshaped the demographic profile of Saudi cities but also acted as a powerful driver of linguistic change, underpinning the processes of dialect convergence and the emergence of supralocal forms in Saudi Arabic.

1.2 Balqarn: A brief overview

This section provides a background on the socio-linguistic situation of Balqarn, as the participants in this study originate from this region.

1.2.1 Location

Administratively, Balqarn is divided into two main sections: Balqarn al-Sarat, which is affiliated with the Emirate of theʿAsīr Region, and Balqarn Tihama, which falls under the

jurisdiction of the Emirate of Makkah al-Mukarramah. The region is bordered to the north by Shamran, Aliyan, Khatham, and Ghamid; to the south by Banuʿ Amr and Banu Šahr; to the east by BalḤāriṯ, Šahrān, and Banuʿ Amr; and to the west by Ġāmid, Banuʿ Īsā, and Ḥarb (Al-Qarni, 1995).

Geographically and topographically, Balqarn region is divided into three natural sections: Sarat Balqarn, Tihama Balqarn, and Al-Aṣdār as shown in Map 1.3.

- Sarat Balqarn (sometimes called Hijaz Balqarn) lies within the Sarawat mountain range. It is situated to the north of Sarat al-Hijr and to the south of Sarat Ghamid and Zahran, both located in the northern part of the Asir region.
- Tihama Balqarn is located west of Sarat Balqarn and Al-Asdar, extending across a wide area that includes Aṣdār, Wadi Qanūna, Yabbah , and several branches of Wadi Aḥṣaba al-Awwal.
- Al-Aṣdār (chest or upper part), refers to the narrow highland areas between Sarat Balqarn and Tihama Balqarn, positioned on the mountain slopes descending toward the Tihama plain in the west (Al-Qarni, 1995).

The term Sarat itself designates the mountainous lands stretching between Taif and Najran. These ranges are subdivided into several *sarawat*, each named after the tribes inhabiting them, including Sarat Balqarn (Al-Shujaʿa, 1996).

Map 1.3 A map of the location of Balqarn (Source, Map of Balqarn in Google Maps, accessed on the 1st of August 2025)

These natural divisions of Balqarn region form an integrated geographical unit. Collectively, the term Balqarn refers to all three sections, which together constitute a wide expanse of land belonging to the Arabian–Nubian Shield. This geological formation is dominated by plutonic rocks, with additional layers of volcanic and sedimentary cover (Al-Sharif, 1984, Vol. 2).

The terrain of Tihama Balqarn is marked by striking mountain ranges and diverse wildlife. Among its most prominent features is Jabal Hazoozi in Al- Aṣdār, which rises to approximately 1,850 meters. The area has historically been home to predatory animals such as tigers, leopards, and lions. Another significant landmark is Ğabal Ṭanb, located between the Naxal villages, alongside the Ţamīda mountain range, which extends from Wadi Abyan in the north to Ğabal Ţarbān in the south. In addition, Tihama Balqarn is characterized by fertile

soils and a steady supply of water, especially from Wadi Yabbah and its tributaries, making it suitable for agriculture.

In Balqarn al-Sarat, the landscape includes numerous dams, basalt rock formations, quartz veins, and sandstone outcrops. Traditional earth dams, such as the Al-Šuraih Dam, exist alongside modern cement structures like the Wadi Ṯamma Dam. These installations help to regulate water flow and raise the levels of groundwater in wells (Al-Sharif, 1984, Vol. 2).

1.2.2 Residents of Balqarn

The inhabitants of Balqarn trace their ancestry to the Azdi Qaḥṭānī tribes who migrated from Yemen in successive waves. These groups followed the mountainous routes and eventually settled in the Sarawat Mountains and Tihāma, particularly in areas suited for agriculture and grazing. They left their imprint on the landscape by naming mountains, valleys, villages, towns, and water sources after their tribal groups, thereby establishing a stable society rooted in tribal structures. The Qarni were not the only Azdi Qaḥṭānī migrants to the Sarawat; other Yemeni tribes also settled in the region. However, the enduring presence of Balqarn in both the Sarawat and Tihāma is considered evidence of their strength and ability to protect their territories (Al-Harbi, 1416 AH).

Traditionally, Balqarn population was concentrated in small, scattered agricultural villages located in valley basins, along watercourses, and on mountain tops. Their agricultural activity depended on irrigation and rainfall (Al-Hashemi, 1989). Village distribution generally reflected the tribe's internal divisions. For example, in the Sarat, villages include Al-Baḍḍāḍa, Al- Ḥašāya, Al- Xālidiyya, Al- Ḍarb al-Aṣfar, and the villages of Al-Ḥarğa. The latter consists of eight villages for the Al-ʿAmriyyīn of Daḥem, three villages for Ḥāmīd al- Ḥarğa of Banī Rizq, three villages for Al- Manāxra of Al-Mašīb, and Al-Mašāyʿa (the focus of this study), which includes Al-Sand, Al-Quḍaf, and Al-Mašāyʿa. Other settlements include the

villages of Al-ʿbaid. In the Tihama, villages include those of Bani Rizq, Ṯiribān Center, Ḥadbat al-Maqāḍī, Al-Nabiʿa, Al-Silaymān, Al-Ǧawf, Wadi Yabbah , and ʿAmārah (Al-Qarni, 2014).

Balqarn society has historically been organized on a tribal basis, with strong kinship ties uniting its members. Leadership rests with tribal sheikhs, traditionally described as wise and experienced elders whose authority was absolute and hereditary (Ibn al-Mujawwar, 1954; Al-Nuʿaym, 2015). King Abd al-Aziz Al Saud recognized the authority and influence of tribal sheikhs and incorporated them into the state structure, tasking them with maintaining security and acting as intermediaries between the ruler and their tribes (Al-Zamel, 1991).

At the local level, the tribe is divided into clans, each headed by a sheikh. Clans are subdivided into sub-clans and extended families, which typically inhabit one or more villages. Each village is administered by a deputy (wakīl), assisted by a council of elders drawn from the leading families. Depending on the number of representatives, these councils are referred to as “the five,” “the six,” “the seven,” or “the eight” (Al-Zalfa, 1991). Within this social framework, the tribe functions as the largest social unit, while the family remains the smallest but most intimate unit of social organization. Social life in Balqarn is characterized by strong loyalty to both family and tribe, and by deep respect for inherited customs and traditions (Wahba, 1961).

1.2.3 Economic activity of the Balqarn tribe

The economy of Balqarn has historically been marked by diversity, owing to its location across both the Sarawat Mountains and Tihāma, two adjacent yet distinct regions. This geographical variety endowed the area with multiple ecological zones and allowed the population to develop a range of economic practices. Among these, agriculture was the most significant and enduring source of livelihood.

Agricultural activity in Balqarn depended on several key factors: the diversity of the land’s topography, seasonal rainfall, access to agricultural property, and the environmental conditions of the region. Cultivation was concentrated in plain areas, along valley banks, and

on terraced mountainsides suitable for farming. These areas benefited from annual rainfall and wells, particularly across the wider southwestern region of the Arabian Peninsula, which encompasses both the Sarawat and Tihama of Asir. Together, these complementary regions supported a shared economic, demographic, and social system of which Balqarn formed a part (Al-Sharif, 2001, Part 1).

The southwestern plain of Saudi Arabia provided the necessary agricultural resources, including fertile soil, abundant valley water, and dams that facilitated irrigation. In Tihama Balqarn, these resources enabled the cultivation of plains, while also benefiting the people of Sarat Balqarn. The main crops grown included grains, fruits, vegetables, and sesame, alongside trees such as sidir (ziziphus), tamarisk, and arak. Agricultural holdings were typically small- to medium-sized properties, locally referred to as al-bilād (the country). Each bilād was further divided into smaller units called wadn, rakīb, and ḥaqnah. The valley edges were known collectively as awsida (sing. wasad) (Al-Qarni, 2014).

Agriculture in Balqarn relied primarily on rainfall, though well water was also used during dry seasons. Because it was the foundation of the local economy, farming occupied a central place in social and cultural life, and considerable effort was invested in maintaining agricultural practices. In Sarat Balqarn, most farms were arranged as mountain terraces, where residents cultivated a wide range of crops, including grains, vegetables, and fruit trees such as almonds, pomegranates, peaches, grapes, and prickly pears. Surplus production was often exported to markets beyond the region during harvest seasons (Al-Sharif, 2001, Vol. 2).

Pasture and livestock

In addition to agriculture, animal husbandry represented a central pillar of the Balqarn economy. The abundance of grazing lands made the region particularly suitable for pastoralism, and livestock rearing traditionally ranked as the second most important economic activity after farming. Among the Qarni, especially the Bedouin groups, livelihoods were heavily dependent

on herding and the rearing of goats, sheep, cattle, and camels. The Sarawat Mountains were regarded as the premier grazing area in Saudi Arabia, characterized by their dense vegetation and wide expanses of pasture grasses, which facilitated both subsistence and trade in livestock. In line with broader ʿAsīr patterns, Balqarn played a notable role in the Kingdom's livestock economy; indeed, statistics from 1994 confirm that ʿAsīr occupied the first rank nationally in livestock rearing (Al-Sharif, 2001, Vol. 1).

However, over recent decades, pastoral activity has experienced a marked decline. Natural pasture has been degraded by recurrent drought, insufficient rainfall, soil erosion, rising salinity, tree and shrub cutting for fuel, and overgrazing. These environmental pressures, combined with broader social and economic transformations, have led many Bedouin to abandon herding in favour of alternative occupations. The reduction in vegetation cover has diminished both the availability of grazing and the sustainability of pastoral livelihoods, reflecting a shift in the role of herding within the Balqarn society (Al-Qarni, 2014).

Industry

Traditional industry and crafts in Balqarn were largely localist and utilitarian, designed to meet the daily needs of the population. Wool-based industries flourished due to the abundance of sheep, with villagers producing woolen cloaks, rugs, and carpets. Other crafts included the manufacture of *ʿakk* (pots for storing ghee), wooden buckets for well-water extraction, and palm-frond items such as brooms and mats. Tool-making was also central, with blacksmiths producing hoes, ploughs, axes, and sickles essential for agriculture (Al-Sharif, 2001, Vol. 2).

Craft specialization formed a small but important occupational group within the Balqarn community, comprising wool workers, dagger makers, blacksmiths, and weavers. These crafts often expanded alongside population growth and urbanization (Hamza, 1951). Artisans also engaged in sewing, weaving, dyeing, and even medical practices such as cauterization, bone-setting, and cupping. However, the rise of mechanized production and modern medicine has

led to the decline of many of these professions. Today, only traces of these folk industries remain, preserved more as cultural heritage than as an economic necessity (Al-Qarni, 2014).

Trade

Geographically, Balqarn held strategic commercial importance, lying at the heart of the Sarawat tribal belt and extending toward Bisha, a major hub. Its location on key trade and pilgrimage routes, as well as its proximity to Red Sea ports, ensured an active commercial life. Historically, governments prior to the Saudi state left trade largely in the hands of tribal sheikhs, who oversaw security, dispute resolution, and zakat collection. This autonomy helped sustain a thriving exchange system (Al-Hasil, 1997).

Balqarn's traders engaged in both import and export, distributing agricultural and animal products while also acquiring goods from neighbouring regions. Many travelled to Bīša and Qunfuḏa to obtain dates and other essentials, often through barter (Al-Qarni, 1995). Local markets served as vital commercial nodes: in Sarat Balqarn, these included Sabt al-ʿAlāya, al-Baḍḍāḍa, Sabt Ḥijāb, Ithnayn al-Salma, and Ithnayn ʿAfrā; while in Tihama Balqarn, markets such as Ḥubāša, Rubuʿ Nixal, Xamīs al- Ǧawf, and Banī Sihaim played major roles (Al-Qarni, 2014).

Traditional systems of weights and measures were employed until the modern era. Units included the midd for grains, the farq (three ṣāʿ or twelve midd), and linear measures such as the arm, cubit, and hindāsah (70 cm iron rod) (Lorimer, 1975; Ibn Jaris, 1994). Likewise, older currencies circulated before the Saudi period, including the French silver coin Abu Ṭīra, the nickel Abu Ḥutah, and the English gold pound, with exchange rates regulated under Ottoman authority (Al-Hamed, 2005). Today, Saudi national currency has fully replaced these earlier forms.

1.2.4 Education in Balqarn

Education in Balqarn has historically developed in two distinct phases: an early traditional system cantered around mosques and kuttabs, and a later phase of organized, formal schooling introduced under the Saudi state.

Traditional education

In the traditional system, education was conducted in mosques, kuttabs, or occasionally in the homes of teachers. Instruction focused primarily on memorizing the Holy Qurʾān, learning the Arabic alphabet, and acquiring basic arithmetic. These schools were commonly referred to as al-Miʿlamah, while teachers were known as al-ǧadd or al-faqīh. Teachers held high social status, receiving financial support directly from the parents of pupils.

Study was divided into two daily sessions: one beginning in the early morning and ending before the noon prayer, and another beginning after the afternoon prayer and continuing until sunset. Friday was regarded as a weekly holiday (Al-Qarni, 2014).

Some students advanced beyond local kuttabs by traveling to centres of religious learning in the Hijaz or Yemen, where they studied under scholars and jurists. Upon completion, they often received written iğāzah (certification), qualifying them to teach, preach, serve in the judiciary, or pursue higher studies in Arabic and Islamic sciences.

Organized government education

Formal government schooling for boys was introduced in Balqarn in 1947 with the establishment of the first elementary school in Ṯuraybān (Tihama Balqarn), followed by another in Sabt al-ʿAlāya in 1950. The latter initially enrolled 30 students and was housed in the old market. Intermediate schooling began in 1968 with a single class of ten students, which later expanded to accommodate larger cohorts.

By 1981, a teacher training institute was established to prepare educators for the primary level. Boys' schools quickly spread throughout both Sarat and Tihama Balqarn, including

primary, intermediate, and secondary institutions, along with Qurʾān memorization schools, literacy centres, and night schools for adult education. Supervision of these institutions was provided by educational supervision centres in Balqarn Sarat, Nimrah and Ṯuraybān for Tihama (Al-Qarni, 2014).

Girls' education was introduced later. The first girls' primary school was founded in Sabt al-ʿAlāya in 1968, followed by another in Ṯuraybān in 1972. Gradually, girls' primary schools expanded across the villages of Balqarn, leading to the establishment of intermediate and secondary schools, teacher training institutes for women, and eventually a college for girls, along with a branch of King Khalid University. Literacy schools were also established for women, offering instruction in basic reading, writing, arithmetic, religious studies, and history (Al-Zahrani, 2006).

1.2.5 Migration of the Qarni to Riyadh

With the decline of agriculture and herding as primary sources of livelihood, many members of the Balqarn community shifted toward employment in government institutions, the armed forces, and the private sector in the capital city of Riyadh as well as other regions of Saudi Arabia. This occupational transition was facilitated by rising educational attainment, which enabled men from Balqarn to occupy various governmental and non-governmental roles, including positions in ministries, public administrations, private companies, and freelance work. Some attained high-ranking governmental posts, benefiting from advanced qualifications that secured them stable incomes and prestigious social standing (Al-Shahrani, 1999).

The increasing participation of Balqarn men in the military, civil service, and private sector was complemented by the involvement of Balqarn women in educational and social fields. Collectively, these shifts signified the active integration of the Balqarn community into the wider developmental trajectory of Saudi Arabia. This integration not only contributed to the cultural and institutional growth of the Kingdom but also elevated the standard of living for

Balqarn families. Many migrants established permanent homes in their new workplaces, while others invested in reconstructing and modernizing houses in their native Balqarn, reflecting improvements in both urban and rural living conditions (Al-Qarni, 2014).

It is well established that there are multiple reasons which drive individuals in Balqarn and elsewhere to migrate to other regions within their own country in search of better opportunities to fulfil their professional and future aspirations. This process is often explained by sociologists through the concepts of push and pull factors, whereby rural residents are compelled to migrate due to limited economic opportunities while simultaneously being drawn to the promise of better living standards in urban centres. As highlighted in the case of Balqarn, migration is especially clear in rural societies, where movement towards cities becomes a natural choice. Many perceive urban life as superior, offering greater prestige, stability, and material benefits compared to the more traditional and limited lifestyle of rural areas. For many Balqarn families, Riyadh represented such a site of opportunity, providing modern services, advanced educational and industrial institutions, as well as broader social and cultural amenities (Costello, 1980: 78, as cited in Al-Qarni, 2014: 251).

1.2.6 Broader context of migration in Saudi Arabia

The migration of Balqarn families to Riyadh reflects a wider national trend of rural-to-urban movement in Saudi Arabia, particularly after the discovery of oil in the mid-20th century. The rapid expansion of cities such as Riyadh and Jeddah created strong economic and social incentives for internal migration. Families from across the Kingdom left rural and tribal regions in search of secure employment, improved infrastructure, healthcare, and educational opportunities that were concentrated in major cities. This mass migration has been a defining feature of Saudi social transformation, reshaping the demographic, cultural, and linguistic landscapes of the nation.

The experience of the Balqarn tribe is therefore not unique but illustrative of broader patterns of internal migration in Saudi Arabia. Their relocation to Riyadh was driven by the same combination of economic necessity, educational aspirations, and the attraction of urban life that influenced countless other rural families. This process of migration not only transformed individual livelihoods but also contributed to the wider modernization and urbanization of the Kingdom.

1.3 The Linguistic context

1.3.1 The Nadji variety

Najdi Arabic is classified as a member of the North Arabian dialect group spoken across the Arabian Peninsula (Johnstone, 1967). It is geographically associated with the Najd region, a broad stony plateau located in the central part of Saudi Arabia. This region is bordered by the Hijaz Mountains to the southwest, Jordan and Iraq to the north, the eastern Saudi coast known as Al-Ḥasā, and the Rubʿ al-Xali (Empty Quarter) to the south. In modern Saudi Arabia, Najd corresponds to the Central Region, where the capital city, Riyadh, is located (AlAmmar, 2017; Al-Sweel, 1987).

Although Central Najd and Jabal Šammar (Ḥaʾil) form the geographic heart of this dialect area, the influence of Najdi Arabic extends significantly beyond these regions. It is spoken by large numbers of culturally homogeneous communities dispersed within and beyond the borders of geographical Najd. Ingham (1994: 4) provides a comprehensive list of speech communities whose dialects are considered part of the Najdi dialect continuum. These include:

1. The sedentary populations of Central Najd: particularly in districts such as Al-ʻĀriḍ, Al-Washm, and Sudair, as well as areas like Al-Qasīm, Jabal Šammar to the north, and Bīsha and Najrān to the south.

2. Major Bedouin tribes in these regions, including ʿAnizah, ʿUtaibah, Subaiʿ, Suhūl, Bugūm, Dawāsir, Ḥarb, Muṭair, ʿAwāzim, and Rašāyidah in the center; Šammar and Ḍhafīr in the north; and Gaḥṭān, Āl-Murrah, and ʿAjmān in the south and east.
3. Emigrant Bedouin tribes originally from Najdi ancestry but now residing in the Syrian Desert and the Jazīrah region of Iraq, especially those of ʿAnizah and Šammar descent.

These dialects, although regionally spread and tribe-associated, are mutually intelligible. Ingham (1994) emphasizes that the dialects of the Central, Northern, and Mixed Northern Central groups are more similar to each other than to those of the Southern group, which exhibit certain lexical and syntactic influences linking them to southern varieties, especially Yemeni Arabic.

Based on shared linguistic traits and geographical distribution, Ingham (1994: 5) classifies Najdi dialects into four sub-groups:

1. **Central Najdi**: spoken by both sedentary and Bedouin communities in Central Najd, including the ʿAnizah of the Syrian Desert.
2. **Northern Najdi**: spoken by the Jabal Šammar population and Šammar tribes residing in the northern Najd region and the Jazīrah area.
3. **Mixed Northern Central**: spoken in Al-Qasīm and by the Ḍhafīr tribe.
4. **Southern Najdi**: spoken in the southern areas of Najrān and by tribes such as Gaḥṭān, Āl-Murrah, and ʿAjmān in the south and east.

These sub-groups exhibit distinct morphological and phonological characteristics, particularly in the use of suffix pronouns, which serve as diagnostic features. For example, Northern Najdi (Ḥaʾil) uses *-uh* for 3rd person masculine singular, *-ah* for 3rd person feminine singular, and *-ham* for 3rd person masculine plural, whereas Central Najdi (Sudair) utilizes variants such as *-ih*/*-ah, -ha*, and *-hum*/*-um* for the same grammatical persons (Prochazka, 1988; Ingham, 1994; see table 2.1 in AlAmmar, 2017).

Najdi Arabic is considered to be one of the most conservative Arabic dialects, preserving numerous features that have disappeared in other regional varieties. Ingham's (1994) extensive description of the Central Najdi dialect outlines several defining phonological, morphological, and syntactic characteristics.

Phonological features:

- **Preservation of Classical Arabic interdentals**: /θ/, /ð/, and /ðˤ/ are retained, in contrast to urban varieties where these sounds are often replaced (Ingham, 1994).
- **Affrication of /k/ and /g/ to /ts/ and /dz/ respectively**: the velar consonants undergo a systematic conditioned affrication process that is typical of Bedouin-origin dialects (Ingham, 1994).
- **Gahawa Syndrome**: a re-syllabification process associated with guttural consonants. In this process, a short /a/ is inserted after a guttural consonant, which also affects the placement of stress. For example, the verb *ḥafar* 'to dig' is realised as *yḥafir* 'he digs', whereas verbs lacking a guttural consonant, such as *katab* 'to write', do not undergo this process and therefore show no vowel insertion (*yaktib*, not **ykatib* 'he writes') (AlEssa 2008; Ingham 1994; Versteegh 1997).

Morpho-syntactic Features:

- **Retention of gender distinctions** in 2nd and 3rd person plural forms, both in pronouns and verb conjugations.
- **Preservation of the Classical Arabic suffixes**: retention of the /n/ sound in the verbal plural suffix [-un], second person feminine suffix [-in], and the ongoing use of the tanween 'nunation' [-in] in nouns.

Syntactic features:

- **Internal passive construction** is used instead of the prefix-based passive formation (e.g., *t-* or *in-* prefixes), which are prevalent in many urban dialects.

- **Absence of analytic aspect markers** such as *bi-* and *ga'id* that indicate the present continuous.
- **Maintenance of the aspectual system** derived from Old Arabic, which marks tense and aspect more distinctly compared to simplified systems in other sedentary dialects.

These features collectively mark Najdi Arabic as morphologically conservative and phonologically distinct. The dialect serves not only as a marker of regional and tribal identity but also as a linguistic system of interest for examining contact-induced change and dialect levelling in Saudi Arabia. The dialect's central role in Riyadh, the political and economic capital, has raised scholarly interest in its potential influence on an emerging Saudi koineised variety.

It is important to note that traditional Najdi Arabic, the regional dialect associated with central Saudi Arabia, should be distinguished from what may be described as a *supralocal* variety. In sociolinguistic terms, supralocal forms refer to linguistic variants that are not strongly tied to a particular regional dialect but are instead used among speakers from different dialectical backgrounds. Such forms often emerge in large urban centres where sustained migration and social interaction bring speakers of different dialects into regular contact. In these contexts, speakers may orient toward variants that are less regionally marked and more widely used.

In this thesis, therefore, the term *supralocal* is used cautiously to refer to forms that are not clearly associated with a specific regional dialect, without implying the existence of a fully stabilised new dialect variety. For example, the affricated realisation *-ʦ* (for *-k*) in the second person singular feminine suffix is typically associated with Najdi varieties, whereas *-ʧ* is characteristic of the southwestern Qarni dialect. By contrast, the non-affricated form *-k* is not strongly associated with either dialect and may therefore function as a less regionally marked variant. Similarly, the definite article *m-* found in southern varieties, including those of Balqarn

and neighbouring regions, contrasts with the more widely distributed article *l-*, which occurs across many Arabic dialects and may therefore operate as a supralocal form in urban contact settings. It is worth noting that there is no evidence that the Najdi *-ʦ* is being adopted by non-Najdi speakers in Riyadh, which suggests that even Najdi features may be subject to levelling in this context. Based on the present study, alongside ongoing research on Riyadh by my colleagues at the University of Essex (Amani Alshehri, Rawan Alshatwi and Essa Alnashib), these patterns appear to indicate that any emerging variety in Riyadh may be Najdi in type, but not necessarily in all its features.

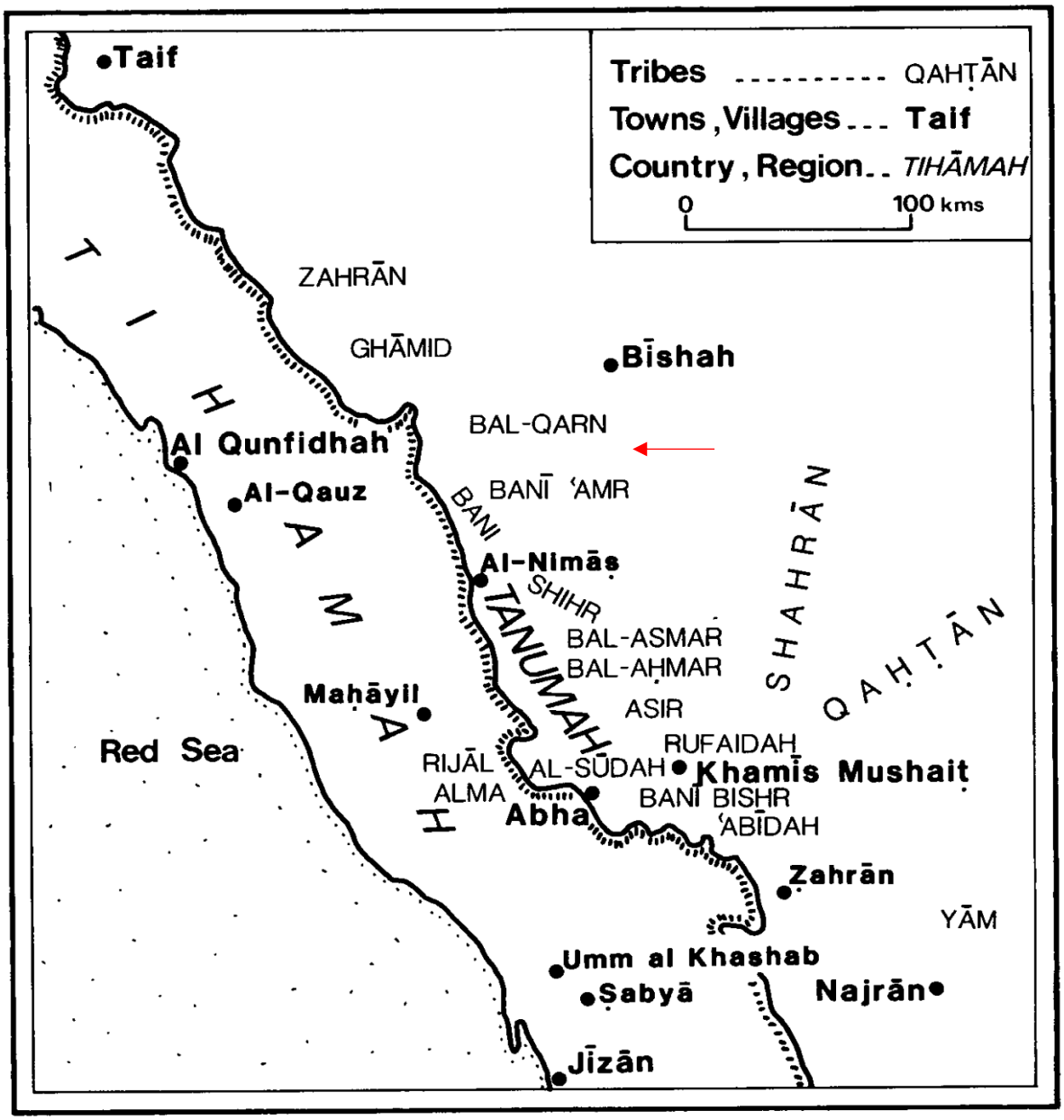
A further illustration can be seen in the variation between [j] and [ʤ] as variants of /ʤ/. In Saudi Arabia, the realisation [j] is typically associated with more localised dialects, such as the Dawāsir in Dammam (Alaodini, 2019, pp. 132–135), Shehri in the Southwest (Alshehri, 1993), and the Qarni dialect in Balqarn. Importantly, [j] is not used in any major urban dialect in the country. By contrast, [ʤ] (and in some dialects [ʒ]) is widely associated with major urban centres and can therefore function as a supralocal variant within the Saudi context (see Hussain, 2017). However, the social meaning of a variant is not fixed across regions. In Gulf Arabic, for example, [j] is commonly associated with major urban dialects and thus functions as a supralocal form (see Taqi, 2010; Holes, 1980). In Saudi Arabia, by contrast, the same variant tends to be associated with smaller groups and can therefore be considered localised (see Section 6.3, p. 193).

Localised features also tend to become recessive in contact settings where speakers orient toward less regionally marked variants. Evidence for this pattern is provided by Alaodini (2019), who examined variation in the realisation of [ʤ] in the speech of the Dawāsir in eastern Saudi Arabia. Her study shows that [ʤ] has become dominant, while localised [j] is almost entirely absent, being preserved only in a handful of lexical items. Ongoing research being conducted on Riyadh, in addition to the present study, which investigates koineisation in the

city, has yet to provide a full description of a distinct Riyadh dialect. Nevertheless, initial results from these studies seem to suggest that localised features, whether of Najdi origin or other regional origins, are levelled out in urban contact settings. One way of interpreting the results of the present research is to consider them as part of a general process of koineisation affecting a number of dialects in Saudi Arabia. These findings suggest an ongoing shift toward variants associated with wider urban norms, illustrating how dialect contact and urbanisation can reshape the social distribution of phonological features.

1.3.2 The Qarni variety

The dialect spoken in Balqarn in southwestern Saudi Arabia forms part of the broader group of highland varieties within the Southern Ḥijaz region. Although understudied, the only comprehensive linguistic analysis available is found in Prochazka's *Saudi Arabian Dialects* (1988), where the Qarni dialect is discussed alongside nearby dialects such as those of Abha, Tanumah, and Rufaidah. Prochazka classifies Balqarn within what he terms group (i): the dialects of the Southern Ḥijāz and Tihamah. The Balqarn material is drawn mainly from Sabt al-ʿAlāyah (administrative centre of the region). These dialects exhibit significant phonological and morphological divergence from the more morphologically uniform Najdi and Eastern dialects. Crucially, Balqarn maintains many conservative and localized features, offering a glimpse into the linguistic heritage of southwestern Arabian speech communities. Below is a map of the Southern Ḥijāz and Tihamah from Prochazka, 1988.



Map 1.4 Map of southern Ḥijāz and Tihāmah regions, reproduced from Prochazka (1988: 6).

For the purposes of this research and given the scarcity of literature on the Qarni dialect, with Prochazka (1988) providing the only systematic account, the following section will outline the salient features of the dialect as described in his work.

It is worth noting that the phonemic transcriptions used in the following section adhere to the conventions adopted by Prochazka (1988). In this system, *y* represents the palatal glide /j/, j denotes the voiced postalveolar affricate /dʒ/, and *č* corresponds to the voiceless

postalveolar affricate /tʃ/. These transcription choices reflect the original notation style employed in his analysis of the Qarni dialect.

Phonology

A. Consonants: salient reflexes for Balqarn:

- Affrication of /k/ and /g/: The phonemes /k/ and /g/ are frequently affricated to /č/ and /j/ respectively in environments with front vowels (Prochazka, 1988: 15-17). For instance:
    - čawa ‘he branded’
    - č*itif* ‘shoulder’
    - čilwah ‘kidney’
    - čalb ‘dog’
    - dajĩjah ‘a minute’
    - liji ‘he found’
- Palatalization and Reflexes:
    - The Classical /j/ (/ʤ/) is frequently realized as /y/ ([j]). For example:
        - yamal ‘camel’
        - yirmah ‘field’
        - rayyãl ‘man’
        - ya ‘to come’
        - maylis ‘sitting room’

The treatment of /j/ as /y/ across verbal and nominal forms marks a significant shift, indicating unconditioned phonetic change.

Consonant inventory

Prochazka’s Balqarn data use the following consonant set: plosives /b, t, d, k, g, ʔ, ṭ/, fricatives /f, θ, ð, s, z, š, x, ġ, ḥ, ʕ, h, ṣ, ðˤ /, liquids /l, r/, nasals /m, n/, glides /w, y/, and the affricates /č/ and /j/ ([dʒ]).

B. Diphthongs and vowel treatment (Prochazka, 1988: 17-19)

- Balqarn retains diphthongs *ay* and *aw* in final positions:
    - e.g., *ʔinsay* and *ʔinsaw* “forget!” for SF and Pl. respectively.
- In non-final positions, *aw* and *ay* are often reflected as long vowels õ and ẽ, consistent with other highland dialects
    - e.g., *tinsẽn* “you (SF) forget”
- The short vowel system consists of /i, a, u/, with corresponding long vowels /ī, ā, ū/.
- Raising (*imalah)* in final position*:* the reflex of the Classical Arabic feminine ending *-ah (ta' marbutah)* is *-eh;* for example*: jīmeh* "value".

Verbs

1. Voice: In the Qarni dialect, passive conjugations occur alongside active conjugations.
2. Gender distinction: the Qarni dialect has common plural forms (i.e. no marking of gender in these forms).
3. The structure of the verb: the morphology of the verb corresponds in principle to that of Arabic dialects in general; however, the Qarni dialect is distinctive in the conjugation of the verb in the 3SF perfect form, as illustrated in table 1.1.

The perfect inflectional endings:

person/number/gender	ending	example katab ‘wrote’
3SM	zero	katab
3SF	-an	kataban
3M/C.Pl.	-aw	katabtaw
2SM	-t	katabt
2SF	-ti	katabti
2M/C.Pl.	-tu	katabtu
1C.S	-t	katabt
1C.Pl	-na	katabna

Table 1.1 Perfect inflectional endings in Alqarni Arabic (adapted from Prochazka, 1988: 24)

The pronouns (Prochazka, 1988: 125)

Independent pronouns and suffix pronouns observe the same gender distinctions as verbal inflexional affixes.

A. Independent pronouns:

person/number/gender	Pronoun	Gloss
3SM	hū, huwwa[2]	‘he’
3SF	hiy, hiyya[3]	‘she’
3M/C.Pl.	him	‘they’
2SM	ʔinta / ʔint	‘you’
2SF	ʔinti	‘you’
2M/C.Pl.	ʔintu	‘you’
1C.S	ʔana	‘I’
1C.Pl.	ʔinḥin	‘we’

Table 1.2. Independent pronouns in Classical Arabic (adapted from Prochazka, 1988: 125).

In Balqarn, independent pronouns may combine with interrogative particles to form a single lexical unit: *šinhu* (šin + hu) ‘who is he?’, *šinhi* (šin + hi) ‘who is she?’, *miðāhu* (miðā + hu.M) ‘lit.what is he?’, *miðāhi* (miðā + hi.F) ‘lit.what is she?’.

B. Suffix pronouns:

person/number/gender	Suffix	Gloss
3SM	*-ah / -ih/ -uh/ ūh/-hu/-h*	‘he’
3SF	*-ha*	‘she’
3M/C.Pl.	*-him*	‘they’
2SM	*-ak / -k*	‘you’
2SF	*-č / -ič*	‘you’
2M/C.Pl.	*-kum*	‘you’
1C.S	*-i / -ni*	‘I’
1C.Pl.	*-na*	‘we’

Table 1.3. Suffix pronouns in Classical Arabic (adapted from Prochazka, 1988: 125).

[2] Prochazka (1988: 125) records the 3SM pronoun as *huw* and *huwa*. However, these forms are realized as hū and huwwa.
[3] Prochazka (1988: 125) also records the 3SF as *hiya*. However, this form is realized as *hiyya in the dialect under investigation.*

C. The negative particle *ma*: + pronoun

The negative *ma* may be followed by personal pronouns, with which it forms a single lexical unit.

person/number/gender	Negation	Gloss
3SM	māhu	‘he is not’
3SF	māhi	‘she is not’
2SM	mant	‘you are not’
2SF	manti	‘you are not’
2M/C.Pl.	mantu	‘you are not’
1C.S	māni	‘I am not’
1C.Pl.	manḥin	‘we are not’

Table 1.4. The negative particle ma followed by personal pronouns (adapted from Prochazka, 1988, p. 125).

It is also important to consider the extent to which migrants from Balqarn continue to maintain active control of the Qarni dialect after relocating to Riyadh. In many cases, speakers may retain competence in their heritage dialect while simultaneously accommodating to the speech patterns of the wider urban community. Such situations are commonly described in sociolinguistic research as bidialectalism, where speakers command more than one dialect and alternate between them depending on social context. In the present study, this possibility does not pattern uniformly across variables. Variation across generations is observed in the case of affrication; however, the other variables show a high degree of convergence, with speakers across all generational groups largely levelling towards supralocal forms. While younger speakers, particularly those born and raised in Riyadh, show limited use of Qarni features in the data, it remains difficult to determine whether this reflects a loss of underlying competence or a shift in patterns of use. In other words, it is unclear whether these speakers no longer control the Qarni dialect or whether they continue to command it but do not employ it in the interview context. By contrast, speakers who migrated in adulthood generally retain greater control of the traditional Qarni dialect, even if it is not consistently used. This expectation is supported by the presence of one adult migrant in the dataset whose speech consistently retains Qarni features

across multiple variables. As discussed in Chapter 7 (p. 235), this speaker represents the most conservative Qarni profile in the dataset, maintaining forms that have otherwise become marginal among other participants. His linguistic behaviour suggests that continued exposure to Qarni input, together with limited engagement with non-Qarni speakers, may support the retention of traditional features even in an urban contact setting. Taken together, these findings suggest that generational differences may reflect variation in patterns of use rather than clear evidence of grammatical restructuring. As such, it remains difficult to determine whether younger speakers should be analysed as bidialectal or as having shifted toward a different grammatical system.

However, despite the levelling observed in the variables examined in this study, the speech of most participants continues to display features that are associated with southern varieties. While these speakers may not consistently retain all traditional Qarni features, their speech cannot be fully characterised as non-Qarni. Rather, it reflects a broader southern linguistic profile, supported by the presence of additional phonological features beyond those analysed here. For example, variation in vowel realisation (e.g., /u/ versus /i/) and the distinction between light and dark /l/ (see p. 258) continue to contribute to the overall southern character of their speech. In this sense, even where levelling has occurred in the targeted variables, speakers retain sufficient linguistic features to be identified, at minimum, as southern speakers, and in some cases as Qarni speakers.

From the perspective of the researcher as a native Qarni speaker, and based on informed observation supported by anecdotal evidence, these speakers can still be recognised as belonging to a southern linguistic background, even when key variables have undergone levelling. While not all speakers can be consistently identified as specifically Qarni, their speech nevertheless carries enough features to distinguish them from non-southern varieties.

1.4 Summary

This overview has highlighted the historical, social, and linguistic settings that form the foundation of the present study. Riyadh's development into a political, economic, and cultural hub, together with the large-scale migration of communities such as the Qarni, has created conditions for sustained dialect contact and social integration. Within this context, the Qarni dialect stands out for its preservation of conservative features alongside notable innovations in areas such as affrication, pronoun structure, and vowel treatment. The dialect's position at the crossroads of the Ḥijāz, ʿAsīr, and Najrān regions further contributes to its layered linguistic profile. These characteristics, combined with the effects of internal migration and modernization, render the Qarni dialect an especially valuable case for examining contact-induced variation and dialectal resilience. The following chapter builds on this foundation by situating the study within the broader linguistic landscape of Saudi Arabia.

Chapter 2

Saudi Dialects and Koineisation in Saudi Arabia

Introduction

This chapter explores the sociolinguistic landscape of Saudi Arabia and examines the theoretical foundations of koineisation in relation to Arabic dialects. The aim is to provide a structured review of existing literature relevant to the linguistic variation in Saudi Arabia and the broader Arab world, offering theoretical grounding for the investigation of dialect contact among Alqarni speakers in Riyadh. This chapter begins with an overview of the sociolinguistics of the Arab world. It then examines the linguistic landscape of Saudi Arabia, before turning to the theoretical framework of koineisation, its definitions, processes, and stages. The discussion then moves to case studies of koineisation in Arabic-speaking contexts, with particular attention to Saudi Arabia.

2.1 The sociolinguistics of the Arab world

Spoken Arabic has long exhibited considerable diversity, and evidence of this variation and change can be traced through different sources. Medieval grammarians such as Sibawayh provided early descriptions of phonetic variation, while later European travellers, including Niebuhr in the eighteenth century, documented regional forms such as the reflex [g] of /ʤ/ in Egypt. Another source for insights into earlier spoken varieties of Arabic comes from ancient inscriptions such as the Nabatean and Safaitic inscriptions. Citing Al-Jallad (2015), Al-Wer et al. (2022: 132) state that "in inscriptions written in the Safaitic script, comparison with parallel inscriptions in Aramaic and Greek offers clues as to the pronunciation of Arabic sounds at the time of writing. Thus, the phoneme /ʤ/ is typically written with the Greek letter <γ>, leading once again to the conclusion that a velar pronunciation (i.e. [g] or the like) was prevalent at the time these inscriptions were written". Together, these accounts highlight the long-standing diversity of spoken Arabic across time and space. Early Arabic philologists are the main source

on the spoken situation: they described tribal varieties as luɣāt and recognized broad geographic groupings, Hijaz (associated with Quraysh in Mecca) and Tamīm (eastern, especially Najd). Differences were generally modest and chiefly phonological. As Versteegh (1997: 39) notes, this split mirrors the contrast between pre-Islamic sedentary urban Arabs and Bedouin desert tribes.

Linguistic diversity is also indicated in Islamic tradition: in the Prophet Muḥammad's saying that the Qurʾān was revealed in seven *aḥruf*. Some scholars interpreted this as an allusion to dialects of tribes such as Quraysh, Hudhayl, Thaqīf, Kināna, Tamīm, and Yemen, while others argued "seven" here means "many." The multiple *aḥruf* facilitated reading and memorization across tribes; the variant readings attest to diversity at the time (Anis, 1952).

With the spread of Islam into new regions, the need to preserve the 'purity' of the Arabic language became increasingly pressing. Consequently, eighth-ninth century grammarians codified Arabic using Bedouin informants from inner Arabia, whose speech was treated as exemplary fuṣḥā 'correct Arabic'. Surveying early works, Rabin (1951:6-16, cited in AlEssa, 2008: 8) observes that dialect documentation was marginal (apart from one monograph): the focus lay on systematizing Classical Arabic. Dialect references tended to be limited to features acceptable within the classical norm (e.g., ʿanʿana of Tamīm). Lexicographers, for their part, compiled rare dialectal items. Rabin (1951:16 as cited in AlEssa, 2008: 8) notes that central Arabian dialects received little attention for two main reasons. First, "townsmen" had limited contact with the nomadic Bedouin of the region. Second, "just because these dialects had produced classical Arabic, their differences from it were not sufficiently striking to attract notice".

Later work offered fuller linguistic description. El-Gindi (1983, as cited in AlEssa, 2008: 8) details phonological and morphological traits of ancient Arabian dialects and links features noted by early philologists to contemporary usage. As Arabic expanded, contact with

other languages widened the gap between tribal speech and urban varieties. Holes (2004: 41) characterizes the mid-thirteenth-century situation as "fragmentation and complexity," with inner-Arabian speech remaining structurally close to older Arabic due to limited contact. By the fourteenth century, Ibn Xaldūn observed systematic differences between Bedouin and urban speech, exemplified by variation in the realization of /q/, a diagnostic that still differentiates dialects across the Arab world (AlEssa, 2008). Subsequent change continued but was milder in isolated central Arabia, which remained comparatively conservative and closer to classical norms (Versteegh, 1997).

From the nineteenth century, European scholars turned to modern colloquial Arabic. Traditional dialectology, what Chambers & Trudgill (1998) call dialect geography, mapped regional variation, typically by interviewing NORMs (non-mobile, older, rural males). Landmark projects like Gillieron & Edmond's *Atlas Linguistique de la France* plotted phonological/lexical differences across rural communities; analogous atlases appeared across Europe, and in the U.S. (e.g., the *Linguistic Atlas of the United States*). Notably, American atlas work broadened sampling beyond NORMs to include urban and socially diverse speakers (Bailey, 1996, as cited in Milroy & Gordon, 2003). These projects, historically oriented, nonetheless seeded later work on variation and change.

By the 1960s, variationist sociolinguistics emerged as a systematic subfield, shifting from rural "dialect geography" to language in its social context. Researchers maximized sample representativeness and applied quantitative methods, aided by recording technology and computer analysis (Milroy & Gordon, 2003). Labov's Martha's Vineyard study (1961) is widely taken as the first modern sociolinguistic study; he showed how social meanings are attached to the centralization of /ay/ and /aw/ (Meyerhoff, 2006). Later, Britain (1991) drew on earlier recordings to show reduced regional variability in the English Fens, illustrating how historical records can illuminate change in progress.

When applied to Arabic, sociolinguistic inquiry encounters particular challenges due to diglossia. Ferguson (1959) described Arabic as one of the clearest examples of this phenomenon: standard Arabic is acquired through education and used in formal domains, while everyday communication relies on regional or local dialects. This fact complicates the uncritical transfer of models from non-diglossic languages. For example, Labov (1966) tied style and prestige in New York English to distributions of post-vocalic /r/. Some Arabic sociolinguistic work followed that template by comparing 'standard' vs 'colloquial' speech styles; however, Ibrahim (1986) cautioned that treating H (Standard Arabic) as both "standard" and "prestigious" conflates categories and has distorted interpretations of Arabic data. Ibrahim (1986, as cited in Al-Wer et al., 2022: 52) corrected earlier misrepresentations of Arabic by distinguishing between classical Arabic, which functions as a formal superposed standard, and the naturally developed regional spoken standards. While classical Arabic operates as a pan-Arab cultural and linguistic norm, spoken dialects have emerged as local prestige varieties, typically those of large, diverse cities that have been levelled and incorporate supralocal features. The dialects of Cairo, Beirut, and Tunis, for example, serve as local standards in Egypt, Lebanon, and Tunisia, respectively. In larger countries, more than one local standard may exist; in Saudi Arabia, for instance, Jeddah's dialect has prestige in the western region, while Riyadh's dialect exerts influence in the central and eastern areas. These local standards are analogous to the status of Standard British English and Standard American English. Haeri (1987, 1994, as cited in Al-Wer et al., 2022: 52) and Al-Wer (1997, as cited in Al-Wer et al., 2022: 52) provided empirical support for Ibrahim's model, with Haeri also emphasizing the innovative role of women. Subsequent studies have further confirmed this approach, showing that gender-based variation in Arabic aligns with patterns found in other languages rather than representing anomalies.

2.2 The linguistic situation in Saudi Arabia

In Saudi Arabia, several regional varieties of Arabic are spoken, traditionally associated with four main geographical regions: the Najdi dialect in the central and northern areas, the eastern dialect of al-Ḥasā in the east, the southwestern varieties of ʿAsīr, and the Urban Hijazi dialect in the west, particularly in Jeddah, Mecca, Medina, and Ṭāʾif (AlEssa, 2008).

Different scholars have attempted to classify the dialects spoken in the Arabian Peninsula. Johnstone (1967: 1) identified four broad categories: North Arabian, Hijazi, Southwestern Arabian, and Omani. According to his classification, North Arabian dialects include groups such as the Syro-Mesopotamian, Šammari, ʿAnazi, and Eastern Arabian dialects, including those spoken in al-Ḥasā and the Gulf. These dialects share distinctive features such as the affrication of /k/ and /g/, the insertion of a vowel after gutturals (the so-called "gahawa syndrome"), and specific syllable structures not found in other dialects of Arabia (Johnstone1967: 2).

The most comprehensive reference to Saudi dialects remains Prochazka (1988: 11), who surveyed a large number of varieties and divided them into two main groups: (1) the dialects of the Southern Hijaz and Tihama, spoken in the southwest, and (2) the Najdi and Eastern Arabian dialects, which dominate the rest of the country. He emphasized that the label "Najdi" is used in a linguistic sense rather than a purely geographical one, and that these dialects extend beyond the Najd region.

Most sociolinguistic studies of Saudi Arabic agree that there is no established koine or unified standard dialect. In contrast, the dialects of major Arab cities such as Damascus, Cairo, and Amman have acquired political, social, and economic prominence, functioning as prestige norms alongside Modern Standard Arabic (Miller, 2004: 180). The absence of a similar development in Saudi Arabia can be traced to its historical and geopolitical context. Before unification, the Peninsula was fragmented into regions such as Ḥijāz, Najd, ʿAsīr, Jāzān, and

al-ʾAḥsāʾ, each under different rulers, for instance, Ḥijāz was ruled by the Ottomans, while parts of Najd were controlled by the Al-Rashīd. Under these conditions, the emergence of a unified standard dialect was highly unlikely (AlAmmar, 2017).

Following unification and the discovery of oil, however, Saudi society underwent rapid transformation. Economic development and modernization, through unified administration, health care, education, and infrastructure, accelerated urban growth and stimulated extensive internal migration. People from rural and peripheral areas increasingly moved, temporarily or permanently, to urban centres such as Riyadh, Jeddah, and Dammam in search of better opportunities. This internal mobility created new contexts of dialect contact (AlAmmar, 2017). As a result, speakers of different but mutually intelligible Saudi dialects came into frequent interaction. Such contact can lead to convergence, as speakers adjust toward each other's speech, sometimes as a sign of solidarity when attitudes are favourable. Over time, this process may produce a new, unified norm known as a koine. Koineisation encompasses several linguistic mechanisms, including mixing, levelling, simplification, and reallocation. These processes will be explored further in the following section.

2.3 Koineisation in dialect contact situations

Dialect contact outcomes are not random; they are guided by identifiable linguistic and social mechanisms. Trudgill (2004) distinguishes between two contact situations: the *tabula rasa* colonial case, where speakers with no prior history of interaction converge to form new varieties (e.g., in Australia and South Africa), and the new-town situation, where mutually intelligible dialects come into contact in newly created settlements. In both cases, predictable processes such as levelling, simplification, and new dialect formation occur, as demonstrated in a wide range of speech communities.

2.3.1 Definitions and characteristics of koineisation

The term *koine* originates in Ancient Greek, where a new dialect emerged during the expansion of the Athenian empire in the 5th century BC. This *Koine* developed through contact between Attic and Ionic dialects (Tuten, 2007).

