The Effects of Ethnicity, Contact, Sense of Identity, and Social Attitudes on Dialect Contact in Jeddah, Saudi Arabia

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Abstract

Dialect contact may lead to one of several linguistic outcomes, including (among others) levelling, accommodation, divergence, or convergence. Jeddah presents a unique linguistic situation in Saudi Arabia due to it being one of the three cities, along with Makkah and Madinah, which have a large Saudi non-Bedouin demographic. Given that Bedouin and non-Bedouin social groups are technically in daily contact in Jeddah, this urgent research question arises: do the marked linguistic features of each group weaken or perhaps even level out? Thus, this thesis investigates the dialect contact situation in Jeddah, Saudi Arabia, specifically how it affects the distinct varieties of Hijazi Arabic spoken by Bedouins and non-Bedouins in the city.

This study investigates the influence of ethnicity, dialect contact, sense of identity, and social attitudes on variation in Hijazi Arabic in a sample of 32 young adult speakers (aged 19-22) in Jeddah. The sample was stratified by Bedouin versus non-Bedouin ethnic background and grouped by neighbourhood type: predominantly Bedouin, predominantly non-Bedouin, and mixed. Data were collected through sociolinguistic interviews and written questionnaires measuring participants' sense of identity and social attitudes.

The analysis focuses on three linguistic variables: (θ), (ð), and the third-person masculine pronoun (-ah). Distributional and regression analyses show that Bedouin and non-Bedouin Jeddawis belong to different speech communities because those in mixed and unmixed neighbourhoods (both Bedouins and non-Bedouins) do not share linguistic norms. Moreover, for a speech community to exist, there needs to be constant contact and interactions among its members, which cannot be said about the Bedouin and Non-Bedouin neighbourhoods. At the same time, the analyses show that the four social predictors (ethnicity, dialect contact, sense of identity, and social attitudes) affect two of the three linguistic variables: (θ) and the third-person masculine pronoun (-ah). Since the type of neighbourhood acts as a proxy for the degree of contact between Bedouins and non-Bedouins, the findings suggest that the degree of contact between the two groups affects the variation of the (θ) and (-ah). The variants of both (θ) and (-ah) in the two unmixed neighbourhoods (Bedouin and non-Bedouin) remain distinct from one another due to lack of contact. On the other hand, those in mixed neighbourhoods behaved linguistically as a one-speech community and used competing variants at similar rates regardless of individuals' ethnic backgrounds.

The results additionally show that there is a correlation between both sense of identity and social attitudes and the variables studied. Participants with a strong sense of identity favoured variants associated with their ethnic group. In contrast, those with a weak sense of identity used the variant associated with the other ethnic group. The same was found regarding attitudes: those with positive attitudes towards the other group exhibited higher rates of use of the variants associated with the ethnic group they do not belong to, and those who had negative attitudes exhibited little to no use of the variants associated with the other group.

My results highlight the emergence of a supra-local Arabic variety in Jeddah wherein the urban marked [t] and [d] lose their distinctiveness in favour of the mainstream features [θ] and [ð] in the mixed neighbourhood. The results also suggest that they do so due to their markedness and association with the non-Bedouin demographic in Jeddah specifically and Hijaz as a whole. The results also show the levelling of the Bedouin 3rd person masculine suffix in the mixed neighbourhood in favour of an urban variant, unlike the phonological ones due to its disassociation with non-Bedouins.

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Transcription Conventions and IPA Symbols

All examples in this thesis are transcribed phonetically using the following IPA symbols.

Consonants

Arabic Grapheme	IPA	Description
أ/ء	ʔ	voiced glottal stop
ب	b	voiced bilabial stop
ت	t	t voiceless alveolar stop
ث	θ	voiceless interdental fricative
ج	ɟ	voiced palatal stop
ح	ħ	voiceless pharyngeal fricative
خ	x	voiceless uvular fricative
د	d	voiced alveolar stop
ذ	ð	voiced interdental fricative
ر	r	voiced alveolar trill
ز	z	voiced alveolar fricative
س	s	voiceless alveolar fricative
ش	ʃ	voiceless palatal fricative
ص	sˤ	voiceless emphatic alveolar fricative
ض	dˤ	voiced emphatic alveolar stop
ط	tˤ	voiceless emphatic alveolar stop
ظ	ðˤ	voiced emphatic interdental fricative
ع	ʕ	voiced pharyngeal fricative
غ	ɣ	voiced uvular fricative
ف	f	voiceless labiodental fricative
ق	q	voiceless uvular stop
ك	k	voiceless velar stop
ل	l	voiced dental lateral
م	m	voiced bilabial nasal
ن	n	voiced alveolar nasal
ه	h	voiceless glottal fricative
و	w	voiced labial-velar glide
ي	j	voiced palatal glide

Vowels

Vowel	Short	Long
High Front	i	i:
Mid Front	e	e:
Mid Central	ə	-
Mid Back	o	o:
Low Front Unrounded	a	a:
Low Back Unrounded	ɑ	ɑ:
High Back Rounded	u	u:

Transcription Conventions and Symbols

NOM	Nominative Case
MASC	Masculine
DEF	Definite Article
ACC	Auxiliary
PAST	Past Tense

List of Abbreviation

BHA	Bedouin Hijazi Arabic
HA	Hijazi Arabic
MSA	Modern Standard Arabic
NON-B	Non-Bedouin
UHA	Urban Hijazi Arabic
UK	United Kingdom
USA	United States of America

Chapter One: Introduction

1.1 Overview

Hijazi cities such as Makkah, Madinah, and Jeddah have historically attracted Muslims worldwide for religious purposes. These cities' interesting and diverse population is due to both their indigenous inhabitants and migrants. The indigenous population originally included Bedouins, tribal communities, and sedentary groups native to the region. Over time, the Hijazi cities have also drawn migrants for religious, economic, and social reasons, contributing to the diverse demographic of the Hijaz.

After Saudi Arabia was established, urbanisation policies further transformed the demographics of Jeddah into a mix of Hijazi Bedouins, tribal communities from other Saudi regions, and non-Bedouins. Saudi Bedouins and Tribals who come from outside the Hijaz region are outside the scope of this study, which focuses on those who are native to the Hijaz region (i.e., third-generation Bedouins who have ancestry in Hijaz and non-Bedouins whose family moved to the city before the establishment of the country).

The Hijaz region of Saudi Arabia, mainly Makkah, Madinah, and Jeddah, has experienced significant demographic changes due to migration. Hijaz presents an interesting situation in Saudi Arabia due to its unique demographic. Whereas the population of Saudi cities consist of urban, Tribals, and Bedouins who come from various regions of the country, Hijaz's cities consist of Bedouins, non-Hijazi tribals, indigenous Hijazi cities Bedouins and non-Bedouins whose ancestry migrated to the area years ago and have no tribal or Bedouin ties to the region. Such demographic can be found in Makkah, Madinah, and Jeddah. Originally, migration to Both Makkah and Madinah was due to religious reasons, while migration to Jeddah occurred due to its association with both cities. As the primary port for pilgrims, Jeddah became predominantly non-Bedouin as many chose to settle there after their pilgrimages. The primary source of the population of Jeddah was those who chose to settle after visiting Makkah. In addition, Jeddah is a contact city due to it being the closest city with an international airport and entry point to both holy cities nowadays, in addition to religious factors. The situation in Jeddah occurred due to economic and institutional factors.

While migration has significantly influenced the demographics of urban centres in the Hijaz region, its impact varies across different regions. Due to their historical roles as religious and economic hubs, Makkah, Jeddah, and Madinah have become melting pots of cultures and ancestries. However, other urban centres in Saudi Arabia do not have this demographic diversity, which highlights the importance of discussing migration's impact on Jeddah and Hijazi's demographics when studying dialect contact in Jeddah.

1.2 Bedouin, Tribal, Ḥaḍar, and non-Bedouins

Saudi Arabian society is deeply rooted in the historical and cultural identities of its residents, broadly categorised into three groups: Bedouins (Badū), Hadar (Ḥaḍar), and Tribal communities. These terms refer to the three groups' different ways of living: nomadic, village-based, and city-based. They describe not only how people make a living but also their unique social systems, traditions, and histories. Understanding the relationship between these groups is key to understanding the sociocultural of Saudi Arabia.

In Saudi Arabia, the Bedouins are characterised as nomadic or semi-nomadic tribes known for their pastoral lifestyle. On the other hand, the Ḥaḍar are settled urban or rural dwellers engaged in agriculture, trade, and other sedentary occupations, and the tribal communities lived in rural areas, primarily engaging in farming, animal husbandry, and small-scale trade. The following section aims to highlight the main differences between the three social groups:

Bedouins (Badu)

Bedouins had historically inhabited the Arabian Peninsula's desert long before the country was established. The Bedouin lifestyle was mainly characterised by mobility, as they usually travelled with their herd in search of green lands and water sources (Holes 1995). Tribal identity and autonomy are prominent due to this lifestyle. However, over the past century, many Bedouins have transitioned to a more settled way of life, influenced by policies aimed at sedentarisation and urbanisation (Chatty 2006; Al-Rasheed 2010). Despite these changes, Bedouin cultural values and social structures continue to play a significant role in Saudi society. The literature characterises the Bedouin group as those who used to follow a nomadic lifestyle before urbanisation (Lancaster 1981). Despite being urbanised or semi-urbanised, this social group still maintain Bedouin characteristics and lifestyle.