Modern sociolinguists use the term *koineisation* to describe comparable processes of dialect formation through contact. Kerswill and Williams (2005: 1023) define koineisation as "the type of language change that takes place when speakers of different, but mutually intelligible language varieties come together, and which may lead to new dialect or koine formation." Siegel (1985: 363) frames koineisation as the mixing of dialects within a given region that leads to the development of a common dialect. He distinguishes between *regional koineisation* and *immigrant koineisation,* the latter arising when speakers of related dialects migrate to a new area and develop a shared norm (Siegel, 1985: 363-364). Trudgill (2004) stresses that such processes are not haphazard but are influenced by three main factors: the typology of the input dialects, the relative proportion of speakers, and language universals.

2.3.2 Processes of koineisation

Koineisation unfolds through a set of interrelated processes that gradually transform variation into a stable new norm. The first of these is *mixing*, which occurs when speakers from different dialect backgrounds interact and bring their variants into the same speech community. The result is an expanded pool of features, and individuals may alternate between them in their speech (Trudgill, 2004: 89-99). Over time, however, certain variants become less viable, leading to *levelling*, the reduction or loss of highly localised, marked, or stigmatized features. This process is socially motivated, as speakers often avoid forms that signal narrow parochial identity and instead gravitate toward features that have wider acceptability across groups (Trudgill, 1986, 2004).

In addition to levelling, koineisation involves *simplification*, whereby morphologically irregular or complex structures are lost. Irregular paradigms may be replaced with more regular forms, and distinctions such as case endings or other inflectional markers may disappear (Trudgill, 2004: 89-99). At the same time, the contact situation can generate entirely new variants through *interdialect formation*, producing compromise or "fudge" forms not found in any of the input dialects but created through the blending of features (Trudgill, 2004: 94). Some variants that survive levelling undergo *reallocation*, where they are assigned new functions, whether sociolinguistic, such as marking solidarity or group affiliation, or allophonic and phonetic (Trudgill, 2004: 124). Eventually, these changes lead to *focusing*, the stage at which the speech community stabilises around a reduced set of variants that coalesce into a recognisable new norm.

2.3.3 Stages of koineisation

These processes typically unfold across three generational stages. In the first generation, consisting of adult migrants, speakers retain many of their original dialectal features but find themselves exposed to new variants. Interaction between groups therefore results in extensive variation, with mixing as the dominant process (Trudgill, 2004). The second generation, made up of children born into the new contact environment, encounter a wide range of competing forms. As Trudgill (2004) observes, these children are "spoiled for choice" and consequently display extreme variability. It is at this stage that interdialectal forms, or compromise variants not originally present in the input dialects, often emerge. In the third generation, the grandchildren consolidate the system by selecting a smaller set of variants. Through levelling, simplification, and reallocation, the community arrives at a more uniform and stable variety. At this point, koineisation can be considered complete, and the speech community recognises the new dialect as distinct (Trudgill, 2004).

Underlying and driving these processes is the mechanism of accommodation. In contact settings, accommodation can occur on two levels. Short-term accommodation occurs when speakers of different dialects adjust their speech, either deliberately or unconsciously, during particular conversational exchanges (Trudgill, 2004). Although such shifts are often temporary, repeated interaction may give rise to more permanent change. This leads to long-term accommodation, where sustained contact results in structural adjustments within a speaker's linguistic system. This long-term accommodation forms the basis of koineisation, since it provides the material from which processes such as levelling, simplification, and reallocation draw. Kerswill (2002: 680) defined this type of accommodation, "… as semi-permanent changes in a person's habitual speech after a period of contact with speakers using different varieties." Over time, these entrenched adjustments become consolidated, ultimately guiding the community toward focusing and the crystallisation of a new koine.

2.3.4 Case studies from English-speaking contexts

Koineisation has been observed in a number of English-speaking communities. Colonial English dialects such as those of Australia and South Africa represent *tabula rasa* cases, where levelling and simplification led to relatively homogeneous new varieties. In the UK, Milton Keynes provides an example of a new-town case. Kerswill and Williams (1999, 2000, 2005, cited in Hussain, 2017) examined several linguistic variables, including th-fronting, h-dropping, and t-glottalling, and found that children's speech in Milton Keynes was levelled as they accommodated to innovative southeastern variants that are also spreading across the southeast and the wider UK.

2.3.5 Historical evolution and Koineisation of Arabic Dialects

Versteegh (1984, 2001) argues that Old Arabic was relatively homogeneous before the Islamic conquests and that modern dialects developed as recent offshoots of Classical Arabic

(2001: 98). However, more recent analysis by Al-Jallad (2015, as cited in Al-Wer et al., 2022) challenges this view, showing that Old Arabic was not homogeneous but marked by considerable dialectal diversity. These findings suggest that the relationship between Classical Arabic and the modern Arabic dialects should not be understood as a simple ancestor-descendant relationship. Rather, both Classical Arabic and the contemporary dialects can be viewed as emerging from earlier varieties of Old Arabic, which itself exhibited considerable dialectal diversity. Some scholars further argue that Classical Arabic developed through processes of standardisation and codification associated with the grammatical tradition beginning with Sibawayh and continuing in later works, rather than representing a direct reflection of a single spoken variety (Owens, 2023). Ferguson (1959) proposed that modern Arabic dialects emerged from a koine that developed during the early Islamic conquests, especially in army settlements outside the Arabian Peninsula (p. 618). According to Ferguson, sedentary urban dialects are descended from this koine, while Bedouin dialects were not. The koine, from which urban dialects descended, was shaped by levelling, simplification, and innovation. Miller (2004: 179) reinforces this view, noting that early urban dialects display features characteristic of koineisation, while Bedouin varieties remained more conservative. Holes (2018), by contrast, cautions that the lack of early evidence makes Ferguson's model speculative, arguing that dialect variation likely predated the codification of Classical Arabic.

From the 14th to early 20th centuries, Arabisation further reshaped the dialect landscape. Miller (2004) describes two outcomes: the Bedouinisation of urban dialects, leading to koineised Bedouin varieties (e.g., in Iraq and North Africa), and the levelling of sedentary dialects through urban migration, as seen in Cairo and Damascus.

2.3.6 Contemporary koineisation in Arabic-speaking communities

Empirical research from across the Arab world provides clear evidence that koineisation is not limited to Western contexts but is also a prominent process in Arabic-speaking

communities. In Amman, Jordan, Al-Wer (2003, 2007) conducted a detailed longitudinal study that traced the convergence of Jordanian and Palestinian dialects across three generations. Her research showed that the first generation of migrants displayed dialectal mixing, the second generation exhibited a high degree of variability as speakers navigated multiple competing forms, and the third generation demonstrated stability and the emergence of a relatively uniform urban koine. The study also highlighted that social factors such as gender and political authority played a significant role in shaping the direction of linguistic change, with women and socially influential groups often leading the adoption of innovative urban features.

In Oran, Algeria, Zohra (2014) investigated patterns of contact among young university students and documented processes of mixing, levelling, and reallocation. Her findings showed that features from Bedouin and sedentary dialects coexisted in the speech of students, but that levelling was reducing the range of available variants. Importantly, reallocation was also observed: while both [q] and [g] persisted, they were assigned to different stylistic domains, with [q] favoured in formal or careful speech and [g] preferred in informal contexts. This demonstrates how koineisation does not necessarily eliminate variation but often reorganises it into new functional distributions.

A growing body of research also points to ongoing koineisation within Saudi Arabia, particularly in urban centres and regions experiencing significant migration. AlEssa (2008), for instance, studied Najdi migrants in Jeddah and found that highly localised Najdi features, such as affricated realizations of /k/ and /g/ were levelled in favour of Hijazi norms. Her results suggest that Jeddah is developing a regional urban koine shaped by the convergence of migrant and local features.

A similar process was identified by Alghamdi (2014), who examined Ghamdi migrants in Mecca, observed that traditional diphthongs such as /ai/ and /aw/ were

increasingly replaced by monophthongs, especially among younger speakers. This shift reflects not only phonological levelling but also sociolinguistic accommodation to the prestigious Hijazi urban variety.

Other studies illustrate koineisation in less central regions of the Kingdom. Alqahtani (2015) investigated dialect change in the villages of al-Farša and al-Jawwa in Tihamat Qaḥṭān. She documented a generational shift in which younger speakers increasingly replaced the traditional emphatic [ɮˤ] with [ðˤ] and shifted from the local definite article *m-* to the more widespread *l-*. These changes indicate a gradual move toward supralocal forms that cut across tribal dialect boundaries.

Hussain (2017) provides further evidence from Medina, where she analysed Bedouin speakers' exposure to Jeddah forms through contact with the urban community. Her findings showed that urban variants such as [ʒ] were gaining ground among younger Bedouin speakers, even though older generations continued to maintain the more conservative [ʤ]. This demonstrates the coexistence of variation and the potential emergence of a regional standard in the western Hijaz.

Alongside these specific regional cases, some studies point to broader sociolinguistic awareness of convergence in Saudi Arabia. AlAmmar (2017) examined sociolinguistic variation and change in the dialect of Ḥaʾil city, focusing on two traditional features: the feminine ending *-ah* and the feminine plural suffix *-a:t*. Her findings show that younger speakers, particularly women with high levels of contact, increasingly favour innovative realisations such as [a] for *-ah* and [aːt] for *-a:t*, while older speakers tend to preserve the traditional variants [e] and [a:j]/[a:h]. The study demonstrates a progressive levelling of localised forms in favour of supralocal variants, indicating movement toward a wider regional norm in central Saudi Arabia.

Complementing this, Alaodini (2019) examined dialect contact in Dammam, focusing on the speech of the Dawāsir community. She found that innovative features such as [ʤ] and [a:] were increasingly favoured by younger speakers, displacing the older forms [j],[ɑ:], respectively, and aligning speech with supralocal norms circulating in urban Saudi Arabia.

The migration of the Qarni community to Riyadh must be understood within a broader context of internal migration in Saudi Arabia. As discussed in Chapter 1 (see Sections 1.1.13, 1.2.5, and 1.2.6), the rapid expansion of Riyadh during the second half of the twentieth century attracted migrants from multiple regions of the Kingdom, including Najd, the south, the western region, and the Eastern Province. As a result, speakers representing several Saudi dialect groups came into contact simultaneously within the city. Consequently, the linguistic environment of Riyadh involves interaction among multiple regional dialects rather than a simple interaction between the Qarni dialect and the Najdi variety. This multi-dialect contact situation provides the broader sociolinguistic context within which the linguistic behaviour of Qarni speakers examined in this study should be understood.

Taken together, these studies demonstrate that koineisation is an ongoing process in the Arab world, including Saudi Arabia, where internal migration and urbanisation bring speakers of diverse dialects into sustained contact. In contexts such as Jeddah, Mecca, Medina, and Tihāmat Qaḥṭān, research has shown how mixing, levelling, simplification, and reallocation gradually produce more homogeneous norms across generations. The Alqarni case in Riyadh must therefore be viewed against this broader backdrop: while this study does not assume that a koine has fully emerged, the literature establishes the mechanisms and pathways through which dialect contact may lead to new forms.

Chapter 3

Methodology and Data Collection

Introduction

This chapter outlines the methodological framework employed in the present study, which investigates patterns of dialect variation and change among the Qarni speakers who migrated from the southwestern town of Balqarn to the city of Riyadh. The study draws on principles and procedures established within the field of variationist sociolinguistics, particularly the model developed by Labov (1966), which highlights the relationship between linguistic variation and social factors such as age, gender, and community integration. The methodology adopted here is informed by similar studies in the field of Arabic sociolinguistics, including AlEssa (2008) and AlAmmar (2017), both of whom explored dialect contact and variation in Saudi Arabia through systematic empirical investigation.

The chapter begins by introducing the sample population and discussing the criteria for participant selection. This is followed by a brief section on the researcher's background and role, which is especially relevant given the insider position the researcher holds within the Qarni community. The chapter then describes the methods of data collection, including the structure of the sociolinguistic interviews, the nature of the elicited data, the recording process, and ethical considerations. Special attention is given to the challenges encountered during data collection, including participant recruitment, technical constraints, and limitations related to gender norms and social conservatism within the community.

Subsequent sections describe the variables investigated in the study. These include both social variables, such as migratory cohorts, gender, and degree of contact with non-Qarni speakers, and linguistic variables, which comprise phonological and morphophonemic features known to be salient within the Qarni variety. The chapter also explains how data were processed

and analysed, from transcription and coding to auditory analysis and statistical modelling. The analysis is conducted using R, consistent with best practices in current sociolinguistic research.

Overall, this chapter provides a detailed account of how the data for this study were gathered, organized, and analysed, establishing the methodological validity of the findings presented in the following chapters.

3.1 The sample

Sociolinguistic research is concerned with the analysis and interpretation of linguistic data produced by speakers in natural contexts. To ensure the reliability and generalizability of the results, the sampling methodology must be carefully selected and justified. As noted by Labov (1966), the foundation of quantitative sociolinguistics lies in rigorous empirical observation, which requires methodologically sound participant selection. Traditionally, two primary sampling methods have been used in sociolinguistic studies: random sampling and judgment (or quota) sampling.

Random sampling, first introduced in Labov's (1966) seminal study of the Lower East Side of New York City, involves defining a precise population and selecting participants in a way that gives every member an equal chance of being included. This technique aims to eliminate bias and provide a representative sample. However, despite its scientific rigour, random sampling has proven to be impractical for most sociolinguistic studies. It is often time-consuming and does not necessarily guarantee a balanced or stratified sample, especially when the researcher seeks to include specific social categories or dialect groups (Bailey & Dyer, 1992; Hoffman, 2013).

Given these limitations, most contemporary sociolinguistic studies rely on judgment sampling (also known as quota sampling). This approach allows the researcher to select participants based on specific criteria relevant to the research questions. The researcher predetermines the sample size and social variables of interest, such as age, gender, ethnicity, or

degree of contact, and seeks participants who match these categories (Milroy & Gordon, 2003). As Hoffman (2013) argues, although judgment sampling may not be strictly representative in a statistical sense, it is often better suited to the goals of linguistic research, especially when working with demographically diverse or tightly knit communities.

In this study, I adopted the judgment sampling method to select participants from the Qarni speech community residing in Riyadh. This approach was particularly appropriate for two reasons. First, as Milroy and Gordon (2003) explain, prior knowledge of the target community is essential to determine relevant social categories. As a native speaker of the Qarni dialect and a member of the Qarni community myself, I possess intimate knowledge of both the linguistic and social practices of the group. Second, all participants selected for this study originated from the town of Balqarn in southwestern Saudi Arabia, specifically from a highland village called *Al-Mašāyʿa ,* who migrated to Riyadh at various stages of their lives. The vast majority settled in the eastern part of Riyadh, forming tight-knit neighbourhoods composed predominantly of fellow Qarni and southern speakers.

Although the original goal was to fill 16 social category cells with at least three participants each, this target was not fully achieved (see Table 3.1 for the distribution of the sample). Some cells, particularly those representing low-contact speakers, remained unfilled, while others included more than three speakers. Nevertheless, I believe the sample is proportionally distributed and sufficient for the purposes of the study. The final sample consists of 26 Qarni speakers, both male and female, aged 21 and above.

While access to the Qarni community in Riyadh was relatively straightforward due to my insider status, recruiting adult male participants presented unique challenges. In Saudi Arabia, and within the Qarni community in particular, social and religious norms typically restrict interactions between unrelated men and women. Consequently, I enlisted the help of

my brothers, who were trained to conduct sociolinguistic interviews following a pre-established protocol. They interviewed the male participants on my behalf.

Further complications arose in the elicitation of certain linguistic features, such as the 2nd person singular feminine suffix, which requires a female addressee; the main challenge was obtaining sufficient tokens of this variable from male speakers. To overcome this, I asked some of my female participants to conduct interviews with their male relatives. One woman interviewed her husband, another her brother, and two others their fathers. These arrangements enabled me to collect the necessary data while respecting community norms and ensuring participant comfort.

Access to female speakers was comparatively easier; however, several prospective participants declined to be interviewed due to personal or cultural reservations. To compensate, I used network sampling (also referred to as the snowball method or the friend-of-a-friend technique), whereby existing participants recommended others who might be willing to participate. This strategy proved effective in reaching individuals who matched the predefined criteria and were open to being interviewed (Milroy & Gordon, 2003; Hoffman, 2013).

The number of speakers required in a sample depends on several factors, including the complexity of the research question, available resources, and the number of social variables under investigation. Milroy (1987) cautions that it is not necessary to include large numbers of participants for a linguistic survey to be valid, but also warns against overgeneralizing from too few examples. Tagliamonte (2006) emphasizes that smaller, well-defined samples are often preferable to large, poorly managed ones. While five speakers per cell is generally considered adequate (Hoffman, 2013), I aimed for a minimum of three participants per category.

Ultimately, the final sample of 26 speakers, stratified by migratory cohorts, gender, and degree of contact, offers a solid foundation for examining linguistic variation and change within the Qarni community in Riyadh.

3.2 The target community, the participants, and the researcher

Since this study focuses on the Qarni dialect in the speech of the Qarni speakers who migrated to Riyadh, and how social factors such as age, gender, and level of contact with outsiders may affect their linguistic behaviour, only Qarni speakers currently residing in Riyadh were considered for participation. That is, all participants were either born in Balqarn and moved at some stage of their lives to Riyadh, or they were born and raised in Riyadh.

Being a member of the Qarni community myself facilitated access to participants. I was born and raised in Balqarn and have spent most of my life living and working there, aside from periods spent studying abroad. My father was also born and raised in Balqarn, while my mother was born and raised in Dammam. Both of them lived the majority of their lives in Balqarn before moving to Riyadh approximately seven years ago. I frequently visit Riyadh, typically three to four months each year, to see relatives, which has given me a strong familiarity with the Qarni community there.

This positionality, being simultaneously a long-term resident of Balqarn and a frequent visitor with close social connections in Riyadh, enabled me to build trust with informants. Many of the participants were either personally known to me or were familiar with my family, which made them more receptive to being interviewed and recorded. This familiarity dissolved power imbalances between me and the participants, creating a comfortable and informal atmosphere conducive to natural speech production. Participants often viewed their involvement as a gesture of support and were eager to assist, with several agreeing to participate in follow-up sessions to provide additional data where necessary.

This background has allowed me to develop extensive knowledge of the community and the local linguistic landscape. Being a native speaker of the Qarni dialect enabled me to understand rapid, everyday conversations, an essential skill for successful sociolinguistic fieldwork. As Labov (1972) asserts, sociolinguistic analysis requires the investigator to be

fluent in the local variety to capture natural speech effectively. Furthermore, Milroy (1987) states that the closer the fieldworker's social attributes align with those of the participants, the more successful the data collection will be. By these standards, I am well-positioned to conduct research on this community.

Information about potential participants, such as their age, gender, occupation, educational level, time of migration, and community standing, was taken into consideration. I relied heavily on my own knowledge and on the knowledge of my parents, who are well-known and socially connected members of the Qarni community. Most participants were either relatives or friends of the family. In cases where further details were needed, I asked participants directly or obtained the information through relatives or acquaintances.

Participant recruitment was facilitated through several channels. First, due to my parents' strong reputation and deep social ties within the Qarni community, they were able to help me approach participants from a variety of age groups, especially adults of both genders. Second, my frequent visits to Riyadh and close relationships with friends and relatives who live there enabled me to access younger and middle-aged speakers, particularly women. Third, I was able to recruit male participants through the help of my brothers, one of whom lives in Riyadh, as well as cousins, friends' brothers, and my father's relatives. These connections gave me access to male participants across all age categories, especially younger males. To address cultural and gender-specific constraints, especially regarding male participants, I enlisted the help of two male assistants who are also native speakers of the Qarni dialect. These assistants, relatives and members of the Riyadh-based Qarni community, were well-acquainted with local customs and played a pivotal role in accessing male speakers across various age groups. In addition, due to the nature of some linguistic variables under investigation (e.g., the second person singular feminine suffix), it was necessary for male participants to engage in gendered speech. In these cases, female relatives of male speakers were asked to conduct the interviews.

For example, one woman interviewed her husband, another her father, and others their brothers. These arrangements ensured the natural elicitation of gender-sensitive linguistic features.

Initially, the sample was distributed across four chronological age groups to represent different generational cohorts: young (20s), young adults (30s), adults (40s), and older speakers (50 and above). Alongside gender (male/female) and level of contact with non-Qarni speakers (high/low), these divisions resulted in 16 social cells. The original aim was to obtain three participants per cell. While some cells had more than three participants, others, particularly in the low-contact category, remained unfilled. Nonetheless, the distribution of the sample was judged to be sufficiently proportional.

The distribution of the 26 Qarni speakers who comprise the study sample is shown in table 3.1:

Age group	Level of contact				Total
	High		Low		
	Male	Female	Male	Female	
Older speakers (50+)	3	3	-	1	7
Adults (40s)	1	2	2	1	6
Young adults (30s)	3	3	-	-	6
Young (20s)	3	4	-	-	7
					Total=26

Table 3.1 Initial Distribution of the Sample of Alqarni Speakers

Following the initial chronological age distribution, and based on preliminary observations of the data, I decided to collapse the 20s and 30s groups into a single category. All speakers in these two groups were born in Riyadh and exhibited similar linguistic behaviour. Therefore, a new three-way age division was introduced based on a shared life experience: the migration trajectory of the participants. This refined categorization will be discussed in more detail in the social variables section, particularly in relation to age.

A key requirement for effective sociolinguistic data collection is the researcher's ability to understand rapid and spontaneous speech in the target dialect. Having spent my entire life speaking the Qarni dialect, I possess native-level fluency and comprehension of the dialect. This linguistic familiarity was crucial for identifying and analysing nuanced dialectal features, particularly those that occur in casual, unmonitored speech.

My insider status, gender, and familiarity with both the Balqarn and Riyadh branches of the Qarni community greatly contributed to the depth and authenticity of the collected data. Furthermore, the linguistic alignment between myself and the participants ensured minimal accommodation or style-shifting on the part of the informants. While there is a theoretical concern that participants might suppress levelled or innovative forms in the presence of an interviewer who uses traditional dialect features, this was considered unlikely in the current study. The purpose of the research was explained in general terms, but participants were not informed of the specific linguistic features being investigated. Moreover, the conversational and friendly nature of the interviews encouraged speakers to use spontaneous, casual speech that more accurately reflected their authentic linguistic behaviour.

3.3 Data collection

3.3.1 The social interview

The present study relies on sociolinguistic interviews as the primary method of data collection. This section outlines the data collection process, the nature and structure of the sociolinguistic interviews, the techniques employed to minimize the observer's paradox, the challenges encountered during fieldwork, and the measures taken to ensure high-quality, naturalistic data. The section also describes the interview length, setting, topics discussed, and the recording procedures used throughout the process.

Sociolinguists are primarily concerned with analysing natural, spontaneous language, often referred to as the vernacular. However, obtaining such speech presents methodological

challenges, particularly due to the observer's paradox: speakers tend to become more self-conscious and formal when they are aware of being recorded (Labov, 1972). To address this, sociolinguists have devised techniques to reduce this effect, among which sociolinguistic interviews remain the most widely used method (Milroy & Gordon, 2003). This semi-structured approach allows researchers to guide conversation toward specific linguistic features while maintaining a relaxed and flexible atmosphere conducive to the production of casual speech.

The interviews in this study were conducted over a three-month period, from May to August 2023. Each interview lasted between 45 to 60 minutes, a length consistent with recommendations in the sociolinguistic literature, which suggest that 20-30 minutes is generally sufficient for collecting phonological data, while longer interviews may be beneficial for syntactic and pragmatic analysis (Milroy & Gordon, 2003; AlEssa, 2008). All interviews were conducted face-to-face, either in participants' homes or, occasionally, in quiet coffee shops, ensuring a comfortable environment for the participants.

All data was recorded using the built-in iPhone voice recorder. This choice offered several advantages: its being integrated into the iPhone made it discreet and minimized the participants' awareness of the recording device, helping reduce the observer effect, and the resulting M4A files (AAC format) were compatible with audio analysis software. Furthermore, the ease of transferring files from iPhone to laptop facilitated efficient data management. All recordings were stored under pseudonyms in a secure, password-protected folder on the researcher's personal laptop.

The social interview structure adopted in this study was designed to elicit both demographic information and natural linguistic data. At the beginning of each interview, the researcher asked questions regarding participants' age, place of birth, parents' place of birth, time and age of migration (if applicable), educational background, and occupational history. These questions were strategically spread throughout the conversation to avoid disrupting the

flow of speech. The interviews were semi-structured: while the researcher prepared guiding questions, flexibility was maintained to allow the participants to discuss topics of personal interest, which often led to richer linguistic data.

To further minimize the observer's paradox, the interviews often began with casual, friendly conversation, usually initiated over Arabic coffee and dates, which helped create a relaxed atmosphere. Participants were free to choose topics they were comfortable discussing, and the researcher intentionally selected topics believed to trigger emotional or reflective responses, increasing the likelihood of spontaneous, unmonitored speech (Labov, 1972; Trudgill, 1974).

Topics varied depending on age, gender, and the speaker's personal interests. Older participants were encouraged to reflect on childhood memories, traditional customs, and past lifestyles. Middle-aged participants often discussed work challenges, family responsibilities, and technological change. Younger speakers spoke about their education, social media use, personal aspirations, fashion trends, and travel experiences. Some common questions included: "What advice did your parents give you growing up?", "Can you describe a memorable journey or incident?", "How do you see your life changing in Riyadh?", and "What's your opinion on recent developments in the city?"

While most interviews were conducted one-on-one, group interviews were used on a few occasions. One such successful case involved interviewing two sisters together. Their mutual presence encouraged them to talk more freely, and they often complemented each other's stories. However, a trial group interview with a larger number of participants was discarded due to poor audio quality and difficulty distinguishing between speakers, a limitation also observed in previous studies (AlEssa, 2008).

In culturally sensitive cases, particularly interviews involving adult male participants, the researcher enlisted the help of two male assistants who are also native speakers of the Alqarni dialect. These assistants were briefed extensively and trained to conduct interviews that aligned with the study's objectives. In cases where gendered speech variables (e.g., the second person singular feminine suffix) were involved, female relatives of male participants were asked to conduct the interviews. This arrangement ensured that gender-specific linguistic features were elicited naturally.

Participants were informed about the purpose of the research and consented to being recorded. They were told that the study aimed to investigate linguistic behaviour in Riyadh, with additional interest in local customs and social change, details that helped contextualize the interviews and reduce over-monitoring of speech. The researcher's insider status and rapport with many of the participants further alleviated tension and encouraged genuine, relaxed conversations.

Although the primary data corpus was collected through one-on-one interviews, natural interruptions, such as phone calls or third-party interactions, were retained when appropriate, as they offered valuable instances of unguarded, casual speech. The interviews were designed to balance structured guidance with freedom of expression, ensuring both demographic precision and linguistic authenticity.

Overall, the combination of methodological planning, cultural sensitivity, and flexible interaction helped ensure the reliability and depth of the data collected. The sociolinguistic interviews in this study reflect a conscious effort to minimize the observer's paradox while maximizing speaker comfort and linguistic naturalness, following the methodological precedents set by Labov (1966, 1972), Milroy and Gordon (2003), Al-Wer et al. (2022), AlEssa (2008), and AlAmmar (2017).

3.3.2 Ethical considerations

Prior to initiating each interview, I made sure to inform participants about the nature and purpose of the study, including the fact that their speech would be audio-recorded for linguistic analysis. At the outset of data collection, I initially considered obtaining written consent from each participant, in line with common academic protocols. However, it quickly became apparent that this approach was culturally inappropriate in this context. Some participants reacted with discomfort or suspicion when asked to sign a formal consent document, and a few even declined to take part in the study upon seeing the form. This experience highlighted how the acceptability of written consent procedures can vary significantly across cultural contexts (AlAmmar, 2017). In light of this, I revised my approach and opted to secure verbal consent instead. Each participant was directly asked for their permission to record the interview for academic purposes, and I assured them that all personal information would remain strictly confidential. It was also made clear that participation was entirely voluntary and that they were free to withdraw from the study at any point without consequence.

Verbal consent was audio-recorded at the beginning of each session as a record of ethical compliance. This approach helped put participants at ease and ensured that the interviews proceeded in a comfortable and trusting environment which are critical factors for the elicitation of natural, casual speech.

3.3.3 Data collection challenges

As with most sociolinguistic fieldwork, several challenges emerged during the process of collecting data, both in relation to technical issues and participant availability. Although the majority of interviews were pre-arranged, a number of participants cancelled at the last minute due to unexpected obligations, family commitments, or scheduling conflicts. In some instances, individuals who had initially agreed to participate later declined, citing discomfort with being recorded or a general change of mind.

While most of the interviews were conducted in quiet, private environments, typically in participants' homes or occasionally in calm coffee shops, occasional disruptions were unavoidable. Family members would sometimes enter the room during the recording to serve refreshments or engage in unrelated conversation. Environmental noise, such as open doors or windows letting in street sounds, could also interfere with the recording quality. Additionally, interference from mobile phones placed too close to the recording device occasionally resulted in audio distortion. In such cases, portions of the affected recordings had to be trimmed, and in a few instances, entire recordings were excluded from analysis due to compromised audio quality.

An added difficulty involved the response of certain participants after the interview. A few middle-aged and older female informants, despite having completed their interviews, later expressed concern and asked that their recordings be deleted. These requests were respected without hesitation. To compensate for the lost data, I reached out to other members of the Qarni community who were willing to participate and be recorded. While these occurrences posed logistical setbacks, they were expected within the broader context of working in a culturally conservative and socially complex setting, and they were addressed with sensitivity and adaptability throughout the fieldwork process.

3.4 Preparing the data for analysis

This section outlines the stages involved in preparing the sociolinguistic data for analysis. The process included four phases: transcription, token extraction, auditory analysis, and data coding. These steps were crucial in organizing the data systematically and ensuring the accuracy of the subsequent statistical analysis.

3.4.1 Data transcription

A total of 26 interviews, each lasting approximately 60 minutes, were conducted and transcribed for analysis. These interviews generated around 26 hours of spontaneous conversational speech. The transcription process relied on the International Phonetic Alphabet (IPA) for phonetic accuracy. Each audio recording was transcribed into an individual Microsoft Excel spreadsheet, allowing for systematic tracking of phonological features and ease of data management. Unclear portions of the recordings, such as sections with overlapping speech, background noise, or indecipherable articulation, were excluded from transcription. All transcripts were reviewed while listening to the original recordings and were revised as necessary to ensure accuracy.

3.4.2 Target token extraction

Following transcription, the next step was to extract target tokens corresponding to the four linguistic variables investigated in this study: the affrication of /k/ to [tʃ], the definite article *m-* versus *l-*, the realization of /dʒ/ as [j], and the 3rd person singular feminine verbal suffix *-an*. For each variable, only tokens that were contextually and grammatically relevant were included in the dataset. Irrelevant tokens were systematically excluded to maintain analytical consistency. For example, in analysing the realization of the definite article, only definite nouns marked with a clear prefix were included. Similarly, when identifying instances of the suffix *-an*, only verbs in the 3rd person feminine singular past tense were counted; irrelevant morphological forms were omitted.

3.4.3 Auditory analysis

The auditory analysis phase involved careful listening to each token to determine its phonetic realization. As all the linguistic variables examined in this study involve binary contrasts (e.g., [k] vs. [tʃ], *m-* vs. *l-*, [dʒ] vs. [j], and *-an* vs. *-at*), impressionistic auditory judgments were

sufficient to identify the variants. Each token was evaluated based on its acoustic realization and labelled accordingly. This analysis was facilitated by the researcher's native fluency in Alqarni dialect, which enabled reliable auditory discrimination of subtle phonological differences in spontaneous speech.

3.4.4 Data coding

Each transcript was coded in Excel spreadsheets that recorded both the linguistic variant and the relevant social information (e.g., age group, gender, level of contact). Coding the data in individual spreadsheets allowed for effective management of the dataset and ensured that the number of tokens per participant could be monitored and balanced. Once coding was complete, the data for each variable were compiled into a master spreadsheet and saved in a CSV format. To minimize skewing the results due to high-frequency lexical items, no more than three instances of the same word were included per participant. This procedure was adopted in order to prevent individual lexical items from disproportionately influencing the quantitative results (see Tagliamonte, 2006). Limiting the number of tokens for frequently repeated items therefore ensures that the analysis reflects variation across lexical contexts rather than the frequency of a single word in a particular speaker's speech. For each variable, between 30 and 50 relevant tokens were coded per speaker, depending on the frequency of occurrence in natural speech. Mayerhoff (2009) notes that at least 20 tokens are required per social or linguistic category to ensure statistically robust analysis.

3.4.5 Statistical software

Quantitative analysis of the coded data was conducted using the R programming language, a widely adopted tool in linguistic research. R offers extensive packages for statistical modelling, including logistic regression analysis, cross-tabulation, and graphical representation of data. Packages such as tidyverse, dplyr, and ggplot2 were employed for data manipulation and

visualization, while lme4 and car supported the mixed-effects modelling and evaluation of predictor significance. R allows greater flexibility and customizability in building statistical models that suit the structure of the dataset. The software also supports integration with scripts for reproducibility, making it particularly suitable for complex variationist studies.

Through these stages of transcription, token selection, auditory judgment, and statistical modelling, the data were systematically prepared for both qualitative interpretation and quantitative evaluation.

3.5 The social variables

Linguistic variation is widely recognized in sociolinguistic literature as being shaped by a range of social factors. Among these, age, gender, and level of contact with speakers of other dialects are commonly cited as key variables influencing language use. In this study, the linguistic variables were examined in relation to these three social dimensions. The following subsections explain the rationale for selecting each variable and how it was operationalized for analysis.

3.5.1 Age

In sociolinguistics, age is a widely recognized factor influencing linguistic variation and change. It serves as a proxy for different stages in the evolution of language, offering insight into how linguistic forms may shift across generations. According to Milroy and Gordon (2003), age alone does not provide explanatory value unless it is contextualized within the life experiences of speakers. As they explain, “Age by itself has no explanatory value; it is only when examined in the context of its social significance as something reflecting differences in life experience that it becomes a useful analytical construct” (Milroy & Gordon, 2003: 39).

In variationist studies, the primary method for examining age-related change is known as the *apparent time* approach. This method involves comparing the speech of individuals from different age groups at a single point in time to infer patterns of linguistic change. The

underlying assumption is that the speech of older individuals reflects earlier language use, while that of younger individuals may reveal more innovative forms (Labov, 1994; Tagliamonte, 2012). This approach is widely used because it allows researchers to study ongoing change without the need for longitudinal data. As Trudgill (1988) notes, the apparent-time method allows "….one to study results immediately rather than waiting for 20 years or so to see what happens" (p. 34).

However, generational differences in speech may not always indicate a change in progress. In some cases, these differences may be the result of *age-grading*, a phenomenon where certain linguistic behaviours are characteristic of specific life stages but are later abandoned. Age-graded features tend to recur in successive generations and are often associated with childhood or adolescence (Milroy & Gordon, 2003: 36). Labov (1994) differentiates age-grading from change in progress by noting that in age grading, linguistic behaviour changes across an individual's life but not across the community. For this reason, sociolinguists advise caution in interpreting age-based variation as evidence of language change.

Another approach to studying change is the *real-time* method, which involves collecting data from the same community at two different points in time. This method includes *panel studies*, which revisit the same individuals, and *trend studies*, which replicate an earlier study using a new but comparable sample. Although real-time studies can offer compelling evidence for linguistic change, they are often impractical due to cost and logistical constraints (Chambers, 1995; Milroy & Gordon, 2003).

Beyond the methodological considerations, age is also a critical factor in language acquisition. According to Chambers (1995: 85), children under the age of 7 have the greatest capacity to acquire new dialects with native-like fluency. He identifies a critical period that extends to about age 14, after which full acquisition becomes increasingly difficult. Labov (2001) further elaborates that young children are capable of adopting the phonetic norms of

their peers, even if these differ from their parents' speech. However, in Middle Eastern societies, different socialization patterns may delay this divergence from parental norms. Al-Wer (2002) found that in Amman, younger boys were more likely to conform to parental speech patterns due to limited interaction with peers outside the family until mid-adolescence.

Sociolinguistic research also acknowledges that life stages, such as childhood, adolescence, and adulthood, correlate with changes in language use. Chambers (1995) describes these as formative periods for the acquisition of sociolects. In childhood, speakers adopt vernacular forms from family and close friends; in adolescence, they may expand their use of vernacular under peer influence; and in adulthood, especially in professional contexts, speakers tend to shift toward more standard forms.

3.5.1.1 Etic versus Emic approaches to age categorization

Eckert (1997) as cited in Al-Wer et al. (2022) refers to two specific approaches to categorizing age in sociolinguistic research: the *etic* and the *emic* approaches. The *etic approach* groups speakers into age cohorts based on arbitrary and fixed intervals (e.g., 10-year intervals). This method is commonly used in classical sociolinguistic studies, such as Labov's (1966) investigation in New York City and Trudgill's (1974) study in Norwich. Although straightforward, this method may overlook the deeper social significance of age distinctions within specific communities (Eckert, 1997; Al-Wer et al., 2022).

By contrast, the *emic approach* classifies speakers based on shared life experiences or historical contexts. Eckert (1997) explains that this method "groups speakers according to some shared experience of time," which may relate to individual life stages or to defining historical events. For example, studies of American and Australian English have used the life stages of childhood, adolescence, and adulthood as meaningful categories. Research on Québécois French divided speakers according to historical milestones like the Great Depression and World War II (Eckert, 1997; Al-Wer et al., 2022).

This approach is especially compelling in regions where historical or political events have had lasting social and linguistic consequences. Al-Wer et al. (2022) provide the Palestinian case as an exemplary emic model. Key events such as the *Nakba* in 1948, the *Naksa* in 1967, and the two *Intifadas* in 1987 and 2000 have served as critical temporal markers in the design of sociolinguistic studies. These events influenced patterns of migration, bilingualism, and dialect contact, making them useful reference points for grouping speakers. For instance, Horesh's (2014, 2015) study of Jaffa found generational differences in the pronunciation of /ʕ/, which correlated closely with the timing of Hebrew-language education following these events.

As Al-Wer et al. (2022) caution, researchers must avoid applying age-grouping templates from one context to another without ensuring cultural and historical relevance. In some African communities, age is determined by social roles rather than chronological years. Even in the Middle East, cultural practices often delay peer-group socialization, meaning that chronological age may not accurately reflect linguistic development (Al-Wer et al., 2022).

3.5.1.2 Chronological age division

Initially, the sample in this study was stratified using a chronological method, dividing speakers into four standard age groups to reflect different life stages:

- Young speakers: 20–29 years old
- Young adults: 30–39 years old
- Adults: 40–49 years old
- Older speakers: 50 years and above

Age group	Number of speakers
Young speakers	7
Young adults	6
Adults	6
Older speakers	7

Table 3.2 Chronological Age Distribution of Participants

This grouping method provided a general sense of generational variation among Alqarni speakers in Riyadh. However, preliminary observations of the data suggested that the two youngest groups, those in their 20s and 30s, exhibited nearly identical linguistic behaviour. All of these speakers were born and raised in Riyadh and had similar exposure to non-Qarni varieties. Based on this observation, I collapsed these two groups into a single category.

3.5.1.3 Emic, life-experience-based division

As a result, a decision was made to adopt an emic approach more suitable for the community under investigation. Following the insights of Eckert (1997) and the recommendations of Al-Wer et al. (2022), the speakers were regrouped based on shared life experiences, specifically, their migration history and generational location in Riyadh. Migration from Balqarn to Riyadh was largely motivated by the search for educational and employment opportunities following the centralization of state functions and economic expansion in the capital after the oil boom in the late sixties. The revised grouping reflects three life-stage-based categories:

1. Teenage Migrants: These participants migrated from Balqarn to Riyadh before the age of 12. Sent by their families, they moved in pursuit of work and education at a young age, typically living with relatives.
2. Adult Migrants: These speakers migrated from Balqarn to Riyadh during late adolescence or early adulthood, typically between the ages of 17 and 20. Before their move, they had extended exposure to the Qarni dialect in its original setting.
3. Locally Born: These participants were born and raised in Riyadh. They are the children of the first generation of migrants and have only experienced the Qarni dialect within the urban Riyadh context.

This life-experience-based classification allows for a more culturally and historically grounded analysis of linguistic behaviour. By aligning the sample design with the actual migration patterns and social histories of the Qarni community in Riyadh, the study gains a

deeper understanding of the sociolinguistic dynamics at play. As observed in the Palestinian case, large-scale migration and sociohistorical events can significantly shape linguistic trajectories and intergenerational dialect contact (Al-Wer et al., 2022). Similarly, the migration from Balqarn to Riyadh in the latter half of the 20th century represents a major turning point for the Qarni community. Participants' age at the time of migration, or whether they were born after their family's relocation, plays a crucial role in determining their linguistic input and their accommodation to urban varieties.

The table below summarizes the distribution of speakers according to this revised grouping:

Migratory cohorts	Number of speakers
Teenage Migrants	7
Adult Migrants	6
Locally Born	13

Table 3.3 Participant Distribution by Migration-Based Grouping

In this study, this emic, life-experience-based categorization better reflects participants' dialect exposure and life experience than the initial chronological grouping. The decision to adopt this model is grounded in the observed linguistic behaviour and is further supported by sociolinguistic theory on language acquisition and community change (Chambers, 1995; Labov, 2001; Al-Wer, 2002). It offers a more contextually meaningful framework for analysing language variation across generations within the Qarni community. It ensures that the stratification of speakers reflects both chronological progression and sociocultural realities relevant to dialect contact.

3.5.2 Gender

Gender is widely acknowledged as a significant factor in sociolinguistic variation and change. Decades of research in Western contexts have established that men and women often exhibit systematic differences in their linguistic behaviour. For instance, women are generally found

to favour prestige forms more than men, even in vernacular contexts (Labov, 1990, 2001; Milroy et al., 1991). Labov (2001) formalised this pattern into three principles: (Ia) in stable sociolinguistic variables, men are more likely to use non-standard forms; (Ib) in changes from above (i.e., conscious, prestige-driven changes), women lead the adoption of incoming forms; and (II) in changes from below (i.e., subconscious, community-based innovations), women are often the innovators.

These generalisations are supported by a broad range of empirical findings and are typically interpreted as statistical tendencies rather than categorical behaviours (Chambers, 1995; Milroy & Gordon, 2003). While such patterns are evident across many speech communities, the relationship between gender and variation must be evaluated in its specific socio-cultural context. In Arabic-speaking societies, earlier sociolinguistic research appeared to contradict the general pattern, suggesting that men used more of the prestigious forms, often equated with classical Arabic (CA), while women favoured local variants. However, this interpretation has since been critically reassessed.

As argued by Ibrahim (1986) and Haeri (1987), the notion of prestige in Arabic should not be equated with classical Arabic. Rather, urban vernaculars with regional prestige, such as those spoken in Cairo, Damascus, or Beirut, often function as de facto standards in spoken contexts. Ibrahim (1986) refers to these as “super-dialectal low” varieties, which are distinct from CA yet hold significant social value. Women across many Arabic-speaking communities are found to align more frequently with these prestigious spoken forms than their male counterparts (Al-Wer, 1997). For example, Al-Wer (2007) found that women in Amman prefer the glottal stop [ʔ] variant of /q/, which is associated with urban prestige, whereas men maintain the more traditional [g] variant.

The association of gender with supralocal or incoming features has been widely observed. Al-Wer (1991) demonstrated in her study of Jordanian towns that women were more

likely to adopt supralocal features such as [ʒ] for /ʤ/ and [t] for /θ/, features common to Levantine urban centres. Similarly, in the dialect of Medina, women led the adoption of [ʒ] in place of the traditional /ʤ/, a shift interpreted as convergence with the prestigious Jeddah dialect (Hussain, 2017). In Mecca, Alghamdi (2014) documented that Ghamdi women, particularly the younger cohort, increasingly adopted Meccan monophthongal variants, while men exhibited partial reversals to traditional forms as a symbol of group pride. These findings illustrate that women are often ahead in the use of innovative forms and suggest that gendered language behaviour reflects broader social dynamics such as education, employment, and mobility (Alghamdi, 2014; Hussain, 2017; Al-Wer et al., 2022).

The explanation behind these patterns is not inherent to gender but lies in differential access to and participation in social networks. Women, particularly in urban environments, may pursue educational and professional opportunities that expose them to a wider range of dialects, resulting in greater contact with prestigious forms (Al-Wer et al., 2022). Moreover, in communities where women have traditionally been excluded from public spaces, their participation in education and the workforce can act as catalysts for adopting supralocal forms that signal modernity and social mobility.

However, such gender-based generalisations must be interpreted with caution. As Walters (1991) shows in his study of Tunisian Arabic in Korba, linguistic choices are shaped by a matrix of social factors. For instance, while younger, educated women favoured standard variants, others maintained traditional forms due to their social roles and limited exposure. The same complexity is evident in Abu Ain's (2016) study of northern Jordan, where women used supralocal [l] and [i] more than men. Conversely, Al-Hawamdeh (2016) found that women in the village of Sūf were more conservative in their speech than men due to stronger ties to local cultural norms (Al-Wer et al., 2022).

In Dammam, Alaodini (2019) documented a case where men led the adoption of innovative forms, a finding echoed by Alshawi (2020) in Qalʿat Siker. These patterns demonstrate that gender interacts with other social factors, such as region, class, and migration experience, to shape linguistic behaviour. Thus, gender cannot be treated as an isolated predictor, and its effects must be understood in relation to specific historical, cultural, and economic contexts (Al-Wer et al., 2022).

In the present study, gender is included as a core social variable to assess its influence on the linguistic realisations among Qarni speakers in Riyadh. The sample consists of 26 participants: 14 female and 12 male speakers, spanning different migratory cohorts and levels of contact. Given the role of women in many Arabic-speaking communities as linguistic innovators, especially in urbanising contexts, it is anticipated that gender may play a role in conditioning variation in the realisation of phonological and morphological features. However, the extent and direction of this influence remain an empirical question, to be examined in conjunction with other social factors.

3.5.3 Contact

Dialect contact has long been recognized as a powerful force in linguistic change, with implications for both the emergence of new varieties and the transformation of existing ones. According to Labov (2001), one of the central causes of linguistic change is the disruption of established communicative patterns, what he calls "discontinuities in communication." These disruptions may result from migration, urbanization, or shifts in social structure, and often lead to new patterns of interaction among speakers of different dialects. Jespersen (1946,as cited in Chambers, 1995: 249) goes further to argue that the most critical factor in the differentiation of language varieties is not physical distance but want of communication, regardless of the cause. In other words, language diversity, convergence, and change are all deeply embedded in the communicative fabric of society.

Chambers (1995) highlights the interplay between linguistic diversity and human mobility, noting that both geographic and occupational movement bring previously segregated dialects into contact. While geographic mobility brings speakers together across distances, occupational and social mobility foster day-to-day interaction, often in shared environments such as schools, markets, and workplaces. In such contexts, language accommodation becomes both a social and linguistic strategy. The importance of direct interaction, particularly face-to-face, is crucial in this process. As Labov (2001) points out, it is primarily through such intimate and sustained interactions that speakers are exposed to and begin to adapt features from other dialects.

This perspective has been echoed by Trudgill (1986), who provides a detailed account of the linguistic consequences of dialect contact in his work on koineisation. He describes how speakers of mutually intelligible, yet distinct dialects often engage in long-term accommodation when brought into sustained contact. Trudgill's model distinguishes between two primary outcomes of such contact: the modification of a speaker's own dialect and the acquisition of features from another dialect. The process of accommodation is often driven by social factors, such as a desire for mutual intelligibility or group acceptance, but it is also influenced by linguistic salience and speaker awareness. In his explanation, Trudgill emphasizes that such contact-induced change can happen at both conscious and unconscious levels.

In her extensive study of dialect contact in Jeddah, Aziza AlEssa (2008) builds upon these foundational theories by examining Najdi speakers who had migrated to the Hejazi urban centre. Her work provides empirical support for Trudgill's perspective that social integration plays a central role in shaping linguistic outcomes. In Jeddah, the Najdi migrants, many of whom came from rural central regions, found themselves in contact with speakers of the Hejazi dialect. Over time, certain phonological and morphological features characteristic of Najdi speech began to shift, with some speakers adopting features more commonly associated with

the urban Hejazi norm. Importantly, AlEssa's analysis demonstrated that these changes were neither uniform nor automatic. Instead, the extent of dialectal modification was closely tied to speakers' level of integration and interaction with the host community.

The role of contact in linguistic change is further complicated by the variability of exposure. As Trudgill (1986) argues, accommodation tends to affect socially marked or stigmatised features more readily than neutral ones. Features that are highly salient or associated with strong regional identity are often the first to undergo levelling or replacement. This phenomenon has been observed in numerous studies across Arabic-speaking communities, including those by Al-Wer et al. (2022), who document how increased contact, particularly in urban settings, can lead to the emergence of intermediate or hybrid forms that blend features of both the incoming and local dialects. In some cases, these intermediate forms serve as stepping stones toward koineisation; in others, they reflect an ongoing process of negotiation and identity construction.

Moreover, dialect contact may not always result in accommodation. In situations where social or ideological boundaries remain rigid, speakers may retain their traditional features as markers of identity and resistance. Al-Wer (2003) and Milroy & Milroy (1992) have shown that social networks play a critical role in determining whether contact leads to convergence or maintenance. Tight-knit communities with dense social networks tend to resist linguistic change, while looser networks facilitate it. This insight is particularly relevant in multilingual or multi-dialectal societies like Saudi Arabia, where mobility, urbanization, and social integration have created layered and complex linguistic ecologies.

AlEssa's (2008) study exemplifies this complexity. By developing a contact index based on factors such as intermarriage, school attendance, workplace interaction, and neighbourhood composition, she was able to categorize her participants according to their degree of exposure to the local Hejazi dialect. Her findings revealed a clear correlation between contact level and

linguistic behaviour. Those with high contact scores were more likely to exhibit features associated with the Hejazi dialect, such as the use of [ʒ] instead of the Najdi [dʒ], or morphological patterns more common in urban speech. Conversely, speakers with low contact scores retained more Najdi features, illustrating how social integration (or the lack thereof) mediates linguistic adaptation.

This section will now turn to examine the two primary processes involved in dialect contact, modification and acquisition, and the outcomes they produce, such as dialect levelling, emergence of intermediate forms, and in some cases, the development of entirely new dialects. Drawing on empirical examples from Arabic-speaking contexts, including Jeddah (AlEssa 2008), Amman (Al-Wer 2007), and Medina (Hussain 2017), this section explores how face-to-face interaction, social mobility, and linguistic salience combine to shape the outcomes of dialect contact. In particular, this discussion will highlight the mechanisms by which dialect contact can lead to structural change and reconfiguration of speech norms within communities undergoing demographic and social transformation.