When discussing the terms 'Bedouin' or '*Badu*', especially for readers unfamiliar with the Arab world, it is important to note that while they usually refer to desert nomads, many Bedouins have adopted settled lifestyles over time in Saudi Arabia. Therefore, the presence of Bedouins in urban settings reflects historical transitions and is normal.

Tribal Communities:

Tribal villagers in Saudi Arabia are sedentary communities residing in rural areas, distinct from the nomadic Bedouins and Hadar populations. Primarily engaged in agriculture and small-scale animal husbandry, they have historically depended on wells, seasonal rainfall, and natural springs for irrigation, fostering a subsistence lifestyle closely tied to the land (Alghamdi 2022). The social structure of the tribe focuses on extended families and tribe leaders or elders usually mediate disputes in the village. Culturally, these villagers have preserved unique agricultural techniques, regional dialects, and traditional crafts, contributing significantly to Saudi Arabia's cultural heritage. Modernisation efforts have introduced infrastructure, education, and healthcare to many of these villages, leading to varying degrees of change; some villagers have migrated to urban areas for economic opportunities, while others maintain traditional lifestyles, emphasising the importance of rural heritage alongside urban and nomadic traditions.

Hadar (Ḥaḍar):

The Ḥaḍar are the settled populations residing in urban centres. Engaged primarily in agriculture, trade, and crafts, they have historically been the economic backbone of the region's urban centres (Al-Rasheed 2010). The Ḥaḍar lifestyle is different than that of the Bedouin and Tribals.

Unlike the Bedouins, who traditionally led a nomadic existence in search of water and grazing land but have gradually adopted more settled ways of life, the Ḥaḍar have always been rooted in urban environments and contributed to the economic development of the region. In addition, unlike tribal villagers, who maintain a strong connection to rural land-based subsistence and cultural traditions, the Ḥaḍar group integrated into urban modernisation, and benefited from advancements in infrastructure, education, and healthcare. The Ḥaḍar group can be seen as a

subgroup that encompasses elements of both previously mentioned groups, as its members are descendants of both. They are often referred to as urban Bedouins or urban villagers.

The relationship between the three groups has been complex and tense. However, in modern Saudi Arabia, the distinctions between the groups have become less evident due to urbanisation, economic development, and state policies. Despite that, cultural identities linked to Bedouin, Tribal, and Ḥaḍar heritage persist and continue to influence social interactions, marriage patterns, and political affiliations. Understanding these identities is key to understanding the social situation in Saudi Arabia. In modern-day Saudi Arabia, the distinction among the three groups (who have ancestorial connections in the region) is not as apparent because all groups share a common tribal structure and cultural heritage, contributing collectively to the tribal nature of Saudi society. However, the terms 'Bedouin' and 'tribal' continue to hold cultural significance in which they represent identity rather than indicate specific ways of life. Saudi continues to celebrate the contributions of all three groups as part of a unified national identity, emphasising shared Islamic values and Arab heritage (Holes 2007). Moreover, Saudi Arabia is not the only country with a distinct difference between its social groups; examples of the distinction mainly between Bedouins and Ḥaḍar can be found in Jordan (Al-Khatib 1988) and Libya (Pereira 2007). For instance, Kuwait's demographic consists of more than two main social groups. According to Al-Amadidhi (1985), the Kuwaiti social groups consist of Bedouins, 'Ajm, and Ḥaḍar. Al-Nakib (2014: 5) notes that "the term Badu remains in popular use in Kuwait to designate a group considered socially and culturally distinct from Ḥaḍar, or settled urbanities, which in Kuwait's contexts refers solely to descendants of the pre-oil town people". Nevertheless, it is important to note that both Bedouins and Ḥaḍars have tribal affiliation in the region, and the distinction between both social groups is solely based on the timeline of settling in urban centres (before or after the oil boom in Kuwait). 'Ajm, on the other hand, refer to a social group of Iranian origins and has no tribal affiliation in the region. The Kuwaiti Bedouin and Ḥaḍari distinction are similar to that of other Arab and Gulf countries (See Al-Amadidhi 1985; Al-Sheyadi 2021; Al-Deaibes and Rosen 2019 for similar classifications in Qatar, Oman, and Jordan respectively).

The distinction between the social groups is not exclusive to Jeddah or Hijaz in general, as it exists in many other Arab countries. However, I argue that this distinction does not fully encapsulate the situation in Jeddah as it ignores a fourth group: non-Bedouin Ḥaḍar.

Non-Bedouins

It is important to note that while these categories provide a framework for understanding Saudi society, they do not fully encapsulate what is happening in Hijaz wherein the terms Badū and Ḥaḍar have distinct meanings and connotations shaped by the unique historical, social, and cultural context of the area. The division among Bedouins and Ḥaḍar in Hijaz is only based on tribal affiliation nowadays. Hijaz, home to the holy cities of Makkah and Madinah, has long been a crossroads of trade, pilgrimage, and cultural exchange (Holes 2007).

> There are some non-Arab ethnic communities living in urban centres in Hijaz who migrated centuries ago from their home countries in Africa and southwestern Asia for religious, political, and economic reasons. Over time, those immigrants formed their own communities and, together with other ethnic groups, made Hijaz the most cosmopolitan region in Saudi Arabia
> (Al-Rojaie 2023:7).

These dynamics have influenced the way these terms are understood and used in the region. For example, Al-Mozainy (1981), Altalhi (2014) and Alzaidi (2014) all attribute the distinction between both Hijazi Arabic varieties to regionality; that those who live in cities of Jeddah, Makkah, and Madinah would speak the urban variety while those who live in villages and countryside would speak the Bedouin variety. While this might be partially true, it neglects those of Bedouin and tribal origins who settled before urbanisation and still speak the Bedouin Hijazi variety.

Furthermore, Holes (2012) and Al-Sheyadi (2021) note that Bedouin-type varieties are spoken by those who used to follow a nomadic lifestyle before urbanisation. On the other hand, sedentary-type varieties are spoken by those who settled in towns and villages and mostly engaged in agriculture. Thus, they claim that the distinction is geographical rather than social. I argue that the distinction between the two varieties in Hijazi cities is not that of regionality but rather that of social background and identity and that the Bedouin and Ḥaḍar labels are not assigned the same way in Saudi Arabia as they are assigned in other Arab communities for a few reasons.

Due to the fact that the urban growth of Jeddah is mainly due to factors that attracted settlers who are of no tribal affiliation, the Saudi urbanisation policy resulted in two social groups living in the city. Unlike other Arabian Peninsula countries (i.e. Kuwait, Oman and Bahrain) and most

Arab countries, the Ḥaḍar group in Hijaz has no tribal origin in the peninsula. Since the term Ḥaḍar is used in copious literature to describe those of sedentary lifestyle who have a degree of affiliation and historical ties in the region they settled in, it does not apply to the Ḥaḍar social group in Hijazi cities. Therefore, the use of the term *non-Bedouins* is more suitable and eliminates any misperception. In the context of Jeddah, when considering only native Hijazis, the Bedouin social group residing in Bedouin neighbourhoods could technically be classified as Badu, as their settlement in the city was a direct result of urbanisation. On the other hand, Bedouins living in integrated neighbourhoods might be categorised as Ḥaḍar since they established themselves in the city prior to the urbanisation policies. However, this categorisation is inaccurate because, in Hijaz, the term Ḥaḍar specifically refers to Saudis without tribal affiliations who migrated to the region before the country's establishment. At the same time, the terms Bedouin and Tribal are used to refer to Bedouin and tribal individuals in the city regardless of whether they belong to the urban group or not. Given the unique situation in Hijaz's cities, I argue that the term non-Bedouin is appropriate in referring to those Saudis of no tribal affiliation in the region throughout this thesis.

1.3 General Overview of the Sociolinguistics of Arabic Dialects

The sociolinguistics of Arabic dialects examines the complex relationship between language and society across the diverse Arab-speaking world. Central to this field is the diglossic nature of Arabic in which Modern Standard Arabic (MSA) co-exists with regional vernaculars. MSA serves as the high variety (H) in diglossic terms used in formal, educational, religious, and media contexts. Meanwhile, regional dialects function as the low variety (L), used in everyday communication and informal social settings (Ferguson 1959). This diglossic situation reflects a sociocultural hierarchy in which MSA is perceived as the variety of prestige, authority, and unity across Arab countries (Albirini 2016).