In Arabic sociolinguistics, the relationship between dialect contact and linguistic change has been the subject of growing scholarly interest, particularly as urbanization, migration, and social mobility intensify across the Arab world. While earlier Arabic sociolinguistic studies often framed contact implicitly, via variables such as education, age, or urban exposure, recent works have increasingly recognized contact as a sociolinguistic variable in its own right (AlEssa, 2008; AlAmmar, 2017; Al-Wer, 2002; Al-Wer et al., 2022). The present study aligns with this direction, employing a quantitative contact index to assess how patterns of exposure to non-Qarni varieties correlate with linguistic behaviour.

3.5.3.1 Models of linguistic diffusion

The empirical grounding for conceptualizing contact as a driver of linguistic diffusion can be found in the frameworks laid out by Al-Wer et al. (2022). Their work presents a comprehensive

typology of diffusion models that helps explain how linguistic features spread across speakers and communities.

The Wave Model, adapted from Schmidt (1872), views diffusion as proceeding in concentric circles from a central point of innovation. The further from this epicentre, the weaker the influence. However, this model is insufficient in explaining contact-induced change in contemporary urbanized contexts, where distance alone does not determine exposure or adoption.

To account for this limitation, the Gravity Model (Chambers, 1993) incorporates both geographical proximity and urban density as factors shaping linguistic influence. Al-Wer et al. (2022) note that this model is particularly applicable to the Gulf and Levant regions, where linguistic features often diffuse not to geographically nearest towns, but rather to cities of similar population size or socioeconomic weight.

Importantly, they also discuss the contra-hierarchical model, whereby innovations spread from rural areas into cities, a pattern attested in the dialectal history of Casablanca and parts of Oklahoma (Trudgill, 1986; Bailey et al., 1993). This model is especially relevant when migration from rural regions into cities brings stigmatized or marked rural features into widespread urban use, as part of identity assertion or demographic shifts.

Within these diffusion models, accommodation plays a central role. As Trudgill (1986, 2004) and Giles (1973, as cited in Trudgill, 1986) argue, speakers often adjust their speech, consciously or unconsciously, to align with those around them, particularly in repeated face-to-face interactions. This short-term accommodation may, under conducive social conditions, become long-term accommodation, ultimately resulting in stable change at the community level.

Trudgill (1986) further distinguishes between different levels of accommodation: stylistic convergence (motivated by solidarity or approval) and structural adaptation (leading to

dialect mixing or koineisation). Al-Wer (2002) and Al-Wer et al. (2022) both observe these dynamics in Arabic-speaking cities such as Amman, where extensive dialect mixing has resulted in the erosion of regionally marked features in favour of supralocal norms.

The outcome of sustained contact is often dialect levelling, a process in which socially marked, or locally restricted forms are gradually lost. Levelling may produce one of several outcomes: (1) the dominance of one regional variant over others, (2) the emergence of interdialectal forms that did not exist in any input variety, or (3) the stabilization of mixed or "fudged" variants, especially in transitional zones or new towns. As Al-Wer et al. (2022: 189-208) show, examples of all three types can be found in dialectal change across Jordan, Palestine, and the Arabian Peninsula.

In the present study, both feature adoption and levelling are observed. The phonological and morphophonemic features under investigation, such as the lenition of /dʒ/ to [j], or the affrication in /k/ > [tʃ], vary across participants, depending on their degree of contact with non-Alqarni speakers.

A particularly compelling outcome of sustained dialect contact is the potential formation of new dialects or supralocal norms, especially in newly urbanized areas. Al-Wer (2003, 2007) and AlAmmar (2017) provide detailed studies of Amman and Ḥaʾil, respectively, where contact between regionally diverse populations has led to dialect convergence and the development of emergent urban norms.

3.5.3.2 Measuring contact: the contact index

Following AlEssa (2008) and AlAmmar (2017), this study operationalizes contact as a quantifiable sociolinguistic variable. A five-point contact index was constructed based on the following criteria:

1. Formal interactions in educational or occupational settings.
2. Close friendships with non-Qarni speakers.

3. Kinship ties or intermarriage with non-Alqarni individuals.
4. Occupational exposure in linguistically mixed environments (e.g., military, healthcare, public service).
5. Participation in social events involving diverse dialect speakers.

Each fulfilled criterion was assigned one point. A cumulative score of 1 to 2 indicated a low level of contact, while a score of 3 to 5 denoted a high level of contact. The relevant information was gathered through direct questioning during interviews or inferred from the participants' narratives and social profiles. The following are sample questions used to assess participants' level of contact:

- Do you work or study in environments that include non-Alqarni speakers?
- Who are your closest friends or social circle composed of?
- Do you attend social gatherings that involve people from different dialectal backgrounds?
- Do you have relatives by marriage or kinship who are not from Alqarni tribe?
- How often do you communicate or spend time with non-Alqarni individuals?

The contact scores of the participants were as follows:

- 22 participants were categorized as **High Contact**.
- 4 participants were categorized as **Low Contact**.

The table below presents the distribution of participants based on their contact scores:

Contact Level	Number of Participants	Description
High	22	Includes all locally born participants and most teenage migrants who grew up in Riyadh.
Low	4	Includes 2 adult male migrants, 1 adult female migrant, and 1 female teenage migrant.

Table 3.4: Speaker Distribution by Level of Contact

Profiles of low-contact participants

- **Female teenage migrant**: Migrated at a young age but remains socially isolated; her daily contact is limited to immediate family or relatives from Balqarn. Rarely participates in broader social settings.
- **Female adult migrant**: Maintains a primarily Qarni social network.
- **Two male adult migrants**: Both maintain strong ties to Qarni kin networks and avoid wider social circles.

The high proportion of high-contact participants (22 out of 26) is due to the fact that all locally born participants were raised in Riyadh, attended local schools, formed diverse social networks, and work in environments that expose them to speakers of various dialects. Similarly, most teenage migrants, especially male participants who entered military or public sector positions, have had long-standing and dense contact with non-Qarni speakers.

On the other hand, most of the low-contact participants belong to the adult migrant group, who relocated to Riyadh at a later stage in life, often after forming strong dialectal identities rooted in Balqarn. Their migration, while important, did not lead to the same degree of social integration as seen with the younger or locally born participants.

These profiles mirror the "restricted network" speakers described by Milroy and Milroy (1993), who found that dense, multiplex social networks often inhibit linguistic change by reinforcing traditional norms. Similarly, AlEssa (2008) found that speakers with limited contact retained Najdi-specific features, such as the affrication of /k/ and /g/, despite prolonged residence in Jeddah.

The present study treats the contact variable as a binary distinction between higher and lower levels of contact rather than as a continuous measure. This simplified categorisation was adopted in order to provide a clear and operational framework for quantitative analysis within the scope of the present research. Developing a more finely graded contact index would require

detailed ethnographic information about the frequency, intensity, and social significance of different types of interaction, such as friendship networks, kinship ties, intermarriage, workplace relations, and educational environments. In practice, obtaining this level of detail was not always possible, as participants were often hesitant to discuss personal aspects of their social networks in depth. For this reason, the factors used to estimate contact were treated as broadly comparable indicators of interaction with speakers of other dialects, rather than being assigned different weights. While it is possible that some forms of contact, such as close friendships or family ties, may exert stronger influence than more institutional forms of contact such as education or workplace interaction, assigning precise numerical weights to these relationships would require a longer period of ethnographic observation than was feasible within the time constraints of the present study. The binary classification used here should therefore be understood as a practical methodological approximation. Future research with more extensive ethnographic data could refine this approach by developing a more continuous or multi-level measure of dialect contact.

3.5.3.3 Transitional zones and mixed forms

Al-Wer et al. (2022) emphasize the role of transitional zones and border communities in producing mixed or "fudged" forms. These are intermediate variants not present in either of the input dialects but emerging from partial accommodation. These intermediate realizations may represent phonetically blended forms, similar to those observed in Ghamdi speakers in Mecca (Alghamdi, 2014), or in the Nile Delta (Behnstedt & Woidich, 2005). Such “fudged” variants provide sociolinguistic insight into how change proceeds, not necessarily through full replacement but via gradual erosion, hybridization, or compartmentalized usage.

3.5.3.4 Linguistic salience, identity, and social evaluation

Linguistic accommodation is not simply a mechanical process, but one deeply mediated by the salience and social evaluation of linguistic features. As Trudgill (1986) argues, for accommodation to become long-term and result in structural change, the features being adopted must be salient, noticeable to both the speaker and the interlocutor, and carry some form of social or stylistic value. This salience can operate on multiple levels. Phonetically salient features, such as affrication or the use of a marked definite article, tend to attract attention more easily, especially if they are associated with a particular group or stereotype (Trudgill, 2004; Labov, 1972).

The evaluation of linguistic features, whether they are perceived as prestigious, stigmatize or neutral, directly affects their diffusion. Highly stigmatized forms, even when salient and frequent, may resist adoption. On the other hand, features associated with prestige, modernity, or "urbanity" may be adopted more readily (Labov, 2001; Al-Wer et al., 2022). In Arabic dialects, the social value of a variant often hinges on the perceived status of its speakers. For instance, variants associated with large cities or economically dominant groups may carry covert prestige even when they diverge from the local vernacular norm.

Identity also plays a crucial role. Speakers may align themselves linguistically with certain groups as an expression of identity, or they may diverge from others to reinforce boundaries. As Al-Wer (1991, 2002) highlights, linguistic identity is negotiated through daily interactions, and dialectal features can become symbolic resources through which speakers articulate their social positioning. This is particularly evident in urban centres with high mobility, such as Amman or Jeddah, where speakers may use a mixed repertoire of variants to navigate complex social landscapes (Al-Wer et al., 2022).

The concept of salience itself is complex to define. Although sociolinguists have attempted to develop more systematic ways of defining salient linguistic features, there is still

no fully objective method for determining why certain variables are perceived as more noticeable than others. Building on Labov's distinction between indicators, markers, and stereotypes, Trudgill (1986) proposed that socially noticeable features often share particular properties, such as phonetic distinctiveness, social awareness among speakers, and the potential to signal regional or social identity. Subsequent work has continued to explore these issues (e.g. Al-Wer 1991, 1999; Kerswill 2002), but attempts to define salience frequently encounter a degree of circularity: a feature is considered salient because speakers notice it, yet the fact that speakers notice it is often taken as evidence of its salience. Salience is therefore best understood as a socially grounded and context-dependent concept, shaped by the linguistic experience of speakers and the specific conditions of dialect contact. In the case of the Qarni dialect, several features are widely recognised by speakers as distinctive of the variety and are frequently noticed in interactions with speakers of other Saudi dialects. One example is the third feminine singular verbal ending *-an*, which contrasts with *-at* in all other dialects and may also create potential ambiguity in inter-dialectal communication, since *-an* is used with feminine plural morphology in several dialects. Such features are therefore likely to be particularly noticeable in contact situations and may be more susceptible to accommodation or modification. At the same time, focusing on highly noticeable variables means that the present study does not capture the full range of possible linguistic change in the dialect. Less salient variables may follow different trajectories of stability or change, and investigating such features would therefore represent a valuable direction for future research.

3.5.3.5 Social networks and the contact variable

The role of social networks in dialect contact is foundational to understanding the mechanisms through which linguistic accommodation operates. The concept, developed by Milroy and Milroy (1985, 1993), centres on the idea that the structure and density of a speaker's social ties influence both their exposure to linguistic variation and their likelihood of adopting new

forms. Dense, multiplex networks, where individuals interact frequently and across multiple social domains, tend to preserve local norms. In contrast, loose or uniplex networks, often found in settings of high mobility, facilitate the diffusion of non-local features.

In the context of this study, network strength is approximated through the contact index, adapted from AlEssa (2008) and AlAmmar (2017), which evaluates participants' degree of sustained interaction with non-Qarni speakers. This approach assumes that linguistic innovation is more likely to occur among those whose social networks include individuals from diverse dialect backgrounds. As Milroy (1987) explains, it is not simply the frequency of interaction, but the nature and density of ties that affect linguistic behaviour.

Trudgill (1986: 149) similarly asserts that "it is purely a matter of who interacts most often with whom," reinforcing the idea that linguistic influence flows through the architecture of everyday interaction. In his Philadelphia study, Labov (2001) employed a similar framework, introducing Communication Indices to quantify the density and diversity of interpersonal ties, a method that has influenced subsequent Arabic sociolinguistic research (Al-Wer et al., 2022).

3.5.3.6 Arabic sociolinguistic studies on contact and variation

Contact-induced change has been the subject of multiple studies in the Arab world, particularly in cities experiencing rapid urbanization or high levels of internal migration. Al-Wer (2002, 2003) documents how dialect contact in Amman has led to the emergence of new, levelled forms as migrants from different regions interact. The city's lack of a traditional dialect allowed for the development of a new urban koine through processes of accommodation, levelling, and mixing. Similarly, AlEssa (2008) examined Najdi speakers in Jeddah, where contact with Hijazi speakers prompted both retention and adaptation of dialectal features.

Other studies, such as AlAmmar (2017) on Ḥaʾil and Alghamdi (2014) on Mecca, confirm that urban centres act as focal points for dialect diffusion, often initiating linguistic shifts that ripple outward (Al-Wer et al., 2022). These findings align with the Gravity Model of

diffusion, where larger cities exert a disproportionate influence on surrounding areas, especially in societies characterized by rapid modernization and increased mobility. However, as Aziza AlEssa (2008) notes, not all contact results in convergence. In her Jeddah study, Najdi speakers showed selective accommodation, often retaining regionally salient features in phonologically constrained environments. This suggests that contact effects are mediated by linguistic, social, and psychological filters, not just by exposure alone.

Conclusion

The relevance of the contact variable to the Qarni speakers in Riyadh

The contact variable plays a pivotal role in understanding patterns of linguistic behaviour among Qarni speakers in Riyadh. Originating from the southwest of Saudi Arabia, these speakers are part of a wider demographic movement that has brought distinct dialect groups into close contact within the capital. The application of a structured contact index in this study allows for a nuanced classification of participants based on the density and quality of their social interactions with non-Qarni speakers.

This methodology captures the complexity of linguistic exposure in urban settings, where formal, familial, and occupational networks intersect. In line with findings by Al-Wer et al. (2022), it is expected that the degree of integration into heterogeneous social networks, rather than simply geographic relocation, shapes the trajectory of dialect contact and potential change.

By treating contact as a quantifiable sociolinguistic variable, this study builds on the work of AlEssa (2008) and AlAmmar (2017), while incorporating broader theoretical insights from Labov, Trudgill, and Chambers. It provides the necessary methodological foundation for assessing whether observed linguistic patterns among Qarni speakers correlate with their levels of social integration and dialectal exposure.

3.6 The linguistic variables

This study investigates linguistic variation among Qarni speakers in Riyadh by focusing on four key morphological and morphophonemic features that distinguish the traditional Qarni dialect from other regional dialects. These features are salient markers of the Qarni variety and have been selected for their diagnostic value in identifying patterns of maintenance, change, or accommodation in the context of migration and dialect contact.

The four linguistic variables examined in this study were selected on the basis of both native-speaker knowledge and broader sociolinguistic considerations. As a native speaker of the Qarni dialect, the researcher has first-hand knowledge of the features that are widely recognised within the community as distinctive of Qarni speech and that are often noticeable in interaction with speakers of other Saudi dialects. These features are also among those most readily invoked when speakers attempt to imitate or mimic Qarni speech by non-Qarni speakers, further indicating their salience. This native-speaker intuition was also supported by the dialectological description provided by Prochazka (1988), who lists these features among the most distinctive characteristics of the Qarni dialect.

The selection of these variables was informed by sociolinguistic theory on salience and dialect contact. While other features are also variable in Riyadh (see p.258), this study focuses on the most salient Qarni variables, on the assumption that salient features are more likely to be affected under conditions of dialect contact. Following Trudgill (1986), features that are socially noticeable, phonetically distinct, or liable to create communicative pressure in interaction are particularly susceptible to modification. The variables selected here meet these criteria to varying degrees. For example, the 3rd singular feminine verbal ending *-an* is highly distinctive of Qarni speech, whereas all other Saudi dialects use *-at*. In addition, forms similar to *-an* in other dialects are associated with feminine plural morphology, which may create ambiguity in mixed-dialect interaction.

This study does not claim that these are the only features undergoing change. Other variables may also be affected and merit investigation in future research. However, the focus on these variables reflects their salience within the speech community and the assumption that such features are likely to be most susceptible to change in dialect contact situations (see Trudgill, 1986). The question of salience and its implications for the interpretation of the results is discussed further in Chapter 8 (pp. 253-255).

The linguistic variables are listed below:

3.6.1 The affrication of /k/

One of the most salient features of the Qarni dialect is the affrication of the voiceless velar stop /k/ to the voiceless postalveolar affricate [tʃ], particularly in specific phonological environments. This process occurs both in the stem and in the second person singular feminine suffix -*ik*. Examples include:

- [kila:b] > [tʃila:b] ‘dogs’
- [ke:f-ik] > [ke:f-itʃ] ‘how are you?’ (2SF)

3.6.2 The definite article *m-*

In contrast to the standard definite article *l-* used in many Arabic dialects, the Qarni dialect employs *m-* as the definite article. This form is a distinctive and highly salient feature of the dialect and appears before nouns beginning with both consonants and vowels. For example:

- [l-ʕju:n] > [m-ʕju:n] ‘the eyes’
- [l-ba:b] > [m-ba:b] ‘the door’

3.6.3 The lenition of /dʒ/ to [j]

Another characteristic feature of the Qarni dialect is the lenition of the voiced postalveolar affricate /dʒ/ to the voiced palatal glide /j/. For instance:

- [ridʒli:] > [ri:li:] ‘my leg’
- [l-dʒama:d] > [l-jama:d] ‘ the mountain’

3.6.4 The 3rd singular feminine verbal ending *-an*

The use of the morpheme -an as a marker of the third person singular feminine past tense verb is another distinctive feature of the Qarni dialect. This feature differs from forms found in many other Arabic dialects. Examples include:

- [na:m-at] > [na:m-an] ‘she slept’
- [ga:l-at] > [ga:l-an] ‘she said’

The maintenance or loss of this feature among Qarni speakers in Riyadh provides insight into patterns of dialect retention or change following migration. These four linguistic variables will be examined in detail in Chapters 4 to 7 in relation to the social factors discussed in the previous sections.

Chapter 4

The Affrication of /k/

Introduction

The phonological realization of the voiceless velar stop /k/ has long served as a diagnostic feature in the study of Arabic dialectology, particularly within the dialects of the Arabian Peninsula. Among the most salient processes involving /k/ is its affrication, which varies across dialect regions in both form and frequency. In this chapter, the affrication of /k/ will be examined in the speech of the Qarni speakers residing in Riyadh, a community whose linguistic practices reflect both their southern heritage and their current urban context.

The process of /k/ affrication is known to operate under specific phonological conditions, most notably, in the environment of front vowels. In several Najdi dialects, such as those spoken in Qasīm and Central Najd, the realization of /k/ shifts to [ʦ] under these conditions (Ingham, 1994; Al-Wer et al., 2022). This feature is particularly associated with Bedouin-origin dialects and has been described in detail by researchers such as Johnstone (1963), who notes that affricates such as /ʦ/ and /dz/ (of /g/) are broadly attested in Central and Eastern Arabian dialects. In contrast, in the Qarni dialect spoken in Balqarn and preserved by some speakers in Riyadh, /k/ is commonly realized as [ʧ] in similar phonological environments, a pattern more in line with southern highland dialects (Prochazka, 1988).

The affrication of /k/ is not uniformly distributed across all linguistic domains. As has been observed in other dialects (AlEssa, 2008; Al-Rohili, 2019), the behaviour of /k/ can differ depending on its position within a word, whether it occurs in the lexical stem or as part of a morphological suffix. Following AlEssa's (2008) distinction between /k/ in the stem as a phonological variable and /k/ in the 2SF suffix *-ik* as a morphophonemic variable, this chapter treats /k/ affrication in the stem and suffix separately. Accordingly, this chapter is divided into two main sections. The first section focuses on the affrication of /k/ as a stem consonant,

analysing it as a phonological variable influenced by surrounding vowel quality, lexical context, and possibly speaker-related social factors. The second section examines the affrication of /k/ in the second person feminine singular suffix *-ik*, a position where affrication may function as a morphophonemic alternation tied to both grammatical structure and stylistic variation.

While the primary aim of this chapter is descriptive, the analysis draws upon key concepts from variationist sociolinguistics, particularly the role of phonological conditioning (Labov, 1966), dialect contact (Siegel, 1985), and morphophonemic distribution. Previous studies, including AlEssa's (2008) work on Najdi speakers in Jeddah and Al-Rohili's (2019) study of palatalization in the Ḥarbi dialect of Medina, provide important comparative perspectives for understanding the behaviour of /k/ in the Qarni dialect. These studies show the importance of position-sensitive variation and regional influences in shaping segmental phonology in Saudi Arabic dialects.

The following sections will present a detailed analysis of /k/ affrication in both stem and suffixal environments, situating the Qarni patterns within the broader phonological and sociolinguistic landscape of Arabic dialect variation. All analysis remains grounded in the descriptive goal of capturing the current state of /k/ realization among Qarni speakers in Riyadh.

4.1 The affrication of /k/ as a phonological variable in stem position

4.1.1 Variable /k/ in stem environments

The velar stop /k/ in Najdi Arabic often undergoes affrication to /ʦ/ in stem contexts, particularly when adjacent to front vowels (/i, e/) (Johnstone, 1963; Ingham, 1994). This phonological alternation distinguishes Najdi speech from other regional varieties and operates independently of morphological domains. In contrast, in the Qarni dialect spoken in Balqarn, /k/ is often realized as /tʃ/ aligning with Southern Highland forms (Prochazka, 1988).

4.1.2 Review of previous studies on stem affrication of /k/

Johnstone (1963, as cited in AlEssa, 2008) provides one of the earliest systematic treatments of affrication phenomena in the Arabic dialects of the Arabian Peninsula. Drawing on data collected both firsthand and from earlier sources, including Wallin (1868), Socin (1901), and Binder (1939), he delineates a dialectal region in which /k/ and /g/ regularly surface as /ʦ/ and /dz/, respectively. This area, which includes the dialects of tribes such as ʿAnizah, is characterized by the affrication of velar stops in the environment of front vowels. For example, Johnstone cites forms like [tsabda] 'liver' as evidence of this phonological shift. However, he also observes that affrication may be blocked by specific phonological environments, such as the presence of emphatic consonants or back vowels, as in [galb] 'heart'. Importantly, Johnstone distinguishes between the general affrication of stem-internal /k/ and the morphophonemic affrication that occurs in suffixal positions, particularly in the second person feminine singular suffix.

Ingham (1982, 1994) further refines the classification of Arabic dialects in the Arabian Peninsula by identifying four distinct subgroups of Najdi Arabic: Central Najdi, Northern Najdi, Mixed Northern-Central, and Southern Najdi. He notes that the realization of /k/ and /g/ as [ʦ] and [dz], particularly in front-vowel environments, is a defining feature of Central Najdi dialects, such as those spoken in Riyadh, Sudair, and Al-Washm. These variants serve as sociolinguistic markers distinguishing "inner" Najdi dialects from peripheral ones. In peripheral regions, including some southern and tribal areas, Ingham documents the occurrence of [tʃ] and [dʒ] instead of [ts] and [dz]. This distinction is crucial for understanding the broader sociophonological landscape of the Peninsula, as it illustrates that the affrication of /k/ is not a uniform feature across Najdi speech, but rather one that varies significantly by region and tribal affiliation.

Prochazka (1988) presents a comprehensive typological survey of Saudi Arabian dialects and confirms the affrication of /k/ and /g/ to [ts] and [dz] across all Najdi dialects, both in stem and suffix positions. He classifies Saudi dialects into major regional groupings, including Najdi, Eastern Arabian, Southern Ḥijāz, and Tihamah highland varieties. While Najdi dialects exhibit systematic affrication to [ʦ] and [dz], dialects in the southern highlands, including those spoken in areas such as Balqarn, often realize /k/ as [ʧ], especially in environments of front vowels. Prochazka's work is particularly valuable for highlighting the contrast between these dialect zones, showing that affrication patterns vary not only in phonetic form but also in frequency and social marking across dialect boundaries.

Holes (1991) offers a historical perspective on the development of affrication in the Arabic dialects of the Peninsula. Using the synchronic geographical distribution of (k) variants as evidence that mirrors movements from Najd to the peninsula's peripheries, he reconstructs a multi-stage, centuries-long fronting trajectory. He proposes that /k/ first affricated to [ʧ] around the mid-thirteenth century, coinciding with Bedouin migration from Najd toward Jordan, Syria, Baghdad, and lower Mesopotamia; in the final stage, this affricate fronted further to [ʦ], which he associates with present-day linguistic situation in Najd (Holes 1991: 666-667 as cited in Alshawi, 2020: 154-155).

AlEssa (2008) conducted a variationist sociolinguistic study of Najdi Arabic as spoken by migrants in Jeddah, with a particular focus on the affrication of /k/ and /g/ in both stem and suffixal environments. She identifies /k/ as a variable with two primary realizations: [k] and [ʦ]. Her data show that affrication in stem-internal positions is widespread among older and male speakers, while younger and female speakers tend to favour the unmarked velar stop [k]. AlEssa finds that affrication in the stem is phonologically conditioned by vowel environment, occurring most frequently before front vowels, in line with previous descriptions. Importantly, she treats stem affrication as a phonological variable, distinct from affrication in suffixes, which

she analyses as morphophonemic feature. Her study provides an empirical basis for understanding the synchronic variation of this feature in urban Najdi speech, while also reinforcing the relevance of regional and generational factors in shaping phonological outcomes.

Together, these studies provide a comparative framework for analysing the affrication of /k/ in stem contexts across Saudi dialects. The following section builds on this framework to analyse affrication in the speech of the Qarni speakers residing in Riyadh, focusing on stem-internal realizations of /k/ and their phonological conditioning.

4.1.3 Data and analysis

The following examples from my data show the affrication of /k/ to [tʃ] within the stem position:

- [kila:b] → [tʃila:b] ‘dogs’
- [kibidi] → [tʃibidi] ‘my liver’

These two instances represent the only occurrences of stem-internal affrication across the dataset. Out of a total of 712 potential tokens, 710 were realized with the standard/urban and koine form [k], while only 2 tokens exhibited affrication as [tʃ]. This results in an affrication rate of 0.28%, with the vast majority of realizations (99.72%) conforming to the deaffricated variant, as shown in Table 4.1.

variant	token count	percentage (%)
/k/	710	99.72%
/tʃ/	2	0.28%

Table 4.1: Distribution of the affrication of /k/ in the stem

These figures provide clear evidence that the affricated form of /k/ ([tʃ]) in stem position is now nearly obsolete among Qarni speakers residing in Riyadh. The use of [tʃ] appears highly marginal, suggesting that speakers overwhelmingly favour the deaffricated (velar) form [k].

The near-total absence of [tʃ] among Qarni speakers in Riyadh is potentially driven by the sociolinguistic pressures of urban integration. The dominance of [k] over [tʃ] in the speech of the Qarni migrants may therefore reflect broader processes of dialect levelling, motivated by a desire for social mobility, linguistic assimilation, and alignment with urban norms.

This trend also shows the impact of internal migration and dialect contact in reshaping linguistic behaviour. As noted by Trudgill (1986) and Labov (2001), such environments frequently lead to the reduction or loss of socially marked features, particularly when speakers are regularly exposed to varieties perceived as more standard, neutral, or prestigious.

The relationship between the disappearance of affricated [tʃ] in stem position and the social variables of migratory cohorts, contact, and gender is examined in the following section.

4.1.3.1 Affrication of /k/ in the stem and the social variables

Given the extremely limited occurrence of [tʃ] in the stem, amounting to only two tokens out of 712, both produced by a single speaker, there is no basis for conducting statistical comparisons across groups. The near absence of this variant renders quantitative analysis unnecessary. The tokens will therefore be examined impressionistically and qualitatively.

Both tokens were produced by a single adult male speaker who had migrated to Riyadh during late adolescence. This speaker belonged to the low-contact group and used [tʃ] while recounting a childhood story from his youth in Balqarn, quoting his mother in a moment of emotionally charged narration: *tʃibidi* ‘my liver’ in *fagaʕat tʃibidi* ‘she annoyed me so much’ and *tʃila:b* in *tku:n timsi maʕ m-tʃila:b* ‘she would sleep with the dogs’ meaning ‘she is very strong’.

This extremely restricted distribution reinforces the interpretation of [tʃ] as a relic feature, a socially residual form that is no longer productive in everyday speech. From a sociolinguistic perspective, [tʃ] is not only rare but also socially and functionally marginal. Its occurrence was confined to a single narrative context of personal recollection, suggesting that [tʃ] is retained only in highly specific, emotionally charged, or stylistically marked speech situations, rather than in productive, socially meaningful variation.

Such behaviour aligns with patterns observed in other Arabic dialect contact settings, where regionally marked features are preserved only in isolated instances, often during acts of stylization, quotation, or performance of local identity. In this case, the production of [tʃ] does not indicate active maintenance of the variant but rather signals a momentary reversion to an older dialectal norm within a narratively appropriate context. It survives only as a vestigial marker of the speaker's linguistic past, with no evidence of transmission or diffusion within the broader community. Increased exposure to dominant urban norms, in this case supralocal [k], appears to accelerate the retreat of such marked dialect features.

Overall, no meaningful pattern can be observed based on social factors such as migratory cohort, contact level, or gender. The complete absence of the variant among all groups, along with its highly limited marked context, reinforces the interpretation of [tʃ] as a relic feature.

4.1.3.2 Discussion and conclusion

The deaffrication of [tʃ] can be seen as a result of long-term dialect contact and accommodation in an urban centre such as Riyadh. In Arabic sociolinguistic terms, the markedness of the [tʃ] variant, and its strong associations with rural Southern identities, has contributed to its attrition. Trudgill (1986) notes that highly marked forms often become sites of stylistic negotiation or avoidance, especially in contexts of migration and upward mobility.

The Qarni speakers in Riyadh appear to have oriented toward the unmarked [k], not only for social integration but also for intelligibility in a dialectally diverse metropolis.

Furthermore, the disappearance of [tʃ] can be interpreted as a case of dialect levelling, in which phonological variants that carry strong regional or social indexing are lost in favour of supralocal forms (Kerswill & Trudgill, 2005). In this context, [k] emerges as the socially and linguistically 'neutral' variant. As AlEssa (2008: 182) noted in her study, stigmatized and overly localized forms are often abandoned in favour of more standard or widely accepted variants, particularly when such features hinder inter-dialectal communication or social acceptance.

4.2 The affrication of /k/ in the second person singular feminine suffix (*-ik*)

In addition to its occurrence in stem positions, the affrication of /k/ in the dialect under investigation also extends to morphophonemic domains, the second person singular feminine suffix (-ik). This variable offers an important lens through which we can explore how morphological structure interacts with phonological realization. In the traditional Qarni dialect, as reported in earlier descriptions, the suffix frequently appears as [-itʃ].

4.2.1 Review of previous studies

The study of morphophonemic and morphosyntactic changes in dialect contact contexts has been a longstanding area of inquiry in both Arabic and comparative linguistics. Morphophonemic processes are often among the first linguistic domains to exhibit signs of variation or change in response to shifts in identity, style, or communicative function. Classical historical linguistics laid the groundwork for this inquiry. The tradition can be traced back to the classical studies of *sandhi* in Sanskrit carried out by Panini and other Indian grammarians, as well as to the analyses of vocalic alternations in the Semitic languages undertaken by the early Arab grammarians. These early investigations formed the basis for later developments in

the study of morphophonemics (AlEssa, 2008: 144). In Arabic linguistics, this tradition is mirrored in the extensive documentation of suffix alternation patterns in the medieval grammatical treatises.

Within Arabic, and especially in Peninsular and Najdi dialects, variation in the realization of the second person feminine suffix has received particular attention. Holes (1991), in his survey of Arabian dialects, draws a link between the general affrication of /k/ and its affricated reflex in the pronominal suffix. He observes that varieties displaying conditioned affrication of /k/ in stems typically also exhibit affrication in the suffix. For Holes, this connection suggests that affrication, once present, may operate across morphological as well as phonological domains. Importantly, he rejects the explanation advanced by early Arab grammarians that affricated endings emerged solely to maintain gender distinctions in pause (i.e., after the loss of final vowels in *-ka/-ki*). Instead, Holes (1991: 660) proposes that the shift from *-ki* to *-ʦ* or *-ʧ* originated as a natural phonological development triggered by high front vowels and later spread to other contexts.

Further support for the morphophonemic distinctiveness of this suffixal affrication is found in Johnstone's (1963) detailed examination of dialects across the Arabian Peninsula and southern Iraq. Unlike earlier linguists such as Cantineau and Rabin, Johnstone made a clear distinction between the general affrication of the velar stop /k/ and the specific morphophonemic realization of the second person feminine suffix. He points out that in central Najdi dialects, this suffix consistently appears as [-ʦ], while in peripheral dialects it is often realised as [-tʃ]. He stresses that this suffixal affrication functions as a morphological property rather than a purely phonological variant, noting that [-ʦ] cannot be replaced by [k] in the suffix environment. Furthermore, Johnstone asserts that the affricated suffix surfaces categorically regardless of the vowel environment, whether front or back. This suggests that its realization is

a morphological property rather than a purely phonological one (Johnstone, 1963, cited in AlEssa, 2008: 154).

The importance of suffix variation in early Arabic was not lost on classical grammarians. As early as the eighth century AD, grammarians such as Sibawayh documented the occurrence of what they referred to as " kaskasa" and " kaškasha ", terms denoting the addition of /s/, /ts/,/ʃ/ or /tʃ/ to the second person feminine suffix *-ki.* These features were often described as tribally or regionally marked and appeared primarily in pause position. The motivation, according to early sources, was to preserve gender distinctions that might otherwise be lost due to vowel deletion in pause. For example, in Classical Arabic, the masculine and feminine suffixes *-ka* and *-ki* become indistinguishable when the final vowels are dropped. The addition of /s/, /ts/,/ʃ/ or /tʃ/ was thus seen as a means of restoring this lost contrast (Sibawayh, as cited in AlEssa, 2008: 153).

However, this interpretation has been challenged by modern scholars. Anis (1952) and El-Gindi (1983), as cited in AlEssa (2008: 153), argued that the classical grammarians misrepresented the actual phonetic realization of the suffix. They noted that the early texts' symbolic representations obscured the reality that speakers were producing affricated segments, particularly [ʦ], and not simply adding a [s] for clarity. Drawing on modern data, these scholars suggest that what the early grammarians transcribed as [s] or [ʦ] was likely a misunderstanding of affricated sounds, thus proposing a reinterpretation of kaskasah as evidence for historical affrication. Johnstone (1963) supports this line of reasoning, noting the plausibility that the forms described in early texts match the [ʦ] suffix still found in modern Najdi varieties.

In modern dialectological studies, the suffix continues to serve as an index of social variation. Al-Azraqi (2007) explored this variable in the speech of educated men and women from five Saudi cities, representing diverse regions. Her study found that the forms [-s] and [-ʦ] were traditional in central and northern areas, while [k] emerged as a dialect-neutral or

urbanized variant. Speakers from Riyadh showed the highest use of [k], followed by those from Skaka and then Buraidah. Al-Azraqi attributed the shift from dialectal to neutral forms to urbanization and formal education. She also observed gendered patterns, noting that male speakers used [k] more frequently, especially in non-familial contexts, while women adopted various avoidance strategies to distance themselves from dialectal variants.

However, this study has been criticized on methodological grounds. AlEssa (2008: 152) raises a number of reservations about Al-Azraqi's conclusions, noting that the sampling was clearly biased. The participants were selected for their known tendency to use [k], thereby undermining claims about the general decline of [ʦ] and [s] in the speech community. AlEssa notes that such sampling cannot represent the broader population of Riyadh, Buraidah, or Skaka, where dialectal suffix forms remain in circulation. Thus, any conclusions about the decline of affricated forms or the spread of [k] must be treated with caution and limited to the sample under investigation (AlEssa, 2008: 156).

Finally, broader cross-regional studies, such as Al-Wer et al. (2022), have documented the affrication of /k/ in several eastern Arabic dialects. They point out that affrication often co-occurs with the front vowel [i], and in some dialects [e] or even [a] and [u]. In contemporary dialects, there is an observable shift toward deaffrication, with [ʧ] or [ts] returning to [k]. However, they emphasize that not all historical occurrences of /k/ were affricated, and so not every instance of /k/ today indicates deaffrication. They argue for careful variable restriction, proposing that only lexemes historically subject to affrication should be included in sociolinguistic analyses of this kind. This recommendation is especially important when analysing morphophonemic variation such as the second person singular feminine suffix, where diachronic and synchronic factors intersect.

Together, these studies demonstrate that the variation in the second person feminine suffix (-ik) is not merely a matter of phonetic realization, but a morphophonemic phenomenon

embedded in historical precedence, regional differentiation, gender performance, and shifting norms of urban identity.

4.2.2 Data and analysis

In the Qarni dialect spoken by migrants in Riyadh, gender in the second person singular is marked by the suffixes [-ak] for the masculine and [-itʃ] for the feminine. In comparison, the traditional Najdi dialect in the region employs [-ik] for the masculine and [-its] for the feminine (Johnstone, 1963; Ingham, 1994, as cited in AlEssa, 2008). These forms are conditioned by the phonological environment. In post-consonantal contexts, Qarni speakers use [-ak] for the masculine and [-itʃ] for the feminine, while Najdi speakers use [-ik] and [-its], respectively. In post-vocalic environments, following a vowel, Qarni speakers maintain gender distinction by using [-k] for masculine and [-tʃ] for feminine. Similarly, in the Najdi dialect, the masculine form is marked with [-k], while the feminine form appears as [-ts] post-vocalically. The table below summarizes these paradigmatic patterns:

Context	Najdi Masc	Najdi Fem.	Qarni Masc.	Qarni Fem.
Post-consonantal	-ik	-its	-ak	-itʃ
Post-vocalic	-k	-ts	-k	-tʃ

Table 4.2 The 2nd person forms across Najdi and Qarni dialects.

Examples:

Taditional Najdi	**Qarni**	**Gloss**
kita:bik	kita:bak	‘your (SM) book’
kita:bits	kitabitʃ	‘your (SF) book’
ubu:k	abu:k	‘your (SM) father’
ubu:ts	abu:tʃ	‘your (SF) father’

The adaptation of the Qarni speakers to the urban variant [k] , the target variant, appears complex and reflects the introduction of a new paradigmatic distribution. In this case, it

involves deaffrication and reliance on vocalic distinctions only to carry the gender information. As with other sociolinguistic accommodation patterns, one might expect the emergence of forms that do not fully align with the target dialect. The following section examines how the Qarni speakers realise the second person feminine suffixes in their speech in Riyadh.

The data show that Qarni speakers employed four distinct realizations to mark the feminine second person suffix: [-itʃ], [-tʃ], [-ik], and [-k].

The following examples reflect the feminine forms observed in the data:

1. [-ik] post-consonantally:
    i. ʔagu:ll-ik ‘I tell you ’
    ii. kala:m-ik ‘your word’
2. [-k] post-vocalically: speakers used [-k] post-vocalically and the final vowel is lengthened
    i. abu:k ‘your father’
    ii. axu:k “your brother’
3. [-itʃ] post-consonantally:
    i. ʔagu:ll-itʃ ‘I tell you’
    ii. kala:m-itʃ ‘your word”
4. [-tʃ] post-vocalically
    i. abu:tʃ ‘your father’
    ii. axu:tʃ “your brother’

In the above examples, Qarni speakers deaffricate [-tʃ] to [k] in both post-consonantal and post-vocalic positions; additionally, in the post-vocalic context the vowel is lengthened. The deafrication to [k] in post-vocalic contexts results in neutralization of gender distinctions. In these cases, the feminine suffix becomes indistinguishable from its masculine counterpart, as

the vowel preceding [-k] is also lengthened. However, when deaffrication occurs post-consonantally, gender distinction is preserved through vowel quality, /a/ for masculine and /i/ for feminine, in the Qarni dialect.

This morphophonemic behaviour in the Qarni dialect is summarized in Table 4.3.

	2MS	2FS
Qarni	[-ak]/C_ , [-k]/V_	{[-itʃ], [-ik]}/C_ , {[-tʃ] , [-k]}/V_
Traditional Najdi	[-ik] /C_ , [-k]/V_	{[-its], [-ik]}/C_ , {[-ts], [-k]}/V_

Table 4.3 The 2nd person paradigm across Najdi and Qarni dialects.

It is worth mentioning that unlike Najdi speakers in Hijaz who, according to AlEssa (2008), also used the suffix [-ki] for the 2nd person singular feminine suffix, a form that reflects partial convergence with Urban Hijazi, none of the Qarni speakers in this study produced this form to make up for the neutralization of gender distinction in post-vocalic environments.

In sum, the Qarni system demonstrates nuanced variation between affricated, non-affricated, and levelled forms, depending on the phonological environment. The presence of these variants highlights the morphophonemic complexity and variation within and across dialects in Saudi Arabia.

4.2.3 Accommodation among Qarni speakers in Riyadh

The data in figure 4.1 illustrate the overall frequency of the affricated variant [tʃ] in two distinct environments: the stem and the second person singular feminine suffix.

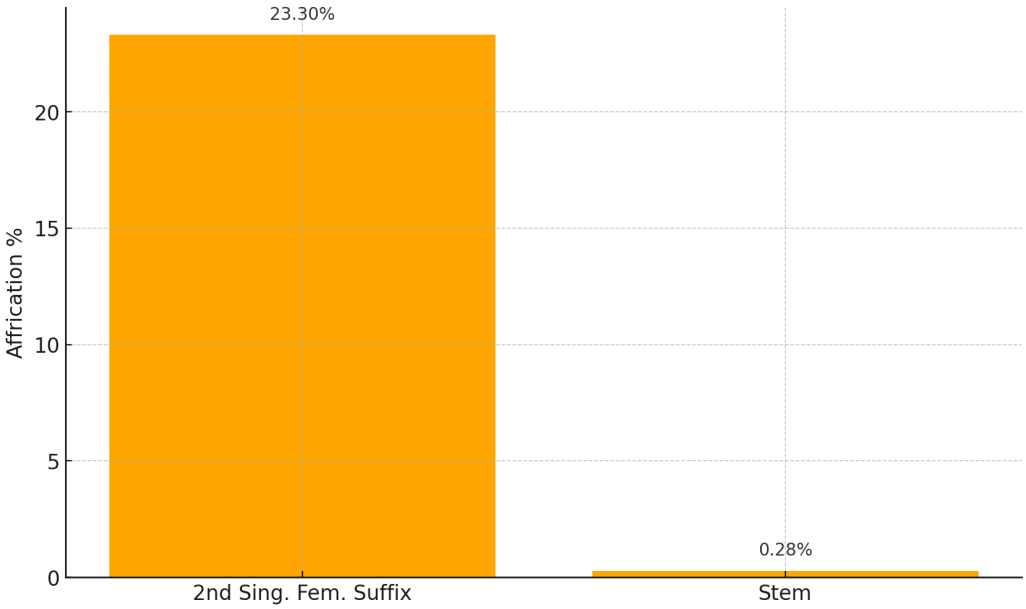


Figure 4.1 Use of The Affricated Variants in the 2nd Sing. Fem. Suffix Vs. the Stem

While the occurrence of [tʃ] is marginal in stem-internal positions (0.28%), it is noticeably more frequent in the clitic suffix domain (23.3%). This suggests that although the affricated form is generally undergoing attrition, its retention in the suffix position is relatively stronger. This higher degree of maintenance in the suffix can be linked to the morphosyntactic function performed by this variable. The second person feminine suffix serves as a grammatical marker of gender. As such, the affricated variant [tʃ] does not merely signal regional or social identity, it also carries structural and semantic load. The communicative necessity of distinguishing second person feminine forms from their masculine counterparts may contribute to the partial retention of [tʃ] in this domain.

This interpretation finds support in previous sociolinguistic research. As AlEssa (2008) observed, affricated forms that fulfil grammatical functions, such as gender marking, tend to show more resilience in the face of dialect levelling than purely phonological variants. In her analysis of Najdi speakers in Jeddah, AlEssa found that while 75% of speakers had replaced the affricated feminine suffix with urban Hijazi forms such as [-ik] and [-ki], a significant number of them did so without strictly adhering to the phonetic conditioning constraints of the

Hijazi system. She attributes this pattern to the grammatical salience of the suffix and the functional need to mark gender in the second person singular context.

Similarly, although affrication is markedly rare in the stem among Qarni speakers in Riyadh, its comparatively higher rate in the suffix domain may reflect the speakers' awareness of its morphosyntactic role. This distinction also highlights how different domains of the grammar respond differently to the pressures of dialect contact, levelling, and identity negotiation.

The variation in the realization of the second person feminine suffix will be further examined in the following sections in relation to the social variables of migratory cohorts, gender, and degree of dialect contact.

4.2.4 The migratory cohorts variable

4.2.4.1 Distribution of the morphophonemic variable *-ik* in post-consonantal environments

This section examines the distribution of the morphophonemic variable *-ik* (the deaffricated variant) in the second person singular feminine suffix in post-consonantal environments across three migratory cohorts: adult migrants, teenage migrants, and locally born in Riyadh speakers. These groups represent different levels of exposure to the dominant urban dialect in Riyadh and are used as a proxy for age at which they arrived to Riyadh and length of linguistic contact with the host speech community.

Table 4.4 below displays the proportion of the affricated *-itʃ* and deaffricated *-ik* realizations for each migratory cohort, along with the total number of tokens analysed per group:

migratory cohorts	% -itʃ (Affrication)	% -ik (Deaffrication)	N (Total Tokens)
Adult migrants	38.0%	62.0%	137
Teenage migrants	18.6%	81.4%	231
Locally Born	0.3%	99.7%	388

Table 4.4 The distribution of post-consonantal variants of the 2nd sing. fem. suffix across Migratory Groups

As the data show, there is a strong association between the migratory cohorts and the use of the deaffricated variant *-ik*. Among adult migrants, who arrived after adolescence, the use of *-ik* reaches 62.0%, while teenage migrants show a marked increase to 81.4%, and locally born speakers exhibit near-complete convergence with the deaffricated variant, using *-ik* in 99.7% of cases. This gradient increase points to a monotonic trend: the earlier the arrival to Riyadh (or birth there), the more likely the speaker is to adopt the urban (target) deaffricated variant.

Conversely, the use of the affricated variant *-itʃ* declines across the same trajectory, from 38.0% among adult migrants, to 18.6% among teenager migrants, and just 0.3% among those born in Riyadh, suggesting an ongoing shift away from the traditional Qarni variant.

This trend is visually represented in Figure 4.2. which plots the percentages of affrication and deaffrication across the three groups. The red line shows the declining use of *-itʃ*, while the green line reflects the rising preference for *-ik*.

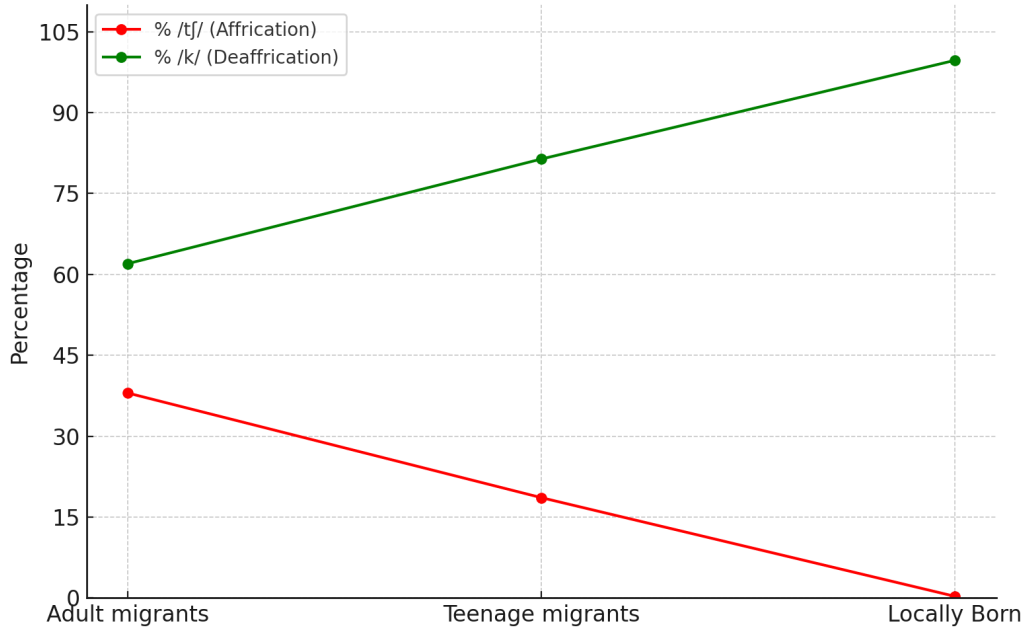


Figure 4.2 Distribution of Post-Consonantal Realizations of the 2nd Sing. Fem. Suffix by Arrival Group

The plot clearly illustrates a generational or exposure-based shift. Speakers who arrived in Riyadh at a younger age, or were born there, exhibit higher rates of deaffrication, while late-arriving speakers retain more features of their original regional dialect. This pattern aligns with broader findings in the dialect contact literature, where length and intensity of exposure to the dominant variety often predict the degree of linguistic accommodation.

4.2.4.2 Statistical significance of migratory cohorts-based variation

To determine whether the observed variation in *-ik* realization across migratory cohorts is statistically significant, a Pearson's Chi-Square Test was conducted. This test assesses whether the observed differences in variant use are likely to have occurred by chance.

The test compared the distribution of *-ik* (coded as 1) and *-itʃ* (coded as 0) across the three migratory cohorts. Pearson's Chi-Square Test is a non-parametric statistical test used to determine whether there is a statistically significant association between two categorical variables. In this case, the variables are:

- Migratory cohorts (adult migrants, teenage migrants, locally born)

- Phonetic realization of the suffix: *-itʃ* (affrication) vs. *-ik* (deaffrication)

The test compares the observed frequencies (what was actually counted in the dataset) against expected frequencies (what we would expect to see if there were no relationship between age of migration and variant choice).