Arabic dialects exhibit significant geographical and social variation. These varieties are categorised into five main regional groups: Levantine, Gulf, Egyptian, Maghrebi, and Yemeni Arabic, with each group having distinct phonological, morphological, and syntactic characteristics, further subdivided into urban, rural, and Bedouin varieties (Holes 1995; Versteegh 2014). For example, Gulf Arabic varieties, such as dialects spoken in Kuwait and Bahrain, are characterised by the retention of interdental fricatives (/θ/, /ð/) and the glottalised emphatic sounds, whereas Maghrebi Arabic exhibits phonological shifts such as the merger of /q/ with /g/ in many urban areas (Al-Wer 2007; Owens 2014). Urban dialects, influenced by migration, are often

characterised as modern and prestigious (Holes 2007). On the other hand, rural and Bedouin varieties are associated with more conservative linguistic practices, which reflect the traditional lifestyles and sociocultural values Bedouin groups possess.

Dialect contact is a central focus in Arabic sociolinguistics, occurring when speakers of different varieties interact due to migration, urbanisation, or other forms of social mobility. Such contact often leads to linguistic accommodation, convergence, or the emergence of new dialects through koineisation (Trudgill 1986; Kerswill 2002). Koineisation involves the reduction and the levelling of marked features, which leads to a stabilised variety influenced by multiple dialects (Siegel 1985). Urban centres such as Jeddah, Cairo, and Amman serve as natural areas for studying dialect contact. As a port city and gateway to the holy cities of Makkah and Madinah, Jeddah has historically attracted diverse populations, leading to the co-existence of Bedouin, urban, and non-Bedouin varieties. Research indicates that in mixed urban neighbourhoods, contact-induced linguistic changes often favour adopting unmarked, regionally neutral features, contributing to the development of supra-local varieties (Al-Wer 2007; Britain 2012). For example, the levelling of [q] in favour of the glottal stop [ʔ] in Amman reflects both the influence of urban prestige and the weakening of rural or tribal linguistic norms (Al-Khatib 1988; Al-Wer 2003). The effect of Dialect contact on spoken varieties is further explored in section 2.5.

Code Switching, observed across the Arab world, reflects speakers' ability to navigate social and cultural norms. While MSA (High variety) conveys formality, literacy, and religious knowledge, vernaculars represent local identity, authenticity, and solidarity (Bassiouney 2006). Low varieties are often subject to stigmatisation depending on their perceived association with social class, education, or regional identity (Versteegh 2014). Urban varieties such as Cairene Arabic are usually regarded as cosmopolitan and modern, while Bedouin varieties may represent a sense of pride, tradition, and heritage. Such attitudes influence not only linguistic behaviour but also perceptions of identity and group belonging (Holes 2007).

The relationship between language and identity is prevalent in the Arab World. Varieties are deeply tied to culture and religion, and serve as markers of both identity and culture. In Saudi Arabia, for instance, the distinction between Bedouin and Ḥaḍar varieties reflects broader sociocultural narratives, including the historical dominance of tribalism and the role of urbanisation in reshaping social identities (Al-Rasheed 2010). These linguistic differences not only

reflect linguistic differences but also reflect power dynamics and social hierarchy (Miller 2007; Owens 2014).

Globalisation and urbanisation pose significant challenges to the preservation of dialectal diversity. Increased exposure to dominant urban varieties and MSA through media, education, and technology has led to linguistic homogenisation in some regions (Albirini 2016). Smaller spoken varieties face the pressure of decline and merging as a result of urbanisation and globalisation, as more speakers are adopting socially advantageous and less marked linguistic features (Holes 2007; Versteegh 2014).

1.4 The Aim of the Study

This study seeks to analyse the speech of Bedouin and non-Bedouin speakers aged 19-22 in Jeddah, focusing on the relationship between sociolinguistic and sociocultural factors that shape dialect variation. It explores how variables such as social background (ethnicity), neighbourhood type (contact levels), social attitudes, and a sense of belonging (identity) influence linguistic outcomes in a city known for its rich historical and demographic diversity. Jeddah's demographic composition offers a unique context for studying dialect contact. The city's neighbourhoods range from high-contact areas, where diverse groups frequently interact, to low-contact communities that preserve traditional linguistic and cultural practices. In addition, the emotional connection to one's social group further influences linguistic behaviour. Bedouin speakers often use linguistic features as identity markers, emphasising their connection to tribal heritage. Conversely, non-Bedouin speakers may highlight traits tied to their urban identity, reinforcing group distinctions. These linguistic choices underscore the role of language as both a means of communication and a symbol of cultural and social identity. Similarly, social attitudes play a critical role in this dynamic. For instance, Urban Hijazi Arabic (UHA), spoken predominantly by non-Bedouins, is often associated with cosmopolitanism, non-Bedouins, and modernity. At the same time, the linguistic features of Bedouin Hijazi Arabic (BHA) evoke pride, heritage, and authenticity. Such attitudes influence not only how individuals perceive their own linguistic practices but also how they adapt or resist features from other groups. These perceptions may reinforce boundaries between communities, limiting levelling even in areas of high social interaction.

1.5 Research Questions and Hypotheses

The study addresses the following questions:

Q1. Can evidence of dialect contact between both groups be found in Jeddah? If not, can negative social attitudes towards the non-Bedouin group and its language variety (Urban Hijazi Arabic) be a contributing factor?

Q2. Does the degree of contact between Bedouins and non-Bedouins influence the outcomes of dialect contact?

Q3. Can both groups' sense of belonging contribute to why their dialects are distinct from one another despite co-existing in Jeddah for decades?

Based on sociolinguistic literature, the following can be hypothesised:

H1. The type of neighbourhood will create a distance between the two groups and contact will be minimal in low-contact neighbourhoods. Consequently, outcomes of dialect contact between both Hijazi groups would be minimal or non-existent in low-contact neighbourhoods as opposed to the high-contact one.

H2. Social attitude will contribute to the degree in which dialect contact influences change. negative attitude towards the non-Bedouin group is contributing to why normal outcomes of dialect contact such as *Mixing* and *Levelling* will not be occurring.

H3. Bedouin variants will be an essential part of the Bedouin identity as the Bedouin's sense of belonging will influence how speakers refrain from using socially and ethnically marked UHA features to assert their identity in the city, and to distance themselves from the non-Bedouin group.

1.6 Organisation of the Study

This study is composed of eight chapters, each addressing distinct aspects of the thesis on dialect contact and sociolinguistic dynamics in Jeddah, Saudi Arabia:

Chapter Two: Literature Review

This chapter reviews relevant literature and theories concerning the construction of speech communities, aiming to assess whether Jeddawis[1] can be considered part of a single speech community. It examines the origins, development, and transformation of identity in Saudi Arabia over time. The chapter also delves into the impact of migration on contact, ultimately contributing

[1] A person from Jeddah is often referred to as a *Jeddawi* (male) or *Jeddawiyah* (female).

to dialect variation and change. Key theoretical frameworks are discussed, including accommodation, convergence, divergence, and koineisation. The chapter also summarises findings of key Arabic studies in dialect contact relevant to this study.

Chapter Three: Background

This chapter provides an overview of Jeddah's historical growth, emphasising the roles of diversity and the economic, religious, and institutional factors that have contributed to its development. It concludes with a description of the two Hijazi Arabic (HA) varieties spoken in the region: Bedouin Hijazi Arabic (BHA) and Urban Hijazi Arabic (UHA).

Chapter Four: Methodology

This chapter outlines the research methods employed in the study. It describes the sampling, size, and stratification of participants, as well as the data collection methods, which included interviews and questionnaires. Additionally, it summarises the linguistic variables analysed and explains how the data was transcribed, coded, and analysed.

Chapters Five, Six, and Seven: Results and Analysis

These chapters present the analysis results of three linguistic variables: the voiced interdental fricative, the voiceless interdental fricative, and the third-person masculine suffix. Each chapter includes a distributional analysis of these variables based on social factors, including social background, neighbourhood type, sense of identity, and social attitudes. Furthermore, each chapter offers a mixed-effects logistic regression model for the analysed variable, followed by a brief conclusion discussing the implications of the findings for the dialect situation in Jeddah.

Chapter Eight: Conclusion and Discussion

The final chapter provides a general discussion of the results, summarising the study's key findings. It also offers recommendations for future research to ensure a more comprehensive understanding of the linguistic situation in Jeddah.

Chapter Two: Literature Review

2.1 Overview

This chapter provides an overview of the relevant topics related to the study. The chapter begins with defining and constructing the speech community in order to encapsulate the linguistic situation in Jeddah in 2.2. This is followed by a description of the relationship between code choice and identity in 2.3. The section also sheds light on how identity is constructed in the Arabian Gulf. Section 2.4 provides a brief description of the effects of migration on dialect change. This is followed by section 2.5, in which an overview of dialect contact explaining how interactions between speakers of different varieties can result in linguistic accommodation, convergence, or the emergence of new dialects through koineisation is provided. 2.5 also discusses the impact of factors such as migration, urbanisation, and social integration in shaping dialectal variation and the development of new linguistic norms. The section also overviews relevant sociolinguistic studies on dialect contact in Western, Arab, and Saudi settings in order to understand the direction of dialect change in Arab communities.