The results are summarized in Table 4.5:

Test	χ^2 (Chi-Square)	df	p-value	Significant?
Migratory cohorts × Variant	140.3	2	< 2.2e−16	Yes

Table 4.5 Chi-Square Results for Arrival Group and Variant Realization (/k/ vs /tʃ/)

The chi-square value ($\chi^2 = 140.3$) with 2 degrees of freedom (df) indicates a highly significant result ($p < 2.2e\text{-}16$). The degrees of freedom (df) in this context reflect the number of groups compared (three migratory cohorts × two variant types minus one for each dimension). The extremely low p-value means that the likelihood of observing these differences by chance is virtually zero. In statistical terms, the null hypothesis of no association between migratory cohort and variant use is strongly rejected. These findings confirm that 'migratory cohort' as a variable plays a statistically significant role in shaping the realization of the morphophonemic suffix. In other words, variation in the use of *-ik* is not random but is meaningfully related to age of migration and exposure to the urban variety in Riyadh.

This pattern strongly supports the notion of contact-driven phonological adaptation. Speakers exposed to Riyadh speech norms from birth or earlier life stages are more likely to adopt the deaffricated *-ik*, while later arrivals retain the traditional *-itʃ* form. These results highlight the importance of age of migration and exposure in shaping the trajectory of dialect contact and change in Riyadh.

This pattern suggests that length and timing of contact, here represented by migratory cohorts, with the dominant urban dialect are key factors shaping variation in the Qarni speech in Riyadh. These results align with broader sociolinguistic theories of dialect contact and

accommodation, where younger or earlier-arriving speakers are more likely to converge toward dominant norms.

4.2.4.3 Distribution of the morphophonemic variable *-k* in post-vocalic environments

This section examines the distribution of post-vocalic variants of the second person singular feminine suffix across different migratory cohorts. Percentages reflect the proportion of /k/ realizations (coded as 1) in the statistical analysis.

Migratory Cohort	% *-tʃ* (Affrication)	% *-k* (Deaffrication)	N (Total Tokens)
Locally born	1.7	98.3	60
Teenage migrants	16.7	83.3	30
Adult migrants	42.9	57.1	21

Table 4.6 The distribution of post-vocalic variants across Migratory Cohorts

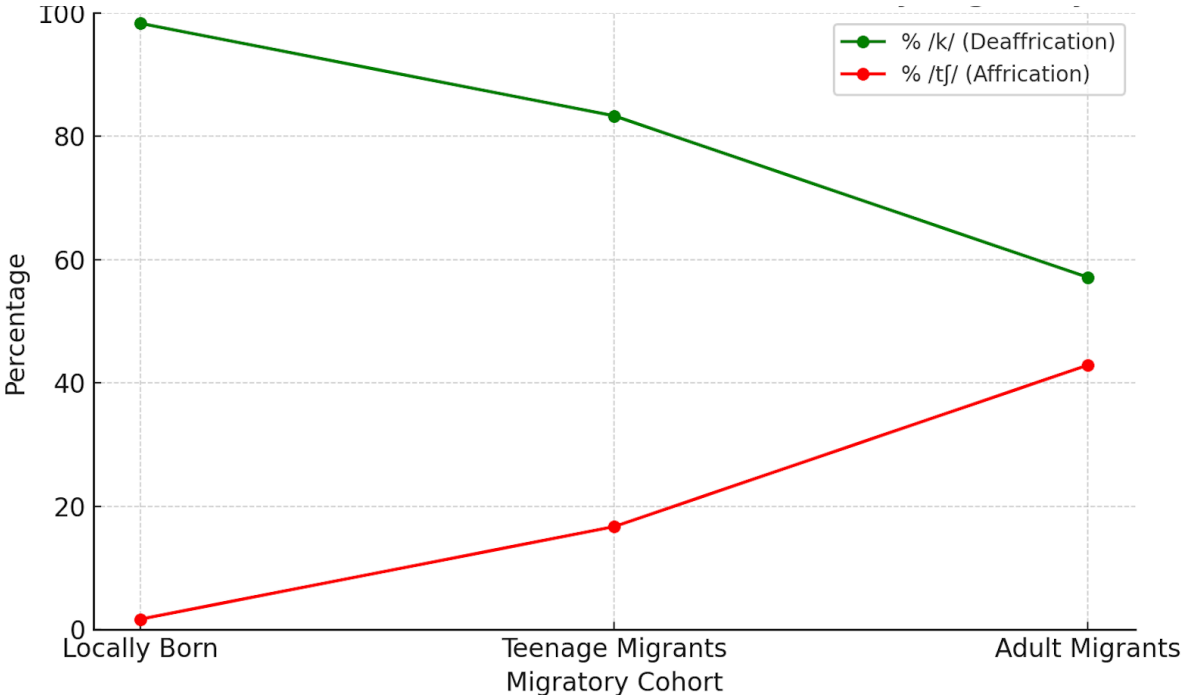


Figure 4.3 Distribution of Post-Vocalic Realizations across Migratory Cohorts

The trend graph visualizes the decreasing use of the affricated variant *-tʃ* and increasing use of the deaffricated variant *-k* across the three cohorts, with locally born speakers showing near-

categorical use (98.3%). Affrication, by contrast, is highest among adult migrants (42.9%), drops to 16.7% among teenage migrants, and falls to just 1.7% among locally born speakers. The contrast highlights a shift toward the innovative form among younger or earlier-arriving speakers.

Test	χ^2 (Chi-Square)	df	p-value	Significant?
Migratory Group × Variant	22.932	2	1.048e-05	Yes

Table 4.7 Chi-Square Results for Arrival Group and Variant Realization (/k/ vs /tʃ/)

To test the significance of this pattern, a Pearson's Chi-Square test was conducted comparing *-k* vs *-tʃ* usage across the three migratory cohorts. The test yielded a Chi-square value of 22.932 with 2 degrees of freedom, and a p-value of 1.048e-05. Since the p-value is well below the 0.05 threshold, the association between migratory cohort and variant choice in the post-vocalic environment is statistically significant.

The pattern is both significant and directional: earlier arrivals and locally born speakers are associated with greater use of the deaffricated form, while adult migrants show the highest retention of affrication. This provides clear evidence of a linguistic shift likely influenced by exposure to urban norms, consistent with sociolinguistic theories of contact-driven change.

4.2.4.4 Interpreting patterns of variation in post-consonantal and post-vocalic environments

To interpret the pattern of variation revealed in the post-consonantal and post-vocalic realizations of the second person singular feminine suffix, it is important to consider the role of dialect contact, age at migration, and psycholinguistic constraints. This study, like that of AlEssa (2008), shows that speakers' linguistic behaviour is shaped not only by structural properties of the variants themselves, but also by the timing and intensity of their exposure to dominant urban norms. In the current case, the affricated variant *-tʃ* represents a salient feature

of the traditional Qarni dialect, while the deaffricated -*k* reflects the innovative urban norm in Riyadh.

The descriptive data reveal a clear monotonic increase in deaffrication across migratory cohorts in both phonological environments. Among post-consonantal tokens, the unmarked -*ik* form rises from 62.0% in adult migrants to 81.4% in teenage migrants and peaks at 99.7% among locally born speakers. In the post-vocalic context, a similar pattern emerges but with more pronounced variation: deaffrication stands at 57.1% among adult migrants, rises to 83.3% in teenage migrants, and reaches 98.3% among locally born speakers. These figures suggest that affrication is progressively declining across migratory generations, indicating an ongoing shift toward the levelled form, particularly in the post-vocalic environment, where adult migrants show a notable degree of resistance.

This migratory cohort patterning, rather than biological age group classification, supports the argument that exposure timing plays a key role in shaping linguistic outcomes. Kerswill and Williams (2000: 84) argue that adults, adolescents, and children contribute differently to the outcomes of dialect contact due to psycholinguistic factors. This means that the age of speakers plays a key role in shaping these outcomes. They note that, in contrast to children, first-generation migrant adults have limited ability to make substantial grammatical and phonological adjustments to their speech. Their view is supported by findings from second language (L2) acquisition research, which indicate that language-learning ability declines “with age levelling off at about the age of 16” (Kerswill & Williams, 2000: 67, cited in AlEssa, 2008: 156). Furthermore, Labov (2001: 423) states that "when families move into a new speech community, the children adopt the local vernacular rather than that of their parents”. In other words, the age of migration and the exposure time affect how individuals accommodate to contact-induced linguistic change: younger migrants are more likely to restructure their

phonological systems and adopt new norms, while adult second dialect acquirers tend to retain core features of their heritage dialect.

The adult migrants in the current study, most of whom arrived in Riyadh after adolescence, exhibit the highest levels of affrication in both environments: 38.0% post-consonantally and 42.9% post-vocalically. Their persistent use of *-itʃ*, particularly after consonants where it is phonologically salient, may be interpreted as evidence of incomplete accommodation. In this case, adult Qarni migrants appear to have partially adopted the levelled forms without fully abandoning traditional ones. Their linguistic behaviour is shaped by the entrenchment of the traditional dialect, particularly in intimate or intra-group domains, and by the reduced plasticity of the adult phonological system. In other words, the continued use of traditional features among adult migrants can be attributed to two main factors: the entrenchment of their heritage dialect during the critical period of linguistic development, and the reduced flexibility of the phonological system after adolescence, a stage widely recognized in psycholinguistic research as limiting the acquisition of new phonological patterns (Kerswill & Williams, 2000, Lenneberg 1967; in AlEssa, 2008). Teenage migrants, who arrived in Riyadh between the ages of 10 and 12, show intermediate patterns. With 18.6% affrication post-consonantally and 16.7% post-vocalically, this group demonstrates greater accommodation than adult migrants but less than locally born speakers. Among locally born participants, affrication is nearly absent in both environments, with 0.3% post-consonantally and 1.7% post-vocalically. This near-categorical use of *-k* reflects a full convergence with the urban norm. These results show that post-vocalic affrication remains highest among adult migrants, which may indicate resistance to morphophonemic conditioning, or at least, preference for a familiar variant across contexts regardless of its phonological environment.

Moreover, maintenance or loss of gender distinction might have an effect on these results. If we compare the deaffrication rates across the two environments, we see that in the

adult migrant cohort, speakers deaffricate less in the post-vocalic environment (57%) than in the post-consonantal environment (62%). This indicates that they are more hesitant to deaffricate where gender distinction is lost. However, in the teenage migrant cohort, the pattern is the opposite of what one would expect. For this group, the maintenance of gender distinction does not appear to be a factor, as they deaffricate slightly more in the post-vocalic (83%) environment than in the post-consonantal environment (81%). Finally, in the locally born cohort, the maintenance of gender distinction seems to have an effect, albeit minimal, since they deaffricate more in the post-consonantal environment (99%) than in the post-vocalic environment (98%).

These findings support the broader psycholinguistic literature on second dialect acquisition, which suggests that full integration into a new dialect system is both age-sensitive and usage-dependent. As Payne (1980) and Chambers (1992) argue, acquisition of complex phonological patterns requires sustained and early exposure. In the absence of such exposure, learners often approximate target features or retain marked forms from their traditional dialect. In this study, the persistent, though reduced, presence of *-tʃ* among adult migrants exemplifies this process.

In conclusion, the patterns of variation observed in both post-consonantal and post-vocalic environments reveal a migratory cohort-based shift in progress. Speakers who migrated to Riyadh as adults demonstrate the highest retention of the traditional Qarni affricate *-tʃ*, while those who arrived as teenagers or were born locally show increasing levels of convergence toward the unmarked variant *-k*. This variation is not random; rather, it reflects the interaction of age at exposure, psycholinguistic constraints, and social orientation toward the urban norms. The findings here align closely with the patterns described in AlEssa (2008) reinforcing the view that contact-induced change unfolds unevenly across migrant generations, shaped by both linguistic and social factors.

4.2.5 The contact variable

This section investigates the effect of social contact on the realization of the second person singular feminine suffix, focusing specifically on its variation in post-consonantal and post-vocalic environments. Previous studies, such as AlEssa (2008), have shown that speakers with limited social networks tend to preserve conservative dialectal features, while those embedded in diverse and open networks are more likely to adopt innovative or levelled forms. Drawing on this framework, this section examines whether high-contact Qarni speakers in Riyadh exhibit greater phonological accommodation compared to their low-contact counterparts.

As explained in Chapter 3, participants' contact levels were classified using a five-point scale derived from AlEssa (2008) and AlAmmar (2017). A total of 26 speakers were grouped into high-contact (n = 22) and low-contact (n = 4) categories based on their social interactions, including factors such as work environment, intermarriage, friendships, and community engagement. High-contact speakers include all locally born individuals and most teenage migrators who have grown up and integrated socially in Riyadh. In contrast, low-contact speakers consist mainly of adult migrants with dense, kin-based networks and minimal exposure to non-Qarni circles.

4.2.5.1 Post-consonantal environment

Contact Group	***-itʃ* %**	***-ik* %**	**N of *-itʃ* tokens**	**N of *-ik* tokens**
High Contact	4.1%	95.9%	27	632
Low Contact	71.1%	28.9%	69	28

Table 4.8 Distribution of Post-Consonantal Variants by Contact Level

This table presents the distribution of post-consonantal realizations of the suffix across contact groups. It shows a striking contrast in variant use between the two groups. High-contact speakers overwhelmingly favour the innovative variant *-ik*, while low-contact speakers largely

retain the traditional variant *-itʃ*. The usage of *-ik* reaches nearly 96% among high-contact participants, while in the low-contact group, it drops to 28.9%. This sharp divergence highlights the influence of contact in promoting dialect levelling and reducing affrication.

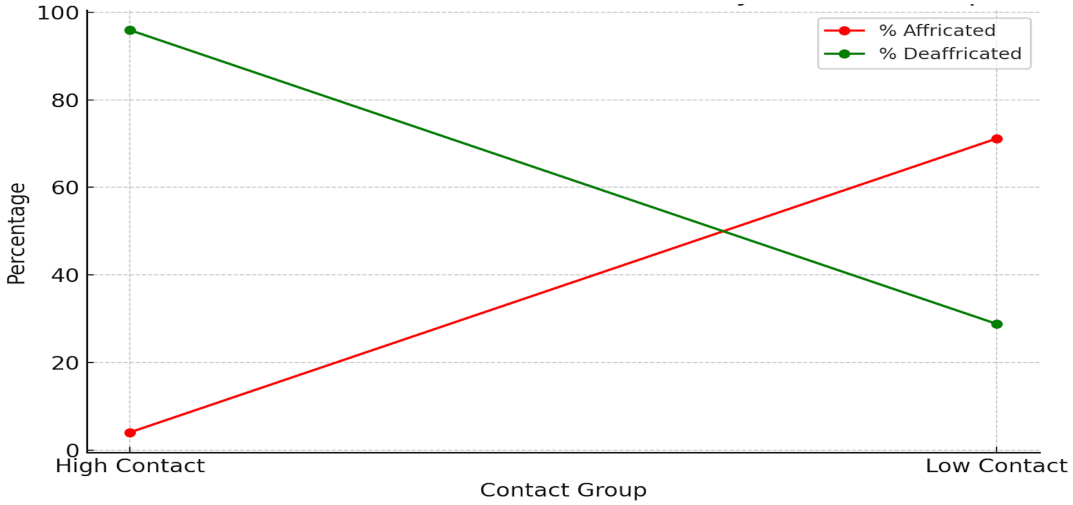


Figure 4.4 Distribution of Post-Consonantal Realizations by contact Group (Trend graph visually illustrating the frequency of each variant.)

The figure highlights the sharp divergence in variant use. High-contact speakers show near-universal adoption of the deaffricated form, while low-contact individuals maintain a robust preference for the traditional affricated realization.

Test	**χ^2**	**df**	**p-value**	**Significant?**
Contact × Variant (Post-Consonantal)	336.74	1	< 0.00001	Yes

Table 4.9 Chi-Square Results: Post-Consonantal Environment

The results of the chi-square test demonstrate a highly significant relationship between contact level and variant realization in post-consonantal contexts ($\chi^2 = 336.74$, $df = 1$, $p < 0.00001$). This extremely low p-value confirms that the difference in variant usage between the two groups is statistically significant and unlikely to have occurred by chance. Therefore, social contact emerges as a key factor in phonological choice, strongly influencing the adoption or retention of linguistic forms.

4.2.5.2 Post-vocalic environment

Contact Group	*-tʃ* %	*-k* %	N of *-tʃ* tokens	N of *-k* tokens
High Contact	6.0%	94.0%	6	94
Low Contact	81.8%	18.2%	9	2

Table 4.10 Distribution of Post-Vocalic Variants by Contact Level

In the post-vocalic environment, a pronounced contrast appears between contact groups. High-contact speakers show a strong preference for the innovative deaffricated form *-k*, producing it in 94.0% of their tokens. In contrast, low-contact speakers overwhelmingly favour the traditional affricated variant, using *-k* in only 18.2% of cases. This suggests that, even in phonological environments where traditional forms are common, social contact plays a substantial role in promoting linguistic change.

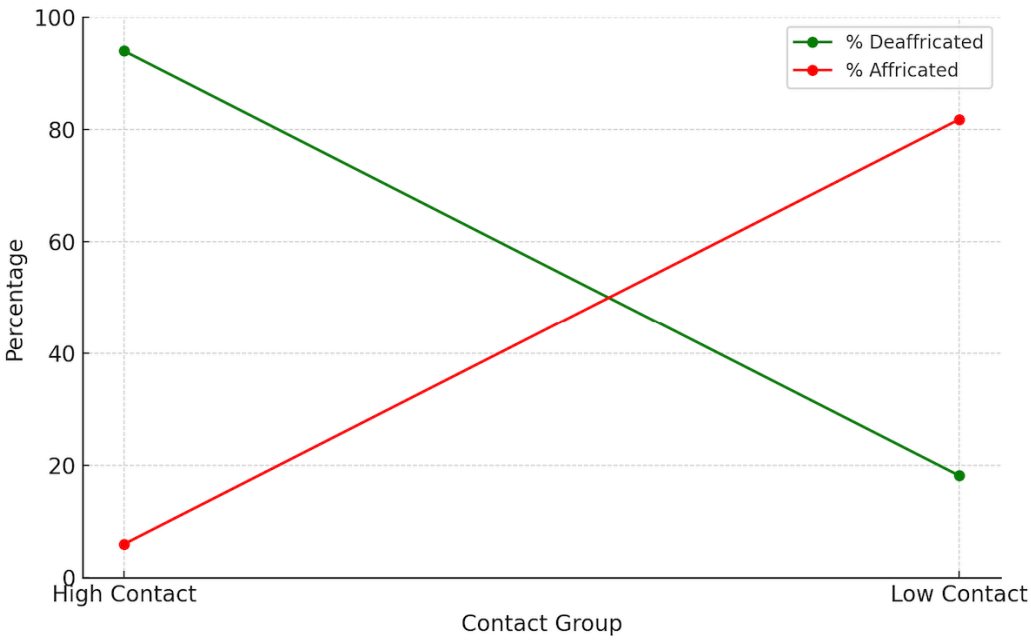


Figure 4.5 Post-Vocalic Realizations by Contact Group (Trend graph visually illustrating the variant frequency post-vocalically).

The graph reinforces the statistical distribution: high-contact speakers continue to lead the shift toward deaffrication, while low-contact individuals demonstrate marked resistance, favouring the conservative variant.

Test	χ^2 (Chi-Square)	df	p-value	Significant?
Contact × Variant (Post-Vocalic)	42.47	1	7.176E-11	Yes

Table 4.11 Chi-Square Results: Post-Vocalic Environment by contact

The chi-square test for the post-vocalic environment yields a highly significant result (χ^2 = 42.47, df = 1, p = 7.176e-11). The strength of this association is even greater than that observed in the post-consonantal environment. These findings confirm that contact level remains a robust predictor of variant selection, with low-contact individuals maintaining traditional features, and high-contact speakers converging more fully with the supra-local norm.

4.2.5.3 Interpretation

The consistent pattern across both environments confirms a strong correlation between social contact and deaffrication. Speakers embedded in broader, more diverse social networks, particularly those born or raised in Riyadh, demonstrate a clear shift toward levelled forms, showing substantial phonological convergence with innovative norms. In contrast, low-contact speakers, who migrated later in life or maintain dense kinship networks, retain traditional Alqarni features, with especially high rates of affrication in the post-vocalic context, where the conservative variant remains dominant among this group.

These findings strongly align with Milroy and Milroy's (1993, 2003) model of social network theory, which suggests that dense, multiplex networks preserve linguistic conservatism, while open networks promote change. They also mirror AlEssa's (2008) findings in Jeddah, where limited social integration resulted in the maintenance of region-specific features, despite prolonged residence in urban centres.

Ultimately, this analysis illustrates that it is not migration alone that triggers linguistic change, but the extent of social integration, which determines whether speakers maintain traditional forms or shift toward innovative urban norms.

4.2.6 The gender variable

This section examines the correlation between gender and the use of the 2nd person singular feminine suffix (-*k*), in both post-consonantal and post-vocalic environments. Although gender is often a salient sociolinguistic factor, the results of this study suggest that in this context, gender is not a statistically significant predictor of variation in the use of this morphophonemic variable.

4.2.6.1 Post-consonantal environment

Gender	-*itʃ*%	-*ik* %	N of -*itʃ* tokens	N of -*ik* tokens	Total Tokens
Female	12.1%	87.9%	65	474	539
Male	14.3%	85.7%	31	186	217

Table 4.12 Distribution of Post-Consonantal Realizations of the 2nd Sing. Fem. Suffix by Gender

This table presents the distribution of the affricated -*itʃ* and deaffricated -*ik* variants following a consonantal segment, broken down by gender. As the table shows, both male and female speakers overwhelmingly favour the deaffricated form -*ik* in this environment. Female speakers show a slightly lower rate of affrication (12.1%) compared to male speakers (14.3%). However, the difference is marginal.

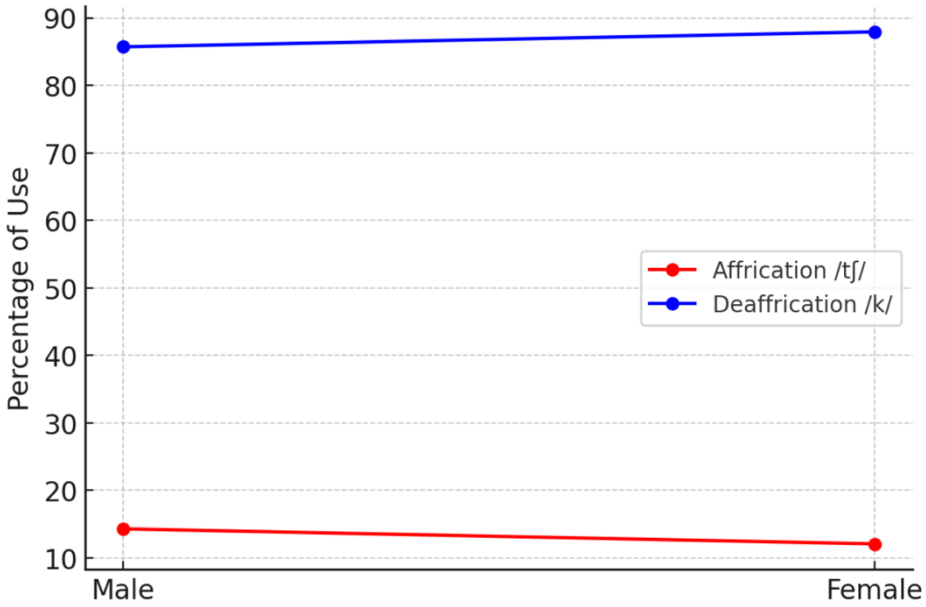


Figure 4.6 Trend of Post-Consonantal Realizations of the 2nd Sing. Fem. Suffix by Gender

This trend graph illustrates the minor variation between male and female speakers. The lines run nearly parallel, with a small fluctuation in the use of the affricated form, indicating that gender does not strongly influence variant choice in post-consonantal contexts. Female speakers deaffricated 87.9% of the time, while male speakers did so 85.7% of the time. Affrication, meanwhile, occurred in just over 12% of female tokens and 14% of male tokens. These differences, while present, are not statistically meaningful.

Test	**χ^2**	**df**	**p-value**	**Significant?**
Gender × Variant (Post- Consonantal)	0.505	1	0.477	No

Table 4.13 Chi-Square Test Results for Gender and Post-Consonantal Variant Realization

The chi-square results confirm that the gender-based differences observed in the post-consonantal environment are not statistically significant ($p = 0.477 > 0.05$). This indicates that the observed variation in affrication between male and female speakers is likely due to chance rather than a systematic sociolinguistic pattern.

4.2.6.2 Post-vocalic environment

Gender	*-itʃ* %	*-ik* %	N of *-itʃ* tokens	N of *-ik* tokens	Total Tokens
Female	11.8	88.2	9	67	76
Male	17.1	82.9	6	29	35

Table 4.14 Distribution of Post-Vocalic Realizations of the 2nd Sing. Fem. Suffix by Gender

In the post-vocalic context, both genders overwhelmingly favour the deaffricated variant. Female speakers produced the affricated variant in 11.8% of their tokens, while male speakers did so in 17.1% of theirs, showing only a modest difference in usage patterns.

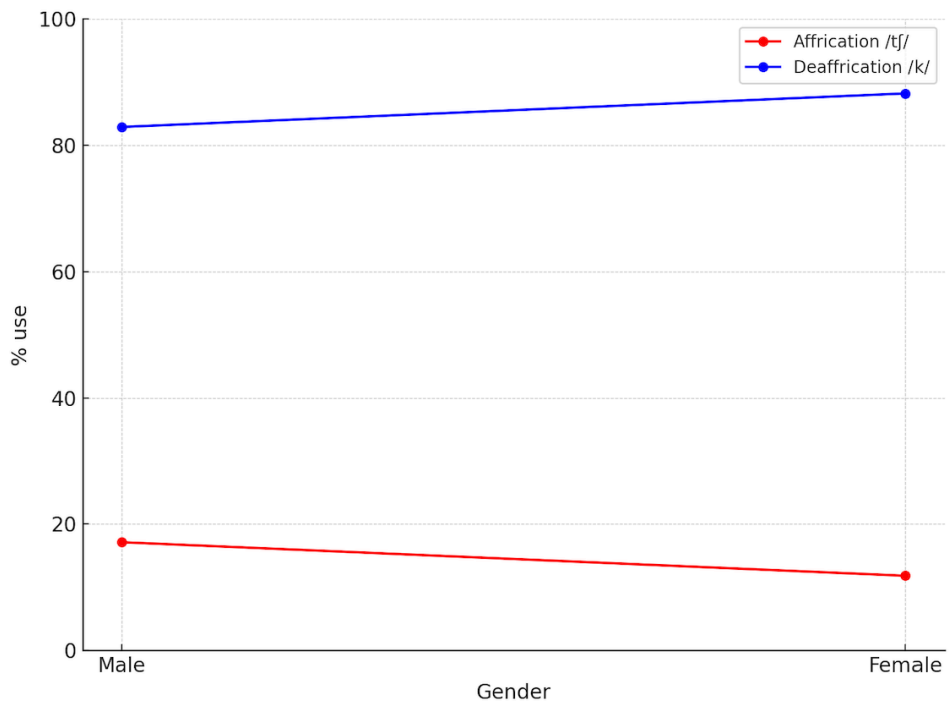


Figure 4.7 Trend of Post-Vocalic Realizations of /k/ by Gender

As illustrated in the trend graph, the trajectories for both male and female speakers are largely parallel, with females exhibiting slightly higher use of the deaffricated variant. This suggests a minimal gender-based distinction in phonological behaviour.

Test	χ^2	df	p-value	Significant?
Gender × Variant (Post-Vocalic)	0.21184	1	0.6453	No

Table 4.15 Chi-Square Test Results for Gender and Post-Vocalic Variant Realization

The chi-square test confirms that the difference in affrication rates between male and female speakers is not statistically significant ($\chi^2 = 0.2118, p = 0.645 > 0.05$). This reinforces the interpretation that gender does not play a significant role in influencing post-vocalic variant selection in this dataset.

4.2.6.3 Interpretation of the effect of gender

The results presented in the tables and graphs indicate that differences by gender are not statistically significant for either the post-consonantal or post-vocalic environments. In both contexts, the p-values exceed the standard 0.05 threshold (post-consonantal: $p = 0.477$; post-vocalic: $p = 0.645$), indicating that any observed differences are not strong enough to be considered statistically meaningful.

Although female speakers show a slightly higher rate of deaffrication than male speakers in both environments, these differences are very small. In the post-consonantal environment, females deaffricated in 87.9% of their tokens compared to 85.7% for males. In the post-vocalic environment, the pattern is similar: female speakers deaffricated in 88.2% of their tokens compared to 82.9% for male speakers. These patterns may suggest a minor tendency among female speakers to favour the deaffricated form slightly more than men, aligning somewhat more with standard or urban usage, but the difference is not statistically supported.

In contrast to contact, which was shown in Section 4.2.5 to have a statistically significant effect on variant choice, gender does not appear to play a meaningful role in the distribution of the affricated and deaffricated forms of the 2nd person singular feminine suffix

in this dataset. One possible explanation for the lack of a gender effect in the current study is that male and female speakers share similar lifestyles and social circumstances. For instance, in the locally born cohort, all of the female participants are employed, they drive, and they maintain active social lives in which they regularly meet with friends. These activities naturally involve frequent interaction with speakers of different dialect backgrounds. The male participants likewise hold jobs, participate in mixed social environments, and sustain wide-ranging networks that extend beyond close kinship or neighbourhood ties. This shared pattern of mobility, employment, and social interaction may account for why gender does not emerge as a meaningful factor in the distribution of affrication and deaffrication in this dataset.

4.3 Multivariate social interaction and variant analysis

The previous sections of this chapter employed bivariate statistical analysis using the G^2 (chi-square) test to evaluate the independent effects of three social variables, migratory cohort, gender, and contact level, on the realization of the second person singular feminine suffix in both post-consonantal and post-vocalic environments. While this approach provided useful preliminary insights into how each factor correlates individually with affricated and deaffricated variants, it does not capture the interdependent or interactive nature of these social influences.

To address this limitation, the current section introduces multivariate analysis and logistic mixed-effects modelling. These techniques allow for a more comprehensive understanding of how patterns of affrication and deaffrication are shaped not only by individual social factors but by the complex interactions between them.

The analysis begins with multivariate visualizations for both environments, starting with the post-consonantal context and then the post-vocalic. These graphs illustrate patterns across intersecting social categories, migratory cohorts, gender, and contact, through faceted and grouped trend plots. This is followed by the implementation of logistic mixed-effects regression

models to formally test the statistical significance and relative weight of each predictor variable, offering a robust statistical account of variation across speaker groups.

4.3.1 Multivariate analysis

This section presents a series of multivariate visualizations that explore how deaffrication patterns vary across intersecting social variables.

4.3.2 Deaffrication by migratory cohort and gender

A. Post-consonantal environment

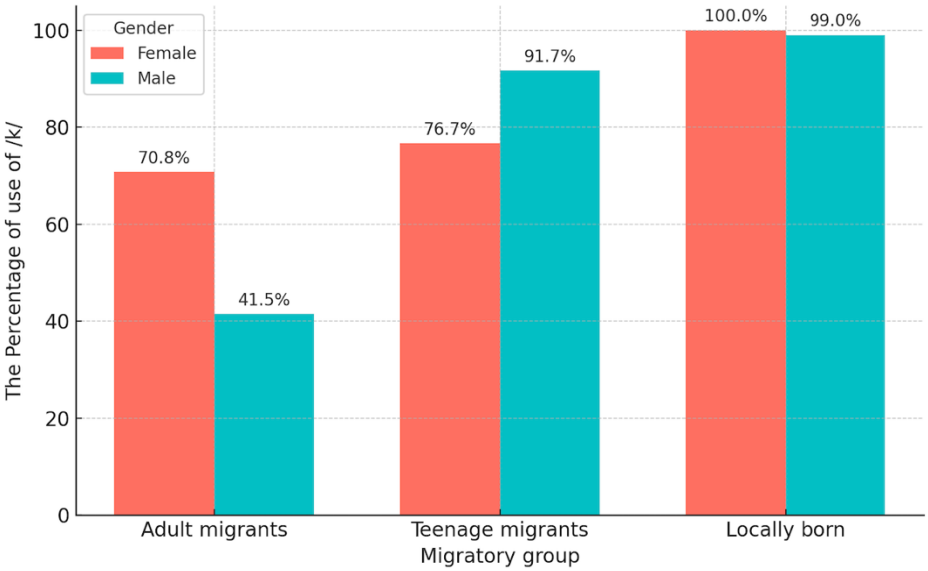


Figure 4.8 The percentage of use of post-consonantal /k/ by migratory cohorts x gender

This grouped bar graph illustrates the distribution of the deaffricated variant in post-consonantal positions, cross-tabulated by migratory cohort and gender. The figure allows a simultaneous comparison of deaffrication rates between male and female speakers across the three defined cohorts: adult migrants, teenage migrants, and locally born speakers. The results reveal a clear stratification of deaffrication patterns along both migratory cohort and gender lines. Among adult migrants, females exhibit a notably higher rate of deaffrication (70.8%) than their male counterparts (41.5%), suggesting that even among those who migrated later in life, women

are more likely to adopt the innovative variant. In contrast, locally born speakers display near-total deaffrication across both genders (100% for females and 99% for males), indicating that the innovative *-ik* variant has become the dominant norm for this group, regardless of gender. The teenage migrant group falls in between, with high deaffrication rates for both females (76.7%) and males (91.7%), although a gendered gap is still observable with men ahead of women in using the innovative form.

Moreover, the gendered differentiation within the adult migrant cohort points to a potential case of women leading linguistic change, a phenomenon widely observed in sociolinguistic literature (Labov, 2001). However, this gender gap narrows considerably in the case of teen-migrants, and almost disappears entirely among the locally born cohorts, suggesting an emerging norm of deaffrication that transcends gender distinctions.

Overall, the graph supports the hypothesis that both age of migration and gender contribute to variation in deaffrication rates, though their effects appear to diminish in locally born speakers as urban norms become more established.

It should be noted, however, that the interpretation of these groupings must be considered in light of the relatively small sample size of the study and the uneven distribution of speakers across categories, particularly in the low-contact group. While stratification by contact level and gender provides useful insights into possible sociolinguistic patterns, the limited number of participants in some subgroups means that the patterns observed here should be interpreted as indicative tendencies rather than statistically definitive conclusions. Nevertheless, the analysis remains informative for identifying emerging trends in the linguistic behaviour of Qarni speakers in Riyadh. Future research based on larger datasets would allow these patterns to be examined more robustly.

B. Post-vocalic environment

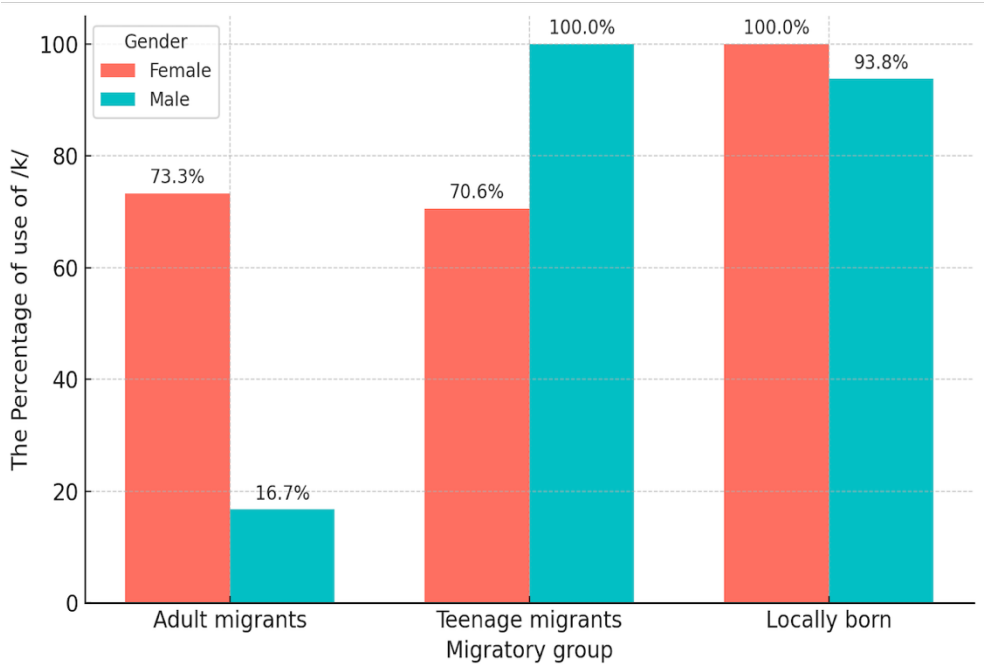


Figure 4.9 The percentage of use of post-vocalic /k/ by migratory cohorts x gender

In the post-vocalic context, gendered and migratory cohorts' differences in deaffrication patterns are again observable, though with slightly varied trends compared to the post-consonantal environment. As shown in the graph, locally born speakers exhibit the highest rates of *-k* usage across both genders, with females at 100% and males at 93.8%, indicating an almost complete shift toward the innovative form. This suggests that locally born participants, who are fully immersed in the urban Riyadh environment, are leading the deaffrication process, with only a slight gender difference remaining.

Among teenage migrants, males again show categorical use of /k/ (100%), while females use it in 70.6% of instances. This gender contrast suggests that among this cohort, male speakers may be adopting urban features more aggressively, or that female speakers are retaining more conservative patterns, possibly due to differences in social exposure or peer networks at the time of migration. An explanation for this contrast may be that the male teenage migrants, at the time of their migration, came alone as singles without their families. This

facilitated their integration into the urban community through frequent outings, social gatherings, and daily interactions. In contrast, female teenage migrants had less exposure outside the home and remained more closely tied to their families during this period. Social restrictions on women's mobility at that time further limited their opportunities for contact with the wider community. As a result, the influence of urban norms on female speakers was slower and less pronounced compared to their male counterparts.

In the adult migrant group, deaffrication is notably lower, particularly among males, who show only 16.7% use of *-k*. Females in this cohort deaffricate 73.3% of the time, producing a reversal of the gender pattern seen in teenage migrants. This may reflect the greater integration or social flexibility of adult migrant women, or context-specific factors such as professional environments or social circles that encourage alignment with urban norms.

Overall, the data demonstrate that while migratory cohort continues to be a strong predictor of deaffrication, gender interacts differently across cohorts, with women leading the change in some groups and men in others. These patterns show the importance of examining intersectional social effects to fully understand the dynamics of linguistic change in contact settings.

4.3.3 Deaffrication by migratory cohort and contact level

A. Post-consonantal environment

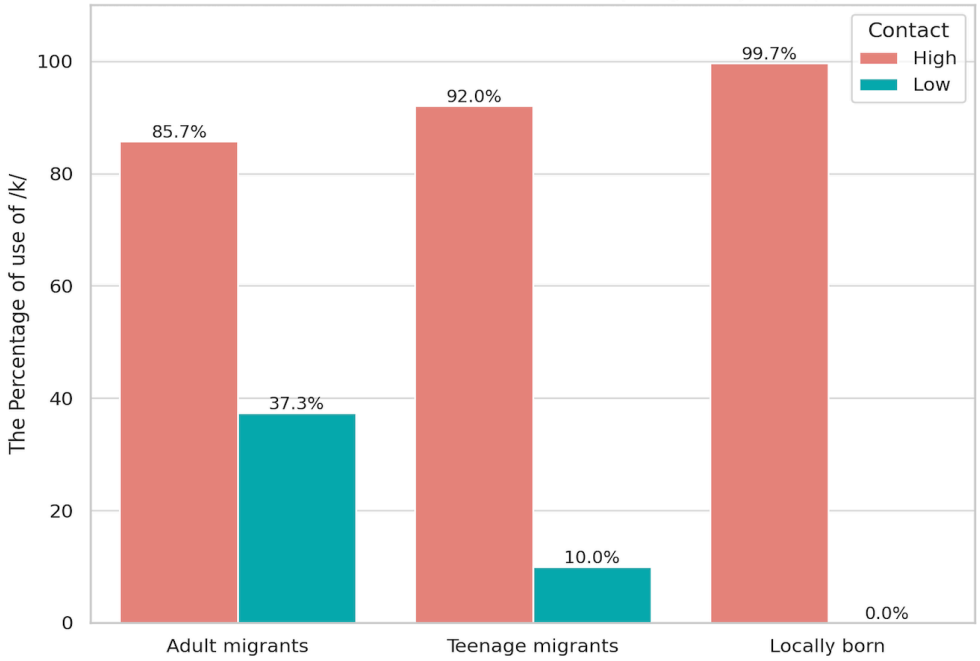


Figure 4.10 The percentage of use of post-consonantal /k/ by migratory cohorts x contact

This plot displays deaffrication rates of *-ik* after consonants across contact levels and migratory cohorts, revealing how social exposure to urban norms shapes phonological behaviour.

As shown in the graph, high-contact speakers demonstrate a strong preference for the innovative variant *-ik*, with locally born speakers at 99.7%, teenage migrants at 92.0%, and adult migrants at 85.7%. This pattern confirms that high contact with the urban Riyadh speech community is a powerful predictor of deaffrication, regardless of the age of migration (migratory cohorts).

In contrast, the low-contact group shows a consistent lag in adopting *-ik*. Teenage migrants used *-ik* in 10.0% of their tokens in this environment, indicating continued adherence to conservative the Qarni forms. Adult migrants with low contact similarly show limited use at 37.3%, reinforcing the influence of restricted social integration on linguistic retention. As explained in Chapter 3, all locally born participants were raised entirely in Riyadh,

attended local schools, developed social ties across diverse groups, and engaged in work and public life that ensured frequent exposure to the dominant urban dialect. Consequently, none of these speakers met the criteria for classification as 'low contact'.

Overall, the interaction between contact level and migratory cohort highlights the crucial role of social exposure in facilitating or impeding linguistic innovation. While all high-contact speakers appear to be aligning with urban norms, low-contact individuals show delayed or even absent adoption of the new feature. This suggests that contact intensity, more than migratory cohorts alone, is central to explaining variation in deaffrication patterns.

B. Post-vocalic environment

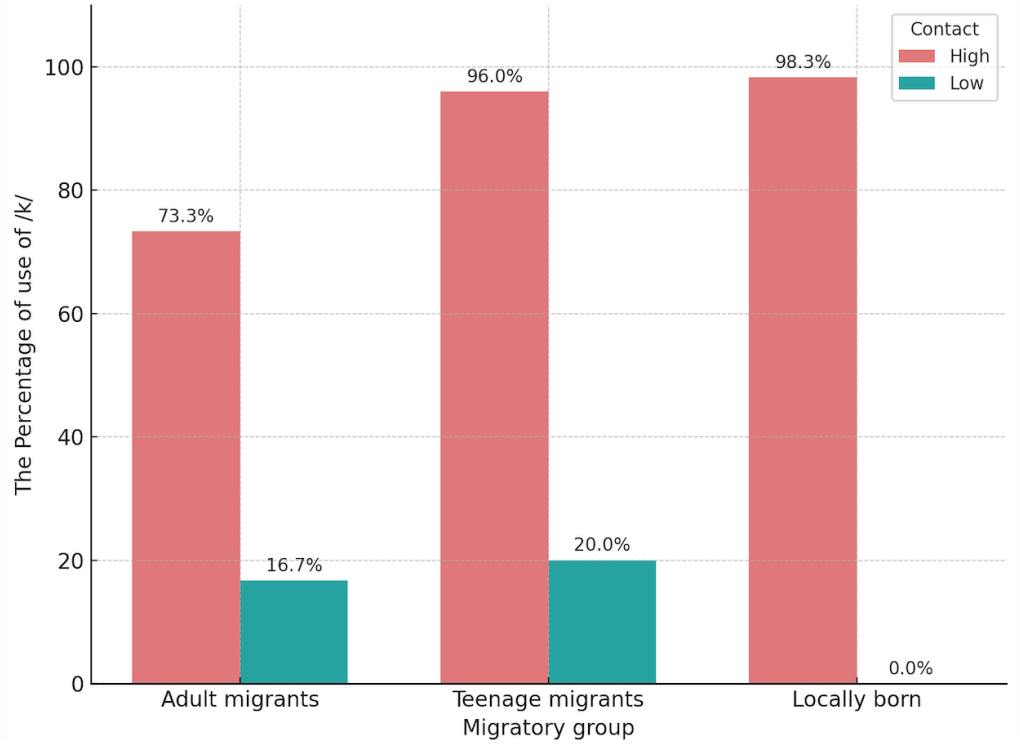


Figure 4.11 The percentage of use of post-vocalic /k/ by migratory cohorts x contact

The post-vocalic distribution of deaffrication across contact levels shows consistent favouring of *-k* among high-contact speakers regardless of migratory cohort, though to varying degrees. Locally born speakers with high contact reach 98.3%, while teenage migrants with high contact show 96.0%, and adult migrants lag behind at 73.3%. In contrast, low-contact

individuals across adult and teenage migratory cohorts exhibit markedly lower rates: 20.0% among teenage migrants, and 16.7% among adult migrants.

These results suggest that social exposure and engagement in the host speech community strongly promote deaffrication, particularly in post-vocalic environments where variation may be more socially sensitive.

4.3.4 Deaffrication by migratory cohort, gender, and contact (faceted interaction)

A. Post-consonantal environment

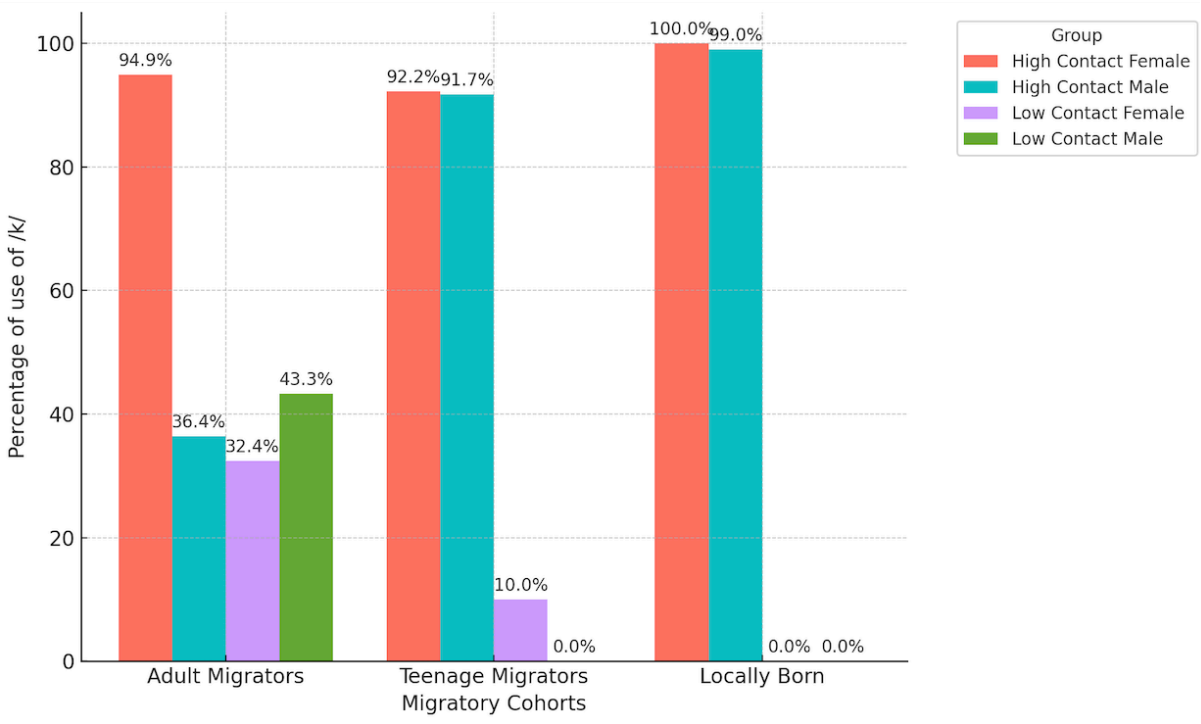


Figure 4.12 The percentage of use of post-consonantal /k/ by migratory cohorts x gender x contact

The faceted analysis of the post-consonantal environment reveals distinct interactional patterns between migratory cohort, gender, and contact level in the use of deaffricated variants. As shown in the graph, high-contact participants from the teenage migratory cohort and locally born overwhelmingly favour the deaffricated form *-ik*, with locally born speakers reaching near-categorical use. Among adult migrants, however, a clear gender split emerges, high-contact females show significantly higher use of *-ik* (94.9%) compared to their male counterparts

(36.4%), indicating a strong influence of contact on female speakers' linguistic behaviour. This aligns with findings in previous literature (e.g., AlEssa, 2008), which emphasize the role of women as agents of change, often displaying higher approximation to dominant urban norms.

In contrast, low-contact individuals exhibit more conservative patterns, especially among adult migrant females, who favour affricated variants. Among teenage migrants, both high-contact males and females show similar behaviour, suggesting that gendered differentiation may be less pronounced among this migrant cohorts, possibly due to greater exposure to urban norms during the formative years.

These patterns indicate that the social variable of gender is not acting independently but interacts with both contact and migratory cohort. In line with AlEssa's (2008) observations on Najdi speakers in Hijaz, female speakers in this study also show greater sensitivity to social interactional cues and a stronger tendency to adopt prestigious urban forms when in high-contact settings.

B. Post-vocalic environment

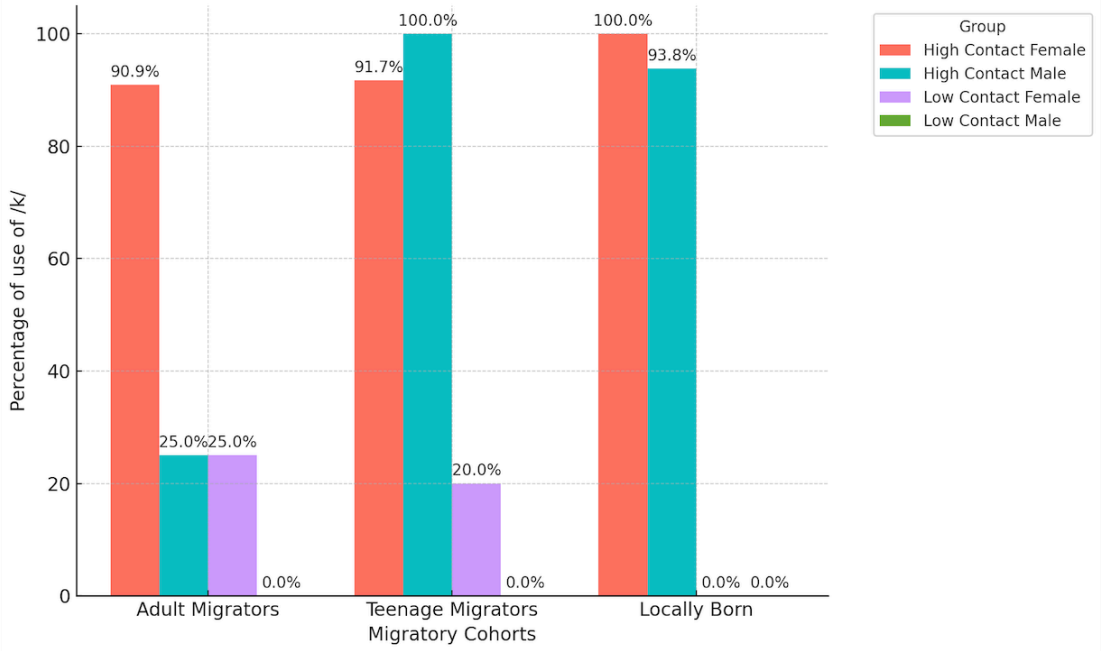


Figure 4.13 The percentage of use of post-vocalic /k/ by migratory cohorts x gender x contact

The faceted results for the post-vocalic environment reveal similarly strong effects of contact, gender, and migratory background, but with more sharply categorical behaviour. As shown in the graph, all high-contact participants, except the adult male migrants, display overwhelmingly high rates of -*k* use post-vocalically, ranging from 90.9% to 100%. This suggests strong convergence towards the deaffricated variant in environments where affrication may be socially disfavoured. The high-contact adult male migrants show only 25% use of the deaffricated variant. This can be explained by the fact that, at the time of their migration to Riyadh, they had already passed the critical period for language acquisition. Consequently, when exposed to the urban norms, their speech system remained firmly grounded in the traditional Qarni variety. In contrast, speakers who arrived earlier, or were born in Riyadh, are more likely to adopt the urban deaffricated -*k*, since the length of linguistic contact with the host community plays a decisive role. In this case, later arrivals retained the traditional -*tʃ* form, while earlier arrivals or locally born speakers shifted more readily toward the innovative variant.