2.2 Speech Community

Understanding the concept of the speech community is imperative in understanding and describing group communications. In order to describe the dialectal change in Jeddah, the speech communities in the city need to be defined and constructed. Social groups are usually divided into smaller subregions, associations, or affiliations. The linguistic behaviour of a social group is constructed by a system that helps identify them as members of a community. Such a linguistic system is usually based on a set of shared grammatical rules that render messages intelligible or not (Gumperz 1962; Saville-Troike 2003). It is usually developed over a long period of time using a shared communication system. “The concept takes as fact that language represents, embodies, constructs, and constitutes meaningful participation in a society and culture” (Morgan 2014:1). However, the term does not only apply to those who speak the same language. It also applies to those who share social stratification and lifestyle (Lyons 1981; Patrick 2002). There are many definitions of the speech community (see Gumperz 1962; Saville-Troike 2003; Muehlmann 2014 for extended discussions of the notion). Exploring how a speech community is defined and constructed is important in defining the social groups in Jeddah.

2.2.1 Defining and Constructing the Speech Community

The speech community has been defined as an accumulation of individuals who are perceived to share a set of norms reflected in their use of linguistic variables, their social stratification, and their patterns of style-shifting. Those linguistic norms include phonemic, morphological, and lexical inventories, as well as grammatical categories. According to Bloomfield (1933), a group of people who use the same set of signals is defined as a speech community. This definition is a reflection of its time since it represents the idea of a one-nation ideology. It focuses on indexing lexical and phonemic variables to a set of defined homogenous groups. The one-nation notion considered language to be a property of the speech community that had to share a specific locality, usually under the same authority, custom, and historical background (Lyons 1981). According to Lyons (1981), language was treated as the product of historical and political events. Exploring historical events that led to linguistic variations is imperative in understanding and describing structural linguistics. Considering Jeddah's demographic, the social groups in Jeddah are a result of religious, economic, and institutional factors and events (Abou-Korin and Al-Shihri 2015; Al-Rasheed 2010). Early definitions disregarded that speech communities could exist under such historical events. They also affected early studies in speech communities that were the direct result of events such as colonisation, slavery, or ethnic cleansing.

Definitions of the speech community, such as Chomsky's (1965) and Labov's (1972), deviated from Bloomfield's one homogenous speech community notion. However, considering both the segregated nature of the city and different identities (explored in 3.2), these definitions could not define the speech community in Jeddah. Chomsky's definition is a theoretical construct that reduces the notion of the speech community to that of a language. His speech community does not exist in the real world. Later definitions of the speech community started to acknowledge the heterogeneity of what was once a 'homogenous' speech community. Hymes (1974) argued that linguistic criteria cannot be the only consideration in defining a speech community. In addition, Labov's (1972) definition of the speech community provides one of the earliest modern-day definitions of the term. He noted that a speech community does not have to agree on language use but rather agree on evaluating norms of language use. However, Labov's definition provided an abstract concept of the speech community wherein its system is closed to outside influence (Muehlmann 2014). Saville-Troike (2003:15) notes that "the essential criterion for 'community'

is that some significant dimension of experience has to be shared, and for the 'speech community' that the shared dimension be related to ways in which members of the group use, value, or interpret language." She is also considered to be one of the early scholars to point out the possibility that different speech communities may overlap (Saville-Troike 2003).

Speech community was used to refer to linguistic distinction within any social or geographical space. Gumperz's (1962) definition of the speech community required that members share a set of social norms. Such social norms include the acceptance of certain language practices and the understanding of language ideologies in the community. He considered the notion of a speech community to be a social construct in which members are not only required to share a set of linguistic norms but also to share a regular relationship between code use and social settings. Furthermore, Morgan's (2014) definition of the speech community required its members to share common values and attitudes about language use, language practices, and varieties. As mentioned in the previous chapter, Jeddah is one of the few Saudi cities where the effect of urbanisation resulted in two major social groups. The housing policy that was initiated in the 1950s resulted in three neighbourhood types: 1. Bedouin, 2. non-Bedouin, and 3. an integrated one. This raises the question of how the speech community is constructed in the city, especially in neighbourhoods where both Bedouin and non-Bedouin social groups are not in constant contact. Jeddah cannot be viewed as one speech community where speakers of different social groups and ethnic backgrounds share linguistic norms and features. For a speech community to exist, there needs to be constant contact and interactions among its members (Trudgill 1986; Saville-Troike 2003). With that in mind, Jeddah consists not of one speech community but of different communities with different social and ethnic backgrounds. This raises another question of how the speech community in the third neighbourhood type should be defined. To answer this, we must understand how the speech community is constructed in Jeddah.

Early simplified and descriptive models of communication included speakers, receivers, and the message as the primary components of communication. Since then, later models have adapted to introduce the goal of the message, mode, speech acts, emotions, referential, and so on (Halliday 1978; Hymes 1974). Nevertheless, highlighting the previously mentioned aspects of communication is not enough to fully understand the speech community; it is also imperative to understand the potential meaning of interaction, space (and its cultural history), and narrative (Anderson 1983; Morgan 2014). A model person in a speech community is one whose interaction

and communicative performance are observed and recognisable by other speech community members (Hymes 1974; Saville-Troike 2003). They are a person who is aware of the speech community's speech code, its history, and cultural background in relation to the place. For a speech community to exist in Jeddah, its members need to not only share code and social norms but also be in constant contact with one another, which rules out the first two types of neighbourhood types. The shared attitudes and ideologies about language varieties also construct the speech community. Furthermore, Jeddawi's speech community membership is conditioned by the shared social and cultural identity.

2.2.2 Identity and the Speech Community

Language use defines speakers both directly and indirectly. It also enables individuals to represent themselves and perceive others in a specific way. Speakers use language to express identity. It is argued that language is 'who the speaker is' in which it is used to express identities. Speech communities are layered with various identities of their participants. Racial, ethnic, gender, cultural, and religious identities are all joined to establish and maintain the identification of the speech community (see Lusting and Koester 1999; Orbe and Harris 2008; Lytra 2016; Biegon 2018; Ogechi 2019 for extended discussions of each identity). Some of these identities are outside the scope of this research as it solely focuses on both cultural and social identity. Cultural identity describes participants' sense of belonging, membership, and participation in a particular culture (Lustig and Koester 1999; Kim 2007). Tajfel (1978) defines social identity as the part of an individual that is derived from knowledge of their membership in a social group. Later definitions of social identity referred to the term as an individual's recognition that they belong in a social category (Simon 2008; Turner and Oakes 1989). Each social group has its own identity, which includes roles and expectations (Stets and Burke 2000; Burke and Stets 2009). In addition, a speech community may also be constructed by members of different groups who, on the surface, share none of the previously mentioned identities. On the contrary, they come together and share an important imagined culture (Anderson 1983; Morgan 2014).

I argue that both cultural and social identity can be grouped under the 'Bedouin' or 'Tribal' identity and that this type of identity is a crucial element of the Arabian Peninsula identity. As mentioned in (2.3), Jeddah's demographic comprises Bedouin and non-Bedouin communities. The non-Bedouin social group in Jeddah comes from more than one place of origin (Al-Nakib 2014; Al-Kababji and Ahmed 2020). Given that both Bedouin and non-Bedouin social groups belong to

the Saudi national identity, it is important to explore how both groups have different social identities within the Saudi identity and how such identities affect language use and change in the city (Al-Rasheed 2010; Holes 1995). One might even argue that the Jeddawi identity has more than one layer and goes deeper than the Saudi nationality, given that Jeddawis come from different social groups, which ultimately might contribute to how code choice is perceived. Bedouin, or tribal, identity is not only a part of the Saudi speech communities, but it is also part of the Arabian Gulf societies in general (Al-Amadidhi 1985; Al-Nakib 2014; Al-Kababji and Ahmed 2020). The following section dives into the relationship between identity and dialect change.

2.3 Language and Identity

The relationship between language and identity contributes to how we use and view language (Rovira 2008). Despite that, the term 'identity' remains a complex notion that is hard to pin down. Given how complex a notion of identity can be, one can argue that it transcends geographical boundaries. That is, it cannot solely be tied to aspects such as nationality or ethnicity. Instead, identity can be constructed and performed by many components, one of which is language use (Norton 2006: 3). In addition to being a complex notion, identity is said to have several types and layers (Riley 2007), two of which are personal and social identities (Gois 2010).

Personal identity can refer to the personal beliefs, characteristics, and values that distinguish a person in a society. Fearon (1999:2) mentions that personal identity includes attributes that a person cannot change. Such attributes can be physical, personal style, etc. He also argues that the loss of such personal attributes would result in a loss of self-respect.

When it comes to language and identity, the main focus of this study, and variationist studies in general, is how social identity affects both language use and change. Social identity refers to how individuals identify based on their membership in any given social group (Tajfel and Turner 1979). Since the term refers to individuals' sense of belonging in a group, social identity also contributes to how people view themselves compared to others in society, thus boosting or lowering their self-esteem (Phinney *et al.* 2001: 501). Moreover, social and group identity is constructed by attributes similar to those that construct personal identity. Nevertheless, as opposed to personal identity traits, social identity attributes are not fixed and are subject to change (Gois 2010). Moreover, individuals can have more than one social identity based on the number of social groups they belong to (Skutnabb-Kangas 1999). Social identity can also change based on a change in allegiances. Social identity markers include nationality, age, gender, political interest, etc.