Low-contact female speakers, on the other hand, show markedly lower rates of -*k*, particularly among adult and teenage migrants, whose use of the affricated form -*tʃ* remains visible. For instance, low-contact teenage speakers retain 20% deaffrication, while low-contact adult speakers hover at around 25%. These results reinforce the hypothesis that social alignment, especially through gendered interaction and contact exposure, plays a central role in shaping phonological outcomes.

4.3.5 Logistic mixed-effects modelling

To investigate how multiple social factors simultaneously affect the choice between affricated and deaffricated variants, a logistic mixed-effects model was employed. This approach allows us to account for both fixed effects (such as migratory cohort, gender, and contact) and random effects (such as speaker-specific variation), offering a robust statistical framework for

understanding linguistic variation. Logistic mixed-effects modelling is particularly valuable when dealing with binary linguistic variables, in this case, the choice between /tʃ/ (affrication) and /k/ (deaffrication). The outputs of the model include odds ratios, confidence intervals, z-values, and p-values, each of which provides insight into the strength, direction, and significance of the predictors.

A. Post-consonantal environment

Predictor	Odds Ratio	95% CI	z-value	p-value	Sig?
(Intercept)	38,577,620	652.38–2.28e+12	3.12	0.002	Yes
Teenage migrants	2.460	~0.161 – 37.671	0.647	0.518	No
Locally Born	102.510	3.256 – 3227.882	2.631	0.009	Yes
Gender: Male	0.275	~0.002–32.699	-0.530	0.596	No
Contact: Low	0.000	~0–0.011	-3.540	<0.001	Yes

Table 4.16 logistic mixed-effects model of post-consonantal /k/

The logistic mixed-effects model was applied to examine how various social factors influence the likelihood of using the deaffricated variant -*ik* in the post-consonantal environment. The model includes fixed effects for migratory cohort, gender, and contact level, and the dependent variable is binary, whether the participant produced the deaffricated form /k/ or not. Each predictor is interpreted relative to a reference group: adult migrant females with high contact. The model output provides odds ratios, confidence intervals (CI), z-values, and p-values, which together offer insight into the strength and significance of each predictor. The odds ratio reflects how the odds of producing the deaffricated variant change for a given group relative to the reference group. An odds ratio above 1 indicates higher odds of deaffrication relative to the reference category, while an odds ratio below 1 indicates lower odds. The 95% confidence interval (CI) indicates the estimated range in which the true odds

ratio lies; if this interval includes the value 1, the result is generally not considered statistically significant. The p-value determines whether the effect of a variable is statistically meaningful, with $p < 0.05$ typically regarded as significant. The z-value indicates how far a coefficient is from zero in standard error units. Together, these measures allow the researcher to evaluate the direction and statistical significance of each predictor relative to the reference group.

In this model, contact level emerges as the most statistically robust predictor. Relative to the reference group (adult migrant females with high contact), speakers with low contact show dramatically lower odds of producing the deaffricated /k/ variant in the post-consonantal environment (OR = 0.000, $p < 0.001$). The confidence interval is very narrow and close to zero (~0–0.011), underscoring the strength and reliability of this effect. This finding aligns with prior research on dialect contact, particularly AlEssa (2008), who found that contact intensity plays a crucial role in shaping speakers' phonological choices. In the context of this study, speakers with limited exposure to the urban speech community in Riyadh show a marked resistance to adopting the innovative variant, maintaining traditional affricated forms.

The migratory cohort variable also contributes to variation, though with differing levels of significance. Relative to the reference group (adult migrant), the locally born cohort shows a strong and statistically significant increase in the odds of deaffrication (OR = 102.510, $p = 0.009$). This suggests that locally born speakers, those who were born and raised in Riyadh, have substantially higher odds of using the innovative *-ik* form compared to the reference group. The confidence interval (3.256-3227.882) is broad but well above 1, indicating a strong and reliable effect despite some variation. This supports the idea that long-term residence and early exposure to the urban variety significantly impact linguistic behaviour, fostering a shift toward the supra-local norm. This result is particularly important

as it reflects how age of arrival and integration into the urban environment mediate phonological adaptation which is consistent with koineisation literature.

In contrast, the teenage migrant cohort does not show a statistically significant effect (OR = 2.460, p = 0.518). Relative to the reference group (adult migrant), the odds ratio suggests somewhat higher odds of deaffrication for teenage migrants, although this effect is not statistically significant. The wide confidence interval (~0.161–37.671) and non-significant p-value reflect a high degree of variability and uncertainty. This could indicate that teenage migrants are in a transitional position, exposed to urban norms but not fully aligned with them, resulting in inconsistent adoption of the innovative feature. This intermediate pattern has also been observed in other studies of migratory groups (e.g., AlAmmar, 2017), where age of arrival alone does not predict linguistic convergence unless reinforced by other factors such as contact and identity.

The gender variable, although included in the model, does not reach statistical significance (OR = 0.275, p = 0.596). Relative to females in the reference group, males show lower odds of producing the deaffricated variant, although this effect is not statistically significant. Nevertheless, the direction of the odds ratio suggests a potential trend that aligns with prior sociolinguistic studies where women are often observed to lead linguistic change (Labov, 2001; Al-Azraqi, 2007). The lack of statistical significance here may be due to the dominance of contact and migratory cohort effects in shaping variation in this context.

In sum, the results from the post-consonantal logistic mixed-effects model highlight the primary role of contact level in shaping patterns of deaffrication. The findings reinforce the notion that both social integration and developmental timing are key factors in dialect change processes, especially when the variable in question is salient and carries indexical value, as is the case with the affrication of *-ik* in this study.

B. Post-vocalic environment

Predictor	Odds Ratio	95% CI (Lower)	95% CI (Upper)	z-value	p-value	Significant ?
Intercept	136.52	12.67	1470.90	4.05	<0.001	Yes
Teenage migrants	0.351	0.029	4.260	-0.82	0.411	No
Adult migrants	0.050	0.005	0.540	-2.47	0.014	Yes
Gender: Male	0.165	0.024	1.139	-1.83	0.068	No
Contact: Low	0.011	0.001	0.129	-3.57	0.000	Yes

Table 4.17 logistic mixed-effects model of post-consonantal /k/

In the post-vocalic context, the logistic mixed-effects model reveals a comparable but more nuanced pattern of variation compared to the post-consonantal environment. While contact continues to play a critical role, the influence of other social variables shifts in prominence. Most notably, relative to the reference group (locally born females with high contact), speakers with low contact show a highly significant reduction in the odds of producing the deaffricated variant (OR = 0.011, $p < 0.001$). As with the post-consonantal variable, this confirms that speakers with limited engagement in urban Riyadh environments show substantially lower odds of adopting the innovative deaffricated form. The minimal odds ratio and narrow confidence interval further underscore the robustness of this effect. This consistent trend across both environments highlights the pivotal role of interactional exposure in facilitating phonological change.

A more striking result in the post-vocalic context is the behaviour of the adult migrants who show substantially lower odds of deaffrication. With an odds ratio of 0.050 and a statistically significant p-value of 0.014, this group stands out as showing significantly lower odds of producing *-k* following vowels. This contrasts with the locally born reference group, who show much higher odds of adopting this innovative variant. The result suggests that post-vocalic deaffrication may require not only exposure, but also early acquisition or long-term

integration, especially since this environment is arguably more marked and sociolinguistically sensitive. Adult migrants, lacking both factors, appear less inclined to shift toward the local norm in this phonological context.

By contrast, the teenage migrant group again shows no statistically significant difference from the locally born reference group, with a p-value of 0.411. Although their odds ratio (0.351) indicates lower odds of deaffrication relative to the reference group, this effect is not statistically significant and therefore does not reflect a reliable pattern of usage. This mirrors their ambiguous status in the previous model and may point to a transitional linguistic identity, neither fully traditional nor fully assimilated. The confidence interval (0.029-4.260) remains wide, reinforcing the uncertainty of their behaviour in this environment.

Interestingly, the gender variable in the post-vocalic environment approaches significance ($p = 0.068$) with an odds ratio of 0.165, suggesting that male speakers show lower odds of producing the deaffricated variant relative to females in the reference group. Although the effect does not reach the conventional threshold for statistical significance, the direction and magnitude of the odds ratio echo broader sociolinguistic findings that associate linguistic innovation with female speakers. This borderline result is worth noting, particularly given the pattern of female-led change observed in other parts of the analysis.

Overall, the model indicates that contact and early exposure remain the primary factors influencing phonological change in this context, while adult migrants emerge as a particularly strong predictor of conservative usage. The post-vocalic environment may pose a greater perceptual or social markedness than the post-consonantal one, making adoption of the innovative form more dependent on deep integration or native-like competence.

4.4 Discussion and conclusion

The results offer strong evidence that the affrication and deaffrication of /k/ are shaped by intersecting social and morphophonemic variables. Across both environments, stem and suffix, the patterns point to an ongoing sociolinguistic transformation among Qarni speakers in Riyadh. Deaffrication is most pronounced among speakers who are either locally born or embedded in high-contact urban networks, while the affricated variant ([tʃ]), traditionally associated with the Qarni dialect, is retained mainly by adult migrants with limited contact. These results reinforce the significance of contact level and migratory history as predictors of change, while gender, though socially relevant in some interactions, was not statistically significant in isolation.

One of the central findings is that the deaffrication in the stem is nearly complete, as speakers readily substitute [tʃ] with [k] in this environment, perhaps reflecting a simplicity of the phonetic process involved in the transition, especially since the sound [k] is available in the phonetic inventory of the dialect. By contrast, the second person feminine suffix shows greater variation and higher use of the affricated form. This difference, despite their phonetic similarity, might be due to the morphosyntactic role of the suffix, which marks gender distinction. In other words, the need to maintain gender distinction slows the retreat of /tʃ/ in the suffix, while in the stem the change has advanced almost categorically.

A key axis of variation is the speaker's migratory cohort, whether they are adult migrants, teenage migrants, or locally born in Riyadh. The data show a clear migration trajectory of change: locally born speakers overwhelmingly use the deaffricated form /k/; teenage migrants exhibit partial shift; and adult migrants retain/tʃ/ unless they are embedded in high-contact networks. This gradual progression is consistent with Labov's (2001) principle that language change tends to be age-graded and rooted in the life histories of speakers.

However, among all variables, contact level emerged as the strongest and most consistent predictor of deaffrication. In both stem and suffix environments, speakers classified

as high-contact were significantly more likely to use the innovative /k/. These individuals often engage in cross-tribal, mixed-gender, or professional interactions that facilitate dialect contact and weaken the hold of regionally marked norms. In contrast, low-contact speakers, especially those in dense intra-tribal networks, continue to use the traditional /tʃ/. This pattern aligns with Milroy and Milroy's (1993) theory of network density, where tightly knit communities act as barriers against external linguistic influence.

Although gender did not yield significant main effects, its interaction with contact level reveals subtle dynamics. In high-contact environments, female speakers, particularly teenage migrants, showed early adoption of /k/, echoing Labov's (1990) assertion that women often lead change from below. Yet in low-contact contexts, gender-based differences diminish, suggesting that access to new linguistic environments, not gender alone, is the true catalyst for change.

An important question raised by the data is whether this shift reflects accommodation to a dominant dialect (e.g., Najdi) or the emergence of a new variety. The results strongly suggest that the Qarni speakers in Riyadh are not accommodating to the Najdi variant /ʦ/, which is often used in Najdi dialects in the stem and in the second person feminine suffix. Instead, they converge to the unmarked neutral variant /k/, which is not specific to either the Najdi or the Qarni variety but serves as a supralocal form. This aligns with AlEssa's (2008) suggestion that a "superalocal" or "neutral" variety may emerge in contact zones where no single dialect exerts hegemonic dominance. In her study of Najdi speakers in Jeddah, she observed partial convergence to urban forms, but with selective retention of regionally marked features. The pattern here is similar in which Qarni speakers in Riyadh show signs of levelling of a localised heritage form in favour of a more widely spread unmarked supralocal form, but no accommodation to traditional localised, typically Najdi [ʦ]form.

This interpretation is further supported by Al-Azraqi's (2007) findings on Riyadh speech, where she documents widespread adoption of /k/ across age groups. She links this trend to increased urban mobility, educational exposure, and linguistic interaction across social classes. For her, the move from the affricated variant to [k] is part of a broader koineisation process in which speakers, especially those integrated into modern institutions, select variants that are widely intelligible, socially neutral, and adaptable to a cosmopolitan identity. The present study reflects a similar pattern: the shift toward [k] is not simply phonetic but symbolic of a new linguistic identity emerging in Riyadh. Al-Azraqi (2007) further argues that the rise of [k] as a preferred variant is closely linked to urbanization, modern education, and diglossic pressures. She states that since the 1920s, Saudi Arabia's educational reforms have narrowed the gap between Standard Arabic and regional dialects, leading to increased linguistic awareness and stylistic levelling. She also points to the influence of the media and the presence of Arab expatriates as reinforcing this process, noting that younger, educated speakers are particularly inclined to adopt the [k] variant as part of a broader urban linguistic identity. However, there are some reservations regarding Al-Azraqi's suggestion that the adoption of [k] is driven by the influence of standard Arabic. The findings of the current study suggest that the shift toward [k] is better explained by its status as a socially unmarked supralocal variant in Riyadh's diverse urban environment. Both [tʃ] (the Qarni variant) and [ʦ] (the Najdi variant) are regionally bound and socially marked, indexing specific tribal or regional identities, while [k] functions as the neutral choice that does not carry strong local associations. In addition, [k] is already present in speakers' phonological inventories, making its extension into environments once occupied by affricated forms a straightforward and economical process, requiring no acquisition of a new segment. The fact that this supralocal form happens to be identical to a standard Arabic form is accidental, given that several other features in Saudi Arabic have been found to change in the direction of supralocal forms even when these forms

are different from standard froms. For instance, Hussain (2017) found that in Medina, linguistic change is in progress from local and at the same time standard [ʤ] to [ʒ] which is characteristic of the prestigious dialect of the cosmopolitan city of Jeddah. Similarly, Alghamdi (2014) found that Ghamdi migrants in Mecca abandon their traditional diphthongal pronunciation of /ay/ and /aw/, which are also identical to the forms found in standard Arabic, in favour of monophthongal pronunciations typical of the dialect of Mecca. The adoption of [k] in place of the affricated variant is therefore best understood as a product of an interaction between local vernacular forms that have social meanings, rather than as a direct consequence of convergence toward standard Arabic.

Altogether, the findings regarding this variable point to the emergence of a koineised variety in Riyadh shaped by contact patterns and promoted by urban life. The preference for [k], a socially neutral variant, reflects a levelling process that smooths out phonological differences that were once linked to tribal or regional identity. This mirrors broader trends in urban centres across the Arab world, such as those documented by Al-Wer (2003) and Horesh (2014), where dialect contact leads to the formation of new norms. The Qarni speakers in this study are not simply assimilating into Najdi Arabic; they are contributing to a newly emerging urban speech variety that blends elements of multiple dialects while favouring forms that minimize social markedness.

In this light, deaffrication is not merely a structural change, it signals broader transformations in identity, integration, and belonging. The speakers' choice of [k] indexes their participation in the construction of a modern Riyadhi linguistic identity, one that is less tribal, more mobile, and increasingly shaped by shared urban experience.

These results contribute to our understanding of dialectal change in Saudi Arabia by illustrating how morphophonemic structure, social contact, and migration history interact to shape variation. The second person feminine suffix, in particular, provides a sensitive

diagnostic site for tracking sociolinguistic change. While further longitudinal data are needed to confirm whether a stable koine will emerge in Riyadh, the evidence presented here strongly indicates that a levelling process is underway, one that reflects not only phonological simplification, but a deeper shift toward social cohesion and urban linguistic convergence in contemporary Saudi society.

Chapter 5

The Definite Article *m-*

This chapter addresses the second linguistic variable in the study: the definite article *m-*. The variable is morphophonemic in nature, since its realization interacts with the segmental context and with the distribution of the canonical article (*lām al-taʿrīf*) across lexical and phonological environments. The chapter proceeds in two parts. First, it offers a historical and theoretical overview of definiteness marking in Arabic and the place of the *m*-article in the Arabian Peninsula, drawing on classical grammarians and modern dialectological scholarship (Section 5.1). Second, it presents the data and analysis for the *m*-article in the present corpus (Section 5.2).

In Standard Arabic and most contemporary dialects, definiteness is marked by the proclitic *-l*. For example: *kitāb* 'a book', *l-kitāb* 'the book'.

The canonical article assimilates to an established set of "sun letters" (predominantly coronals, including emphatics), producing gemination of the initial consonant of the noun; before "moon letters," no assimilation occurs (as summarized by Al-Sheyadi, 2021). From a phonological perspective, this distinction reflects a process of regressive place assimilation. Because the lateral /l/ of the definite article is itself a coronal consonant, it readily assimilates to following coronal segments such as /t, d, s, n, r/. These consonants are traditionally referred to as "sun letters", a term derived from the Arabic word *ʃams* 'sun', which begins with a coronal consonant. In other words, the expression "sun letters" uses the word *ʃams* 'sun' as a key word to represent the group of sounds that trigger assimilation of the definite article. This is illustrated by the traditional example:

al ʃams → aʃ ʃams

the sun the sun

In this case, the /l/ assimilates to the following coronal consonant, resulting in consonant gemination.

By contrast, “moon letters” consist primarily of non-coronal consonants and therefore do not trigger assimilation of the article; this term is derived from the Arabic word *qamar* ‘moon’, which begins with a non-coronal consonant. In the same way:

al qamar → al qamar

the moon the moon

Here, the /l/ remains phonetically realised because the following consonant /q/ is not coronal.

By contrast, in the Qarni variety relevant to this study, the definite article may surface as *m-* instead of *l-*. This variant carries strong social salience and, within the regional ecology, is often associated with rural speech. Such social evaluation has been documented in dialectological treatments of the southwest of Saudi Arabia and Yemen (Alqahtani, 2015). The remainder of this chapter grounds that observation historically and empirically.

5.1. The definite article in classical Arabic grammar

5.1.1 Definiteness in Arabic and the role of the article

Across languages, definiteness encodes whether a speaker treats a nominal as identifiable to the addressee, drawing on discourse anaphora, situational knowledge, and generic reference. In Arabic, the grammatical marking of this semantic notion is anchored in the prefixed article *l-*, but interacts with other resources that Arabic grammars recognise as part of a three-state system (definite, indefinite, construct). In the standard variety, indefiniteness is typically marked by the suffix *-n* (|*tanwīn* ‘nunation’) on the noun. For example, *kitābun* ‘a book’ is indefinite, whereas *l-kitāb* ‘the book’ is definite. By contrast, most contemporary Arabic vernaculars do not retain tanwīn; instead, indefiniteness is generally expressed through a zero-marked bare noun (e.g., *kitāb* ‘a book’ versus *l-kitāb* ‘the book’ in many dialects). Crucially, several dialects have developed innovative indefinite markers that allow speakers to convey more nuanced

meanings of non-specificity. These may include forms equivalent to ‘some’ or ‘a certain’, such as *ši in ši kitāb* ‘a certain book’ (Al-Sheyadi, 2021). This typological variation, ranging from the retention of classical marking to the emergence of new indefinite forms, makes definiteness and indefiniteness a central area of divergence in Arabic, both diachronically and across regional dialects.

Al-Sheyadi’s synthesis (2021) also emphasises the morphosyntax and allophony of the article. Formally the article is realised as [il-] ~ [el-] ~ [al-], with /l/ undergoing total assimilation to a following coronal (the well-known ‘sun letters’), while no assimilation occurs before ‘moon letters’. Beyond nouns, the article targets attributive adjectives and participates in structures akin to improper annexation, enforcing definiteness concord across the nominal domain. She further notes that the phonetic “bulk” of the article (particularly the vocalic component) is conditioned by prosody (post-pausal vs. connected speech) and local phonotactics. The earliest secure attestation of *(a)l-* is often cited in /al-ʔilāt/ ‘Alilat’ (a god of Arabia), and in general the article’s distribution and phonology align with determiner behaviour cross-dialectally, even as surface reflexes vary.

On the origin of the definite article, Al-Sheyadi (2021) presents two principal positions. Rubin (2005: 65) argues that Proto-Semitic likely lacked articles, and that Central Semitic languages developed articles independently; for Arabic he reconstructs a proto-form *’al- derived from a Proto-West Semitic distal demonstrative (*ulli- ‘that, those’), i.e. a demonstrative-to-article pathway. Pat-El (2009: 21 as cited in Al-Sheyadi, 2021: 188) contests a demonstrative source, proposing instead that the article was first attached to attributive adjectives and only subsequently extended to nouns, an analysis supported by: (i) the article’s ability to nominalise adjectives (e.g. *li-ṣṣɣār* ‘the younger ones’) and (ii) the general principle that forms in agreement do not have to be morphologically identical. Al-Sheyadi presents both arguments without privileging one, making clear that Arabic evidence can be read both ways.

Finally, for the areal picture, Al-Sheyadi (2021) underlines that while *l-* is widespread, it is not the sole reflex across Arabic. West-Arabian varieties (Yemen and adjacent southwestern Saudi dialects) preserve an *m*-article, e.g. *m-wagt* 'the time', *m-burr* 'the wholemeal', which will be central to our analysis later in this chapter; recognising this broader inventory prevents us from treating *m-* as an isolated oddity rather than a historically grounded regional feature.

5.1.2 The definite article beyond Arabic: other Semitic comparanda

In the Modern South Arabian (MSA) languages, Mehri, Ḥarsūsi, Śḥeri, and Socotri, spoken mainly in Yemen, Oman, and the island of Socotra, the definite article exhibits notable variation. Mehri and Ḥarsūsi use the affixes forms *h(a)-* and *a-/ə-*, while Śḥeri employs ɛ- for the definite article. Socotri shares the same segmental forms found in Mehri and Ḥarsūsi, though in certain grammatical contexts its morphological function is weakened or even lost (Johnstone, 1970; Watson, 2011, as cited in Alqahtani, 2015).

In the Canaanite branch, Phoenician and Punic show *h-* as the definite article. Punic, however, also employs alternative forms -ʿ, -ʾ, and -ʿḥ suffixal markers that, like Arabic's assimilation process, cause gemination of the following consonant. For example, ʿ*amm-* ('the place') shows the gemination effect but with a different set of segmental markers (Segert, 2007: 78, in Alqahtani, 2015: 193). In Hebrew, the definite article appears as *ha-, han-*, or *hal-* in prefixed position, and it may also trigger doubling of the onset consonant in the following noun.

Taken together, these patterns position the Arabic definite articles within a broader Semitic typology that includes both prefixed and suffixed articles as well as assimilation or gemination patterns. This broader comparison confirms that the historical presence of multiple definite markers in Arabic is typologically unexceptional.

5.1.3 Aṭ-ṭumṭumāniyya: the *m*-article as a classically recognised feature

In the classical grammatical tradition, the term *aṭ-ṭumṭumāniyya* refers to the replacement of the definite article /l-/ with /m-/. This substitution is discussed not only by early grammarians but also by later commentators and modern dialectologists, who often illustrate it through pairs such as *l-qamḥ* / *m-qamḥ* 'the wheat', *l-hawā* / *m-hawā* 'the air', and *s-sahm* / *m-sahm* 'the arrow'. These examples show that the alternation affects the article itself, not the noun stem. The treatment of *aṭ-ṭumṭumāniyya* in these sources is not purely phonetic but also historical and geographical, with repeated links to specific tribal groups, particularly Azd, Ṭay, and the broader Ḥimyar confederation, situating the feature in the southwestern Arabian Peninsula, the same region relevant to the present study. Within this area, the persistence of the *m*-article is presented not as a linguistic oddity, but as the survival of an older, regionally anchored pattern (Alqahtani, 2015, citing El-Gindi, 1983).

Alqahtani (2015) also traces the diverse evaluations of this feature in the classical record. Some grammarians describe the speech of Yemeni and other peripheral groups using ideologically loaded terms such as *ʿajamī* 'foreign', *šāḏ* 'irregular', or *ḍaʿīf* 'weak'; labels that reflect centre–periphery social attitudes rather than objective structural flaws. For instance, Zamaxšarī characterises *aṭ-ṭumṭumāniyya* as *ʿajma 'foreign'*, and ʿAmru bin al-ʿAlāʾ is often quoted as saying that the Arabic of Ḥimyar and surrounding Yemeni regions "is not our Arabic" (Alqahtani,2015: 179, citing El-Gindi, 1983: 399). Such judgments are framed against the prestige status of central dialects, especially those of Quraysh, Qays, Tamīm, and Asad, which were upheld as *fuṣḥā* ('eloquent') standards, an ideological backdrop that helps explain why the m-article became stigmatised in some periods.

From a phonetic perspective, Anīs (1952, in Alqahtani,2015) notes that replacing /l/ (a voiced lateral approximant) with /m/ (a voiced bilabial nasal) cannot be predicted solely from place of articulation. However, /l/ and /m/, along with /n/ and /r/, are all voiced sonorants, a

natural phonological class that is typologically common across languages and typically acquired early in child speech. Anīs gives child-language examples such as /b/ → /m/ (*balakūna*> *malatūna* 'balcony'), and surveys definite articles in Semitic languages, Arabic /l-/ and historically /n-/ in Hebrew, to suggest that a Semitic variety such as Ḥimyaritic could plausibly develop /m-/ as a definite article within this sonorant system.

Importantly, Taymūr (1973, in Alqahtani,2015) rejects the wholesale classification of m-dialects as "irregular" or "weak." Drawing on earlier sources such as az-Zağğāğī, he notes lexical alternations between /l/ and /m/ (e.g., *azla* > *azma* 'dilemma'; *ʿaṯal* > *ʿaṯam* 'inclined') that were recorded without condemnation. Taymūr also preserves Yemeni testimony in which /m-/ appears before non-assimilating 'moon letters' (e.g., *m-faras* 'the horse') while /l-/ remains before assimilating coronals (e.g., *r-rumḥa* 'the lance'). If taken literally, this pattern might suggest a conditioning in which *m-* favours non-coronals. However, other attestations, including *m-ṣiyām* 'the fasting', *m-safar* 'the travel', and poetic lines such as *bi m-sahmi wa-m-salima*, show *m-* before coronals as well, undermining any claim to a categorical rule. Taymūr thus interprets the evidence as pointing to variation rather than a single, fixed conditioning environment.

In summary, the classical evidence as synthesised by Alqahtani (2015) supports three main conclusions. First, the *m*-article is historically old and regionally rooted in southwestern Arabia, not a recent colloquial innovation. Second, any phonological constraints on the use of *m-* appear inconsistent, with historical sources giving contradictory accounts: while some suggest that *m-* was employed to avoid environments where *l-* would assimilate to a following consonant, other evidence shows *m-* occurring in precisely those contexts. Third, the social meanings attached to this feature, its association with rural or peripheral speech, are deeply embedded in the ideological contrast between central and non-central varieties, a contrast that continues to shape perceptions today.

5.1.4 Old grammarians on the definite article

The classical grammatical tradition treated the article in a highly systematic way. In al-Kitāb, Sībawayh defines the article as a single segmental morpheme, *lām al-maʿrifa*, and offers the canonical assimilation rule: /l/ assimilates to an inventory of thirteen following consonants, producing a geminate onset. Eleven of these are the tongue-tip (coronal) consonants (/n r d t ṣ ṭ z s ẓ t̲ d̲ /), to which lām assimilates completely; two further consonants (ɣ ʿ and š) are said to "merge" in a special way given their articulatory trajectories relative to the tongue-tip region. This account provided the historical foundation for the sun/moon contrast reproduced in later grammars and pedagogy. (Sībawayh 1988, trans. Steiner 1976: 63 as cited in Alqahtani, 2015: 176).

Ibn Jinnī develops a compact but influential four-question programme about the article: (i) why the article is one letter; (ii) why it is sākin (non-vocalised); (iii) why it is specifically lām; and (iv) why it is prefixed rather than suffixed. His answers combine structural and phonetic reasoning. For (i), a single (consonantal) segment is sufficient to transfer the noun's reference from indefiniteness to definiteness, mirroring the single-letter realisation of indefiniteness via tanwīn at word-end. For (ii), describing lām as sākin highlights its weak phonological status: by remaining non-vocalised it is predisposed to attach to the following segment, signalling tightly bound morphosyntax. For (iii), lām is chosen because its place of articulation, the tongue tip, lies close to the articulatory zones of many Arabic consonants; this proximity makes assimilation natural and frequent. Ibn Jinnī explicitly treats such assimilation as reinforcing the article's grammatical attachment to the lexical base. For (iv), prefixal position safeguards the article's integrity: initial consonants resist deletion (unlike final ones, which may drop in pause or undergo truncation), so placing lām at the beginning preserves the definiteness marker in running speech (Alqahtani 2015: 167).

Alqahtani (2015) also notes Ibn Jinnī's practical observation that while classical accounts fix the assimilation set, spoken dialects can diverge. For instance, jīm (/ʤ/) is not among Sībawayh's assimilating consonants; yet in Egyptian speech where /ʤ/ patterns as [g], ig-gaw 'the weather' shows assimilation, whereas varieties with fricated jīm (e.g. Abha) retain l- as in l-ʒabal 'the mountain'. The broader point is that the thirteen-consonant assimilation set is a classical idealisation; modern dialects calibrate assimilation to their own segmental inventories.

A further locus of classical attention is Ibn Yaʿīsh, who, in the Lāmāt section of *Šarḥ al-Mufaṣṣal*, defines the article explicitly as *al-lām al-sākina* (the non-vocalised /l/). Crucially, he reports a Yemeni pronunciation whereby the definite article /l/ is realised as /m/, illustrated by a widely cited early Islamic narration: *laysa min m-birri m-ṣiyām fī m-safar* 'fasting while travelling (in Ramaḍān) is not an act of piety'. This testimony anchors the *m*-article in the classical record and associates it explicitly with Yemen (Al-Qahtani 2015: 178).

5.1.5 Diachronic scenarios for the Arabic article

Rabin's (1951) classical synthesis combines textual, epigraphic, and dialect-geographical evidence to argue that the Arabic definite article historically exhibited multiple forms in different regions of the Arabian Peninsula before converging into the now-dominant *al-*. He documents clear proof that the *m-* and *n-* articles, realised as *am-/im-* and *an-/in-*, were not marginal anomalies but integral components of the historical system. The *m-* form is attested across the Red Sea coastal plain of Tihama, in and around the Yemeni port city of Mokha, among certain Bedouin groups in the north-western Empty Quarter, and even within Bedouin communities in Central Africa. The *n-* article, in turn, is evidenced in Yemeni oral traditions and ancient inscriptions (Rabin 1951: 35, in Alqahatani, 2015: 182).

Rejecting the view that *am-* belongs solely to an archaic South Arabian stratum, Rabin stresses that it also functioned as a West-Arabian feature, not restricted to the far south. On

historical grounds, he proposes that a once wider *am-* zone in the central-western Peninsula contracted during the 8th century CE as *al-* expanded, with *am-* simultaneously retreating in Yemen. He also notes a typological parallel between Arabic *am-* and the Liḥyānic article *h-/hn-* (attested in Ancient North Arabian inscriptions), where *hn-* appears specifically before certain consonants, notably the glottal stop /ʔ/ and the voiced pharyngeal /ʕ/. Rabin interprets this distribution as typologically relevant to understanding how prefixed articles can condition their form according to the following segment (Rabin 1951: 35, in Alqahatani, 2015: 183).

Regarding the *n-* article, Rabin (1951) reports Yemeni usage of *an-* "instead of *am-*" and connects this to the South Arabian prefixed *an-*, represented orthographically in inscriptions as *hn-*. In Ḥimyaritic inscriptions, *an-* is particularly frequent before velar, guttural, or emphatic consonants, for example: *an-ḥulm* 'the dream', *an-qušm* 'fresh vegetables', *an-hind* 'India', and *an-ṣarīf* 'silver'. However, Rabin warns against overgeneralising these patterns, noting that manuscript transmission errors and editorial normalisation in earlier sources may obscure the original distribution. His diachronic model is explicitly sequential:

1. The earliest article was *an-*.
2. This form was retained before velars and emphatics, but shifted to *am-* in other phonological environments.
3. Both *an-* and *am-* were eventually replaced by *al-* in most varieties.

This reconstruction seeks to reconcile the co-occurrence of *an-, am-*, and *al-* in the historical record with the present-day areal distribution of these forms (Rabin 1951, as cited in Alqahtani 2015).

In summary, Rabin's findings provide: (i) a principled basis for treating *m-* and *n-* as indigenous to Arabic rather than peripheral curiosities; (ii) a geography-sensitive historical trajectory, loss of *am-* in the central-west alongside its persistence in the south-west; and (iii) evidence that segmental conditioning, such as the tendency of *an-* before gutturals or

emphatics, forms part of the story but cannot fully predict all distributions. These considerations will be essential when assessing the contemporary behaviour of *m-* in the southwestern Arabian Peninsula.

While Rabin (1951) reconstructs the historical distribution and development of multiple definite article forms within Arabic, focusing on their geographical spread and subsequent convergence towards *al-*, Tropper (2001) adopts a broader comparative and diachronic perspective, examining how the definite article emerged across Semitic languages as a grammatical category. He argues that the definite article is not inherited from Proto-Semitic but developed in individual languages over time, and considers the role of deictic or demonstrative elements in this process, outlining a series of stages through which such elements come to function as markers of definiteness.

Modern dialectological research confirms that the *m-* article is widely attested in the southwestern region of the Arabian Peninsula and neighbouring Yemeni dialects. Studies of Tihāmi Yemeni Arabic and related coastal varieties report productive use of *m-* as a definite marker, often contrasting with the canonical *l-* article (Greenman 1979). Dialect surveys of southwestern Saudi Arabia likewise document the presence of *m-* or related forms such as *ʾim-* across the highland and Tihāma communities, including Balqarn and neighbouring regions (Procházka 1988). Mapping studies of Yemeni dialects further demonstrate that the *m*-article forms part of a broader areal belt extending across southwestern Arabia (Behnstedt 2007; Alfaifi & Behnstedt 2010). Taken together, these studies consistently locate the *m*-article within the dialect continuum of southwestern Arabia and Yemen, confirming that it represents a historically rooted regional feature rather than an isolated anomaly.

5.1.6 Summary and relevance to the present study

The literature discussed above demonstrates that the *m*-article is a historically attested and structurally stable marker of definiteness within the south-west Arabian linguistic area. It has

been recognised since the time of the classical grammarians, who documented forms such as Yemeni *am-* and referred to the feature as *aṭ-ṭumṭumāniyya*, and has been charted by modern dialectological surveys across Tihama and neighbouring ʿAsīr regions.

Two key points emerge as directly relevant to the present research. First, from a phonological perspective, the *m*-article differs from *l-* in that it does not assimilate to a following coronal consonant, and its historical distribution cannot be explained by a single conditioning rule. Second, from a sociolinguistic perspective, *m-* is associated with enduring social meanings, often indexing rural identity or peripheral location, whereas urban centres tend to favour *l-*.

In this context, the Qarni dialect examined here offers a valuable case study. The analysis investigates whether *m-* continues to function productively as the definite article, how it is distributed across different segmental environments and morphosyntactic positions within the noun phrase, and how its occurrence correlates with migratory cohorts, gender, and contact, social variables that have been shown to drive change in other communities in the region. The following section (5.2) presents the corpus, coding procedures, and the analysis that addresses these questions.

5.2 Data and Coding Procedures

This section examines variation in the realization of the definite article among speakers of the traditional Qarni dialect in Riyadh. Two primary forms are attested: the traditional *m-* article and the standard *l-* article. As stated in Section 5.1, the l- article also appears in an assimilated form when followed by specific coronal consonants, known in the Arabic grammatical tradition as ‘sun letters’ (*al-ḥurūf ash-shamsiyya*), as opposed to ‘moon letters’ (*al-ḥurūf al-qamariyya*), which do not trigger assimilation. The sun letter set includes /n/, /r/, /d/, /t/, /ṣ/ [sˤ], /ṭ/ [tˤ], /z/, /s/, /š/ [ʃ], /ḏ/ [ð], /ḍ/ [dˤ], and /ṯ/ [θ], all sharing a coronal place of articulation. In contrast, the

moon letters include all other consonants, such as /b/, /m/, /f/, /q/, and /k/, which allow the /l/ in the article to be fully realised.

The distinction between sun and moon letters has long been recognised by classical grammarians. Taymūr (1973: 107 as in Alqahtani, 2015: 181) provides an example from Yemeni Arabic where the *m-* article appears exclusively before moon letters:

xuði r-rumḥa w arkabi m-faras
take.IMP.2SGM DEF-lance and ride.IMP.2SGM DEF-horse
'Take the lance and ride the horse.'

This example illustrates that in some dialects, *m-* is restricted in distribution to non-assimilating contexts. In the present Qarni data, however, *m-* occurs in both coronal (assimilating) and non-coronal environments.

5.2.1 Dataset and methodology

The dataset for this variable consists of 1,377 tokens of the definite article, of which only 17 tokens (1.23%) are realised with the *m-* form, while 1,360 tokens (98.77%) are realised with the *l-* form (including assimilated tokens). This overwhelming dominance of the *l-* form points to an almost complete shift toward the supralocal variant in the Qarni speech community in Riyadh.

Although a full statistical model could not be justified due to the very low frequency of *m-* tokens, an initial count was conducted in R to determine the frequency of each variant across different phonological environments. These counts serve observational purposes and allow for a qualitative assessment of distribution. Given the highly skewed data, formal quantitative modelling was deemed inappropriate. As noted by Tagliamonte (2006), Johnson (2009), and Labov (1994), quantitative modelling of low-frequency variables can produce unreliable or misleading estimates when there are insufficient observations per category. Instead, a qualitative, context-focused analysis is adopted here, which is standard practice in variationist

sociolinguistics when dealing with rare variants. This approach allows for a close examination of the contexts in which *m-* still occurs and how these relate to the broader pattern of assimilation in the *l-* article.

Table 5.1 below presents the distribution of the definite article variants that occurred in the data across phonological environments.

following sound	**assimilated**	***l-***	***m-***	**total**
Back consonants	0	413	10	423
Coronals	201	273	4	478
Labials	0	209	2	211
/m/	0	221	0	221
/l/	0	4	0	4
/dʒ/	0	39	0	39
Front vowel /a/	0	0	1	1
Total	**201**	**1,159**	**17**	**1,377**

Table 5.1 Distribution of the definite article variants across phonological environments in the Qarni dataset.

5.2.2 Coding procedures

The coding framework was adapted from Alqahtani's (2015) study of the *m-* article in southwestern Arabia. Each token was coded for two factors:

1. The variant of the definite article (*m-, l-,* or assimilated *l-*).
2. The phonological category of the following segment.

The following environment categories were distinguished:

- **Back consonants**: /ḥ/, /x/, /ʕ/, /ɣ/, /g/, /q/, /k/, /h/
- **Coronal consonants**: /t/, /tˤ/, /d/, /ð/, /ðˤ/, /s/, /z/, /ʃ/, /sˤ/, /n/, /r/, /y/
- **Labials**: /b/, /f/, /w/
- **Front vowel**: /a/
- **Voiced postalveolar affricate**: /dʒ/

- **/m/** (to test potential homorganic influence after m-)
- **/l/** (to test potential homorganic influence after l-)

This coding was conducted to observe possible phonological restrictions on the use of *m-* and to identify which consonants trigger assimilation in the *l-* article.

5.2.3 Distribution of the *m*-article

Across the dataset, the *m-* variant appears in both coronal and back-consonant environments, with no clear pattern of restriction to moon letters. Coronal environments account for 4 of the *m-* tokens, back consonants account for 10 tokens, and the remaining 3 *m-* tokens occur in labial and front vowel environments. This spread suggests no obvious evidence that the following consonant conditions the occurrence of *m-*. In other words, the occurrence of *m-* does not seem to depend on the nature of the following consonant, at least not within the constraints of this small dataset.

Importantly, there are no tokens in which *m-* occurs before /m/ or /l/ in this dataset, which may reflect avoidance of homorganic sequences or simply accidental gaps in the sample. Likewise, the lone token of *m-* before the front vowel *ʾm-awwalah* 'the first', shows that this environment is rare in spontaneous speech.

By contrast, the *l-* article, both assimilated and non-assimilated, appears in every phonological environment. Assimilation occurs consistently before sun letters, in in line with classical descriptions (Sībawayhi; Ibn Jinnī) and Alqahtani's (2015) overview. Notably, the dataset contains 4 *l-* tokens before /l/ , showing that, while homorganic sequences are rare, they are not entirely absent. The non-assimilated *l-* also appears before all moon letters and other consonants, reinforcing its status as the unmarked supralocal form in Riyadh speech.

5.2.4 Results and discussion: qualitative patterns in the use of the *m*-article

The qualitative analysis of the Qarni dataset reveals that the *m*-article is an extremely rare feature among Qarni speakers in Riyadh, occurring in only 17 tokens (1.23%) out of 1,377 (98.77%) definite article tokens. All 17 tokens were produced by male speakers; none of the female participants in the study used the *m*- form.

The fact that all *m*-tokens were produced by male speakers is noteworthy. Of the five male speakers involved, four had high contact with non-Qarni speakers and one had low contact. The male speaker with low contact was also the one who produced the majority of *m*-tokens, alone contributing 12 tokens. In sociolinguistic terms, lower exposure to non-Qarni speakers and supralocal norms may slow the adoption of *l*- and preserve older, locally marked features. The retention of rural or traditional forms in male speech is well-attested in tribal contexts, where it can index masculine identity, local pride, and solidarity with heritage speech patterns (Alqahtani, 2015). In this sense, the persistence of *m*- among certain male speakers may be more than a matter of contact level; it could also reflect conscious or unconscious identity signalling.

5.2.4.1 Distribution across migration cohorts

When the distribution is examined in terms of migratory cohorts, the picture becomes clearer:

- **Two teenage migrants** (moved to Riyadh at a young age, with extensive exposure to non-Qarni dialects): 1 token each.
- **One adult migrant** (migrated to Riyadh at age of 18): 12 tokens.
- **Two locally born speakers in Riyadh**: 3 token in total.

The speaker who used *m*- most extensively was the adult migrant to Riyadh. Out of the 17 *m*-tokens, 12 were produced by him, two by teenage migrants, and two by locally born speakers. While these figures are too small to draw firm statistical conclusions, they align with the broader sociolinguistic expectation that adult migrants are more likely to retain pre-migration speech

forms, whereas locally born speakers shift more rapidly toward the urban supralocal variety. These patterns should be understood as interpretive tendencies rather than definitive generalisations, given the limited dataset.

5.2.4.2 Variation in lexical items

Several lexical items occur with both *m-* and *l-* within the speech of the same speaker, indicating that the choice of variant is not categorical. Examples include:

Back consonants:

l-article	m-article	Gloss
l-ʕju:n	m-ʕju:n	the eyes
l-xarʕah	m-xarʕah	the fear

Table 5.2. Examples of l- and m- article occurrence before back consonants in the Qarni dataset.

Coronal consonants:

l-article	m-article	Gloss
as-sajja:rah	m-sajja:rah	the car
ad-di:rah	m- di:rah	the hometown

Table 5.3. Examples of l- and m- article occurrence before coronal consonants in the Qarni dataset.

Labials:

l-article	m-article	Gloss
l-ba:b	m-ba:b	the door
l-be:t	m-be:t	the house

Table 5.4. Examples of l- and m- article occurrence before libials in the Qarni dataset.

Front vowel (/a/):

l-article	m-article	Gloss
l-awwalah	m-awwalah	the first

Table 5.5. Examples of l- and m- article occurrence before front vowel in the Qarni dataset.

5.2.4.3 No evidence of *m-* assimilation

Rabin (1951) notes that in the dialect of Ẓufār, the *l*-article is assimilated before labials (/b, f, m/), which he interprets as fossilised forms from an earlier stage when *m-* was used and assimilated to homorganic consonants. The Qarni data, however, show no evidence of assimilation of *m-* in any environment, including before labials. In every case where *m-* appears before a labial, it retains its form unchanged.

Similarly, the *l*-article is not blocked in homorganic environments with /l/. In the dataset, there are 4 tokens in which *l-* appears before /l/, suggesting this environment is compatible with the supralocal form. Examples include *l-laban* 'the milk' and *l-laħam* 'the meat'.

5.2.4.4 Behaviour of coronals and back consonants

Coronal sounds, including dentals, alveolars, and post-alveolars, overwhelmingly occur with the *l*-article in the data. An example with a glide /j/, which like back consonants does not trigger assimilation of *l-*, is *l-jami:n* 'the right'. In contrast, when *l-* precedes sun letters, it assimilates fully, as expected. The *m*-article, however, occurs in both coronal and back consonant contexts without categorical restriction.

For back consonants (/ḥ/, /x/, /ʕ/, /ɣ/, /g/, /q/, /k/, /h/), *l*-article is again the overwhelmingly dominant form. The examples below show *m-* in this context, though in much smaller numbers:

***l*-article**	**Gloss**	***m*-article**	**Gloss**
l-ḥarakah	the movement	m-ḥirba	the lizard
l-ʕju:n	the eyes	m-ʕju:n	the eyes

Table 5.6 Examples of l- and m- article occurrence before back consonant

5.2.4.5 Co-occurrence with demonstratives

A notable observation is that the *m*-article in the current dataset co-occurs with demonstratives. This contrasts with Alfaifi and Behnstedt's (2010) findings in the dialect of Čabal Fayfāʾ, where *m*- does not appear in this context, but it aligns with Alqahtani's (2015) findings, where she notes that the *m*-article can occur with demonstratives in some southwestern varieties. In the Qarni data, both *m*- and *l*- appear after demonstratives:

ha:ða **m-ba:b**

DEM.SGM DEF-door

'this door'

ða:k **l-wagt**

DEM.SGM DEF-time

'that time'

This shows that, for the speakers in this sample, m- is not excluded from syntactic contexts where *l*- is used.

5.3 Interpretation

The supralocal *l*-article overwhelmingly dominates across all phonological environments in the Qarni data, with the *m*-article appearing only in 17 tokens of all definite article tokens. This extreme rarity and its concentration among a small number of male speakers, notably a single adult migrant producing 12 of the 17 tokens, indicate that *m*- is no longer a productive variant in this community. Instead, it seems to operate as a stylistic or identity-marked form. Its complete absence among female participants and its sporadic occurrence in both coronal and non-coronal contexts reinforce the view that it functions as a symbol of rural or tribal identity rather than as an active grammatical alternation.

From a sociolinguistic perspective, the distribution across migratory cohorts offers insight into patterns of retention and shift. Adult migrants account for the bulk of *m*-use, while

teenage migrants and locally born speakers contribute only isolated tokens. This aligns with Labov's (1994) *Principle I of Linguistic Change*, which holds that younger speakers lead in the adoption of innovative forms, while older speakers are more likely to preserve conservative variants. Although the total *m*-use is minimal even among adult migrants, their *relative* retention compared to locally born cohorts suggests that age at the time of migration remains somewhat a factor in maintaining pre-migration features.

In the current study, the rare occurrences of the traditional Qarni variant can be explained in psycholinguistic terms. According to Lenneberg's critical period hypothesis (1967), the ability of adult dialect acquirers to undergo major grammatical or phonological restructuring diminishes once they have passed the critical stage of language acquisition. In this light, the emergence of the supralocal variant in the speech of Qarni speakers is best understood as a function of the type and timing of contact, with early exposure to Riyadh norms facilitating adoption of the innovative form, while later arrivals show much more limited variation. Here, the Qarni adult migrant who produced most *m*-tokens had fully acquired the Qarni variety before moving to Riyadh, making his speech system more resistant to full convergence with the supralocal norm.

Furthermore, the quick and near-total shift toward the *l*-article among teenage migrants and locally born speakers can be explained through age of acquisition research in sociolinguistics and second language acquisition. Studies (Chambers 1995; Labov 2001) have consistently shown that individuals exposed to a new linguistic variety before adolescence, often defined as before age 13-14, are more likely to acquire its phonological patterns completely. Early arriving-migrants (teenage cohort) entered the urban community at an age when they could still adapt rapidly to the local norm, while locally born speakers are native to that norm from the outset. The result is a more complete accommodation to the supralocal variety, explaining the near absence of *m*-article in their speech.

Taken together, these patterns suggest that while the *m*-article has been almost entirely replaced by the *l*-article in the speech of Qarni speakers in Riyadh, its few remaining instances index local or tribal identity and are retained primarily by those whose linguistic system was solidified before migration. Even in these cases, however, the dominance of *l*-article shows the strong influence of the supralocal Riyadh norm, with retention occurring only in limited lexical or stylistic contexts.

5.4 List of instances where male speakers used the *m*-article and their social meanings

Examples of all the *m*-article in the Qarni dataset, produced exclusively by male speakers are listed below. Each example includes the full form, gloss, and a brief description of the narrative context in which it occurred.