Furthermore, ethnic, and religious identities, wherein individuals' identities are constructed by their belonging to a social group based on their shared ancestral heritage, culture, history, and religion (Padilla 1999: 115; Norton 2006), can also fall under the broad definition of social identity.

As mentioned above, social identity is fluid and changeable. Being part of a group's identity, language is also subject to change due to a change in social identity. Understandably, group identity is among the several motivations for speakers to choose one linguistic code over another. Dorian (1999: 31) notes that "because it is one of an almost infinite variety of potential identity markers, it is easily replaced by others that are just as effective". Language is used to highlight speakers' sense of both personal and group identity. Kroskrity (1999: 111) defines the term identity in relation to language as "the linguistic construction of membership in one or more social groups or categories". Given how changeable identity can be, individuals tend to accommodate or diverge from their social groups using code choice. Therefore, language can be used to convey several social identities based on individuals' sense of belonging.

Language has always been one of the markers that help identify individuals belonging to a group. The relationship between language and identity has been of interest to scholars for many years, dating back as early as the 1800s (De Fina 2012). Early sociolinguistic research of language variation treated identity as one of the factors that played a role in differences in language use (see Labov 1972). Early works analysed identity markers such as gender and age. Later work refined the application of language and identity by analysing how speakers use language to convey or distance themselves from different social identities. Such work demonstrated how language can be used as a tool by a social group to express local identity (see Johnstone 2008: 157-175). In addition, Rampton (1995) demonstrated how young English speakers used mixed language varieties to express different identities. Moreover, code choice can also reflect speakers' affiliation, or lack thereof, with a place (Atkinson 2011). Since it is one of the visible attributes that shows group association, code choice might be the most obvious trait to reflect social identity. Therefore, speakers who want to disassociate themselves from a particular social group choose not to use its marked features.

For example, a linguistic feature can be used by a particular age group as an identity marker. In addition to disassociating individuals from age-based identity, language choice can also index identity for those who want to associate with a traditional place, as found in Llamas (2007) study in Middlesbrough, England. The study found that young speakers who identified as North-

Easterners used glottalised variants of [p], [t], and [k]. Language can also be used to distance individuals from any new change in a traditional place, as found in both Al-Ali and Arafa (2010) and Johnstone (2010). The use of traditional marked regional dialect serves as a traditional identity marker (Coupland 2001: 345-375). Code choice can be used as a way to resist language change and any change that is associated with it. Speakers who welcome the change in a traditional place tend to converge and adapt new linguistic features associated with it, whereas those who resent it would deviate away from it and therefore resist language change.

2.3.1 Identity in the Arab World

Since identity is not tied to geographical boundaries, it is interesting to explore how group identity is constructed in Saudi Arabia as it relates to tribalism and Arab identity as a whole. Language has always been the major Arab identity marker (Bassiouney 2009), contributing to the fragmentation and eventual dissolution of the Ottoman Empire, particularly in its final years (Kayali 1997; Strauss 1995).

Countries under the empire came from different religions, ethnicities, cultures, and languages (Lafi 2015). Therefore, national and tribal identities were only relatively important on a local level. In addition, the diverse nationalities and religions served as a source of strength for the empire. The 'millet system' in which religious minorities were given limited power to self-govern under the overall supremacy of the Ottoman administration (Kursar 2013) allowed different religions and nationalities to thrive while under the empire. However, the empire's diversity might have contributed to its dissolution. Collectively, there were more than 20 languages spoken under the empire's rule (Strauss 1995). ''The odds probably would have been against it because of the empire's tremendous diversity in terms of ethnicity, language, economics, and geography'' (Reynolds, cited in Kiger 2020). The empire's diversity also allowed national identity to emerge among different provinces that eventually sought independence.

Another factor that contributed to the Ottoman Empire's dissolution was the Turkification policies' adoption that aimed to make Turkish the dominant language of administration, education, and culture (Kayali 1997; Gelvin 2015). As a result, this ended up marginalising Arabic-speaking communities who viewed Arabic as the language of governance and religious scholarship within the empire, especially in Arab-speaking provinces such as Iraq, Syria, and the Arabian Peninsula (Lafi 2015; Rogan 2011). This resulted in discontent among Arab populations (Makdisi 2002; Dawn 1973). The suppression of Arabic under the Turkification policies further motivated Arabs

to seek independence. All in all, language played a pivotal role in the decline of the Ottoman Empire, particularly in its relationship with Arab populations.

The collapse of the Ottoman Empire gave birth to what is known today as the 'Arab World'. Arab Individuals who speak Arabic belong to what is widely known as the 'Arab Nation', a term that has long been used to describe Arabic-speaking countries regardless of how diverse their history, religions, and traditions are. The Arab identity used to be constructed by a combination of religion, traditional values along with the Arabic language. However, given how diverse Arab countries are in terms of heritage, tradition, and religion, language is currently the only identity marker, and a differentiator between the Arab nation and other nations (Al-Ansari and Al-Ansari 2002: 37, cited in Bassiouney 2009: 208).

2.3.2 Identity in the Arabian Peninsula

On a local level, among the factors that construct identity in the Arabian Peninsula are both language and tribalism. Arabian Peninsula countries include the following countries: Saudi Arabia, United Arab Emirates, Kuwait, Bahrain, Qatar, Oman, Yemen, and Iraq. For many years, tribalism had afforded its members an elite status in the area. Historically, belonging to a tribe was the only form of traditional social organisation. Each tribe had its own values and traditions. It is significant to note that being of tribal descent afforded its members an elite status, and not all tribes were on equal status. Therefore, being of non-tribal descent has always been negatively evaluated. In addition, there has always been an association with being a Bedouin and being an Arab in which only those of Bedouin and tribal descent were considered 'true' Arabs (Miller 2003: 151).

After the dissolution of the Ottoman Empire, the Saudi government was established in the region. It was then that the new national Saudi identity had taken over and overpowered the tribal identity, and tribe members had to merge into the new Saudi identity (Maisel 2014: 1). Despite taking a back seat to the new national Saudi identity, tribalism is still a contributing factor to how Saudis view each other in the country, and tribalism has not fully dissolved into the new Saudi integrated identity. Tribalism is still an integral part of everyday Saudi lifestyle, especially in rural areas and small towns. One of the ways tribal identity is manifested in Saudi Arabia is through the use of poetry by tribe members to highlight their tribal history and to emphasise its popularity (Kurpershoek 1993 and 1999). Maisel (2014) also argued that publications on tribal topics are the second most popular topics in Jeddah and Riyadh's bookstores. In addition, although not as extreme as they used to be, tribal pride and rivalry still exist today. In 2010, a television station

was forced to shut down for airing a poem that instigated tribal rivalry (McDowall 2012: 2). Tribalism still remains an imperative mode of self-identification for many Saudis. Tribal identity is not embedded in a certain lifestyle or geographical location but rather in a way of behaving (ibid). Reference to tribal heritage underpins national myths in the modern states despite the long presence of significant non-tribal and even non-Arab communities. Tribal descent is what makes the nationals of these countries distinct from the overwhelming Asian, northern Arab, and European populations. Often, it underpins citizenship (Peterson 2018). Nowadays, "the distinction is made by conscious decision: Almost all Saudis are of tribal descent" (Maisel 2014: 105)., which neglects Saudis of non-Bedouin ancestry who settled in the region for a long time before the establishment of the country.

Given how present tribalism is in Saudi Arabia and how tribes have different ranks and reputations, this raises a question of how the variety spoken by those of no tribal affiliation is evaluated, and whether the perception of the variety contributes to the outcome of dialect contact in Jeddah. Since individuals are judged by their tribal affiliation, having no affiliation is viewed to be of a lower status. Historically, being of non-Bedouin descent correlated with disloyalty. According to historians, when King Abdulaziz besieged the city of Jeddah in 1927, locals wanted to surrender and end the negotiations. Nevertheless, the Sharif of the city refused their demands to surrender by calling them "just Tarsh Bahar who do not know the value of this city" (cited in Alamoudi 2010). Such historical accounts and many more feed into the stereotypical narrative that since they are not originally from the region, non-Bedouins would not feel the same way about it and therefore would not be loyal to it. Given how proud, competitive, and somewhat elitist tribe members can be (Maisel 2015), a question arises of whether code choice can be one of the characteristics used by Bedouins to distance and disassociate with non-Bedouins in Saudi Arabia.

2.4 Migration in a Sociolinguistic Context

The migration of a group of people is one of the potential triggers of language change. Mangalam (1968) notes that migration consequences affect three communities: the migrant group, their old community, and the community they migrate and integrate into. According to King (2012), migration is argued to be motivated by inequality of wealth, privilege and opportunities and it is done to improve the value of life. Fleeing wars and genocides are among the reasons for migration as well. In addition, migration attempts can be forced or by choice and cannot be considered a single process that takes place in one single incidence.

Dialect contact is one of the linguistic outcomes of people migrating from one place to another, which triggers language change (Trudgill 1986). Dialect contact usually involves verbal communication between speakers of related varieties who change their speech to facilitate mutual understanding (Braunmüler 1996). Migration can serve as one of the primary influencers of dialect contact, as observed in Jeddah, where diverse internal and external migration patterns have influenced the local linguistic situation. Other historical instances of migration-driven dialect contact include the impact of colonialism in Australia (Trudgill 1986) and the movement of indentured labourers to Fiji (Siegel 2001).

Over the past five decades, both internal and external migration have increased significantly, contributing to the spread and interaction of dialects across different regions. While most people migrate within their own countries, estimated at 740 million internal migrants in 2009, international migration has also risen steadily, both in absolute numbers and proportionally, surpassing earlier projections (International Organization for Migration and United Nations 2020: 19).

2.4.1 Migration Parameters

The sociolinguistic ramifications of migration-induced contact depend on different parameters such as distance (long or short-term migration), space (internal or external migration), direction, subordination (i.e., urbanisation or political migration), and time (Kerswill 2006).

Migration can be internal or external. External migration involves moving across areal boundaries (Boyle *et al.* 1988) while internal migration is defined as the movement within said areal unit (Lewis 1982). In addition, distance is of the parameters of migration in which it can be short or long distanced. Short-term migration affords migrants the connection to their place of origin. Individuals can still maintain a connection to their place of origin's culture and heritage (Kerswill 2006). On the other hand, long-distance migration does not afford migrants the same privileges. Lewis (1982) notes that, to an extent, cultural differences prohibit long-distance migrants from establishing new ties, especially in places where cultural gaps are evident.

Direction is also one of the parameters of migration that affects language change. Migration affects both the original and destination communities. In and out-migrations affect not only the demographic of the affected communities, but also their social networks, which ultimately leads to language change. In addition, the duration of migration also influences the outcomes of migration. Short-term migration involves short temporal migration that usually results in returning

home (Rex 1997). Examples of this type of migration are students who are studying aboard, businesspeople who conduct business in another country, and aboard for a period of time. Trudgill (1986) notes that short-term migrants can be considered as 'language missionaries' who introduce the foundations for dialect levelling. Short term migration across areal boundaries also influences the language variety of the place of origin. For instance, Zentella (1990) highlighted that 20% of Puerto Ricans are returned migrants. Two-thirds of the returnees were born in the USA and could not adjust to monolingual Puerto Rico. Long-term migration, on the other hand, involves those who migrate to another place with no intention of returning. This can include religious minorities, genocide survivors, war fleer, victims of slavery, and those who are looking to improve the value of life. Examples of this type of migration can be found in the USA history as early as the 1700s in which white Europeans moved to the country (History.com 2018). Another example of this type of migration is the Finnish immigrant communities in Sweden (Lainio 1993).

Urbanisation and industrialisation also influence migration. Urbanisation is a complex notion that affects both migrants and the destination communities (Nordberg 1994). The changes in economic and occupational nature of society are among the main outcomes of urbanisation. "The shift in economic structure gives rise to a change not only in the organisation of work, but also in the social organisation of everyday life, in habits, ways of living social and ethnographic dimensions" (Nordberg 1994:1). Urbanisation can be the result of industrialisation, commercialisation, the search for social benefits, modernisation, or rural-urban transformation (Henderson 2002). The Great Migration (1910s-1970s) is an example of long-term migration in which six million African Americans took advantage of the demand for industrial workers that arose during World War I and migrated from the rural South to other parts of the USA as a result of discriminatory economic opportunities and segregation laws (History.com 2010). Furthermore, urbanisation can also be part of a country's policy, as in the cases of China (Wang *et al*. 2015), the Netherlands (Bontje 2003), Turkey (Şahin 2017), and Saudi Arabia (Abou-Korin 2011; Abou-Korin and Al-Shihri 2015).

"Where the boundaries separate states, significant differences of culture, economic conditions, education, and language may be involved, and the impact on migration will be greater" (Kerswill 2003:4). Considering the Jeddawi setting, the demographic of the city is an outcome of both internal and external types of migration. As will be explained in detail in the next chapter, the non-Bedouin group migrated from counties outside of what is known today as countries of the

Arabian Peninsula while the Bedouin group were in-migrants from rural Hijazi areas. The demographic of Jeddah also involves those who participated in long distance (the non-Bedouin group), and those whose migration was short-distanced (the Bedouin group). Further, both groups' migration can be considered long term. On the other hand, triggers for migration differ between the two groups. The Bedouin group's internal migration is a result of the Saudi urbanisation policies that will be mentioned in the next chapter. while the non-Bedouin's external migration was mainly the result of religious and economic factors. The impact of urbanisation on language is manifested as several levels including phonological, morphological, syntactic, and lexical structures.

2.5 Dialect Contact

Dialect contact occurs when speakers of mutually intelligible, yet distinct varieties come into sustained interaction due to factors such as migration and urbanisation (Trudgill 1986; Kerswill 2002). This contact often leads to linguistic changes at both individual and community levels. Several social and linguistic factors influence the outcomes of dialect contact, including migration, social prestige, power dynamics, attitudes towards different varieties, and identity (Winford 2003; Al-Wer 1997). Linguistic factors such as structural complexity and phonological distance between dialects also contribute to the outcome of dialect contact (Gibson 2002; Kerswill 2002).

Urbanisation in cities such as Jeddah and Makkah has resulted in increased dialect contact, motivated by both external and internal migration from various regions of Saudi Arabia (Al-Essa 2008; Alghamdi 2022). This process usually results in one of the most commonly observed outcomes:

1. *Accommodation*: This occurs when speakers adapt their speech based on their interlocutors' linguistic patterns, either temporarily or permanently (Giles *et al.* 1991; Watson 2011). This may occur in settings where migration occurs between communities with mutually intelligible yet distinct varieties.
2. *Convergence*: a gradual process through which dialectal differences diminish as speakers align their linguistic practices (Trudgill 1986; Al-Wer 2003).
3. *Divergence*: the opposite of convergence, is the process where speakers retain linguistic differences to resist language change and emphasise group identity (Chambers and Trudgill 1998; Llamas 2007).

4. *Koineisation*: The emergence of a new, stable linguistic variety following long dialect contact, in which marked features of different varieties become unmarked, which usually results in simplifying phonological and grammatical structures (Siegel 1985; Kerswill and Williams 2005).

2.5.1 Koinesation

Koineisation refers to the formation of new linguistic varieties through long exposure to multiple dialects within a community (Britain 2012). The process often leads to the blending of phonological, morphological, and lexical features from different dialects, resulting in a new, stabilised and usually unmarked variety that serves as a lingua franca among speakers of various regional backgrounds. As Siegel (1985:363) reports:

> A koine is the stabilised result of the mixing of linguistic subsystems such as regional or literary dialects. It usually serves as a lingua franca among speakers of the different contributing varieties and is characterised by a mixture of features of these varieties and most often by reduction or simplification in comparison.

Scholars categorise koines into two primary types, each resulting from different sociolinguistic conditions (Siegel 1985):

Immigrant koine: This type emerges outside the dialects' region of origin, often due to migration or resettlement (Siegel 1985). Such koines develop as a result of dialect contact in communities where speakers of different regional varieties converge and adapt their speech to facilitate communication. The process involves the selection and diffusion of features that enhance mutual intelligibility, leading to the loss of highly localised phonetic, morphological, and syntactic elements.

Regional koine: This occurs within the native region of the dialects involved, leading to the stabilisation of a variety that incorporates features from multiple sources while maintaining elements of regional identity (Britain 2012). Regional koineisation is often observed in rapidly urbanising areas, where speakers from different dialectal backgrounds settle and interact regularly. Koineization involves specific linguistic processes that play a role in the formation of a new variety.

Koinesation takes place in a number of processes identified by Britian (2012): *Dialect Levelling, Simplification, Mixing, and Reallocation*. Through the process of koineisation, a new variety forms as an outcome of dialect contact between varieties of the same language

Levelling is defined as the process in which a reduction of variants of the same variable occurs (Britain 2009). This eradication of marked variants occurs as a result of contact wherein the levelled marked features are usually those that are considered to be overtly stereotyped, rare in a language or acquired later in first language acquisition (Britain 2012). Levelling also involves an increase in social situations and domains, which results in an increased number of speakers. It usually affects 'locally' embedded features, as noted by Britain (2009). These locally marked features are gradually replaced by more features that are from 'outside of the community'. Marked features in this context refer to those that are 'unusual' or in the minority (Trudgil 1986). An example of regional levelling can be found in Milroy *et al.* (1994) in which the local [tʔ] was gradually levelled out by the unmarked, nationally spreading, and rapidly diffusing [ʔ] in Newcastle, England.