1. inna-ha be:n m-ʕju:n

   'it is between (the) eyes'

This example comes from a teenage migrant who is an educated individual and former General in the Army. He migrated to Riyadh as a child and later obtained a bachelor's degree in the United States. During the interview, he reflected on the pleasant weather in Balqarn and recounted childhood memories, including a frightening incident in which adults went hunting while he was hiding in the mountains, unaware of his presence. He drew on a southern proverb, *innaha be:n m-ʕju:n* ('it is between the eyes'), a metaphor for extreme misfortune or being cursed. This was the sole instance in which he used the *m*- article.

2. fi m-di:rah

   'in the hometown'

This token was produced by another teenage migrant who is also an educated former General. He migrated to Riyadh as a child as well. In narrating events from his hometown of Balqarn,

He used the *m-* article once at the beginning of his narrative; in subsequent references to his hometown, however, he switched to the *l-* variant and used it with the same lexical item .

3. m-sajja:rah mahib maudʒu:dah

   ‘The car is not there.’

4. ʔaθr m-rajja:l muwa:ʕid

   ‘It turns out that the man has an appointment’

5. m-rajja:l mʕasˁsˁib

   ‘the man is angry’

6. axaðt m-sajja:rah

   ‘I took the car’

7. da:xil m- tˁ:agah

   ‘inside the window’

8. m- ħirba ʕali

   ‘Ali the lizard’ meaning ‘Ali is deceitful’.

9. taħt m-da:r

   ‘under the house’

10. awaggif m-sajja:rah

    ‘I stop the car’

11. la: tilħag *m-* awwalah

    ‘don’t follow the first’ proverb meaning ‘don’t repeat your previous mistake’

12. ana m-xarʕah takul-ni

    ‘the fear eats me’ meaning ‘I get very scared’

13. tku:n timsi maʕ m-tʃila:b

    ‘she would sleep with the dogs’ meaning “she is very strong”

14. wa m-ʃa:jib ħagg-ha

'and her old man'

All twelve of the above tokens were produced by an adult migrant who is an educated Major in the Army. He migrated to Riyadh as an adult (age 18) and later spent six years abroad. His minimal exposure to non-Qarni speakers, coupled with close ties to his immediate family, likely contributed to his retention of the *m-* article. His narratives focused on his youth in Balqarn, including stealing his brother's car and being tied to a window as punishment, and stories about his mother's resilience. It is worth noting that, following the death of his father, the participant's mother moved to live with him, which is a common practice in Saudi/Arab culture where sons often assume responsibility for caring for their parents in old age. He spends most of his time with her, accompanying her to hospital visits, listening to her stories, and providing daily care. His linguistic behaviour might therefore be influenced by the continuous input he receives from her speech.

15. m-jamir

'the charcoal'

One token was produced by a locally born speaker while recounting a story his mother had told him about her work on the farm in Balqarn and preparing food. In this narrative, he referred to a traditional cooking tool in which charcoal (*m-jamir*) is placed for preparing meals.

16. m-ba:b

'the door'

17. m- be:t

'the house'

These two examples come from a locally born male speaker who used the *m-* article while recounting a story about his mother.

Interpretation

The distribution of *m*-article shown above confirms the concentration of this feature among a small subset of male speakers. The overwhelming majority of tokens (12 out of 17) come from a single adult migrant, while other male speakers produced either one or two isolated tokens, often in proverbs, fixed expressions, or with reference to culturally salient lexical items. This pattern supports the earlier conclusion that *m*-article is no longer a productive grammatical variant in the Riyadh Qarni community, but rather a stylistic resource indexing traditional identity and local heritage. For locally born and younger migrants, its occurrence is rare and context-bound, indicating strong alignment with the supralocal *l*-article norm. Even for the adult migrant, whose life history and limited non-Qarni contact might favour retention, the use of *m*-article represents a small proportion of his overall definite article tokens, suggesting that the shift toward the urban norm is near-complete across migratory cohorts.

5.5 Summary and conclusion

In the Qarni dataset, the *m*-article, once a salient regional marker, now appears only sporadically. The rarity of *m-* occurrences further underscores its markedness, reinforcing the perception of *l-* as the normative form. This points to a near-complete adoption of the *l-*article in both everyday speech and broader communicative interactions, reflecting a clear case of dialect levelling in which local, marked variants are progressively eroded in Favor of supralocal norms.

The analysis of the variable *m*-article indicates that the direction of change among Qarni speakers in Riyadh is decisively toward the *l*-article. The change is almost complete, with *m-* now functioning as a relic feature whose presence is largely symbolic rather than productive. Its occurrence is extremely limited, restricted to specific contexts that carry strong cultural or geographical resonance, such as references to the home region or traditional

expressions. This context-bound use suggests that *m-* survives more as an emblem of identity than as an active grammatical option.

The results also show that social variables, such as migratory cohorts, gender, and contact level, play only a minor role in the overall process of change for this variable. While the majority of speakers consistently use the *l*-article, the highest concentration of *m-* tokens was produced by an adult migrant with low contact with non-Qarni speakers. This speaker's linguistic profile suggests that limited exposure to the dominant urban norm combined with the continuous linguistic input he receives from his mother, may slow, but not prevent, the broader levelling process.

Structurally, the *l*-article displays full distributional flexibility: it can occur in all phonological environments and assimilates to a wide range of following consonants. This high degree of adaptability enhances its suitability as the dominant form, facilitating its expansion at the expense of the more restricted *m-* variant.

Taken together, these findings provide clear evidence that the Qarni speech community in Riyadh has largely aligned with the supralocal urban norm, favouring the *l*-article as part of a broader process of convergence toward the urban forms. The *m*-article persists only as a marginal, contextually conditioned form, an index of heritage identity that is maintained in culturally salient narratives but absent from the unmarked grammar of daily interaction. This trajectory aligns with patterns observed in koineisation processes described in Chapter 2, where dialect contact in urban centres fosters the gradual elimination of highly localized features in favour of forms with wider social currency.

Chapter 6

The variable (ʤ)

Introduction

This chapter examines the sociophonetic variation of the consonant /ʤ/ (jīm) in the speech of the Qarni speakers residing in Riyadh. In this community, /ʤ/ has two variants: the traditional rural form [j], which is widely recognised as a salient marker of the tribe's linguistic heritage, and the supralocal [ʤ] variant, which aligns with the urban norms of Riyadh and with the form found in Modern Standard Arabic (MSA). For example, the lexical item /ʤadiːd/ 'new' is realised as [jadiːd] in the Qarni traditional variety and as [ʤadiːd] in the supralocal form which is also the same as the Najdi form.

From a phonetic perspective, the change from /j/ to /ʤ/ involves fortition and affrication. In this process, the smooth, continuous airflow of the approximant /j/ is strengthened by introducing a brief stop closure at the same place of articulation, followed by frication, producing the affricate /ʤ/. Conversely, the change from /ʤ/ to /j/ is a case of deaffrication, which is part of the broader category of lenition. Here, the initial stop closure of the affricate is lost, and the fricative element is weakened further to an approximant, resulting in a less constricted articulation.

The chapter is divided into two main parts. The first part outlines the history and development of the Arabic phoneme /ʤ/ and surveys descriptive studies documenting the distribution of /ʤ/ reflexes across modern Arabic dialects. It also reviews key sociolinguistic investigations into the variation of this variable in a range of Arabic-speaking communities.
The second part presents the findings of the current study, based on empirical analysis of recorded speech data from Qarni speakers in Riyadh. The analysis considers the social and linguistic constraints that govern the choice between [j] and [ʤ] in this community and explores

the relationship between these patterns and broader processes of dialect contact and change in the Saudi capital.

6.1 History and development of Arabic /ʤ/

Although certain details surrounding the historical development of the Arabic phoneme /ʤ/ (jīm) remain contested among scholars, there is broad consensus regarding its core articulatory and phonological properties as described by the early Arabic grammarians (Sibawayh, 1988; Ibn Jinnī, 1993). Regarding its place of articulation, Sibawayh (1988), in a description translated by Blanc (1969) (cited in Alshawi, 2020), states that the *normative* or "correct" articulation of /ʤ/ lies midway between that of /ʃ/ and /k/. In the context of medieval grammatical tradition, the term "correct" refers to the articulation approved in Qurʾānic recitation, which carried a prescriptive and prestige value in classical Arabic phonology:

… wamin wasˤatˤ ʔal-lisaːn bajnahu wa bajna wasˤatˤ ʔal-ħanak ʔal-ʔaʕla

from the centre of the tongue, between it and the centre of the palate

(Sībawayh, 1988: 433, translation by Blanc, 1969: 17; Alshawi, 2020: 110)

A similar account is provided by al-Xalīl ibn Aḥmad (8th century CE) and Ibn Yaʿīsh (10th century CE). In his book *al-ʿAyn* (1980), al-Xalīl classified /ʤ/ together with /ʃ/ and /ðˤ/ as sharing the same major place of articulation, the *faǧr al-lisān* (front or middle portion of the tongue). However, Sibawayh (1988) and Ibn Yaʿīsh diverged slightly, grouping /ʤ/ instead with /ʃ/ and /j/, excluding /ðˤ/. Both positions show the close articulatory relationship between /ʤ/ and other palatal(-alveolar) sounds.

In addition to this classification, these grammarians agreed on several distinctive features of /ʤ/. They identified it as *majhūr* (voiced), *šadīd* (fortis), and *maftūḥ* (non-emphatic) (Hussain, 2017, Alshawi, 2020). Al-Xalīl also added that /ʤ/ is *šajaryya* ('arched consonant'),

a traditional term referring to a sound produced with the middle part of the tongue approaching the hard palate. This description led Blanc (1969) and others to infer that /ʤ/ in Classical Arabic was a palatal stop. Sibawayh's grouping of /ʤ/ with /ʃ/ and /j/, all sharing a similar palatal place of articulation, further supports the view that the normative form of /ʤ/ in the 8th century was palatal in nature.

Sibawayh (1988; cited in Alshawi, 2020) emphasised that an important phonological parameter distinguishing Arabic consonants is voicing. In his classification, /ʤ/ was clearly *majhūr*, meaning fully voiced, "or having a voiced variant" in Blanc's (1969) phrasing. The second major feature was fortition: Sibawayh distinguished between *šadīd* (fortis), *raxu* (lenis), and intermediate consonants, assigning /ʤ/ to the fortis category. Thus, in the medieval normative system, /ʤ/ was a voiced, fortis, palatal(-alveolar) stop.

Alongside these normative articulatory and phonological characteristics, Sibawayh also documented variation in the pronunciation of /ʤ/. He initially listed 29 "original" Arabic sounds, including /ʤ/, but later expanded this to 35, and eventually to 42 by adding:

1. *mustaḥsana* ("preferred") sounds: those sanctioned for Qurʾānic recitation and poetry.
2. Non-normative reflexes: those added to the original 29 characters, regional or socially marked variants that diverged from the classical norm.

This expanded classification, as Alshawi (2020) observes, reveals an implicit sociolinguistic awareness in medieval grammar, as it acknowledged the coexistence of multiple socially stratified realisations of the same phoneme.

In the case of /ʤ/, Sibawayh cited two non-normative reflexes in addition to the normative palatal stop:

1. /ʤ/ realised as /k/: possibly corresponding to the modern velar stop [g] found in Yemeni and Cairene Arabic.

2. /ʤ/ realised as /ʃ/: likely corresponding to the fricative [ʒ], as found in Levantine Arabic.

Hussain (2017) notes that Sibawayh and Ibn Yaʿīsh observed a contextual effect for the /ʃ/-like variant: it occurred more frequently when /ʤ/ was immediately followed by /d/ or /t/. Examples include:

- *muʒtamaʕ* 'society'
- *aʒdar* 'better'

Such evidence suggests that medieval grammarians recognised not only phonetic variation but also conditioned variation, where certain reflexes of /ʤ/ were more likely in specific phonological environments.

From these descriptions, Alshawi (2020) and Hussain (2017) infer that the original Semitic reflex of /ʤ/ was still in use in medieval Arabic, coexisting with other allophonic and regional variants. This combination of normative, preferred, and non-normative forms highlights the complex sociophonetic landscape of Arabic in the early Islamic period, in which both prescriptive recitation norms and natural dialectal diversity played a role in shaping the phoneme's development.

6.2 Development of /ʤ/ and contemporary sources

The earliest detailed account of the phoneme /ʤ/ after Sibawayh's description in the 8th century is provided by Ibn Sīnā in the 11th century (Kaye, 1972). In his treatment, Ibn Sīnā discusses only the contemporary normative pronunciation, identifying it unambiguously as a voiced post-alveolar affricate [ʤ] (Freeman, 2016: 178, in Alshawi, 2020: 112). This shift in focus suggests that by the medieval period, the frequency of alternative realisations noted by Sibawayh, such as [g] or [ʒ], may have declined, with the affricate emerging as the dominant form.

In Contemporary Standard Arabic, the normative form is generally considered to be the voiced alveo-palatal affricate [dʒ]. However, as will be outlined below, a number of linguists, among them Kaye (1972) and Cantineau (1960), have argued that this form developed historically from earlier realisations, including a voiced alveo-palatal fricative [ʒ] and even a palatalised velar stop [gʲ] (cited in Alshawi, 2020: 112).

Many modern scholars, such as Moscati (1980) and Mitchell (1993), maintain that the post-alveolar affricate [dʒ] reflects the general pronunciation of Classical Arabic /dʒ/. Cantineau (1960), however, advances a different interpretation. Based on his reading of Sibawayh's description, which locates the articulation midway along the hard palate, he concludes that Classical Arabic /dʒ/ in the 8th century was not an affricate but a palatalised dorso-palatal plosive [gʲ]. In his historical analysis, Cantineau proposes that this form was inherited from Proto-Semitic **g*, which he identifies as the oldest common realisation across Semitic languages. This velar stop has direct cognates in Hebrew (*gāmal* 'camel') and Aramaic, and it survives in many modern Arabic dialects, notably in Egypt, Yemen, and Oman.

According to Cantineau, Proto-Semitic possessed a post-palatal–velar trait system consisting of *q*, *g* and *k*. In the case of Arabic, this system underwent restructuring due to the fronting (or coronalisation) of [g]. This process led to a chain of developments that Cantineau (1960) represents schematically (see Figure 6.1, 'Development of /dʒ/,' based on Cantineau, as cited in Alshawi, 2020).

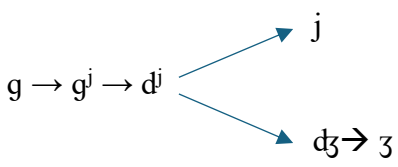


Figure 6.1 Development of /dʒ/ based on Cantineau (1960), as cited in Alshawi (2020: 113)

In his reconstruction:

1. The original velar [g] was fronted to a palatalised dorso-palatal plosive [gʲ].
2. This sound subsequently evolved into a voiced alveo-palatal affricate [dʲ].
3. Later developments in some dialects led to deaffrication to [ʒ] or glide-shift to [j].

These three major variants, [g], [gʲ], and [dʒ], are all still found in contemporary Arabic dialects. The plain velar [g] remains the most frequent dialectal form in the Delta region in Egypt, , while [dʲ] occurs in parts of Sudan, Upper Egypt (Al-Wer, 1991), and in regions of Arabia (Al-Nassir, 1993). The [gʲ] form is attested in Oman (al-Nassir, 1993; Alshawi,2020).

The historical trajectory also includes shifts from [dʒ] to [j] (glide realisation) or from [dʒ] to [ʒ] (deaffrication), the latter being the norm in large parts of the Levant, North Africa, and some Arabian Peninsula dialects (Mitchell, 1993; Alshawi, 2020: 113). Notably, alternation between [dʒ] and [j] still occurs in some southern Iraqi and Gulf localities, such as Kuwait and Basra.

One piece of evidence supporting Cantineau's suggestion that Classical Arabic jīm was historically [gʲ] rather than [dʒ] is that /dʒ/ did not behave as a 'sun letter' (*ḥarf šamsī*), meaning it did not trigger assimilation of the definite article *al-* in the same way as coronal consonants. This non-assimilating behaviour aligns more closely with a velar than a coronal realisation, suggesting that the velar variant may indeed be a retention from the Proto-Semitic *g (Alshawi, 2020).

Hussain (2017) provides a parallel account of Cantineau's (1960) historical model, noting that he compared the Arabic consonant system with other Semitic languages, including Akkadian, Canaanite, Aramaic, Ugaritic, Hebrew, and Tigrinya, in order to reconstruct the Proto-Semitic inventory. In Cantineau's framework, Proto-Semitic velars were grouped as a velar trait comprising the emphatic *q*, the voiced *g*, and the voiceless *k*. Old Arabic inherited

this system, but the velar trait was disrupted when the Proto-Semitic *g underwent fronting. Hussain (2017: 170) summarises the development of /ʤ/ in Arabic as follows:

Proto-Semitic g→ pre-palatal Old Arabic gʾ → gy → dy (=/gj/, dj/)

The affricate pathway involved *[g^j]* acquiring an alveo-palatal constriction, resulting in [dʒ], which in some dialects later lost its occlusive element, producing [ʒ]. The glide pathway resulted from complete loss of occlusion, yielding [j]. These developments occurred at different times and to varying degrees across Arabic-speaking communities.

Cantineau also notes that medieval grammarians considered the "correct" realisation of /ʤ/ to be g^y [g^j], though [ʒ] and [dʒ] were also widely known and used. In modern dialectology, the distribution of /ʤ/ variants is complex(Cantineau, 1960: 56-62, in Hussain, 2017: 185):

1. Post-palatal [g]: common in Egypt, parts of Yemen, and Oman.
2. Pre-palatal [g^j] or [d^j]: used by Bedouin of North Arabia (e.g., the tribes of Šammar and ʿAnaza) and also attested in Yemen.
3. Palatal [j]: found among certain North Arabian tribes of Dumat al-Jandal and Ḥāʾil, and in East Arabia in the lower Euphrates basin.
4. Alveo-palatal [dʒ] and post-alveolar [ʒ]: prevalent in Iraq, the Syrian Desert, rural Palestine, Jordan, and some Algerian varieties; [ʒ] is the urban norm in Damascus, Beirut, Ḥaifa, and Nablus, as well as throughout much of North Africa (notably Tunisia and Morocco).
5. Voiceless affricates [tʃ] and [ts]: attested in Palmyra and in the oasis of Sukhna between Palmyra and Mesopotamia, e.g., [čar] 'neighbour', [ćeld] 'skin'

This distribution underscores the remarkable diachronic and synchronic variation of /ʤ/ in Arabic, reflecting both inherited Proto-Semitic features and subsequent innovations driven by internal change and contact.

Building on this diachronic foundation, Kaye (1970, in Hussain, 2017) proposed a different emphasis: that the voiced alveo-palatal fricative [ʒ] was not merely one reflex among others, but the historical antecedent from which all modern reflexes of /ʤ/ arose. Adopting Ferguson's (1959) koine hypothesis, he argued that the post-Classical Arabic koine contained */ʒ/, and that modern dialectal diversity results from divergent developments of this koine form.

Kaye's evidence draws from widespread cross-dialectal correspondences. For example, in Cairene Arabic, the lexeme /wiʃʃ/ 'face' is unexpected if Proto-Semitic **g* had been directly inherited; instead, he reconstructs a historical chain */wiʒh/ → */waʒh/ → */wiʒʒ/ → /wiʃʃ/, with regressive assimilation creating [-ʒʒ] and later devoicing [ʒ] to [ʃ]. According to Kaye, Cairene [g] is a secondary innovation from */ʒ/, not a relic of **g*.

Hussain (2017: 171) expands on Kaye's cross-dialectal data, detailing how /ʒ/ in the putative common koine yielded a range of reflexes across the Arabic-speaking world. Her synthesis shows substantial geographic diversity in the outcome of this sound change, including affricates, fricatives, plosives, palatalised stops, and even sibilants:

1. Morocco: */ʒ/ generally retained as /ʒ/ (e.g., */ʒuːʕ/ → /ʒuʕ/ 'hunger'), except near sibilants, where it shifted to /g/ (e.g., */ʒəs/ → /gəs/ 'he cut').
2. Malta: **/ʒ/ developed into /ʤ/ (**/ʒábal/ → /ʤébel/ 'mountain'); into /ʃ/ via regressive assimilation before */t/ (**/xiráʒt/ → /hriʃt/ 'I went out'); and into /ʧ/ by dissimilation in final position (*/záwʒ/ → /zéwʧ/ 'two').
3. Algiers (Jewish variety): **/ʒ/* became */ʤ/* in some contexts *(**/ʒámal/ → /ʤámal/ 'camel'), but remained /ʒ/ before /-t/ (*/ħáːʒti/ → /ħáʒti/ 'my thing').
4. Djidjelli (NE Algeria): **/ʒ/* retained as */ʒ/ (**/ʒámal/ → /ʒámal/ 'camel').
5. Tunis: **/ʒ/* remained */ʒ/ (**/ʒábal/ → /ʒbál/ 'mountain') or shifted to /z/ near sibilants (*/ʒíbs/ → /zíbs/ 'plaster').
6. Aleppo: **/ʒ/ became /ʤ/ (**/ʒámal/ → /ʤámal/ 'camel').

7. Cairo: **/ʒ/ became /g/ (**/ʒámal/ → /gámal/ ‘camel’).
8. Damascus: **/ʒ/ retained as /ʒ/ (**/ʒámal/ → /ʒámal/ ‘camel’).
9. Khartoum: **/ʒ/ became /dʲ/ (**/ʒábal/ → /dʲabal/ ‘mountain’).
10. Baghdad (Muslim): **/ʒ/ became /ʤ/ (**/ʒíld/ → /ʤilid/ ‘skin’).
11. Yemen (Jewish and Muslim): **/ʒ/ became /ʤ/ (**/ʒíld/ → /ʤild/ ‘skin’).
12. Medina (Saudi Arabia): */ʒ/ became /dʲ/, “a palatalised voiced denti-alveolar stop with strongly affricated release” (Kaye, 1970: 59; Hussain, 2017: 173), as in */ʒámal/ → /dʲámal/ ‘camel’.

From these correspondences, Kaye (1970: 63; Hussain, 2017: 173) reconstructs the likely chain of development as: Proto-Semitic **/g/* → Proto-Colloquial Arabic */ʒ/ → modern reflexes such as Cairene /g/ and Baghdadi /ʤ/. On this basis, he argues that the Damascus dialect, where [ʒ] remains the primary variant, aligns more closely with Modern Standard Arabic and the hypothesised koine form than any other variety.

The Cairo /wiʃʃ/ example, revisited in this context, is particularly central to Kaye’s argument. The historical pathway */wiʒh/ → */waʒh/ → */wiʒʒ/ → /wiʃʃ/ illustrates his suggestion that Cairo [g] arose not from direct inheritance of Proto-Semitic **g* but from an intermediate [ʒ], which in turn had evolved from the koine form.

Following the earlier discussions on the historical antecedent of Arabic /ʤ/, Anīs (1999) stands out as a notable supporter of the velar-origin hypothesis, in agreement with scholars such as Cantineau. He advances two main arguments in favour of this position.

First, he notes that the diachronic pathway [g] → [ʤ] → [ʒ] conforms to what is often termed the *palatal law*, a cross-linguistic tendency in which velar consonants undergo palatalisation in the vicinity of front vowels. This process is widely observed in the world’s languages (cf. English *re[ʤ]ent* vs. *re[g]al*, both from Latin *rego*) and is thus considered a natural and expected trajectory of sound change (cited in Alshawi, 2020: 114). By contrast, the

alternative hypothesis advanced by Kaye (1970), that /ʤ/ in modern dialects developed from an original fricative */ʒ/, is, for Anīs, problematic because it does not align neatly with this universal tendency.

Second, Anīs bases his reasoning on the structural observation that Arabic roots rarely contain adjacent consonants sharing both place and manner of articulation. If /ʤ/ had been originally palatal, its voiceless counterpart would have been /ʃ/, and its voiced coronal counterpart /z/. In such a system, /ʤ/ would be unlikely to occur in immediate proximity to either /ʃ/ or /z/. Yet, in reality, such sequences are not rare, examples include [ʃaʒara] 'tree' and [ʒazara] 'carrot'. Conversely, if the historical antecedent of /ʤ/ were velar, its voiceless counterpart would be /k/, and the co-occurrence of /k/ with /g/ (the presumed voiced velar antecedent) should be relatively infrequent which is certainly rare (Anīs, 1999; Alshawi, 2020). This structural pattern is consistent with a remark attributed to the medieval grammarian Ibn Jinnī, as cited by Anīs (1999: 73; Alshawi, 2020: 115):

> "…ħuruːf ʔaqsˤa ʔal-lisaːn ʔal-qaːf wal-kaːf wal-ʤiːm wahaːðihi laː taʒtamiʕ al-batta…"
> *The letters of the back of the tongue /q/, /k/, and /g/ never co-exist.*

A further point raised by Anīs concerns the phonotactic environment of /ʤ/. He observes that /ʤ/ most frequently appears in adjacency to plain (non-emphatic) consonants and is typically followed by a front vowel, rather than a back vowel, conditions that are particularly favourable for the palatalisation of velar consonants (Hussain, 2017).

Additional support for the velar-origin hypothesis comes from phonological assimilation patterns in Classical Arabic. The classification of /ʤ/ as a *qamarī* ('moon') letter, rather than a *shamsī* ('sun') letter, indicates that it did not trigger assimilation of the /l/ in the definite article. Woidich and Zack (2009: 44; Alshawi, 2020: 115) interpret this as evidence

that the affrication of an earlier /g/ into /dʒ/ must have occurred after the assimilation rules for the article had been established. In other words, when the assimilation system was codified, /dʒ/ still behaved as a velar and not as a coronal consonant.

Owens (2013: 184) contributes a related historical observation: whatever the precise antecedent of modern /dʒ/ may have been, the fricative [ʒ] was already recognised as a legitimate variant of Arabic *jīm* in the 8th century. Drawing on Sībawayh's taxonomy of *mustaḥsan* (normative) and *ġayr mustaḥsan* (non-normative) sounds, Owens reconstructs a model in which the sanctioned reflex [ʒ] emerged from the description "*shiyn like jīm*", a composite variant combining the place and manner features of /ʃ/ with the voicing of /dʒ/. This, he argues, reflects the enduring historical presence of [ʒ] as a recognised variant alongside other realisations of the phoneme.

Continuing the discussion on the historical trajectory of /dʒ/, Blanc (1969) proposed that Arabic is unique among the Semitic languages in undergoing fronting of the velar stop /g/ alongside the voicing of Proto-Semitic */q/ to /g/. He argued that the fronting of /g/ took place early and that the affricated form [dʒ] was already in use during the 7th and 8th centuries, preceding the later shift of /q/ > /g/ in some dialects. Blanc maintained that the emergence of /g/ from /q/ created the well-known dialectal division between *qa:l* and *ga:l* varieties. From his perspective, contemporary Cairo /g/ is a relatively recent reflex of a previously fronted /dʒ/, which aligns with Hary's later account.

Blanc noted that earlier scholars, including Cantineau and Martinet, sought to explain this fronting in functional terms, linking it to the need to preserve lexical distinctions in dialects where /q/ had voiced to /g/. Examples include minimal pairs such as *faqrun* 'poverty' versus *fagrun* 'dawn' and *qali:la* 'little' versus *gali:la* 'respected.' In such cases, they argued, fronting /g/ to [dʒ] would help avoid homophony. However, Cantineau and Martinet recognised a problem: fronting also occurred in *qa:l* dialects where this functional pressure did not exist.

Cantineau resolved the inconsistency by suggesting that the fronted /g/ predated the *qa:l-ga:l* split and that sedentary /q/ was later borrowed from Aramaic-speaking communities in contact with nomadic Arabs. In contrast, Martinet argued that the split had already occurred and that the reflex /g/ for /q/ was borrowed from Arabic dialects before the fronting of Proto-Semitic */g/.

To address whether fronting preceded or followed the *qa:l-ga:l* split, Blanc drew on both early and contemporary sources. He cited Sībawayh's account, in which *qa:f* had a single normative pronunciation, while *jīm* exhibited three: a normative fronted [gˈ], and two non-normative forms, [g] and [ʒ]. Both *qa:f* and *jīm* were placed within the category of *maǧhūra* 'voiced' consonants, although Sībawayh's definition of this term allowed for the inclusion of voiceless allophones. He described both consonants as *šadīda* 'fortis' and voiced, but *qa:f* as less voiced than *jīm*. In terms of articulation, *qa:f* was classified as postvelar, while *jīm* was mediopalatal (cited in Hussain, 2017: 175).

From the 10th century, scholars began to note a new variant of /q/ situated between /k/ and /qa:f/, namely [g]. Ibn Sīnā in the 11th century distinguished a postvelar normative /q/ from this variant, marking the beginning of the *qa:l-ga:l* dialectal division. By the 15th century, Ibn Xaldūn offered a sociolinguistic interpretation, associating [q] with sedentary and [g] with Bedouin communities. With respect to jīm, Blanc (1969: 23; Hussain, 2017: 176) argued that the sound was fronted beyond [gˈ] to [dʒ] by at least the 11th century. He reported the presence of [g] in Yemen from the 10th century onwards, though less clearly in Iraq and only recently in Egypt. His staged reconstruction (1969: 29-30, cited in Hussain, 2017: 177) traces the development from a Proto-Arabic velar triad -/q/ (voice-indifferent), /g/ (voiced), and /k/ (voiceless)- through an "earliest Arabic" stage where /q/ became postvelar and /g/ remained non-fronted, to an Old Arabic stage in which /g/ fronted and paired with voiceless /ʃ/, and /q/

lost voicing. By the 10th century, [q] was replaced by [g] in some varieties, reinforcing the sedentary/nomadic divide.

From modern evidence, Blanc concluded that jīm fronting clearly preceded the /q/ > /g/ shift, though its documentation from the 10th century means it cannot be solely explained by functional pressure. He observed that fronted and non-fronted jīm occur in both *qa:l* and *ga:l* dialects, citing Cairo Arabic as an example of depalatalisation from earlier [g'] to modern [g].

Hary (1996: 153-154; as cited in Hussain, 2017: 178) presented a complementary account, focusing on colloquial Urban Egyptian Arabic and tracing a linear historical development with each stage tied to a specific historical period from the 6th/7th century to the modern era:

"g/ → g/ g'/ ǧ → ǧ → ǧ/g → g

Using Judeo-Arabic manuscripts, he distinguished between [dʒ] (indicated by a supralinear dot over *gimel* ג᷇) and [g'] (indicated by an apostrophe ג׳), while a plain *gimel* denoted [g]. Late 17th-century manuscripts almost always used *gimel* with a supralinear dot to indicate affrication.

Hary reinforced Blanc's claim that Arabic uniquely shows palatalisation/fronting of /g/ into multiple variants ([g'], [d'], [dʒ], and [ʒ]) while also experiencing /q/ voicing to [g]. Building on Sībawayh's mediopalatal description of the normative [g'], Hary argued that pre-Islamic jīm was realised as [g], like other Semitic languages, but began shifting during the Islamic expansion (8th–11th century) from [g] to [g'], then to [dʒ] and [ʒ]. He dated the completion of the affrication process to the 12th century, with [dʒ] remaining dominant until the 17th century. By this time, some evidence, such as the colloquial use of *wiff* 'face,' supports the presence of a palatalised jīm rather than a velar stop.

From the 17th to the 19th century, however, Urban Egyptian Arabic underwent a reverse shift, with [dʒ] giving way to [g]. By the early 19th century, Cairo jīm was predominantly [g], though in Alexandria the change occurred later. Hary regarded modern Lower Egyptian [g] not as a survival of Proto-Semitic /g/ but as a secondary innovation arising from earlier fronted forms.

Following Hary's (1996) analysis, further insights into the historical development of /g/ in Egyptian Arabic are offered by Woidich and Zack (2009; Hussain, 2017: 180), who challenge aspects of Hary's and Blanc's (1969) claims. While Hary and Blanc view the Lower Egyptian /g/ as a recent innovation emerging from the depalatalisation and back-shifting of the affricated [dʒ], Woidich and Zack (2009) contend that this variant is not new but rather a relic from an older variety of Arabic spoken in pre- or early Islamic times, in which the old Semitic /g/ was preserved without undergoing palatalisation or affrication. Their argument is supported by several strands of evidence from both within and beyond Egypt.

The first piece of evidence concerns the geographical distribution of the velar /g/, which is attested in widely separated peripheral regions such as Egypt, Yemen, and Oman. This discontinuous distribution is interpreted as indicative of a conservative retention of the old feature rather than an independent innovation, although the possibility of separate developments in these areas is not entirely dismissed (Woidich & Zack, 2009).

Secondly, they point to the assimilation behaviour of /dʒ/ in Classical Arabic. Since /dʒ/ is not among the 'sun letters' (coronal consonants) that trigger assimilation of the definite article *al-*, this suggests that it lacked a palatal quality and was instead velar in nature.

A third argument is drawn from Arnold-Behnstedt's study of Arabic–Aramaic contact in the Qalamūn region of Syria (1993; as cited in Woidich & Zack, 2009: 44; Hussain, 2017: 180). In Maʿlūla Aramaic, two historical stages of Arabic loanwords containing /dʒ/ can be identified: an older stage in which /ġ/ appears as the reflex of /dʒ/, and a more recent stage in

which /ʒ/ or /dʒ/ occurs. This distribution implies that early contact reflected a velar stop /g/, not a fronted affricate /dʒ/.

Fourthly, they examine the north–south division in Moroccan dialects, where northern varieties have /g/ and southern varieties have /d/ in words containing sibilants. This split is difficult to explain if the starting point was a fronted affricate /dʒ/ or /ʒ/, since dissimilation in the presence of sibilants would not readily account for the divergence between /g/ in the north and /d/ in the south. However, if the starting point was a velar stop *g, the development of modern /ʒ/ can be explained via distinct regional trajectories. Woidich and Zack (2009) illustrate this with the historical development of the lexical roots *gəbha ‘forehead’ and *gəzz ‘to shear’ in Northern (A) and Southern (B) Moroccan dialects. In the north, *g palatalised to [gʲ] before sibilants and then developed via affrication and eventual deaffrication into /ʒ/. In the south, *g shifted to /d/ in the presence of sibilants through depalatalisation, while retaining /g/ elsewhere. This explains why /g/ remains in northern dialects in the environment of sibilants, whereas in southern dialects it is replaced by /d/.

A fifth line of evidence targets Hary’s and Blanc’s reliance on Judeo-Arabic texts written in Hebrew script to reconstruct the history of /dʒ/ in Egyptian Arabic. Woidich and Zack (2009) argue that this is problematic because spoken Egyptian Arabic cannot be directly compared to Jewish Arabic written in Hebrew. They suggest instead that the use of /g/ in Jewish Cairo Arabic reflects a sociolinguistic adaptation to the more influential Muslim Cairo Arabic, which retained the velar /g/, rather than representing an unusual internal sound change.

Similarly, they criticise the use of European travellers’ Latin-script accounts from the eighteenth century as linguistic evidence, pointing out that these sources are inconsistent, lack reliability, and often reflect the biases of non-native speakers trained in Classical Arabic or socially distant from the speech of ordinary Egyptians. Further evidence comes from European

travellers' narratives and Arabic poetry, which record the velar [g] in contexts dating back to at least the seventeenth century, possibly earlier than Hary's and Blanc's proposed timeline.

Finally, the Egyptian Dialect Atlas (1985) confirms that /g/ is the predominant variant in Cairo and along the eastern branch of the Nile Delta. Given that this route was a major medieval trade corridor, Woidich and Zack (2009; Hussain, 2017: 183) argue that the stability and spread of /g/ in these areas was reinforced by its geographical concentration in the capital and along the trade route, making it resistant to replacement by the Bedouin variant [dʒ].

6.3 Distribution of the variants of /ʤ/

Johnstone (1965, 1967; Hussain, 2017) provided one of the earliest detailed accounts of the phonological patterns along the eastern Arabian coast, focusing on the dialects of Kuwait, Bahrain, Qatar, and the Trucial Coast. He classified these varieties as recent developments of the ʿAnazi dialect group, located in the central Arabian Peninsula. One of the main phonological variables he examined was the reflex of the classical /ʤ/ (referred to here as /ʤiːm/), which in these coastal areas alternates primarily between the palatal glide [j] and the affricate [ʤ]. In Kuwaiti Arabic, Johnstone found that the use of [j] is phonetically unconditioned: it can occur in the vicinity of both front and back vowels, as in *ḥajar* 'stone', yet it is absent in many foreign loanwords such as *ʤuːti* 'shoes'. At the time of his study, [j] was common in Kuwait, but he observed an ongoing change in which [j] was being replaced by [ʤ] in koineised Arabic forms, reflecting the influence of supralocal varieties.

In Bahrain, Johnstone noted that [j] was the more frequent and socially dominant reflex in everyday vocabulary, with forms such as *jaːb* 'he brought' and *jidːid* 'new' serving as typical examples. However, later research by Holes (1980, 1987) refined this observation by pointing out important sectarian variation: among the Sunni Bahraini majority, whether urban or rural, [j] predominates, whereas in the Shiʿi Baḥārna dialect [ʤ] is the main variant, apart from a few exceptional villages where [j] is used or where traces of [g] remain.

In Qatar, Johnstone distinguished between two broad social groups: the dominant group, including the Hājiri, and the indigenous settled or semi-settled communities of the north, which also include merchants of Persian descent. In the speech of the dominant group, [ʤ] is the prevailing reflex, while in the northern settled group the pattern aligns more closely with Bahraini usage, with [j] occurring more frequently. This distribution reflects not only geographic but also social and historical factors, indicating that the reflex of /ʤ/ can act as a marker of both regional and community affiliation.

Within the Trucial Coast dialects, the occurrence of [j] is more common in the speech of Abu Dhabi and al-Buraimi (Oman) than in the other eastern Arabian dialects. In contrast, in Dubai and Sharjah the use of [j] is less frequent, with [ʤ] more widespread. These intra-regional differences highlight the complexity of variation even within a relatively small geographic area, where settlement history, tribal affiliations, and patterns of contact all play a role.

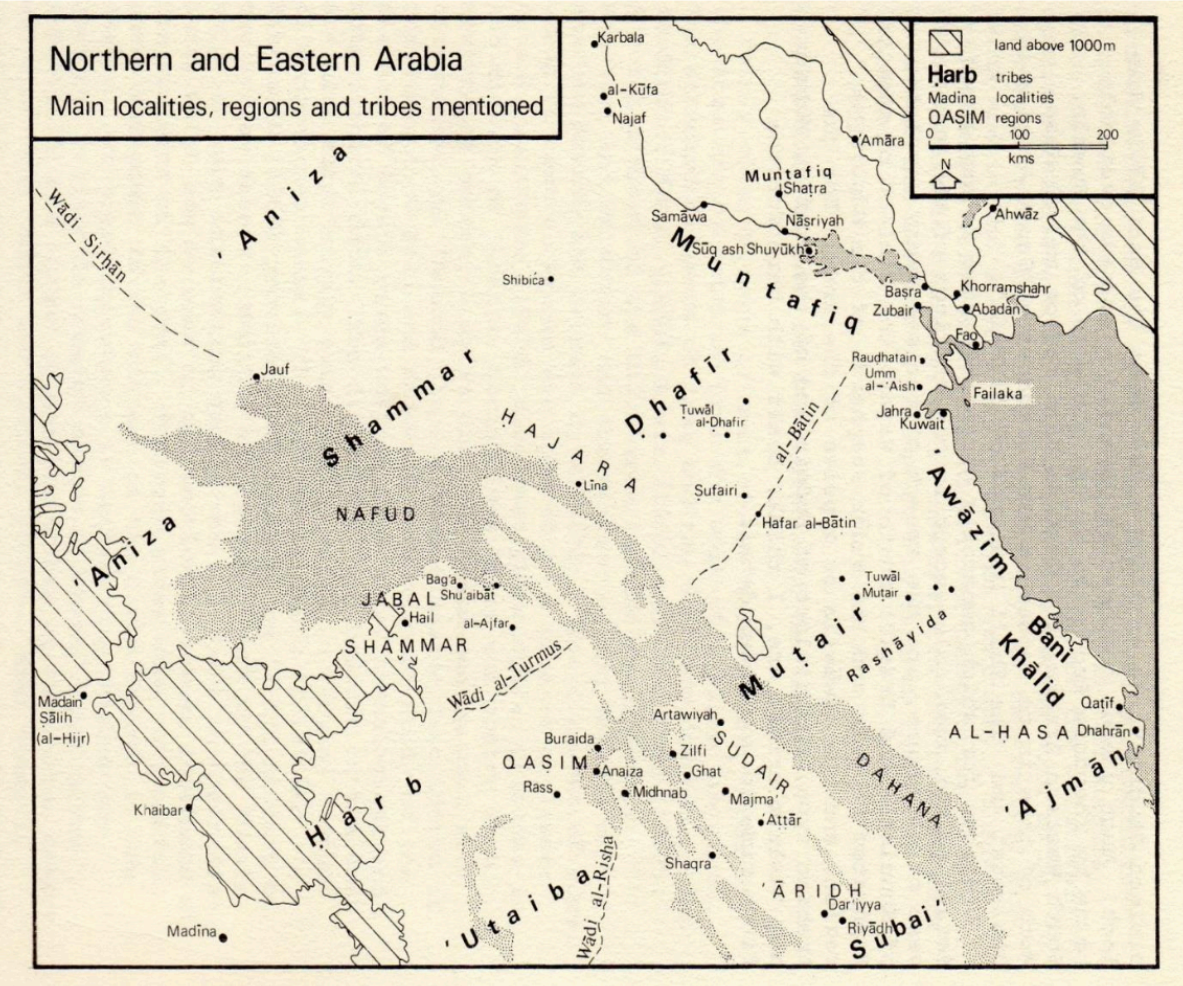
Building on Johnstone's work, Ingham's (1982) survey of the realisations of Arabic /ʤ/ across the Arabian Peninsula remains one of the most comprehensive regional overviews to date, and both Alshawi (2020) and Hussain (2017) draw heavily on his classification. Based on his fieldwork and collation of earlier dialectological sources, Ingham identified three broad communicative zones in which the distribution of /ʤ/ variants is relatively consistent. The first zone covers Najd, including Jabal Šammar, al-Qassim, and the central Najdi plateau. Here, the voiced affricate [ʤ] predominates in both rural and urban speech. Ingham notes that this realisation is the norm in the speech of settled populations and Bedouin tribes alike, and he regards it as a conservative feature retained from an earlier stage of Arabic. In certain tribal dialects of Najd, however, a palatal glide [j] may occur in specific lexical items or phonetic environments, though it is far less frequent than the affricate (Ingham 1982: 195-198).

The second communicative zone is situated along the major towns of the Gulf coast, extending from Kuwait through the Eastern Province of Saudi Arabia, with key centres such as Dammam, al-Ḥufūf, and Qatif, and continuing to Bahrain, Qatar, and coastal Oman. In these localities, the distribution of /ʤ/ is more variable and reflects patterns of intense inter-dialectal contact. Ingham records that in Kuwaiti Arabic, [j] is the dominant reflex in urban speech, a feature which aligns it with other Gulf cities where coastal trade and migration have brought Kuwaiti, Bahraini, and Qatari varieties into sustained interaction. In the Eastern Province towns of Dammam and al-Ḥufūf, [j] is also prevalent in urban contexts, but Bedouin and rural speakers from surrounding areas may retain [ʤ], particularly in more conservative tribal varieties. This coastal patterning correlates with Ingham's observation that maritime centres historically attracted populations from across the Arabian Gulf, including significant migration from southern Iraq and Iran, leading to a diffusion of the [j] variant (Ingham 1982: 199-202).

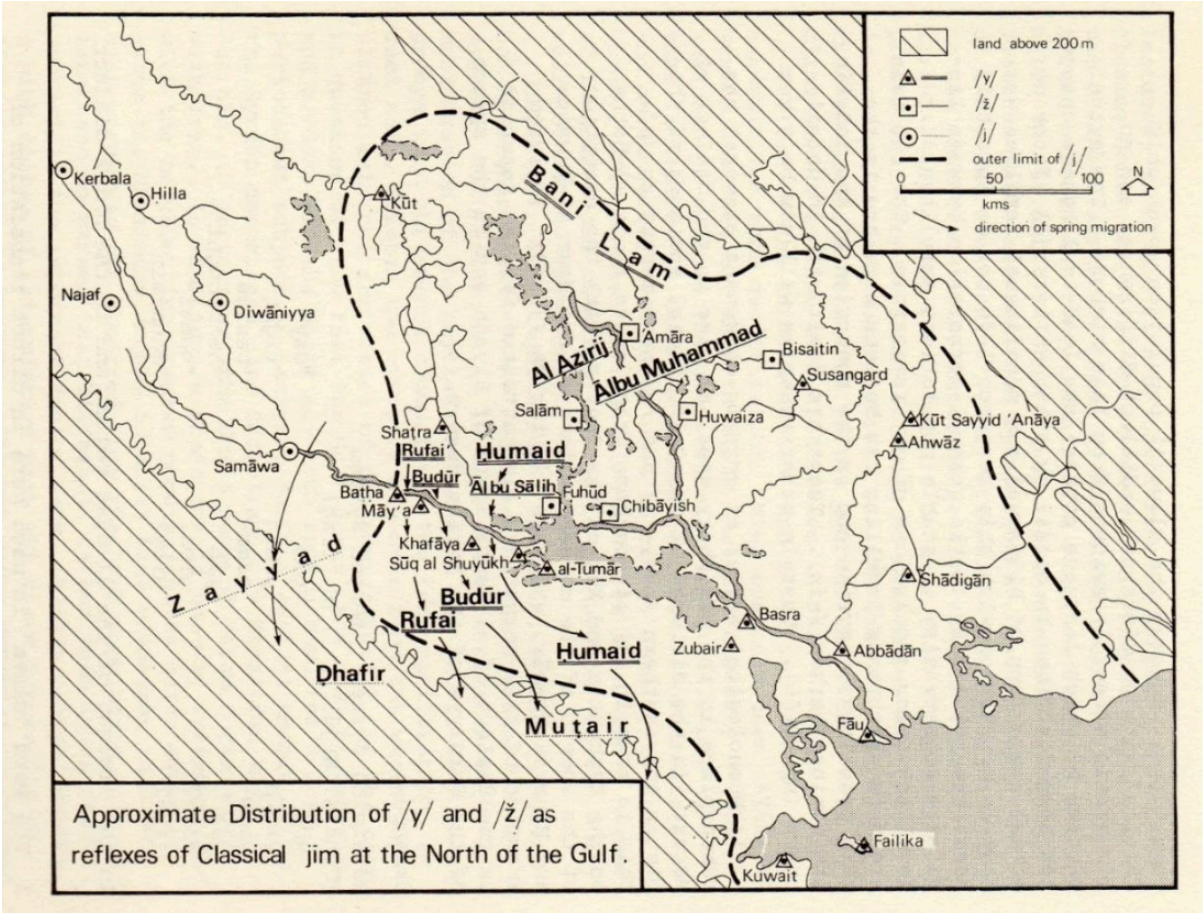
The third zone comprises southern Iraq and Khūzistān in southwestern Iran, where Ingham's findings reveal a distinct north–south divide in the distribution of /ʤ/. In the north, particularly in the speech of urban centres such as Baghdad, [ʤ] remains the primary realisation, aligning these dialects more closely with Najdi and northern Gulf speech. By contrast, in the south, notably in Basra and other towns of the lower Euphrates, [j] is overwhelmingly dominant in urban registers. In rural dialects of southern Iraq, especially among tribes with strong Bedouin heritage, [ʤ] may still be retained, though it often alternates with [j] depending on the formality of speech and the degree of contact with urban centres (Ingham 1982: 203-206).

Ingham's classification is accompanied by detailed cartographic representation. Map 6.1 plots the geographical spread of [ʤ] and [j] across these three communicative zones, clearly illustrating the concentration of [ʤ] in the Najd interior and northern Gulf, and of [j] along the Gulf coast and in southern Iraq. The second map (6.2) refines this picture by indicating mixed

areas where both variants occur, often as a result of tribal migration, urbanisation, or long-standing trade links. For instance, the Eastern Province towns show a patchwork distribution reflecting the co-existence of settled urban populations using [j] and incoming Bedouin groups preserving [dʒ]. Similarly, in southern Iraq, transitional zones emerge in which older speakers maintain [dʒ] while younger, urban-oriented speakers shift towards [j] (Ingham 1982; as cited in Hussain 2017: 181).



Map 6.1. Areas covered in Ingham's (1982) study of /ʤ/ distribution (Ingham, 1982, p. 6, as cited in Hussain, 2017: 185).



Map 6.2. Distribution of reflexes of Classical Arabic /dʒ/ in the northern Gulf region (Ingham, 1982:36, as cited in Hussain, 2017:186). A triangle with a central dot represents /y/, a square with a central dot represents /ž/, and a circle with a central dot represents /j/. The dashed line marks the outer limit of /j/. Shaded areas indicate land above 200 m, and arrows show the direction of spring migration.

This tripartite classification provides an important backdrop for understanding contemporary variation in the Arabian Peninsula. The Najdi zone's retention of [dʒ] links it with conservative Bedouin speech traditions; the Gulf coastal towns' dominance of [j] reflects the historical and ongoing effects of dialect contact in maritime trade hubs; and the southern Iraq/Khūzistān zone's north–south divide demonstrates how geographic and socio-economic factors shape phonological change. Ingham's mapping thus not only documents the synchronic distribution of /dʒ/ variants but also offers a diachronic perspective on how mobility, settlement patterns, and inter-dialectal contact contribute to shaping the present-day linguistic landscape of the region (Ingham 1982).

6.4 Previous sociolinguistic studies on /dʒ/

A particularly influential study relevant to this research is that of Al-Shehri (1993), who examined the effects of urbanisation on the speech of rural immigrants in Ḥijāz, specifically those from the Al-Shehri tribe in the southern Ḥijāz region of southwestern Saudi Arabia. These speakers had migrated from the highland areas, located approximately 700 km south of Jeddah, to settle permanently in Jeddah, the country's most urbanised and cosmopolitan city at that time. Their shared tribal affiliation and rural background set them apart from Jeddah's native residents, who come from more diverse cultural and social origins.

Al-Shehri's primary focus was the variation in the realisation of /dʒ/, which occurred in two salient forms: the urban palato-alveolar affricate [dʒ] and the rural palatal approximant [j]. This variation is socially meaningful because the two forms are both phonetically and orthographically distinct, and each carries contrasting social evaluations in the local speech community. According to Al-Shehri (as cited in Alshawi, 2020: 121), [dʒ] is associated with urban prestige, whereas [j] is viewed as a rural marker in Western Arabia. However, Hussain (2017, 189) stated that "It is unclear why Al-Shehri found [dʒ] as the main urbanised variant since in Jeddah Arabic the urbanised variant is [ʒ] based on information from Jeddah native speakers. It could be that he did not make the difference between the two allophones: [dʒ] and [ʒ]".