Furthermore, dialect levelling is more common in urban settings wherein social ties tend to be weak as one of the consequences of increased contact among diverse speakers (Milroy 1987). Communities with 'strong ties' tend to have a slower process of change (Milroy and Milroy 1985). The speed of change is affected by how close-knit a community is, according to Trudgill (2004). A close-knit community tend to reinforce group linguistic norms and slow the emergence of a new variety. Dialect levelling is usually driven by young speakers who participate in adopting new 'non-local' variants and abandoning marked variants (Foulkes and Docherty 2014).

Dialect simplification is defined as "the process by which a contact variety becomes more regular, having fewer categories, fewer person/number inflections, or fewer complex constraints on variation than the dialects in the original mix" (Britain 2012:224). It involves both an increase in regularity and a decrease of grammatical categories, a number of phonemes, and a simplification of morphophonemes (Trudgil 1986; Kerswill and William 2000). Jahr (1998) illustrated that the simplification of the Bergen dialects in comparison to other Norwegian dialects include the simplification of diphthongs to monophthongs and the reduction of gender case markers from three to two (cited in Perridon 2003).

Dialect mixing refers to the process in which new forms that were not part of the input dialect's inventory emerge as a result of contact (Britian 2012: 224). Following Kerswill and

Trudgill (2005: 197) “mixing defines to the coexistence of features originated from different input dialects within a new community, usually because speakers have different dialect origins”. Dialect mixing is considered to be a pre-koine in which the mixing of dialects functions as the foundation of accommodation and koinesation (Siegel 1993; Trudgill 1986). For levelling to occur, there has to be a mixing of different mutually intelligible language varieties (Britain 2010).

Britian (2012: 224) defines reallocation as “the refunctionalisation of two or more input forms to perform new linguistic or social duties as part of the new dialect repertoire”. These reallocation variants that have not been levelled out evolve to have new social or linguistic functions in the new dialect. These new functions are different from the ones in their original variety. This means that certain variants would ‘survive’ only if they develop new functions in the new dialect. “In other words, variants in the mixture were originally from regional dialects may avoid extinction by acquiring different sociolinguistic or other functional roles in the outcomes of the mixture” (Britain and Trudgill 2005: 184).

2.5.2 Accommodation Theory

Siegel (2012) reports that dialect change can occur as a result of accommodation when, in mutually intelligible interactions, speakers’ dissimilarities tend to decrease, a theory that was introduced by Giles (1973). The accommodation theory introduced the accent mobility model in which interpersonal accent convergence and divergence were introduced. Giles *et al.* (1991) highlight that in accommodation convergence, speakers would reduce linguistic differences in their speech style. Accent convergence is performed in order to maintain a positive social image, reach social approval, and increase communicational efficiency (Beede and Giles 1984). Accent divergence, on the other hand, refers to when speakers distance themselves from their own linguistic pattern by accentuating their code choice (Giles 1973). Both accommodation strategies are performed by speakers in order to either expand or reduce social distance from each other. The theory also introduced the notion of speech maintenance in which individuals do not attempt to style-shift or change their code choice in social interactions (Coupland 2010).

The accommodation process can be long and short-term. Short-term accommodation occurs between speakers of different dialects and social classes (e.g., co-workers), while long-term accommodation takes place in situations among speakers of the same dialect who modify their speech when interacting with each other (Trudgill 1986). In addition, long-term accommodation can also lead to the reduction of locally marked features in speakers’ distinct dialects (Kerswill

2002). The reduction of salient markers of the original dialect leads to the adoption of the new dialect. Furthermore, the features affected by dialect change are usually marked regional variants (Trudgill 1986; Siegel 2010). Trudgill (1986) also explains that socially stigmatised variants are usually the ones affected by dialect change.

2.5.3 Dialect Contact in Sociolinguistic Studies

Dialect contact has been explored in a copious amount of Western research investigating varieties in languages such as English (Trudgill 1986; Kerswill 2001; Britain 2002), German (Cornelissen 1999), Norwegian (Kerswill 1996; Hilton 2010), Swedish (Kristensen and Thelander 1984), and French (Pooley 2009) to mention a few. Considering the disparity of migration-induced dialect change in Arab communities, this study focuses on the phenomenon among diverse social groups in Jeddah. Extending the research geographically would be beneficial in understanding the notion of dialect contact. This section reviews relevant studies that were carried out on dialect contact in different Western settings.

Shockey (1984), in Essex, U.K., provides one of the early studies on dialect contact. The study scrutinised the speech of four Americans who moved to Essex, UK. Shockey examined the production of the variables (ow), (a), and the flapping of (t) and (d). The study found that participants diverged from their native LOT variant but could not fully acquire the British one. Shockey also revealed that participants were successful in adopting the new GOAT variant. Further, she reported that the four Americans, to some extent, all levelled out their use of the flapped [t] as it only occurred between 17% and 50% of the time across participants. Shockey argued that accommodation is achieved so that participants are not identified as foreigners. In addition, Conn and Horesh (2002) examined the use of (ow) and (a) variables in the speech of two Michiganders living in Philadelphia. They found that one participant adopted the Philadelphian marked feature of fronting the (ow) but not the shortening of (a), while the other did the opposite. Both studies illustrate that adults are capable of converging to new dialect features. However, as Shockey (1984) argues, new variants cannot replace the old ones entirely.

Milroy’s (1987) empirical study also found that urban settings wherein ‘weak’ social ties and networks present an example wherein dialect levelling increases. Regionally marked features decrease in favour of the new standard-like variants (Milroy and Llamas 2013). On the other hand, communities with strong social ties tend to have a slower speed of dialect change (Milroy and

Milroy 1985). Further, Evan (2004) found that strong social network ties influence the resistance to adopt the fronted/ raised (æ) variable among Appalachian migrants in Ypsilanti, Michigan.

Sociolinguistic research on spoken Arabic emerged decades after Western sociolinguistic studies and followed similar methodological approaches (Behnstedt and Woidich 2014). Early studies described the linguistic situation in Arabic-speaking communities through the framework of diglossia, emphasising the coexistence of Standard Arabic and colloquial varieties (Ferguson 1959; Holes 1995). Studies such as Sallam (1980) and Abd-El-Jawad (1981) examined dialect change within the framework of prestige and linguistic influence, often attributing shifts to the influence of Standard Arabic. Given its status as a prestigious variety, Standard Arabic was traditionally considered the target form of dialectal change (Al-Wer 2006). However, subsequent research challenged this assumption, suggesting that dialect contact is not limited to interactions between Standard and colloquial Arabic.

Ibrahim (1986) highlighted that speakers in Arabic-speaking communities select variants from different varieties, not solely from Standard Arabic. Al-Wer (1997) and Gibson (2002) provided empirical evidence suggesting that dialect change does not necessarily move towards Standard Arabic but rather towards other socially prestigious varieties within the colloquial spectrum. These findings support the notion that the linguistic situation in Arab communities is better characterised as multiglossic rather than strictly diglossic, with speakers drawing on a range of varieties, including regional prestige dialects such as Najdi Arabic, Baghdadi Arabic, and Bahraini Arabic (Al-Qenaie 2011).

Empirical studies in Jordan (Abd-El-Jawad 1987), Kuwait (Al-Qenaie 2011), and Muscat, Oman (Al-Balushi 2016) illustrate the multiglossic nature of Arabic-speaking communities, where dialectal change reflects social mobility, migration, and urbanisation rather than a simple shift towards Standard Arabic. These studies demonstrate that dialect accommodation and levelling processes are shaped by a complex interplay of social and linguistic factors, challenging earlier assumptions about the dominance of Standard Arabic in language change.

The following is a review of dialect contact studies conducted in Arabic-speaking communities.

2.5.3.1 Studies on Dialect Contact in Arab Communities

Abd-El-Jawad (1986) investigated the dialect contact situation in Amman and Irbid, Jordan. At that time, both cities were becoming urban centres in Jordan. Abd-El-Jawad looked at

two major varieties of both Palestinian and Jordanian Arabic: rural and urban Palestinian Arabic and Bedouin and rural Jordanian Arabic. Speakers of these dialects have settled in Jordanian cities and created multidialectal communities. He focused on a phonological variable realised differently among the selected dialects: the uvular stop (q).

Table 2. 1: Variations of Uvular Stop (q) in Amman and Irbid.

Variant	Spoken Variety
[g]	Bedouin and Rural Jordanian Arabic
[k]	Rural Palestinian Arabic
[ʔ]	Urban Palestinian Arabic

A year later, Abd-El-Jawad (1987) investigated the use of the same variable among Palestinian refugees in the city of Nablus. In addition to the variations used in Amman and Irbid, the uvular stop has a variation that is native to the locals in Nablus; [q]. The study scrutinised the use of (q) among two groups of Nablusi Arabic speakers; one that resides in the city and another that had relocated to Amman and Irbid. Similar to Amman and Irbid, the study found that women were the initiators of dialect change in which the urban variant was adopted by females in Nablus and lower use of the regional variant. Abd-El-Jawad (1987) also found that older men tend to be the most conservative in Nablus as well.

Al-Wer (1997) expanded on her earlier work by examining the interaction between social and linguistic variables in Jordan. The study focused on phonological variables such as the realisation of (q) and (k) and found that younger generations increasingly favoured urban features over rural ones. The study highlighted the influence of social networks and prestige on language change and that dialect accommodation is not a straightforward shift towards Standard Arabic but involves complex social dynamics.