Al-Shehri's study was based on data from 84 speakers, 22 women and 62 men, ranging in age from 15 to 60 years, with education levels spanning from uneducated to college-educated. Participants were also categorised by their length of residence in Jeddah: 1–5 years, 6–10 years, and more than 11 years. Al-Shehri collected the data through sociolinguistic interviews and group conversations. While the study did not incorporate internal linguistic constraints, it examined several external factors, including age, education, gender, and length of stay in the city.

The findings revealed that age and education were the most influential factors in predicting the use of [dʒ]. Younger and more educated speakers were more likely to adopt the urban [dʒ], signalling a shift towards the standardised urban norm. Age, however, had a stronger effect than education. Gender differences were minimal, with no significant divergence between male and female speakers. Interestingly, the variable "length of stay" yielded a counterintuitive pattern: rural immigrants with shorter residence in the city used [dʒ] more frequently than those who had lived there longer. Al-Shehri interpreted this as a sign that the rural [j] holds no local prestige, and that rural newcomers are acutely aware of its stigma, prompting them to accommodate quickly towards the urban variant. He concluded that this shift represents a genuine linguistic change that could eventually render [j] obsolete in the rural variety.

Beyond Jeddah, Al-Shehri contextualised his findings within broader patterns of sociolinguistic variation in the Arabian Peninsula, noting the contrasting prestige assignments for /dʒ/ variants in Eastern versus Western Arabia. In Eastern Arabia, [j] carries prestige among Arab Sunnis of Bedouin descent, including members of the royal family, while [dʒ] is stigmatised and associated with the Šīʿi community. In Western Arabia, the prestige values are reversed: [dʒ] is the high-status urban form, and [j] is locally stigmatised, undergoing attrition in favour of the urbanised [dʒ].

Another Saudi-based study that examines /dʒ/ change is Alaodini (2019), who investigated the speech of the Dawāsir, a tribal group with a long history of mobility between Bahrain and Saudi Arabia. Focusing on the Dammam variety in eastern Saudi Arabia, Alaodini analysed fortition processes affecting /dʒ/, alongside the effects of age, gender, and social networks. Her findings revealed an ongoing change led predominantly by younger speakers, who were shifting towards the affricated [dʒ]. Older women, however, were more conservative, showing a stronger tendency to retain [j]. By situating these results within the broader Gulf

context, Alaodini demonstrated that urbanisation and intertribal contact have a measurable effect on the social meaning of /dʒ/, pushing younger speakers towards variants associated with wider urban prestige norms.

In Medina, Hussain (2017) examined sociolinguistic variation and change in the realisation of /dʒ/ among 58 speakers from two distinct communities: Bedouin (a sub-type of Najdi) and urban sedentary Medini. In both groups, /dʒ/ had two realisations, a traditional affricate [dʒ] and an innovative fricative [ʒ]. The study considered age, gender, and community type, and found that the shift towards [ʒ] was led by younger women in both communities, with the youngest urban women using it most frequently. Among Bedouin speakers, younger females were also the primary innovators, though overall adoption of [ʒ] was more advanced in the urban group. Hussain linked the emergence of [ʒ] to contact with speakers of the Jeddah dialect, where the fricative is the hallmark form, suggesting that linguistic accommodation to Jeddah norms has driven change in Medina. The affricate [dʒ] was associated with conservatism and the least mobile, older speakers, while [ʒ] represented an incoming supralocal form tied to social change and urban prestige.

Holes (1980, 1983, 1986, 1995) conducted a series of detailed investigations into /dʒ/ variation in Bahrain, focusing on three main dialects: the Arab dialect spoken by Bedouin-descended Sunnis, and the Baḥārna A and Baḥārna B dialects spoken by the indigenous Šīʿi population. The Arab dialect uses [j] as its main reflex of /dʒ/, while Baḥārna A uses [dʒ], and Baḥārna B uses [j]. Holes examined how these patterns intersected with multiple social variables, including sect affiliation, literacy, urbanisation, gender, and the lexical category of the word (its linguistic constraint). He found that all these variables significantly shaped variant choice. He also documented partial convergence among the three dialects, which he termed the emergence of an "inter-communal dialect."

In informal settings, Arab Sunni speakers consistently used [j], while Baḥārna A speakers occasionally shifted from [dʒ] to [j] as a prestige move, aligning with the socially dominant Sunni group. Baḥārna B speakers, in contrast, often moved towards [dʒ] as a mark of solidarity within the Šīʿi community. In formal settings, educated speakers across all three dialects tended to converge on [dʒ], the variant used in the Pan-Arabic koine and Modern Standard Arabic (MSA). Holes interpreted these patterns as evidence of an asymmetrical power relationship in which the Arab Sunni variety, due to its political and social dominance, enjoyed higher local prestige.

Building on Holes's earlier work, Al-Qouz (2009) examined the speech of 128 schoolchildren in Manama to assess the long-term effects of contact between Šīʿi and Sunni communities. She investigated five social variables, sect, age, type of school, gender, and social class, and focused on a set of lexical items, mostly with MSA equivalents, originally used in Holes's (1987) research. Her results showed that Sunni students categorically used [j] across generations, indicating that they were unaffected by the [dʒ] usage of their Šīʿi peers. Conversely, Šīʿi students displayed variation, with some adopting the Sunni [j] variant, especially upper-class female students aged 15–17 in private schools, while others retained [dʒ]. Al-Qouz concluded that the direction of convergence depended heavily on sectarian group identity, with Sunni norms exerting the stronger pull.

Al-Amadidhi (1985) provided one of the earliest comprehensive studies of /dʒ/ in Qatar, formulating two key processes: the colloquialisation rule, which changes /dʒ/ to [j], and the standardisation rule, which retains [dʒ]. He analysed their distribution across four social groups, Badu (Bedouins), Qabāʾil (tribes), Ḥowala (returnees), and ʿAjam (Persians), and two age cohorts (over 50, pre-oil era; 20–35, post-oil era). Education was considered for the younger cohort only, with levels ranging from elementary to university. Register was examined via three speech styles: formal, casual, and reading. Al-Amadidhi found that [j] was more frequent in

pure dialectal words and among sedentary groups, while [dʒ] predominated in formal registers, loanwords, and among the Bedouin group. The ʿAjam, who historically used [dʒ], often shifted towards [j] in line with the norms of prestigious sedentary groups. Younger speakers led two opposing changes: sedentary groups moved towards [dʒ], while Bedouins shifted towards [j].

In Kuwait, Taqi (2010) explored /dʒ/ variation among 48 speakers divided by ethnicity (Najdi vs. ʿAjami), gender, and age. The Najdi group: originating from central Saudi Arabia, favoured [j], while the ʿAjami: originally from Iran, favoured [dʒ]. Taqi's linguistic factor categorised words into those that always took [j], always took [dʒ], and could take either variant. Ethnicity, age, and gender significantly influenced the ʿAjami group's usage, with young females using [j] more than males. In contrast, age and gender were not significant within the Najdi group. Taqi also conducted an attitudinal survey showing that [j] was linked both to Kuwaiti identity and to the prestige of the Najdi community.

Al-Qenaie (2011) examined diglossia in Kuwait, analysing speech across three registers: Classical/MSA, Kuwaiti Modern Arabic, and Kuwaiti Arabic. Using data from both informal social gatherings and formal public speeches, he studied three phonological variables, including the palatalisation of /dʒ/. He found that /dʒ/→[j] was conditioned by social rather than linguistic factors. Men used more dialectal [j] in informal contexts, while women favoured less dialectal features. Younger speakers (18–29) and Sunnis used [j] more than other groups, and Bedouins outside Kuwait City used it less than their urban counterparts. [j] emerged as an urban-related variant, with age and context being the most significant predictors of its use.

Dashti, Akbar, and Taqi (2015) investigated the sociolinguistic status of the (dʒ) variable in Kuwaiti Arabic, focusing on patterns of sound change and shifting social meaning. Historically, [dʒ], although present in Modern Standard Arabic, was regarded as a non-prestigious form in Kuwait, while [j] (absent from MSA) carried prestige. Their study examined whether these associations were undergoing change by interviewing 40 Kuwaiti speakers across

different age groups, genders, educational levels, neighbourhoods, and social networks. Despite Kuwait's small geographic size, the authors note its pronounced socio-ethnic diversity and rapid socio-political transformations, with both Bedouin and sedentary communities residing near the capital.

The results indicate that Bedouin participants overwhelmingly favoured [ʤ], while sedentary speakers, traditionally expected to use [j], also showed increased use of [ʤ]. This shift among sedentary speakers is attributed to their expanding social networks and heightened contact with Bedouin speakers. Overall, [ʤ] appears to have become the normative choice for Bedouins, with male speakers producing it more frequently than females. The authors also found that social network scores and neighbourhood type were correlated with increased use of the Bedouin-associated [ʤ] over the sedentary [j], suggesting an ongoing dialect shift driven by contemporary political and social processes in Kuwait (Dashti, Akbar, & Taqi, 2015).

In Iraq, Alshawi (2020) conducted a sociolinguistic investigation into dialect levelling in the speech of the Mišlab tribe of Qalʿat Siker, a south-Mesopotamian (*gilit*-type) dialect community. His research examined the variation and change of two traditional features, /ʤ/ and /k/, in relation to their supralocal mid-Mesopotamian (Baghdadi-like) counterparts. For /ʤ/, the local variant [j] was contrasted with the innovative [ʤ], while for /k/, the local palatal [ɟ] was contrasted with [k]. Data analysis considered age, gender, and level of contact, alongside multiple linguistic constraints. Results revealed that the innovative [ʤ] (67%) and [k] (61%) were strongly favoured by younger, high-contact speakers, particularly men, while older, low-contact women retained the local [j] and [ɟ]. The incoming variants were preferred in environments with preceding and following consonants and back vowels, whereas the local variants were more common with high front vowels. Alshawi concluded that contact with speakers from Baghdad, facilitated by migration, education, and employment, has driven a shift

towards the prestigious Baghdadi variants, with [j] and [ɟ] becoming socially stigmatised and unstable, showing clear signs of fortition and dialect convergence.

Turning to the Levant, Al-Wer (1991) investigated variation in the production of four phonological variables in Jordanian Arabic, including (ʤ), which may be realised as the local [ʤ] or the non-local urban [ʒ]. The study was conducted in three towns: Sult, Ajloun, and Karak, each differing in size, population, and proximity to the capital, Amman. Data were collected from 116 indigenous Jordanian women through both individual and group sociolinguistic interviews. Two social parameters, age and education, were examined, with age divided into four groups (18-28, 29-39, 40-60, and 61+) and education categorised into three levels: uneducated (illiterate or only six years of primary schooling), fairly educated (12 years of formal schooling), and educated (college or university degree holders).

The analysis revealed that both age and education significantly influenced the use of the urban [ʒ], with younger speakers and those with higher educational attainment producing it more frequently. Geographic location also played a role: speakers from Sult exhibited the highest use of [ʒ], followed by those from Ajloun, while Karak speakers had the lowest rate of urban variant usage.

Al-Tamimi (2001) examined the application of Schmidt's colloquialisation rule in Irbid, a city in northern Jordan, focusing on the shift from [ʤ] to the urban variant [ʒ] among rural Jordanian speakers. Drawing on Al-Wer's (1999) observations, the study classified the (ʤ) variable as non-salient in Jordanian Arabic, as its variants [ʤ] and [ʒ] function as allophones of the same phoneme. The investigation analysed variation in the production of /ʤ/ across four social parameters: social class, gender, education, and age. The findings reveal that higher-class female speakers were the primary innovators adopting the urban form [ʒ]. While education and age were not statistically influential, the results show a general trend in which the shift towards [ʒ] was led by younger, highly educated women from the upper social class.

The literature on /dʒ/ reviewed above offers several key insights that are directly relevant to the present investigation of Alqarni speakers residing in Riyadh:

First, across modern Arabic dialects, /dʒ/ functions as a powerful sociolinguistic marker of group identity, with its realisation reflecting broader patterns of social alignment, heritage affiliation, and urban–rural differentiation. Whether associated with tribal Bedouin heritage, sedentary urban life, or minority communities, the choice between [dʒ] and [j] indexes a speaker's social positioning within the community. For the Qarni cohort in Riyadh, whose heritage ties them to the southwestern highlands rather than the Najdi heartland, this variable has the potential to signal both their tribal origin and their degree of integration into the capital's speech norms.

Second, the prestige or stigma attached to each variant is not universal but context-specific, varying significantly between regions and communities. In Eastern Arabia (in the gulf), for example, [j] can be the prestigious form, while in Western Arabia (Jeddah), it is [ʒ] that holds urban prestige. This means that when Qarni migrants settle in Riyadh, a city whose sociolinguistic landscape has been shaped by Najdi norms, the prestige associations they encounter will not necessarily match those from their region of origin. Such differences in prestige orientation are crucial for interpreting their variation patterns.

Third, when change in /dʒ/ usage takes place, it typically moves towards the form carrying prestige in the local speech community, regardless of whether that form is standard-like or not. This tendency is seen in multiple contexts, from Jeddah's shift towards [ʒ] to Bahrain's community-specific accommodation patterns. For Qarni speakers in Riyadh, this suggests that any accommodation towards Najdi norms will likely be in the direction of the urban prestigious (supralocal) variant, with retention of [j] signalling either identity maintenance or resistance to linguistic assimilation.

Finally, the role of gender in /dʒ/ variation is contextually defined. In some regions, women lead the change towards the prestigious form; in others, particularly in parts of the Gulf, men act as the primary innovators. The Riyadh context, where both male and female Qarni speakers navigate complex pressures of integration, urban identity, and tribal heritage, provides an important testing ground for examining how gendered patterns of change in /dʒ/ align with or diverge from trends observed elsewhere in the Arab world.

6.5 Data and coding procedures

In examining the variable (dʒ) in the present dataset, the analysis is guided by variationist sociolinguistic principles but adopts an impressionistic, qualitative approach. This choice reflects the very low number of [j] tokens, only 6 tokens of [j] compared to 512 tokens of [dʒ] in this corpus, which means there is no meaningful alternation and therefore no basis for quantitative statistical analysis. In such circumstances, statistical testing would be neither appropriate nor meaningful. Instead, each token is examined in relation to its internal linguistic and external social environments, allowing for a detailed, context-sensitive interpretation.

6.5.1 Internal (linguistic) factors

Preceding environment

Tokens were first examined in relation to the segment immediately preceding /dʒ/. Each preceding sound was noted individually, including:

/m, f, b, l, n, r, ð, ðˤ, s, t, d, ʃ, dʒ, sˤ, tˤ, k, g, h, x, ɣ, ʕ, ħ, ʔ, a, aː, u, uː, i, iː/.

For ease of interpretation, these sounds were then discussed in broader articulatory categories as follows:

- **High front:** /i, iː/
- **Low front:** /a, aː/

- **Back:** /u, uː/ and dorsal consonants
- **Coronal:** coronal consonants and /m, f, b/
- **The glides:** /w, j/ were considered separately.

Following environment

Similarly, each following sound was noted individually:

/m, b, f, s, t, l, r, tˤ, ʃ, ʤ, z, d, n, ð, k, g, ħ, ʕ, ʔ, ɣ, w, j, i, iː, a, aː, u, uː/.

These were then discussed in broader articulatory categories:

- **High front:** /i, iː/
- **Low front:** /a, aː/
- **Back:** /u, uː/ and dorsal consonants
- **Coronal:** coronal consonants and /m, f, b/
- **The glides:** /w, j/ were considered separately.

6.5.2 Affrication contexts (Ingham 1971)

Ingham (1971, as cited in Hussain, 2017) provided an account of the distribution of the phoneme /ʤ/ and its allophones in Meccan Arabic. He observed that /ʤ/ undergoes affrication in the following contexts:

- In the initial syllable position, as in *ʤoː* ‘they came’ and *yi.ʤi* ‘he comes’.
- At the end of a word, as in *burʤ* ‘tower’.
- Before voiceless fricatives /h, ħ, s, f/, as in *ʔaʤ.saːm* ‘parts’and *ʔaʤ.hal* ‘more ignorant’, where /ʤ/ exhibits slight affrication.
- When preceding voiced continuants /m, w, r/, /ʤ/ is also affricated, often with an epenthetic schwa [ə] between [ʤ] and the following consonant, as in *ʔaʤəmal* ‘more pretty’ and *ʔaʤəwiba* ‘answers’.
- When followed by plosives /b, d, t/, /ʤ/ may appear as either [ʤ] or [ʒ], as in *ʔiʒbaːr* ‘a compulsion’, a phonological constraint originally noted by Sibawayh.

- Before dentals /l, z, n/, /ʤ/ is realised as an unreleased voiced palate-alveolar stop [ɟ], as in *ʔaɟlis* ‘I sit’.
- In initial position, [ʤ] alternates with /j/, as in *ʤami:l* vs. *jami:l* ‘beautiful’.

6.5.3 Gemination

In line with Hussain’s discussion of Medini Arabic (2017), gemination is considered here with reference to two widely cited phonetic analyses. Delattre (1971) treats gemination as consonant re-articulation: the first portion of the consonant functions as the coda of one syllable and the second portion as the onset of the next syllable. On this view, a geminate has two articulatory phases separated by a syllable boundary. By contrast, Ladefoged (2001) regards geminates as long consonants, single segments with extended duration, without requiring a syllable break.

Following Hussain’s operational approach:

- If the geminate is realised within one syllable (tautosyllabically as a long segment), it is counted as one token for purposes of variant identification (e.g., *ḥaʤʤ* ‘pilgrimage’).
- If the geminate clearly spans a syllable boundary (first portion as coda, second as onset), it is treated as two tokens (e.g., *ar-riʤ.ʤa:l* ‘the man’).

This approach captures both phonetic interpretations while aligning with surface syllabification patterns. For the /ʤ/ ~ /j/ variable, this matters because palatal segments are often subject to durational strengthening and coarticulatory effects that may alter their perceptual profile. However, the identity of the segment ([ʤ] vs. [j]) remains the primary criterion.

In the present dataset, the extremely low number of [j] tokens, only 6 instances compared to 512 tokens of [ʤ], means there is no observable variation conditioned by gemination. As such, gemination is not analysed as an independent variable here. Its

presence was nonetheless documented for completeness, and representative examples (e.g., *rajja:l*) are included in the qualitative discussion.

6.5.4 External (social) factors

The low number of [j] variants compared to [ʤ] variants nonetheless allowed classification of each token by three key social variables:

1. Gender: male / female
2. Migratory cohorts: locally born, teenage migrants, adult migrants
3. Contact level: high vs. low

These classifications provide the basis for identifying possible social conditioning on the occurrence of [j], even if no statistical testing is warranted.

6.5.5 Results

6.5.5.1 Distribution across speakers and social categories

The Qarni variant [j] is extremely rare in the speech of Qarni speakers in Riyadh, occurring in only six tokens (1%) out of a total of 518 tokens (99%) for this variable. The overwhelming majority of tokens (512) were realised with the supralocal [ʤ].

A closer look at the six /j/ tokens shows the following distribution:

- **Two tokens** were produced by two locally born male speakers with high contact.
- **Two tokens** were produced by an adult migrant male with low contact.
- **Two token** was produced by a teenage migrant male with high contact.

No female speakers in the sample produced /j/.

6.5.5.2 Interpretation

The fact that all /j/ tokens were produced by male speakers suggests that women strongly disfavour the heritage variant [j]. However, given that the /j/ tokens constitute just over 1% of all tokens, the evidence does not indicate a solid gender effect. Rather, the absence of /j/ among

female speakers may reflect a minor tendency for women to lead in the adoption of urban norms, consistent with general sociolinguistic patterns, but the small numbers here prevent any definitive claim.

Similarly, the presence of [j] across both high-contact and low-contact speakers suggests that contact level does not play a decisive role in this variable's retention. Instead, the pattern points to [j] being a relic form in the Qarni dialect in Riyadh, occasionally surfacing in the speech of both well-integrated and less-integrated speakers.

All six instances occurred in specific discourse contexts, most often in narratives or in reference to traditional objects, places, or culturally salient items. This suggests that [j] is no longer part of the productive phonological system for most speakers but is instead retained in lexical items that carry cultural or heritage associations. Its occurrence in these settings appears to be a stylistic choice, whether conscious or unconscious, indexing identity and shared memory rather than reflecting active phonological conditioning.

While the dataset is too small for robust quantitative testing, some qualitative tendencies emerge. The six [j] tokens appear in a restricted range of lexical and phonological environments, indicating that the form is not freely distributed across the lexicon. Most notably, [j] was realised in items tied to traditional life and cultural heritage, often within narrative contexts. This suggests that the variant's persistence may be linked more to the social meaning of specific words than to systematic phonological conditioning.

From a variationist perspective, this aligns with the tendency for relic forms to survive in culturally loaded vocabulary even after they have been replaced in the wider phonological system. Cantineau's (1960) model of sound change trajectory, originally applied to the shift from palatal approximants to voiced affricates in other language contexts, illustrates that older variants often persist longest in the speech of socially cohesive subgroups and in culturally salient lexical items, before disappearing entirely. In the Qarni case, the evidence suggests that

[j] has already undergone substantial retreat, with only a few instances surfacing in contexts of heritage reference.

Comparable patterns have been observed elsewhere. For example, in Argentinian Spanish, historical /j/ shifted toward a fricative in the onset position, yet the older realisation was retained in certain registers or among specific social groups for a time before vanishing from everyday speech. Similarly, in the present data, [j] seems to have reached the final stage of its replacement by [ʤ] in productive speech, surviving only in a handful of emblematic lexical items.

Based on the current findings, the trajectory of change for this variable in the Qarni dialect in Riyadh can be summarised as follows:

1. **Original stage**: [j] was the default realisation in all relevant environments in pre-migration Qarni speech.
2. **Contact stage**: Following migration to Riyadh, sustained exposure to urban norms led to the adoption of [ʤ] in most contexts, with [j] becoming marked as traditional.
3. **Residual stage**: In contemporary speech, [j] is largely replaced by [ʤ], surviving only in a few culturally salient items, primarily in male speech and heritage-linked contexts.

The [j] variant occurred in the following specific environments:

1. **One tokens** in which the [j] variant was preceded by the consonant /m/ and followed by a high front vowel:
    - m-jamir ‘the coal’
2. **Four tokens** in which the [j] variant was preceded by the consonants /l/, /m/ and /r/ and followed by back vowels:
    - l-jama:d ‘the mountain’ (produced twice)
    - m-rajja:l ‘the man’
    - rajja:lin ‘a man’

The last two tokens were also reproduced by the same speaker with the affricated variant: *radʒdʒa:l* ‘the man’ and *radʒdʒa:lin* ‘a man’. This pattern, in which the same lexical items appear with both variants from the same speaker, suggests that the surrounding vowel context does not exert a consistent conditioning effect on the choice between [j] and [dʒ]. Instead, the alternation seems to reflect speaker-level variability that is independent of purely phonological environment.

3. **One token** in which the [j] variant was preceded by a front vowel /i/ and followed by the vowel /i/:
    - *ri:li:* ‘my leg’

In this example, the same speaker also reproduced the form with [dʒ]: *ridʒli:* ‘my leg’. Here, the high front vowel /i:/ on both sides could exert coarticulatory influence on the consonant, potentially making [dʒ] sound less affricated or closer to a glide. Here, *ri:li:* is coded as a [j] token and *ridʒli:* as a [dʒ] token because the variable of interest is the consonant in the medial position, not the incidental vowel-to-consonant influence. The /j/ or /dʒ/ categorisation is therefore based on the underlying consonantal target in the speaker’s intended form, even when surrounding vowels slightly modify its surface realisation for ease of articulation ensuring that socially meaningful variation is distinguished from context-driven phonetic noise.

6.5.5.3 List of all instances where male speakers used [j] and the social meanings of variation

The following examples illustrate the limited and highly context-bound use of the [j] among male Qarni speakers in Riyadh. The tokens are few in number, and their occurrence appears to be closely associated with specific cultural references, narratives about the home region, or traditional lexical items.

1. l-jama:d illi: miga:bilkum

    ‘The mountain that is in front of you’

2. tiʕrifi:n l-jama:d?

‘Do you know the mountain?’

Both of these tokens were produced by a teenage migrant, an educated male who migrated to Riyadh at a very young age, later earning a bachelor’s degree in the United States. In the interview, he reminisced about a place in Balqarn where he used to play, using the local lexical item *l-jama:d* (‘the mountain’) to evoke a specific, place-bound memory. The retention of [j] here seems tied to personal nostalgia and local identity rather than to broader patterns of speech.

3. aθr m-rajja:l muwa:ʕid

‘It turns out that the man has an appointment’

4. w ri:l-i: ʕala

‘My foot on the brakes’

These two tokens were produced by an adult migrant, an educated male who migrated to Riyadh as an adult and later spent six years abroad. With limited interaction outside his immediate family in Riyadh, he maintained minimal contact with non-Qarni speakers. The [j] tokens appeared while he recounted a story from his youth in Balqarn, again linking the form to a rural or heritage-based setting rather than to his present-day speech norms.

5. illi: ʕala m-jamir

‘That’s on the charcoal’

This token was produced by a locally born speaker while recounting a story about his mother. He mentioned a traditional household tool where the charcoal is placed in it suggesting that certain heritage terms can carry the local form forward even among speakers raised entirely in the city.

6. ana rajja:l-in ibtili:t

‘I am a man who is tested’

This token came from a locally born speaker, during a story about an advice his mother gave him. As with other examples, the use of the /j/ was embedded in a personal narrative, tied to a context evoking traditional values or identity.

Across these cases, [j] does not emerge as an active variant in everyday speech but rather as an emblematic form appearing in marked contexts, often when narrating events rooted in Balqarn, describing traditional objects, or quoting remembered speech from family members. This aligns with the interpretation that [j] is functioning as an identity marker rather than a productive alternation, with such forms often surviving in restricted domains for their symbolic value.

In contrast, the supralocal [ʤ] form is consistently used in all unmarked contexts across Qarni speakers in Riyadh, underscoring the degree to which it has become the unmarked, supralocal norm. The rarity and contextual restriction of [j] among men, coupled with its absence among women, reflects a pattern where supralocal forms dominate public and everyday speech, while the local form persists only in limited, identity-laden contexts.

6.5.6 Discussion

The analysis of the (ʤ) variable in the present study reveals a clear and almost complete shift toward the supralocal variant [ʤ], with the localized [j] variant now reduced to rare, context-specific use. Across the sample as a whole, the data indicate that social variables such as migratory cohort, gender, and level of contact are not playing a decisive role in driving this change. In other words, the process of change toward [ʤ] is socially widespread and not restricted to particular demographic sub-groups.

While gender is not a major driver, the results suggest that women are slightly ahead of men in adopting the supralocal form. The few remaining [j] tokens were produced exclusively by men, and only in particular contexts where the use of the marked variant appears to index masculine identity, tribal pride, or a connection to local heritage. For

example, certain lexical items such as *m-rajja:l* ‘the man’ or *rajjālin* ‘a man’ were produced by male speakers in contexts where masculinity or traditional authority was salient. This suggests that [j], in its residual use, may carry gendered indexicality, functioning as a symbolic resource for projecting a culturally specific masculine persona.

The remaining occurrences of [j] are highly restricted and contextually conditioned. In some cases, they are tied to fixed lexical items with strong cultural or geographical associations. For example, one teenage migrant used *al-jama:d* ‘the mountain’ with [j] when referring to a specific, well-known mountain in his ancestral village, explaining that this was the form he had learned in childhood and that it still evokes the exact location for listeners from the same community. Such examples indicate that [j] is no longer part of the productive phonological system of the variety in Riyadh but survives as a relic or archaic feature embedded in culturally salient vocabulary.

6.5.6.1 Supra-localisation and the direction of change

In Al-Shehri’s (1993) research on /ʤ/ variation in Eastern and Western Arabia, [j] is categorised as a rural variant and [ʤ] as an urban or supralocal one. His findings show that in Eastern Arabia (e.g., Bahrain), [j] carries prestige in certain Sunni Bedouin and royal contexts, whereas in Western Arabia the prestige hierarchy is reversed and change is directed toward [ʤ] as the urbanised form. The speakers in the present study follow this general Saudi trend of replacing localised forms with supralocal ones, here shifting from [j] to [ʤ]. In this case, [ʤ] is considered a supralocal feature because it is used in most Saudi dialects outside the southern region, specially the central Najdi region, whereas [j] is confined to a small group of rural and geographically isolated dialects.

The overwhelming dominance of [ʤ] in the speech of Qarni participants in Riyadh reflects their integration into the urban and supralocal linguistic norm. All participants live, work, and are educated in environments with high exposure to non-Qarni speakers. Many are

employed in roles that involve daily interaction with speakers of other dialects, facilitating continuous reinforcement of the supralocal [ʤ]. This pattern aligns with Britain's (2010: 194) definition of supra-localisation as the process by which, through mobility and dialect contact, variants with a wider socio-spatial reach replace more locally restricted forms.

6.5.6.2 Levelling and koineisation

The shift from [j] to [ʤ] can be described as a case of dialect levelling, specifically the erosion of a minority, marked feature ([j]) in favour of a majority, less marked form ([ʤ]). According to Chambers & Trudgill (1980), speakers tend to adopt higher-status variants, while Miller (2004) observes that the dialects of capital cities often replace rural forms, since urban speech is typically associated with prestige and modernity. In this study, the prestigious urban norm functions as the focal point for diffusion, spreading the [ʤ] variant to speakers from migrant backgrounds.

Koineisation theory (Kerswill, 2013, 2002) offers a further explanatory frame: less frequent variants tend to be lost in favour of widely used forms during sustained contact. In Riyadh, [j] is rare and locally bound, whereas [ʤ] is widespread across Najdi and other dialects in Riyadh. Over time, repeated contact and accommodation lead to the homogenisation of forms, with minority features becoming recessive.

Holes (1995) highlights how urbanisation and industrialisation accelerate such processes. These factors are all relevant to Riyadh, a rapidly expanding capital attracting migrants from across Saudi Arabia. The Qarni community has experienced full integration into this urban environment, with first- and second-generation migrants educated and employed alongside speakers from a range of other varieties. This has created the conditions for [ʤ] to become the default unmarked choice.

6.5.6.3 Evidence from comparative studies

Similar processes are documented in Al-Wer's (2007) Amman project, where three generations of Jordanian and Palestinian migrants showed progressive levelling of marked local features in favour of koineised urban norms. First-generation adults retained more traditional features, while subsequent generations converged almost entirely on the urban koine. In the present study, however, the change toward [ʤ] is so advanced that it cuts across all cohorts, suggesting a faster and more uniform levelling process.

Hussain's (2017) study of Medini Arabic likewise documents the replacement of a marked local variant by an incoming form associated with an urban centre (Jeddah). In both cases, urban prestige forms diffuse outward through contact and gradually displace regionally distinctive features.

Alshawi's (2020) work on Qalʿat Siker in Iraq provides further parallels: mobility, migration, and economic opportunity in urban centres encouraged the adoption of supralocal variants such as [ʤ] over local [j]. As in the present case, the remaining [j] tokens in his data were largely symbolic, tied to identity and heritage.

6.5.6.4 Urbanisation and social integration

Miller's (2004) observation that new or expanding cities foster mixed populations and subsequent koine formation applies directly here. Riyadh's role as a political, economic, and cultural hub has amplified the adoption of [ʤ] as the supralocal standard. The Qarni speakers' social and professional networks place them in constant contact with Riyadh-born speakers, reinforcing convergence through daily practice.

This integration into the urban speech community is complete enough that [j] no longer functions as an in-group norm, but rather as a stylistic resource in specific settings, especially male-dominated, heritage-oriented contexts. Its restricted use supports the

interpretation of [j] as a relic feature, unlikely to be transmitted as an active variant to future generations.

Chapter 7

The 3SF verbal ending *-an*

Introduction

This chapter examines the morphosyntactic variable of the third-person singular feminine (3SF) verbal suffix in the Qarni dialect, which occurs in two distinct forms: the traditional Qarni variant *-an* and the supralocal variant *-at*. This suffix marks agreement with a third-person singular feminine subject in the perfective aspect, as in:

- Qarni: *katab**an*** 'she wrote'
- Supralocal :*katab**at*** 'she wrote'

The analysis focuses on the structural and typological aspects of this agreement morpheme, situating it within the broader patterns of variation and change in Arabic dialects. In many Saudi dialects (including the Najdi dialect), as well as in Modern Standard Arabic, the form *-at* is the common realisation of the 3SF suffix, while forms such as *-an* are regionally marked and reflect localised morphological patterns.

The chapter is organised into two main sections. The first section provides a diachronic and typological overview of the 3SF verbal suffix in Arabic. It begins with early Arabic grammatical descriptions and proceeds to review contemporary dialectological research documenting regional variation in feminine agreement suffixes across the Arabian Peninsula and beyond. This includes work based on field studies, such as Procházka's accounts, the *Dialect Atlas of North Yemen and Adjacent Areas*, and recent studies on subject–verb agreement asymmetries in Arabic dialects.

The second section presents the analysis of the Qarni data, comparing the two variants *-an* and *-at* in terms of their distribution across different social and linguistic contexts. The discussion draws on sociolinguistic and morphosyntactic frameworks to explore how patterns

of use can be interpreted within the context of dialect contact and broader typological tendencies in Arabic.

7.1 History and development of 3FS suffix in Arabic

7.1.1 Early Arab grammarians on the 3FS verbal ending

In *al-Kitāb*, Sībawayh (1988, vol. 1: 51-53, ed. Hārūn) discusses *tāʔ at-taʔnīṯ as-sākina* (the feminine marker -t), which is added to past tense verbs to mark agreement when the subject is feminine. He notes, for instance:

> kamā qāla baʕḍu l-ʕarab: mann kānat ʔummuka, ḥayṯa ʔawqaʕa man ʕalā muʔannaṯ.
> "As some Arabs said: *"Who was your mother"*, where *mann* "who" refers to a feminine subject.
>
> (Sībawayh, 1988, vol. 1: 51)

In the same discussion, Sībawayh adds:

> wa-mann yaqulu mina l-ʕarab: mā ʤāʔat ḥāǧatuka kaṯīr, kamā yaqulu mann kānat ʔummuka, wa-lam yaqulū mā ʤāʔa ḥāǧatuka, kamā qālū: mann kāna ʔummuka, li-ʔannahu bi-manzilati l-maṯali fa-ʔalzamūhu t-tāʔa.
> "And some of the Arabs say: *"Your need did not come"* '*mā ʤāʔa-t ḥāǧatuka*, the verb *ʤāʔ-* 'come' + suffix *-t* marking feminine agreement with *ḥājah* 'need', fem.', just as they say: *"Who was your mother"* (*man kāna-t ʔummuka*, verb *kān-* 'was' + suffix *-t* marking feminine agreement with *ʔumm* 'mother', fem.). But they did not say *"Your need did not come"* (without the *-t*) (*mā ʤāʔa ḥāǧatuka*), in the same way that they did not say *man kāna ʔummuka* (without *-t)*. Because they were treated the same, the suffix *-t* was obligatorily bound to the verb."
>
> (Sībawayh, 1988, vol.1: 51)

He then continues:

> wa-miṯla qawlihim: mā ʤāʔat ḥāǧatuka, ʔiḏ ṣārat taqaʕu ʕalā muʔannaṯ

> "And like their saying: "*Your need did not come"* '*mā ʤāʔa-t ḥāǧatuka*, the verb *ʤāʔ-* 'come' + suffix *-t* marking feminine agreement with *ḥājah* 'need', fem. sg.',

since in this construction the predicate refers to a feminine subject.

(Sībawayh, 1988, vol. 1: 51)

Together, these passages show that when the subject is feminine, such as *ʔumm* 'mother' or *ḥājah* 'need', the verb must take the feminine marker *-t*. Sībawayh explicitly remarks that Arabs did not say *jāʔa ḥājatuka* (without *-t*), since such a form would not conform to the agreement rules. Elsewhere in the same section, Sībawayh records:

wa-rubbamā qālū fī baʕḍi l-kalām: ðahabat baʕḍu ʔaṣābiʕihi, wa-ʔinnamā ʔannaṯa l-baʕḍa li-ʔannahu ʔaḍāfahu ʔilā muʔannaṯin huwa minhu, wa-law lam yakun minhu lam yuʔanniṯhu.
"And they might say in some speech: *"Some of his fingers went"* (*ðahaba-t baʕḍu ʔaṣābiʕihi*, the verb *ðahab-* 'went' + suffix *-t* marking feminine agreement; although the subject *baʕḍ* 'some' is grammatically a masculine quantifiers , agreement follows the subject *ʔaṣābiʕ* 'fingers', (fem.), and they only made *baʕḍ* feminine because it was attached to a feminine of which it is a part; if it were not part of it, they would not have made it feminine."

(Sībawayh, 1988, vol. 1: 51)

Here the verb *ḏahabat* 'went' carries the feminine marker because *baʕḍ* 'some,' although not itself feminine, refers to *ʔaṣābiʕ* 'fingers,' which is a feminine plural noun. However, since the quantifier *baʕḍ* denotes a partitive expression ('a part of the whole'), it is treated as a singular subject, and the verb accordingly shows singular feminine agreement. Sībawayh further supports his account with poetic citations. He quotes:

wa-tašraqu bi-l-qawli l-laḏī qad ʔaḏaʕtahu kamā šaraqat ṣadru l-qanāti mina d-dami.
"And you choke on the words that you have spread, just as *"*the channel's bosom choked with blood*"* (*šaraqa-t ṣadru l-qanāti*, the verb *šaraq-* 'choked' + suffix *-t* marking feminine agreement with *qanāh* 'channel', (fem. sg.)."

(Sībawayh, 1988, vol. 1: 53)

Here the past verb *šaraqat* carries the feminine suffix *-t* to agree with the singular feminine subject *al-qanāh* ("the channel"). This illustrates Sībawayh's point that whenever the subject is feminine, the verb must be marked accordingly. Finally, he reports a usage attested among reliable speakers:

> wa-samiʕnā mina l-ʕarab mann yaqūlu mimman yūṯaqu bihi: iğtamaʕat ʔahlu l-yamāmah, li-ʔannahu yaqūlu fī kalāmihi: iğtamaʕat al-yamāmah, yaʕnī ʔahlu l-yamāmah, fa-ʔannaṯa l-fiʕla fī l-lafẓi ʔiḏ ğaʕalahu fī l-lafẓi li-l-yamāmah, fa-taraka l-lafẓa yakūnu ʕalā mā yakūnu ʕalayhi fī saʕati l-kalām
> "And we heard from the Arabs, from those who can be trusted, someone who says: *"*The people of al-Yamāmah gathered*"* (*iğtamaʕa-t ʔahlu l-yamāmah*, verb *iğtamaʕ-* 'gather' + suffix *-t* marking feminine agreement), because in his speech he says: *"*al-Yamāmah gathered*"* (*iğtamaʕa-t al-yamāmah*, verb *iğtamaʕ-* 'gather' + suffix *-t* agreeing with *al-Yamāmah* 'al-Yamāmah,' fem. sg.), "the people of al-Yamāmah." Thus he made the verb feminine in expression, treating it as if the subject were the feminine place-name *al-Yamāmah* itself, and he left the expression as it stood in ordinary speech."
>
> (Sībawayh, 1988, vol. 1: 53)

Here, although the subject is *ʔahl* ('people,'pl.), the agreement follows *al-Yamāmah* (singular feminine), and so the verb *iğtamaʕat* appears with the fem. sg. suffix.

Interpretation

Across these discussions, Sībawayh consistently presents *tāʔ at-taʔnīṯ* (the feminine marker) as a suffix obligatorily attached to past tense verbs when the subject is singular feminine (fem. sg.). He illustrates this with subjects that are inherently singular feminine nouns, such as *ḥājah* 'need' and *ʔumm* 'mother,' with nouns that take on femininity by association, such as *baʕḍu ʔaṣābiʕ* 'some of his fingers,' and with collective references where the agreement shifts to a feminine place-name, such as *al-Yamāmah*.

In *al-Kitāb*, the suffix is treated as a marker of femininity, rather than a subject pronoun. From a modern perspective, however, it can also be described as a subject–verb agreement

morpheme, since its use is restricted to contexts where the subject is [+feminine, +singular, +third person]. Thus, it can be said to perform a dual function: a gender marker in the conception of the classical grammarians, and an agreement morpheme in modern morphosyntactic terms. In other words, while Sībawayh's framing was that of a diagnostic gender marker, the previous examples highlight its role as an agreement morpheme within the verbal system.

While Sībawayh does not provide an explicit phonetic description, the forms he records consistently show the suffix realized as a voiceless alveolar stop [t] in final coda position. In this way, it encodes both gender and person agreement, and functions as a core element of subject–verb concord in Arabic.

Ibn Hishām, in his book *Qaṭr al-Nadā wa-Ball al-Ṣadā* (1992: 42), mentions that one of the signs of the past tense verb (*ʕalāmāt al-fiʕl al-māḍī*) is that it accepts the *tāʔ at-taʔnīṯ as-sākina* (the feminine marker). He says:

> badaʔtu min ḏālika bi-l-māḍī, fa-ḏakartu ʔanna ʕalāmata ʔan yaqbala tāʔ at-taʔnīṯ as-sākina, ka qāma-t wa-qaʕada-t
> "I began with the past tense, and I mentioned that one of its signs is that it accepts the feminine marker *tāʔ at-taʔnīṯ as-sākina*, as in *qaːma-t* (*qaːm-* 'stand' + *-t* fem.sg.) and *qaʕada-t* (*qaʕad-* 'sit' + suffix *-t* fem. sg.)."
>
> (Ibn Hishām, *Qaṭr al-Nadā wa-Ball al-Ṣadā*, 1992: 42)

He further notes that some of the Kufan grammarians argued that words such as *niʕma* (/niʕm/) and *biʔsa* (/biʔs/) are not verbs, on the grounds that they do not behave like regular past tense forms. However, Ibn Hishām insists that these are indeed verbs, and the evidence is that the feminine suffix *tāʔ at-taʔnīṯ as-sākina* can be attached to them. As proof, he cites examples such as: mann tawaḍaʔa yawma l-ʤumʕati fī-hā, fa-bi-hā wa-niʕma-t "Whoever performs ablution on Friday, it is sufficient for him, and excellent it is" (*niʕm-* 'be excellent' + suffix *-t* fem,. sg.).

He also cites examples like:

- biʔsa-t al-marʔatu ḥamalat al-ḥaṭab “Wretched is the woman, the carrier of firewood” (*biʔs-* ‘be wretched’ + suffix *-t* fem. sg.),
- wa-laysa-t hindun mufliḥaː “And Hind is not successful” (*laysa-* ‘not be’ + suffix *-t* fem. sg.)
- wa-ʕasa-t hindun ʔan tazuraːnaː “And Hind might visit us” (*ʕasa-* ‘perhaps/might’ + suffix *-t* fem. sg.)

These examples demonstrate, according to Ibn Hishām, that words like *niʕm*, *biʔs*, *laysa,* and *ʕasā* must be verbs, since the feminine marker *-t* can be suffixed to them just as it attaches to uncontroversial past tense verbs like *qaːmat* and *qaʕadat.*

Ibn Hishām explains (1992: 42) that one of the diagnostic signs of the past tense verb is that it accepts the *tāʔ at-taʔnīṯ as-sākina* as in *qaːma-t*. In this context, he is treating the *tāʔ* purely as a marker of femininity attached to the past tense verb. However, it is important to distinguish this from *tāʔ al-fāʕil* (the subject pronoun suffix), as in *qum-tu* (‘I stood’) or *qaʕad-tu* (‘I sat’), where the *-tu* is not a marker of femininity but a pronominal ending indicating first-person singular subject. Ibn Hishām, in the passages cited here, does not explicitly analyze *tāʔ al-fāʕil*, but he provides examples that distinguish between two types of suffixes: the pronominal suffix (*ḍamīr marfūʿ*), as in *qum-tu* (*qum-* ‘stand’ + *-tu* ‘I,’ 1st person sg.), and the vowelless feminine marker (*tāʔ at-taʔnīṯ as-sākina*), as in *qaːma-t* (*qaːm-* ‘stand’ + *-t*).

Al-Mubarrad, in *al-Muqtaḍab* (1994: 396), in the chapter entitled *al-muḍmar al-muttasil* ‘the attached pronoun’, distinguishes between the pronouns suffixed to verbs and the separate (independent) pronouns. For example, he cites:

qum-tu

past verb stem- subject pronoun (1st person sg.)

‘I stood’

ḍarab-tu-ka

past verb stem- subject pronoun(1st person sg)- object pronoun(2nd person. mas.sg.)

'I hit you'

Here the *-tu* ending is not a feminine marker but rather *tāʔ al-fāʕil*, the agent suffix indicating the first person singular subject. Al-Mubarrad contrasts such suffixed subject pronouns with the separate pronouns (*al-ḍamāʔir al-munfaṣila*) that cannot appear in the same position. Al-Mubarrad (1992: 397) elaborates on feminine agreement, noting that:

> ʔiḏā kāna li-l-ɣāʔib muʔannaṯan fa-kaḏālika taqūlu fī l-wāḥid hindun qāma-t
> 'If the subject is third person feminine, then likewise you say in the singular: *hindun qāma-t* (*qaːm-* 'stood' + -t fem. marker), "Hind stood."'
> (al-Mubarrad, *al-Muqtaḍab*, vol. 1: 397)

He then adds the explicit statement:

> at-tāʔ ʕalāmatu t-taʔnīṯ wa-ʔaḍ-ḍamīru fī n-niyyah
> 'The *tāʔ* is the sign of femininity, while the pronoun is understood in intent.'
> (al-Mubarrad, *al-Muqtaḍab*, vol. 1, p. 397)

This formulation clarifies the analysis already presented by Sībawayh and Ibn Hishām. While they described *tāʔ at-taʔnīṯ as-sākina* simply as a marker of femininity attached to the past tense verb, al-Mubarrad makes explicit that it functions as a third person singular feminine marker. Thus, in his account, the *tāʔ* is not a pronoun in form but an obligatory feminine agreement suffix.

7.1.2 Later Arab grammarians on the 3SF Verbal Ending

Ibn Mālik (2007; al-ʿUyūnī, ed), in his *Alfiyya* (a dedicative versification of Arabic grammar) provided a concise pedagogical formulation of the major grammatical principles. He offers a

systematic account of how verbs are morphologically identified. In this system, *tāʔ at-taʔnīṯ as-sākina* is explicitly treated as one of the diagnostic signs of the past tense verb.

In verse 11 of the *Alfiyya*, he states:

> bi-tāʔ faʕalta wa-ʔatat wa-yāʔ ifʕalī wa-nūn ʔaqbalna fiʕlun janḏali’
> ‘A verb is recognized by the *tāʔ* of *faʕalta* ‘you did’, the *tāʔ* of *ʔatat* ‘she came’, the *yāʔ* of *ifʕali* (‘do!’ fem.), and the *nūn* of *aqbalnna* ‘emphatic suffix-came.’
> (Ibn Mālik, 2007; al-ʿUyūnī, ed.: 70).

In this couplet, Ibn Mālik explains that the verb (*fiʕl*) is distinguished from the noun (*ism*) and the particle (*ḥarf*) by four morphological markers:

1. The *tāʔ al-fāʕil* (the subject pronoun suffix)

This is illustrated in the phrase *faʕalta* (‘you did’). Ibn Mālik refers here to the subject pronoun suffix, which appears in three forms:

- *-tu* (*faʕal-tu*, ‘I did’) → first person singular.
- *-ta* (*faʕal-ta yā Zayd*, ‘you [masc. sg.] did’) → second person masculine singular
- *-ti* (*faʕal-ti yā Hind*, ‘you [fem. sg.] did’) → second person feminine singular

These suffixes are always vocalized and function as explicit subject pronouns (*ḍamīr marfūʿ*).

2. The *tāʔ at-taʔnīṯ as-sākina* (the vowelless feminine suffix)

This is illustrated in the example *ʔatat* ‘she came’. The suffix *-t* here is vowelless and marks agreement with a third person feminine singular subject, as in *ʔatat Hindun* ‘Hind came’. Ibn Mālik’s verse makes clear that this feminine marker is distinct from *tāʔ al-fāʕil*: the former is always vowelless and attaches to the verb to signal gender and person (3SF), whereas the latter is vocalized and encodes the subject directly.

3. ”The *yāʔ al-muxāṭaba* (the feminine addressee suffix)

Mentioned in the phrase *ifʕali* ‘do!’(fem.). This suffix *-iː* occurs exclusively with verbs and signals a feminine addressee in the second person singular.

4. The *nūn al-tawkīd* (the emphatic suffix)

As in *ʔaqbilanna yā Zayd* ‘You shall certainly come, O Zayd’. This occurs in two forms: the light *-n* and the heavy *-nna*, both restricted to verbal morphology.

Thus, Ibn Mālik’s *Alfiyya* explicitly incorporates *tāʔ at-taʔnīṯ as-sākina* into the system of verb markers. By distinguishing it from *tāʔ al-fāʕil*, he clarifies that while the latter functions as a pronominal suffix encoding the subject, the former is a purely morphological marker of third person feminine singular agreement. This contrast underscores the central role of *tāʔ at-taʔnīṯ as-sākina* in identifying verbs within Arabic grammar.

Later commentators on Ibn Mālik’s *Alfiyya*, such as Ibn ʿAqīl (1996) and al-Ašmūnī (1955), treated *tāʾ at-taʾnīṯ as-sākina* in essentially the same way as Ibn Mālik. They consistently defined it as a particle (*ḥarf*), vowelless (*sākin*), and functioning as a morphological marker of gender for the third person feminine singular in the perfective verb.

Ibn ʿAqīl, in his *Sharḥ al-Alfiyya* (1996), further distinguishes *tāʾ at-taʾnīṯ* (as in *qāma-t* ‘she stood’ from *tāʾ al-fāʕil* (the subject pronoun suffix, as in *qum-tu* ‘I stood’. He explains that *tāʾ al-fāʕil* is a pronominal suffix (*ḍamīr marfūʿ*) with full inflectional status, whereas *tāʾat-taʾnīṯ* is simply a fixed marker of gender. As Ibn Hishām states in *Mughnī al-Labīb* (1969: 124), *tāʾ al-taʾnīth al-sākina*, which comes at the end of verbs, is *“ḥarf wuḍiʿa ʿalāmatan li-t-taʾnīth”*, ‘a particle placed as a marker of femininity.’

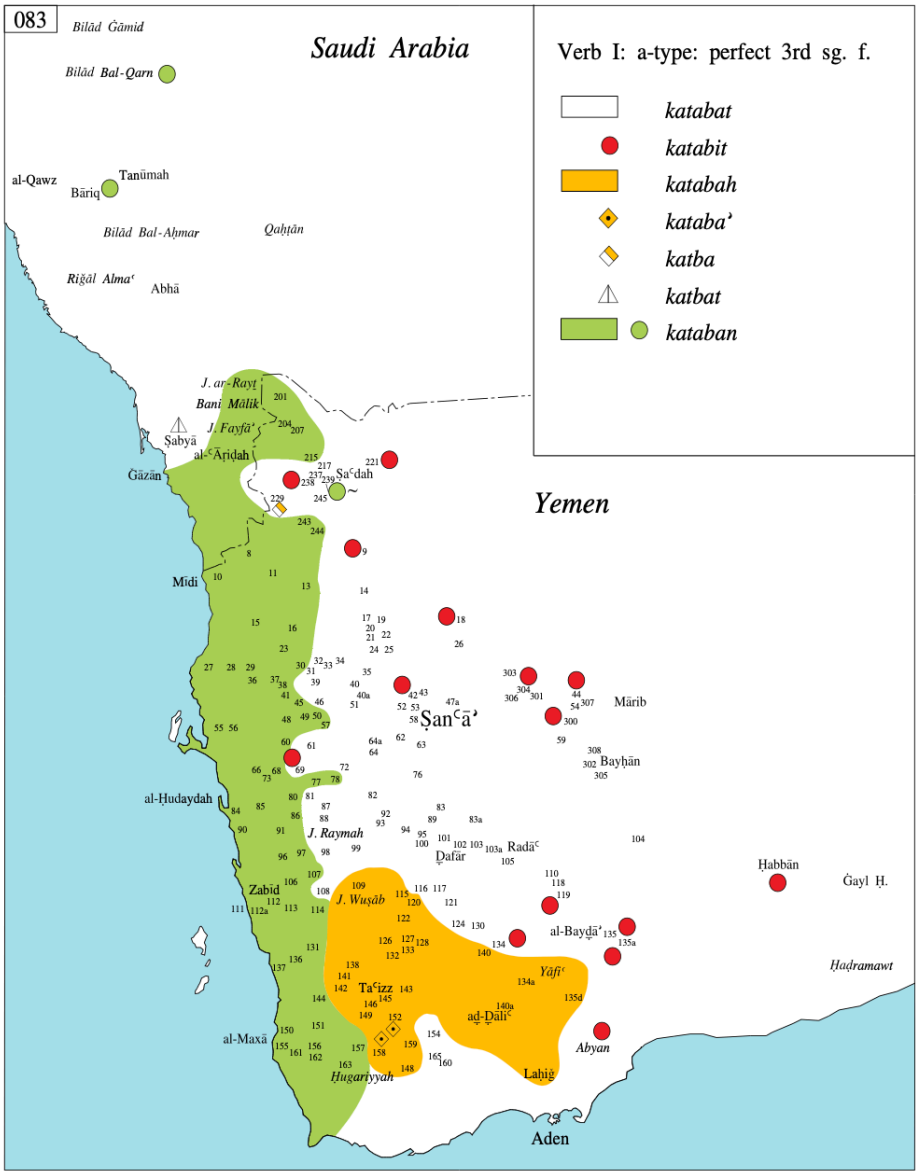
Thus, this division, *tāʾat-taʾnīṯ* as a morphological gender marker and *tāʾal-fāʕil* as a subject pronoun suffix became standard in the pedagogical tradition of Arabic grammar.

In addition, al-Raḍī al-Istarābāḍī (1975) in his *Sharḥ al-Kāfiya*, Ibn Yaʿīsh (2001) in his *Sharḥ al-Mufaṣṣal* and Al-Suyūṭī (1998) in *Ham al-Hawāmi* essentially reiterates this

framework. They stresses that *tāʾat-taʾnīṯ as-sākina* is a fixed morpheme of the perfective verb, vowelless (*sākin*), and distinct from *tāʾ al-fāʕil*.

7.1.3 Sociolinguistic studies on the 3SF suffix

Previous dialectological studies consistently report regional variation in the third feminine singular verbal suffix across Arabic dialects. In southwestern varieties of the Arabian Peninsula, including Balqarn and neighbouring regions, the suffix commonly appears as ***-an***, whereas ***-at*** is reported for Najdi and many other central Arabian dialects. This contrast is documented in the detailed dialect descriptions of the Arabian Peninsula, particularly in Procházka's survey of Saudi Arabian dialects, which records ***-an*** as the characteristic form in Balqarn while ***-at*** is dominant in central Najdi dialects (Procházka 1988). Similar patterns are noted in broader comparative studies of personal markers in Arabian dialects, where ***-an*** is described as a regional feature associated with southwestern dialect zones (Isaksson 1991). Historical and comparative discussions of Arabic dialect morphology likewise acknowledge the existence of this variation, noting that the pan-Arabic form ***-at*** functions as the dominant agreement suffix across most dialects, while forms such as ***-an*** appear in more localized varieties (Diem 1973). Dialect atlases and mapping studies of Yemen and the southwestern Arabian Peninsula further confirm this geographical distribution, identifying ***-an*** as part of a southwestern dialect continuum extending across southern Saudi Arabia and northern Yemen (Behnstedt 2016). Descriptive studies of individual southwestern dialects, such as the work of Alfaifi and Behnstedt (2010) on the dialect of Jabal Fayfāʾ, also document the occurrence of ***-n/-an*** forms as a characteristic morphological feature of these varieties. Taken together, these studies demonstrate that ***-an*** represents a conservative regional feature of southwestern Arabic, whereas ***-at*** functions as the more widely distributed supralocal form across Najdi and many other Arabian dialects (see map 7.1).



Map 7.1 Distribution of 3fs suffixes in southwestern Arabia (adopted from Behnstedt, 2016: 198).

7.2 Data and analysis

This section examines variation in the realization of the third-person singular feminine (3SF) verbal suffix among Qarni speakers in Riyadh. Two primary forms are attested in the dataset: the traditional Qarni variant *-an* and the supralocal variant *-at*. As outlined in the literature review (Section 7.1), *-an* is recognised as a conservative morphological feature of the Qarni variety, while *-at* represents the supralocal form that predominates across Najdi and many other Arabian dialects.

The following sections provide a detailed account of the dataset and the procedures used to analyse this variable. The analysis considers the phonological environments and verb classes in which the suffix occurs, followed by an examination of the role of external social factors such as gender, migratory cohort, and level of contact. The results are then presented and discussed, situating the findings within broader patterns of variation and change in the Riyadh speech community.

7.2.1 Dataset and methodology

The dataset consists of 680 tokens of the 3SF verbal suffix. Of these, 38 tokens (5.6%) were realised with the traditional Qarni variant *-an*, while 642 tokens (94.4%) were realised with the supralocal variant *-at*. The low frequency of *-an* makes statistical modelling inappropriate, as the highly skewed distribution leaves little meaningful variation to test. As in Chapters 5 and 6, an impressionistic, qualitative analysis is therefore adopted.

Each token was identified in relation to both internal linguistic environments (preceding environment) and external social factors (gender, migratory cohort, and level of contact). This framework allows for a context-sensitive interpretation of the conditions under which the local form *-an* continues to occur in contrast with the overwhelmingly dominant supralocal *-at*.

7.2.2 Internal (linguistic) factors

Preceding environment

Tokens were first examined in relation to the segment immediately preceding the 3SF suffix, and each preceding sound was noted individually, including:

/ b, m, f, t, d, n, s, z, l, r, θ, ð, ʃ, ʤ, tˤ, sˤ, ðˤ, k, g, x, ɣ, ħ, ʕ, h, ʔ, i, iː,a, aː, u, uː, j, w /

For ease of interpretation, these sounds were then grouped into broader articulatory categories as follows:

1. **Vowels**

   high front: /i, iː/

   low front: / a, aː/

   back: / u, uː/

2. **Consonants**

   labials: /b, m, f/

   coronals: /t, d, n, s, z, l, r, θ, ð, ʃ, ʤ, tˤ, sˤ, ðˤ/

   dorsals: /k, g, q, x, ɣ/

   pharyngeals: /ħ, ʕ/

   glottals: /h, ʔ/

3. **Glides**

   /j, w/

4. **Geminated consonants**

   e.g., /bb, dd, ss, nn/

Finally, after close inspection of the tokens and their behaviour, the groupings were refined by merging sounds that displayed similar patterns, resulting in a final division into two categories: consonants and vowels.

Distribution of the 3SF verbal suffix

This subsection examines how the Qarni 3SF suffix is realised in relation to the segment immediately preceding the suffix. All tokens come from past/perfective verbs. The *-an* variant appears in two preceding-segment environments: consonant (including geminated consonants and glides) and vowel. In total, 38 *-an* tokens were attested: 34 after a consonant, and 4 after a vowel.

1) Consonant-final stems (including geminates and glides) → [-an]

In verbs whose stem ends in a consonant, whether singleton, geminate, or glide, the Qarni suffix surfaces as [-an].

- [gaːlan] …-C + -an ‘she said’
- [kaːnan] …-C + -an ‘she was’
- [ħɑtˤtˤan] …-CC + -an ‘she put’ (geminate)
- [ʔiʃtallan] …-CC + -an ‘she took’ (geminate)
- [nasjan] …-j + -an ‘she forgot’ (glide)

2) Vowel-final stems → [-n]

When the stem ends in a vowel, the Qarni feminine marker attaches as *-n*, with no additional /a/ inserted.

- [dʒan] …-V + -n ‘she came’ (occurred twice)
- [tagaðˤðˤan] …-V + -n ‘she bought’
- [ʕajjan] …-V + -n ‘she refused’

Co-occurrence of both variants in the same environments

All *-an* lexical items (except one) occurred with both *-an* and *-at*, sometimes by the same speaker at different points during the interview, and sometimes across speakers. This shows that *-at* occurs in the exact same environments as *-an*: after consonants (including geminates and glides) and after vowels.

- **Same-speaker alternation:** one adult male migrant produced [gaːlan] once with *-an* and later [gaːlat] with *-at*.
- **Cross-speaker alternation:** one adult male used [kaːnan] with *-an*, while an adult female migrant used the same lexical item with *-at* [kaːnat].

This distribution demonstrates that the alternation is not conditioned by phonological environment. Both *-an* and *-at* appear in identical phonological contexts, indicating that the choice of suffix depends on sociolinguistic rather than purely linguistic factors.

A lexically restricted item

One culturally marked expression surfaced only with the Qarni form: [sˤaxan] in *sˤaxan fi wadʒdʒha* with an idiomatic meaning of 'displeasure toward someone', rather than a literal translation. This item did not occur with *-at* in the dataset and appears to be a lexicalised Qarni expression, representing lexical retention rather than phonological conditioning. It is worth mentioning that even though the speaker used the Qarni variant *-an* in the verb sˤaxan, she did not use the Qarni variant [j] for the word *wadʒdʒha* in the same phrase. Instead, she employed the supralocal [dʒ] realisation rather than the Qarni [j] variant documented in Chapter 6.

Prosodic note

The alternation is consistent with a segmental substitution within a stable prosodic template: both /n/ (Qarni) and /t/ (supralocal) occur as the coda in the final CVC syllable. The template is preserved, moraic structure remains intact, and the only variable element is the segmental identity of the feminine suffix.

Interim summary

The preceding environment (consonant, vowel) does not condition the alternation between *-an* and *-at*. Both variants occur in identical phonological contexts. The occurrence of *-an* is best explained as a matter of sociolinguistic choice and lexical retention, rather than phonological constraints.

7.2.3 External (social) factors

While the previous section considered the structural and phonological environments in which the 3SF suffix occurs, the present section examines the role of social factors in shaping its

distribution. Patterns of variation in the dataset reveal that the alternation between *-an* and *-at* is not simply a matter of linguistic environment, but rather one that reflects the social positioning of speakers within the Riyadh community.

Even though no statistical testing was carried out, owing to the relatively low number of Qarni *-an* tokens, the classification of these occurrences by gender, migrant cohort, and contact level still provides a framework basis for identifying potential social influences on the distribution of the variant.

7.2.4 Results

7.2.4.1 Qualitative patterns in the realisation of the 3SF suffix

The Qarni dataset shows that the third singular feminine suffix *-an* is a minority form in the speech of the Qarni speakers in Riyadh. Out of all 3SF tokens in the corpus, only 38 were realised with *-an*, while the overwhelming majority were realised with the supralocal *-at*. In proportional terms, *-an* accounts for a very small share of occurrences, indicating that the supralocal variant has become the dominant form across most speakers and interactional contexts. The rarity of *-an*, combined with its concentration in specific speakers and contexts, points to its status as a recessive and marked variant in the Qarni community in Riyadh.

7.2.4.2 Distribution across speakers and social categories

A closer examination of the distribution reveals that *-an* is not evenly spread across the sample, but clustered in a handful of speakers:

- **Adult male migrants (low contact):** one speaker produced 19 tokens; another produced only 1 token.
- **Adult female migrants (low contact):** one speaker produced 3 tokens.
- **Adult female migrants (high contact):** two speakers produced 1 and 3 tokens respectively.

- **Locally born male migrants (high contact):** three speakers produced 1, 3, and 7 tokens respectively.
- **Teenage migrants (male and female):** no tokens.
- **Locally born female speakers:** no tokens.

This distribution shows that *-an* is confined to a subset of speakers, with no evidence of use among teenage migratory cohorts or locally born females.

7.2.4.3 Interpretive analysis of token distribution

The rarity of *-an* across the sample indicates that it is no longer a productive suffix in Riyadh Qarni speech. With the exception of one adult male migrant, all other speakers produced it only sporadically. This suggests that the variant survives only in restricted contexts rather than functioning as a fully viable alternative to the supralocal *-at*.

Gender

Male speakers contribute the majority of *-an* tokens in the corpus, accounting for 31 out of 38 occurrences. Female speakers, by contrast, produced only 7 tokens in total. The form appears in narratives of adult male migrants as well as in the speech of locally born males, but it is almost entirely absent among females, with only scattered examples among adult migrant women. Its complete absence among teenage migrants and locally born females suggests that women are slightly ahead of men in the adoption of *-at*, while men show more retention of the conservative form. This aligns with well-documented gender patterns in sociolinguistics, where female speakers tend to adopt supralocal and innovative forms more quickly (Labov, 1990). However, given that *-an* is already rare across the dataset, the gendered contrast should be interpreted with caution: it is present but not especially pronounced.

Contact

Low contact speakers produced 27 tokens of *-an*, while high contact speakers accounted for only 11 tokens. This distribution shows that contact has a slight effect on the production of the

Qarni variant. High contact speakers overwhelmingly favour the supralocal *-at*, with *-an* appearing only sporadically, typically in narrating past events or recounting family stories. Even among low contact speakers, most tokens are realised with *-at*, indicating that exposure to the urban variety exerts a strong influence regardless of social network. The sole case of consistent *-an* use comes from one low contact adult male migrant, who produced 19 tokens, while other low-contact speakers contributed only a handful of occurrences. This pattern indicates that limited interaction with non-Qarni speakers can slow, but not prevent, the shift toward the supralocal norm.

Migratory Cohorts

No teenage migrants produced *-an*, confirming that speakers who arrive in Riyadh during or before adolescence adapt fully to the supralocal form. Locally born males produced a small number of *-an* tokens (9 tokens), but these were largely embedded in narratives involving mothers or family members, suggesting that the suffix is retained in emotionally marked or traditional contexts rather than as part of everyday speech. This parallels findings in dialect contact literature that early-arriving and locally born cohorts adopt new norms more fully, while adult migrants retain pre-migration features (see chapter 4: 120-122).

The key adult male migrant

It is worth mentioning that the adult male migrant who produced 19 tokens of *-an* is the same speaker who produced the majority of *m*-article tokens (see Chapter 5: 175). Although educated and serving as a Major in the army, he migrated to Riyadh at the age of 18 and later spent six years abroad. It is possible that his age beyond adolescence when exposed to urban norms was a factor, as his speech system appears to have remained more strongly rooted in the Qarni variety. Also, as mentioned in Chapter 5, following his father's death, the participant's mother came to live with him, a practice common in Saudi/Arab culture where sons typically take responsibility for their parents in old age. He spends much of his time in her company,

accompanying her to medical appointments, listening to her stories, and assisting with her daily needs. Consequently, his linguistic behaviour may be shaped by the consistent input he receives from her speech. His minimal exposure to non-Qarni speakers, combined with close ties to his immediate family, in addition to the fact that he was already an adult when he was first exposed to the Riyadh norm, likely explains why he produced the highest number of Qarni variants across multiple variables. His speech represents the most conservative Qarni profile in the dataset, retaining relic forms that have otherwise become marginal among other speakers.

By contrast, all other speakers who produced *-an* tokens did so very rarely. Even low contact speakers produced only one to three tokens, with all other occurrences realised as *-at*. Locally born male speakers who used *-an* restricted it to family-oriented or narrative contexts, while their everyday speech followed the supralocal pattern. For adult female migrants, *-an* appeared in a handful of tokens (1-3 tokens), but the majority of their speech showed alignment with *-at*. This reinforces the conclusion that *-an* is not an active variant but rather a marginal relic that surfaces in marked discourse contexts.

7.2.4.4 List of instances and their social meanings

The following section presents all 38 recorded instances of the *-an* variant with their social context.

Adult Male Migrant (low contact) - 19 tokens

1. ʤa-n fiː raːs-i
   'It came in my head.'
2. gaːm-an il-gijaːmah
   'lit.The resurrection was raised' (i.e. all hell broke loose).'
3. naðˤaraːt-i: ʔasˤlan taɣajjar-an
   'My opionon of her actually changed.'

4. hiː tˁaːħ-an ʕaleː-ha

‘she fell on her.’

5. law ʃaːf-an m-sajjaːrah

‘If she saw the car.’

6. iða sˁilaħ-an sˁalaːt il-waːħid

‘If a person’s prayer is righteous…’

7. haːði kaːn-an maħatˁtˁah

‘This was a station.’

8. kallam-an miħammad

‘she spoke to Mohammed.’

9. ħaːsab-an fiː-ha wa tagaðˁðˁa-n

‘she paid with it and bought (something).’

10. hi: radʒdʒaʕ-an liː

’she returned (it) to me.’

11. nisj-an wiʃ gaːl-an

‘she forgot what she said.’

12. hi tˁallaʕ-an il-bitˁaːgah

‘she took out the card.’

13. law inn-ha sˁaħsˁaħ-an wa sabbag-an gabla-ha

‘If she woke up and went ahead of it.’

14. gaːl-an il-joːm tˁiħ-t

‘she said: today I fell.’

15. dʒalas-an tibk-i

‘She sat crying (i.e she was crying).’

16. tiʕb-an marrah

‘She was very tired.’

Nearly all of his examples came from stories about his mother in Balqarn, often involving idiomatic or expressive phrases. Notably, although he retained *-an* frequently, he also produced numerous *-at* forms in reference to his wife, illustrating a split usage. His speech thus represents the strongest retention of the conservative variant among the sample, while also showing accommodation to supralocal norms in certain contexts.

Adult Male Migrant (low contact) – 1 token

ɡaːl-an maːˑ ʕalaː-ha xlaːf

‘she said: there’s no disagreement about it (i.e. she’s perfectly fine).’

This speaker produced a single *-an* token, also while narrating a story about his mother using a southern idiom. All of his other tokens were realized with the supralocal *-at*, suggesting minimal retention of the conservative form.

Adult Female Migrant (low contact) – 3 tokens

1. joːm kaːn-an fi l-matˤbax

   ‘When she was in the kitchen.’

2. ħarag-an il-xubzah

   ’She burned the bread.’

3. ʃaːf-an joːm kin-t b-issariːr

   ‘She saw (me) when I was in the bed.’

This speaker produced 3 tokens of *-an*, all embedded in anecdotes about her mother’s behaviour. Despite her relatively low contact with non-Qarni speakers, her broader speech patterns strongly favoured *-at*, with *-an* surfacing only in family-based narratives.

Adult Female Migrant (high contact) – 1 token

ʕajja-n tiruːħ maʕhum

'She refused to go with them.'

With high exposure to non-Qarni speakers, this female speaker produced just one *-an* token. The form emerged in a family-related context, underlining that *-an* surfaces only sporadically even among highly integrated speakers.

Adult Female Migrant (high contact) – 3 tokens

1. kaːn m-aʃtall-an ʕafʃa-ha wa ʃarad-an

   'She had taken her belongings and ran away.'

2. sˤaːx-an fi wadʒdʒ-ha:

   'Displeasure toward someone.'

This speaker produced 3 tokens, linked to retelling a story from her mother about theft and family disputes. One of the tokens (*saxan fi wadʒdʒhaː*) appears to be a lexicalised idiomatic expression, suggesting that in her case *-an* functions more as a frozen relic than an active productive form.

Locally Born Male Migrant (high contact) – 7 tokens

1. ʤa-n ʔumm-i ʕindi

   'My mother came to me.'

2. gaːl-an l-i l-joːm

   'She told me today.'

3. raːħ-an ħatˤtˤ-an kuħul

   'She went and put eyeliner.'

4. dagg-an il-ʤaras

   'She rang the bell.'

5. kaːn-an maʕ-i bint xaːlt-i

   ‘She was with me, my cousin.’

6. ɡaːbal-an ʔaxuː-ja

   ‘She met my brother.’

Although born in Riyadh and working in a high-contact environment, this speaker still produced 7 tokens of *-an*, again in narratives about his mother. Outside such contexts, his speech consistently shifted to *-at*.

Locally Born Male Migrant (high contact) – 1 token

zaraʕ-an ʔiʃʃaj haːða fiː-ni

‘She instilled this thing in me.’

This token arose in a deeply personal reflection about maternal influence, suggesting that *-an* may function as a stylistic or affective choice in emotionally marked contexts.

Locally Born Male Migrant (high contact) – 3 tokens

1. kaːn-an maʕ ʃaːjb-in tazawwadʒ-an min-hu

   ‘She was with an old man whom she married.’

2. zeːd tiʿallag-an min-hu

   ‘She divorced him.’

These 3 tokens emerged when the speaker recounted a story his mother had told him about his grandmother. Their occurrence in intergenerational storytelling reinforces the view that *-an* appears in traditional or inherited narratives rather than in spontaneous everyday use.

7.2.4.5 Contextual patterns and qualitative observations

The occurrence of *-an* was largely confined to narrative contexts, most often when speakers recounted stories from the past, particularly involving family members or life in Balqarn. In several cases, the form also surfaced in idiomatic expressions or as part of lexicalised items, suggesting that its retention is not random but tied to marked discourse settings and culturally

specific phrasing, although not a productive variant in everyday speech. By contrast, the supralocal *-at* is used consistently in unmarked, everyday contexts across all speakers, underscoring its dominance as the supralocal norm. The confinement of *-an* to a small number of tokens among adult migrants and a few scattered instances among locally born males highlights its ongoing erosion. Its absence among teenage migrators cohorts and locally born females reflects a trajectory of change in which supralocal forms are consolidating as the default.

7.3. Discussion

The analysis of the third-person singular feminine verbal suffix in the present study shows a strong shift away from the conservative Qarni form *-an* toward the supralocal *-at*. The data reveal that this change is widespread across the community, with only residual and context-specific use of *-an*. The results indicate that social variables such as migratory cohort, gender, and level of contact are not decisive in shaping this shift. Instead, the process appears to cut across demographic categories, pointing to a general movement toward *-at* as the default form.

Although social variables do not strongly condition the change, the data suggest that women are slightly ahead of men in adopting the supralocal variant. The few remaining uses of *-an* are mostly produced by male speakers and appear to be tied to identity-related contexts, indexing cultural pride or conservatism.

7.3.1 Supra-localisation and the direction of change

As Prochazka (1988) documents, the Qarni dialect realises the third-person singular feminine suffix as *-an* (e.g., *kataban* 'she wrote'). By contrast, in Najdi and most central Arabian dialects, this function is expressed through *-at* (e.g., *katabat* 'she wrote'). Watson (2017) further notes that across many Arabian varieties the feminine plural is marked by endings such as *-in* or *-an*. This overlap introduces potential ambiguity in interdialectal communication: a form like *kataban*, which is singular in the Qarni dialect, may be interpreted as plural in dialects

where *-an* or *-in* mark plurality. Such structural ambiguity is significant in sociolinguistic terms, since functional opacity often accelerates levelling. Speakers may adopt the supralocal form *-at* not only because it aligns with the dominant supralocal norm, but also because it reduces the risk of misunderstanding in mixed-dialect encounters.

This development fits within the broader framework of supra-localisation. Trudgill (1986: 98) defines levelling as "the reduction or attrition of marked variants," with "marked" referring to forms that are "unusual or in a minority". The Qarni suffix *-an* is precisely such a marked feature: it is geographically restricted, conservative, and in the minority when compared with the widespread *-at* found across Najdi and many other Saudi dialects. The overwhelming dominance of *-at* in the speech of Qarni participants in Riyadh reflects their integration into a supralocal linguistic norm that transcends tribal or regional boundaries.

7.3.2 Levelling and koineisation

The replacement of *-an* with *-at* can be understood as a case of dialect levelling. The marked, minority variant is gradually displaced in favour of the more common and socially unmarked form. Over time, repeated contact and accommodation foster the homogenisation of forms. Kerswill (2002) observes that levelling typically occurs through countless small acts of accommodation, where speakers converge linguistically in everyday interaction. This process is reinforced by avoidance of forms that are negatively evaluated as too local or parochial, in favour of those with wider geographical reach.

In Riyadh, where Qarni speakers live, study, and work alongside Najdi and other Saudi groups, the conservative *-an* is exposed to constant pressure from the more widely shared *-at*. Functional ambiguity, described earlier, adds another layer of motivation: adopting *-at* not only conforms to prestige norms but also ensures clarity in communication. This convergence reflects the classic mechanisms of koineisation, whereby minority forms recede, and majority variants become entrenched through sustained interaction in an urban contact setting.

7.3.3 Urbanisation and social integration

As stated in Chapter 6, urbanisation plays a central role in shaping patterns of linguistic change in Riyadh. Miller (2004) has noted that new and expanding cities bring together heterogeneous populations, creating conditions that favour koine formation. Riyadh's position as the political and economic centre of Saudi Arabia intensifies this process, since migrants from across the country are integrated into schools, workplaces, and social networks dominated by supralocal norms.

For Qarni speakers, this environment continually reinforces the adoption of *-at* as the unmarked form. Just as the local [j] variant was shown in Chapter 6 to persist only as a heritage feature in specific contexts, the conservative suffix *-an* appears similarly restricted. Its survival is largely symbolic, associated with stylistic performances of identity, rather than with active grammatical productivity. The widespread use of *-at* across cohorts suggests that the integration of Qarni speakers into the Riyadh speech community is advanced, leaving little space for *-an* to function as an in-group norm for future generations.

7.4. Summary of the results

The main findings of this chapter can be summarised as follows:

- The direction of change is clearly from the conservative Qarni suffix *-an* toward the supralocal *-at*, with *-at* overwhelmingly dominant in the data.
- Social variables such as migratory cohort, gender, and contact level are not strongly conditioning this change, although women show slightly greater adoption of the supralocal form.
- The remaining uses of *-an* are produced mostly by men and appear to function as heritage markers rather than as productive variants.

- The coexistence of *-an* (singular in Qarni) with *-an/-in* (plural in other dialects) introduces potential ambiguity, which likely contributes to the shift toward *-at* in mixed-dialect settings.
- The change can be described as dialect levelling, with the minority, marked variant (*-an*) receding in favour of the unmarked supralocal variant (*-at*).
- The broader context of Riyadh's urbanisation and social integration provides the conditions for koineisation, in which diverse dialectal inputs converge toward a shared urban norm.
- Similar to the patterns observed for the indefinite article *am-* and the [j] variant, the Qarni third-person singular feminine suffix *-an* is also receding to the status of a relic feature. Its use is now largely confined to culturally or contextually marked environments rather than serving as an active grammatical form.

Chapter 8

Conclusion

This thesis has examined four salient linguistic variables among Qarni speakers in Riyadh: the affrication of /k/ in the stem, the affrication of the second person singular feminine suffix -*ik*, the use of the definite article *m*-, the realization of [dʒ], and the third singular feminine verbal ending -*an*. Taken together, the findings reveal that for three of these variables: the definite article, the [j] versus [dʒ], and the third singular feminine ending, the process of change is almost complete. In each of these cases, the highly marked and localized variants are receding, often restricted to relic use in lexically conditioned or highly constrained contexts, while the unmarked supralocal forms have become the default choices in everyday speech. These Qarni features survive only marginally, carrying residual associations with tribal or local identity, but no longer function as productive variants in daily interaction.

With respect to affrication, the stem and suffix environments show the same trajectories of change with differences in the rate of usage of [k] and -*ik*. In the stem, the innovative variant [k] has almost entirely replaced the affricated form, with the localized and marked realization virtually disappearing from everyday use. However, in the second person singular feminine suffix, variation remains. The data demonstrate that in this environment, both affricated and deaffricated realizations persist, with the innovative -*ik* gaining ground but not yet fully replacing the traditional variant. The persistence of variation in this context reflects the influence of both linguistic conditioning and social factors. Migrant cohorts and degree of contact emerge as central forces: teenage migrants and locally born speakers with high levels of contact overwhelmingly adopt the unmarked -*ik*, while adult migrants with lower degrees of contact retain a greater degree of variation. This generational and contact-based distinction indicates that the suffix is undergoing an active change in progress, one that is unevenly distributed across social groups. Overall, the results for these variables provide important

insights into processes of leveling, dedialectalization, and the potential emergence of koineisation in Riyadh.

The pattern of change observed in the Qarni variables can be explained through the role of migration and dialect contact in shaping linguistic outcomes in Riyadh. As discussed in Chapter 1, the discovery of oil in the mid-twentieth century marked a turning point in Saudi Arabia's history, triggering profound economic, financial, and social transformations that altered the demographic profile of the country's major cities. The rapid expansion of Riyadh in particular, accompanied by large-scale internal migration, reshaped its social fabric and transformed it into a focal point of dialect contact. The unprecedented urban growth and new economic opportunities drew speakers from diverse regions into close, sustained interaction, producing conditions in which face-to-face communication across dialect groups became a daily necessity. Such circumstances, as Alghamdi (2022) notes, established Riyadh as a site of intense dialect convergence, where migration after the oil boom created a linguistic ecology in which new norms could emerge. This demographic restructuring provided fertile ground for linguistic change, as urban speakers were exposed to competing variants and pressured to accommodate toward forms with wider intelligibility.

For the Qarni migrants, this migration and continuous social contact have facilitated the levelling of heavily marked features and the adoption of unmarked and socially neutral forms. Evidence from the present data shows that, as described earlier, in most of the salient variables under study the process of change is almost complete, while in the case of affrication in the second singular feminine suffix, variation remains but the trajectory is clearly toward the unmarked variant *-ik*. Alghamdi (2022) emphasizes that these outcomes are inseparable from the dynamics of mobility and contact that define Riyadh's sociolinguistic landscape, in which speakers negotiate identity through alignment with supralocal rather than localized features. Similarly, AlEssa (2008) stresses that migration and sustained social contact generate powerful

conditions for levelling, whereby overtly marked variants are abandoned in favour of those perceived as neutral. Alghamdi (2022) also underlines the foundational role of oil discovery in the mid-twentieth century, arguing that it set off large-scale internal migration which directly reshaped linguistic practices in urban centres such as Riyadh. These perspectives reinforce the conclusion that the Qarni case is embedded within the broader sociolinguistic consequences of migration and urbanization in Saudi Arabia, where exposure to multiple varieties and daily interaction across dialect boundaries accelerate the adoption of unmarked and widely intelligible forms.

In the current study, the Qarni variants in Riyadh are undergoing dedialectalisation, operating through long-term accommodation and levelling, with the potential to culminate in koineisation. Al-Wer (manuscript) states that "the loss of local distinctive features, which can potentially lead to the dilution or total loss of traditional dialects , a process that Peter Trudgill (1996) dubbed 'dedialectalisation' ". This mechanism is tied to accommodation in the classic sense: drawing on accommodation theory, Trudgill (1986) argues that when speakers of mutually intelligible dialects interact face to face over time, they adjust to one another in ways that produce lasting structural change, interlocutors "reduce dissimilarities between their speech patterns," and if such accommodation is frequent enough it "may in time become permanent," especially when "attitudes are favourable" (Trudgill, 1986: 39). In dialect-contact settings, two processes are central: speakers modify features of their own speech and/or acquire variants from others, and which features shift first depends on the degree of social awareness attached to them (Trudgill, 1986: 11). Following Labov's typology, indicators are variants that operate below conscious awareness, while markers are socially salient, noticed, and open to evaluation. Because speakers can control markers stylistically, these are usually modified earlier in contact situations, whereas indicators shift more slowly (Labov, 1972; Trudgill, 1986: 10-11). Trudgill further specifies the conditions that raise a variable's salience and can push it from indicator to

marker: overt stigmatization, involvement in an ongoing change, radical phonetic distance between competing variants, and the role of a variant in maintaining phonological contrasts (Trudgill, 1986: 11). Exceptionally salient forms may even resist accommodation, yet another powerful driver of modification is the practical "need to be understood", when regional realisations risk miscomprehension across dialects, speakers are especially likely to adjust them (Trudgill, 1986: 125).

These expectations match what we see in the present Riyadh data. The four variables examined in this thesis are highly salient: speakers are aware of them, comment on them, and manage them in interaction, so they are among the first to be altered or abandoned. In three variables, the definite article *m-*, the [j], and the 3rd singular feminine verbal ending, the locally diagnostic Qarni forms are reduced to relic use in constrained contexts, while unmarked alternatives become the default in everyday speech. One variable also engages the "need to be understood": the Qarni *-an* verbal ending marks 3SF in this system, but in other Saudi dialects endings of the shape *-an/-in* participate in feminine plural morphology, creating a potential risk of miscommunication. As discussed in chapter 7, this functional ambiguity makes *-an* especially vulnerable in mixed-dialect communication and helps explain its retreat in favour of *-at*, which is widely recognised and unambiguous. In the current data, all four Qarni variables behave as markers in exactly this sense. They are overtly stigmatized, they participate in active changes toward unmarked alternatives, several involve salient phonetic contrasts (e.g., [tʃ] vs. [k]; *m-* vs. *l-*; [j] vs. [dʒ]), and one, the 3SF *-an*, creates a real comprehensibility risk, since forms of the shape *-an/-in* elsewhere mark feminine plural, inviting misinterpretation in mixed-dialect exchanges.

To further explain, during the interviews, several participants reported that when they post on social media, e.g., recommending a place or reviewing a product, they sometimes receive replies that react to their occasional southern accent or southern proverb by labelling it

"Yemeni." Some also noted that, more generally, the online reaction to many southern-accented videos is to associate them with Yemen. Taken together, these statements indicate that the relevant features are marked, salient, and stigmatized. The association with Yemen likely reflects the geographic proximity of the southwestern Saudi regions to Yemen and the socioeconomic visibility of Yemeni workers in Saudi Arabia (many of whom are concentrated in lower-wage service and manual occupations). Consequently, the "Yemeni" label often carries a negative social evaluation that can even question or deny a speaker's national identity. Such reports make clear that these variants are highly salient and socially stigmatized and therefore become prime targets for levelling and dedialectalisation. In short, because these features are salient markers, and because at least one of them raises comprehensibility issues across dialects, they are prime targets for levelling and dedialectalisation in Riyadh.

Crucially for the affrication variable, Qarni speakers in Riyadh did not accommodate to the Najdi affricated option [ʦ], despite the structural similarity between their own [tʃ] and the local Najdi [ʦ]. Instead, they adopted the innovative [k]. The choice makes sociolinguistic sense: both [tʃ] (Qarni) and [ʦ] (Najdi) are heavily marked, locally indexical variants tied to particular regions and social groupings; neither offers a socially unmarked profile in a diverse urban market like Riyadh. As Al-Rojaie (2013) puts it for Najdi levelling, regional change involves the spread of the "supralocal variant(s) associated with the major city dialect … at the expense of traditional and socially marked variant(s)", a characterisation that fits the position of the affricated options versus [k] in and around Najd (Al-Rojaie, 2013: 43). In the same account, the [ʦ] affrication is treated as a marked, localized variant within Qasimi Najdi (Al-Rojaie, 2013: 43-45). Alghamdi (2022) likewise notes that variants such as [ts] and [tʃ] are regionally marked and localized in contrast to neutral [k] (p. 46, 58). Accordingly, the neutrality of [k] matters: in contact-heavy networks, levelling targets precisely "minority forms, socially

marked forms and linguistically marked forms" (Trudgill, 2004: 23). [k] is the unmarked, supralocal choice; [tʃ] and [ʦ] are locally bound and socially loaded, so they recede.

There is also straightforward phonological economy. [k] is already present in speakers' phonological inventories, whereas [tʃ] and [ʦ] have historically been restricted allophones in specific environments (notably before front vowels). The change is therefore largely an extension of [k] into environments where affricates once occurred, no new segment needs to be acquired, only a reallocation of distribution. In other words, [k] is available in the speakers' phonological inventory; all they need to do is extend its use from contexts that previously excluded it (e.g., front-vowel environments favouring affrication) to all contexts.

Finally, the fact that the innovative [k] coincides in form with Standard Arabic [k] is best treated as incidental. Its adoption here should not be read as "standard-driven"; rather, [k] prevails because it is the unmarked, neutral, non-indexical choice in a mixed-dialect urban ecology (it does not index the speaker's tribal or regional identity) and because it is already entrenched in speakers' phonologies.

It is worth underscoring how closely these results align with the classic description of levelling and its expected social motivations. The four variables all point in the same direction. For three of them, the definite article *m-*, the /j/ > /dʒ/ variable, and the 3SF ending *-an,* the shift toward unmarked options is overwhelmingly advanced: local Qarni realizations survive only in tightly constrained, identity-laden pockets, while neutral alternatives function as the default in everyday speech. The affrication variable captures the chronology of change most clearly. In stems, deaffrication is essentially complete, with [k] almost entirely replacing [tʃ] in the Riyadh data. In the 2SF suffix, by contrast, variation persists and remains conditioned both linguistically and socially.

These results are best explained as dialect levelling. Williams and Kerswill (1999:149) define levelling as "a process whereby differences between regional varieties are reduced,

features which make varieties distinctive disappear, and new features emerge and are adopted by speakers over a wide geographical area." Trudgill (1986: 94) similarly emphasises that in new dialect formation, "the major mechanism … seems to be the shedding of forms that are marked as being regionally restricted." Applied to the Riyadh data, this is precisely what is observed: marked Qarni variants are levelled out in favour of unmarked supralocal realisations. Al-Rojaie (2013: 44) defines levelling in Najd as the reduction of localised variation through convergence on supralocal forms, tied to urban growth and mobility, and driven by the adoption of unmarked features, avoidance of stigmatised forms, and sustained face-to-face contact. The Riyadh sample reflects exactly this: marked Qarni forms are avoided, neutral options generalise, and the strongest residual variation is located at the suffix, where competing dialect expectations intersect and where social cohorts differ in their networks and histories of contact. These social dynamics dovetail with the broader migration-contact logic: the post-oil-boom influx into Riyadh created precisely the conditions for levelling, under which regional markers give way to "more neutral, common, modern, and unmarked features" (Alghamdi, 2022: 46, 57).

Taken together, these strands point toward koineisation. In sociolinguistics, koineisation refers to the variety-forming change that arises when speakers of different but mutually intelligible dialects come into sustained contact. Classic accounts identify the process as involving mixing, levelling, simplification, reallocation, and focusing (Siegel, 1985; Trudgill, 2004). Kerswill and Williams (2005: 1023) describe it as "the type of language change that takes place when speakers of different, but mutually intelligible language varieties come together, and which may lead to a new dialect or koine formation." Crucially, Trudgill highlights accommodation and demographic factors as the driving forces, with the shedding of regionally marked forms at the core. When dialects mix under dense contact, locally diagnostic variants recede, while neutral, supralocal options expand.

This is the configuration revealed by the Riyadh Qarni data. Across three of the four variables, marked forms have been levelled out and now survive only in circumscribed niches, while unmarked alternatives dominate everyday usage. Even the affrication variables align with a broader supralocal norm. In theoretical terms, this reflects koineisation's central phases: levelling (loss of marked forms), limited reallocation (distribution reassigned without new segments), and the beginnings of focusing in high-contact cohorts (Trudgill, 2004). In other words, the Qarni results replicate this footprint: near-completion of the change in three variables and systematic retreat in the fourth demonstrate that levelling and dedialectalisation are well advanced, and that the speech economy is organising around neutral supralocal resources, most visibly in the /k/ variable, consistent with the emergence of a Saudi koine, while leaving room for continued attrition in the suffixal affricate as contact and cohort turnover proceed.

Comparative evidence underscores the plausibility of this trajectory. In Amman, Jordan, Al-Wer (2007) documents a textbook progression: first-generation adults level the most localised features (e.g., retreat of /k/ affrication), the second generation exhibits extreme variability, and the third stabilises with focused norms. This adult-led levelling and child-driven selection is the same architecture that Riyadh's ecology enables and the Qarni outcomes illustrate. Within Saudi Arabia itself, convergent findings from Jeddah, Mecca, Abha, Ha'il, Medina, and Dammam demonstrate ongoing change: regional markers are abandoned, and neutral features expand (Alghamdi, 2022). Across these Saudi studies (AlEssa, 2008; Alghamdi, 2014; Alqahtani, 2015; AlAmmar, 2017; Hussain, 2017; Alaodini, 2019), the conclusion is consistent: urban contact promotes levelling of salient markers, diffusion of unmarked forms, and the rise of supralocal norms.

In light of this evidence, the most economical interpretation is that a koineised urban variety is consolidating in Riyadh. The mechanism is familiar: repeated face-to-face accommodation produces levelling of regionally marked forms and generalisation of neutral [k]

and other unmarked features (Kerswill & Williams, 2005; Trudgill, 2004). Specifically, the results show that (i) for three variables, change is already advanced toward unmarked realisations; (ii) in affrication, [k] is fully generalised in stems and encroaching in suffixes, with migratory cohort and contact effects diagnostic of ongoing accommodation; and (iii) across the system, distribution is reallocated toward forms with broad intelligibility and minimal indexical load. In sum, the Riyadh Qarni data conform to the koineisation template: marked local features are shed, neutral supralocal ones prevail, and usage shows early signs of focusing. This thesis therefore supports the growing view that a koineised urban norm is taking shape in the capital (Alghamdi, 2022: 46-48, 58). The present study, however, examines only the speech of Qarni speakers in Riyadh and therefore does not directly investigate whether the local Najdi variety itself is undergoing the same shift, although previous research suggests that supralocalisation in Saudi urban settings is not confined to migrant varieties alone. Furthermore, the question of whether Najdi varieties are undergoing levelling in Riyadh is currently the subject of ongoing research at the University of Essex, conducted by my colleague Rawan Alshatwi whose research focuses on migrants from Qasim, a Najdi region.

A further strand of evidence comes from layperson awareness. Several participants in this study explicitly referred to their speech as *al-lahja al-bayḍāʔ* ('the white dialect'), a widely circulated label for an emergent, de-regionalised norm. As Alqahtani notes, the term "white dialect" is commonly used by Saudis to describe a neutral variety that eases communication across groups (Alqahtani, 2015; Alghamdi, 2014). To assess the scope of this lay discourse, a convenience sample was compiled from X (formerly Twitter): a keyword search for *al-lahja al-bayḍāʔ* returned approximately 77,000 public posts at the time of collection, providing an indicative pool of anonymised metalinguistic commentary, many of which explicitly describe a cross-regional, easily intelligible way of speaking that conceals local origin. In anonymised translations from that dataset, users wrote, for example, that *"the white dialect is chosen as the*

standard among other dialects… You cannot identify the regional identity of its speaker," that *"every tribe has a dialect and every region has a dialect, and these are all about to be unified under one 'white' dialect,"* that it is a *"neutral dialect you use without falling back on your tribal dialect that might be hard to understand or even stigmatized,"* and that *"the white dialect is spoken by everyone, north, south, west (Hijaz), east; keep your tribal dialects to family and relatives."* These lay accounts mirror, in non-technical terms, the dynamics described in sociolinguistics: marked local features are avoided, and unmarked, widely intelligible features are preferred in intergroup settings.

It is important, however, to treat the label *white dialect* with care. It is not an academic term and, if left unexamined, may invite a racial overtone overtime. In scholarly terms, what our results point to is koineisation by which speakers of different dialects, in sustained contact, develop a shared norm through levelling, dedialectalisation, and reallocation (Siegel, 1985). The evidence presented here shows convergence toward unmarked, supralocal features, the abandonment of highly marked local forms, and conscious recognition of these shifts by the participants and broader publics. Overall, these facts indicate that Riyadh is consolidating an urban koine: a neutral, cross-regional variety that speakers themselves identify (in everyday terms) as *al-lahja al-bayḍāʔ*, and that the present study characterises, in technical terms, as the outcome of contact-driven koineisation.

Further Remarks on the Data

On closer inspection of the dataset, I noted two further Qarni variables that, while not part of the core analysis, display non-random distributional patterns. I introduce them briefly, illustrate their realisations with examples, and summarise the initial observations and a cautious interpretation relative to the levelling/dedialectalisation framework.

(1) Light vs. dark /l/:

In the Qarni speech, the baseline realisation of /l/ is light [l], with the familiar lexical exception Allāh ‘God’, whose *lām* is dark/velarised (here transcribed [aɬˑːaːh]). By contrast, Najdi speech exhibits context-induced *lām* darkening: [l] → [ɬ] in specific phonetic environments (e.g., adjacent to emphatic/velarised segments or near back/velar consonants).

Qarni variant	**Najdi variant**	**gloss**
[xaːl]	[xaːɬ]	‘maternal uncle’
[qalb]	[qaɬb]	‘heart’

Across all lateral tokens, most items are realised with light [l]. Dark [ɬ] appears rarely, and those occurrences cluster almost entirely in the speech of one locally born female who alternates between [l] and [ɬ]; a very small number of scattered tokens appear in other speakers, and when the same word recurs later in the interview, speakers typically revert to light [l]. In short, l-darkening is infrequent and unstable here; the Qarni light [l] remains the strong default, with [ɬ] confined to sporadic, speaker-specific usage.

(2) Short high back vowel /u/ vs. fronted /i/:

In the Qarni dialect, the short high back vowel /u/ surfaces with a back quality in both nouns and verbs, e.g., [ruz] ‘rice’, [sukkar] ‘sugar’, [kul] ‘eat’, [gul] ‘say’. In Najdi speech, the corresponding items show fronting to /i/, yielding [riz], [sikkar], [kil], [gil].

An initial count shows that, among 985 vowel tokens in total, about 25 were realised with the Najdi variant, while the remaining 960 tokens used the Qarni vowel. The Najdi-type tokens came almost entirely from one locally born female who alternated within the same lexical items (e.g., *kul/kil*, *gul/gil*, *ruz/riz*, *sukkar/sikkar*). In addition, one other locally born female produced a single Najdi-type token, immediately corrected to the Qarni vowel, and then maintained the Qarni realisation for the rest of her interview.

As set out in the conclusion chapter, accommodation outcomes in contact are tied to speakers' degree of awareness of a variable (Trudgill, 1986: 11). In Labov's typology (as presented by Trudgill), markers are socially salient and consciously noticed, while indicators operate below social awareness and therefore change more slowly (Labov, 1972; Trudgill, 1986: 11). Trudgill further notes that awareness, and thus the likelihood of modification, increases when there is overt stigmatisation, involvement in an ongoing change, radical phonetic distance between variants, or the variants in questions play a role in maintaining phonological contrasts (1986: 11). Against these diagnostics, the two ancillary variables here currently behave like indicators: there is no evidence of overt stigma, involvement in change is minimal and speaker-specific, the phonetic contrasts are modest compared to (say) [tʃ] vs. [k], and neither alternation appears crucial for maintaining an independent phonological contrast. In the Saudi context, however, this alternation does not appear to carry strong social salience. Both variants are widely attested across different regional dialects, and neither form is clearly associated with a dominant prestige variety or a stigmatised minority dialect. As a result, the alternation does not strongly index regional identity in the way that other features do. In this sense, salience here is understood as a socially conditioned property rather than a purely phonetic one, as discussed earlier (see p.97-100), where salience is defined following Labov (1972) and Trudgill (1986). In other words, there is no clear majority or minority realisation of the vowel in the wider Saudi dialect landscape, which further

reduces the likelihood that speakers perceive the alternation as socially meaningful. This helps explain why, unlike the four core marker variables that levelled toward unmarked supralocal forms, these two show a maintenance trajectory for the Qarni realisations. A consistent pattern in contact is that the more socially salient a variable is, the faster it shifts under long-term accommodation, whereas low-salience variables change more slowly (if at all), in Labov's terms, markers move first while indicators lag (Trudgill, 1986:11; Labov, 1972).

However, these are initial observations; a fuller analysis should model linguistic conditioning (segmental/prosodic triggers for [l]-darkening; environments of vowel fronting), test social predictors (age, gender, contact) with balanced token counts, and probe awareness directly (e.g., attitude/interview tasks) to see whether these variables remain 'indicators' or begin shifting toward 'marker' status. Only then can we determine whether they will stabilise as Qarni defaults or drift, over longer time scales, toward a supralocal profile observed for the core set.

Limitations of the Study

This study has certain limitations that should be acknowledged. First, the number of participants was restricted to 26 speakers, which necessarily limits the extent to which the findings can be generalised to the wider Qarni community in Riyadh. Second, the recruitment of genuinely low-contact participants proved difficult, as most individuals in Riyadh inevitably encounter high levels of interaction with speakers from different dialect backgrounds.

Suggestions for Further Research

The present study focused on four central variables; however, additional features emerged that merit further investigation:

1. **Light vs. dark /l/**: Further studies could explore this variable in greater depth, not only in terms of linguistic environments and social factors that may condition its occurrence,

but also in relation to its relative salience and the degree to which speakers are consciously aware of it.

2. **Back [u] vs. fronted [i]**: This variable also awaits closer investigation, both with respect to the linguistic environments in which each variant occurs and the social variables that may shape its distribution, as well as in terms of speakers' awareness of the distinction.
3. **Reflex of the feminine ending *–ah***: In the Qarni dialect, the Classical Arabic feminine ending *-ah* (taʔ marbūṭah) surfaces as *-eh*, as in *ji:meh* 'value' (Prochazka, 1988: 19).

This feature awaits closer analysis in the context of dialect contact in Riyadh. In addition to these variables, future research could also consider broader sociolinguistic dimensions such as locality, for example, whether the neighbourhoods where Qarni migrants settled in Riyadh influence the course of linguistic change.

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