Al-Wer (2003) examined the variability of (θ) and (ð), across different Jordanian communities. Al-Wer (2003) argued that linguistic variation is not only influenced by geography but also by social attitudes and identity markers. The study found that speakers used phonetic variants to signal group affiliation.

Al-Wer and Horesh (2019) provided an in-depth overview of Arabic sociolinguistics in the Routledge Handbook, discussing phonetic, lexical, and syntactic changes in Arabic dialects. Al-

Wer and Horesh (2019) highlighted the role of migration and globalisation in shaping modern Arabic vernaculars.

Al-Wer *et al.* (2022) investigated linguistic change in Arabic dialects through an empirical study in Jordan, analysing dialect change in younger speakers. The study found that younger speakers tend to adopt urban phonological variants while maintaining rural lexical items. Al-Wer *et al.* (2022) offered a comprehensive analysis of dialect contact in Arabic-speaking regions, focusing on linguistic variation and change in urban settings, and found that younger generations in Amman increasingly adopt prestigious urban variants, leading to a new urban koine that blends elements from diverse dialects in Jordan.

Ahmed (2012) carried out a study in Hit, Iraq, in which he found that young speakers replaced localised marked features in favour of new unmarked urban ones. Ahmed (2012) attributes this change to the disparity in contact in younger speakers compared to older ones. Younger speakers have open networks with people outside their community and are in constant contact with speakers of other varieties. Dendane (2007) in Tlemcen, Algeria, also reported a correlation between the use of the urban variants [g] and [q] and age. This can be due to the argument that speakers of older dialects did not have the same mobile opportunities and exposure to urban varieties the younger generation has, which made the instances of contact insufficient (Albirini 2016).

Taqi (2010) reported on the dialectal situation in Kuwait after analysing the speech of Bedouin and 'Ajmi social groups. The study investigated the two group's use of the voiced alveolar affricate (ʤ), the voiceless alveolar fricative (s), and the uvular stop (q). The study found that the Najdi group showed higher use of the local variants (especially [ʤ] and [s]) while the 'Ajmi group diverged from their local variants in favour of the Najdi ones. This can be attributed to two main factors: the Najdi, Bedouin variety being considered a prestigious one, and the strong sense of Bedouin identity in the Arabian Gulf region.

Both Bedouin and Urban Arabic varieties are affected by identity, as noted above in Taqi (2010). In addition, Albirini (2016) argued that Bedouin identity and social organisation plays a role in how dialect contact affects Bedouin varieties versus non-Bedouin ones. He also noted that the traditional history of Bedouin communities makes social bonds stronger, even in urban settings. Dialect change is also affected by perception and attitudes towards language varieties (Johnsen 2015).The following is a review of dialect contact studies conducted in Saudi Arabia.

2.5.3.1.1 Dialect Contact Studies in Saudi Arabia

Al-Ahdal (1989)

Al-Ahdal (1989) conducted an extensive sociolinguistic study on the speech of Makkah residents, focusing primarily on phonological variation and dialect levelling due to migration and urbanisation. The study examined key linguistic variables such as the realisation of the glottal stop (ʔ) and the voiced uvular stop (q). Al-Ahdal (1989) found that Makkah exhibits a high degree of variation, with younger speakers adopting features that align with urbanised, unmarked forms commonly found in other major Saudi cities. One of the significant findings of Al-Ahdal (1989) is the gradual decline of traditional phonetic markers, such as the replacement of the emphatic [q] with the more socially neutral [g] variant, which suggests that speakers are accommodating to broader urban linguistic features and integration within Makkah's diverse population. In addition, speakers used widely understood and unmarked lexical features, which reflects the influence of migration.

The results demonstrate how the relationship between dialect contact and identity contributes to the variation in Makkah. The influx of migrants from different parts of Saudi Arabia and beyond has contributed to the levelling of marked regional features, leading to the emergence of a more neutralised urban variety. The findings align with theories that suggest that contact-induced change often results in the reduction of marked features (Trudgill 1986). Furthermore, Al-Ahdal's work sheds light on the role of social networks and community ties in maintaining linguistic variation in which younger speakers exhibit the willingness to adopt urban features. In comparison, older speakers tend to resist them for fear of losing their local identity.

In summary, Al-Ahdal (1989) provides valuable insights into the sociolinguistic dynamics of Makkah, illustrating how dialect contact leads to phonological simplification and lexical convergence. The study contributes to the broader understanding of urbanisation and migration as key drivers of linguistic change in Saudi Arabia.

Al-Essa (2008)

Al-Essa (2008) in Jeddah focused on the impact of migration and social factors on dialect contact and variation. The study examined the speech of Jeddah residents who migrated to the city from the Najd region across different age groups, social classes, and regional backgrounds to

analyse how linguistic features are influenced by migration. The participants in Al-Essa's study included native Jeddah residents, rural migrants from other regions of Saudi Arabia, and expatriate communities, reflecting the city's diverse demographic.

Al-Essa (2008) analysed the use of (q) and (ʤ) and found that younger speakers in Jeddah tend to favour prestige forms associated with Najdi Arabic, such as the use of [g] instead of the traditional Hijazi [ʤ], as a result of increased social and economic interaction with speakers of Najdi varieties. In addition, Al-Essa observed a trend toward the simplification of complex phonological features and the adoption of unmarked and widely recognised variants to facilitate communication in Jeddah's heterogeneous speech community. In addition to phonological variation, Al-Essa also examined morphosyntactic features, such as the use of negation and verb conjugation patterns. The study found that the speech of younger speakers exhibits a blending of Hijazi and Najdi morphosyntactic structures, which reflect both accommodation and convergence processes.

Al-Essa (2008) highlights the evolving nature of Jeddah's dialect, emphasising the importance of migration on dialect change. The study contributes to the understanding of urban dialect contact in Saudi Arabia and provides valuable insights into how regional varieties interact and influence one another within a diverse urban context.

Hussain and Alrohili (2014)

Hussain and Alrohili (2014) studied dialect contact in Madinah, a city known for its rich cultural and linguistic diversity due to religious tourism and migration. Their research examined the integration of Bedouin and urban dialect features within Madinah's speech community. The study focused on the use of emphatic consonants (e.g., (ṣ), (ḍ), (ṭ)) and vowel lengthening patterns. Hussain and Alrohili (2014) found that younger speakers in Madinah adopted urban speech patterns, particularly those associated with more prestigious urban dialects, reflecting a trend towards convergence with urban linguistic norms. The results suggest that lexical borrowing is a prominent feature in Madinah's dialect contact situation, with numerous words and expressions borrowed from both Bedouin dialects and neighbouring urban centres such as Makkah and Jeddah. The study found that Madinah's speech community is undergoing a gradual shift towards a more urbanised dialect, indicated by the shift towards urban features, while still retaining some traditional linguistic features that reflect speakers' identity.

Alghamdi(2022)

Alghamdi (2022) studied dialect change in Makkah and focused on the impact of urbanisation on the local dialect. The study examined several linguistic variables, including consonantal variation, lexical borrowing, and phonetic simplification. Alghamdi found that younger speakers in Makkah are increasingly adopting Gulf Arabic features, such as the pronunciation of (q) as [g] instead of the traditional Hijazi [ʔ] and the use of marked Gulf-originated lexical items in informal speech. This dialect change is attributed to non-local residents, along with the Makkah being a religious city. Such factors have accelerated dialect levelling and convergence towards Gulf Arabic features. In addition, with male speakers exhibiting a greater tendency towards adopting Gulf features, likely due to increased exposure to non-local speakers in professional and social settings, the study found that the variation is influenced by gender.

Alghamdi's findings highlight the impact of external influences on dialect contact and transformation in urban settings. The study provides a key to understanding dialect contact in cities with high levels of migration and external influence, reinforcing the idea that urban dialects are increasingly becoming hybrid linguistic spaces.

Alammar (2016)

Alammar (2016) studied dialect contact in Hail, Saudi Arabia, with a focus on vowel variation and morphosyntactic changes as a result of migration and urbanisation. The study analysed vowel fronting, diphthongisation, and negation structures to assess the extent of convergence between the rural and urban dialects. The study found that Saudi rural migrants in Hail gradually adopted urban speech patterns, reflecting the influence of social integration and dialect contact. In addition, younger speakers exhibited a higher rate of vowel fronting and simplification of morphosyntactic structures, indicating an ongoing process of dialect levelling.

The study also highlighted that older speakers, on the other hand, maintained their rural speech features, which indicates a generational gap in dialect contact outcomes, influenced by the degree of exposure to urban settings.

Alammar's findings show that the impact of urbanisation and social integration on language variation and change is influenced by migration. The gradual adoption of urban speech patterns among migrants points to a broader trend of dialect levelling in rapidly urbanising regions, where contact-induced linguistic changes are influenced by social mobility and economic opportunities. This illustrates how regional speech patterns are reshaped through interaction and adaptation.

Albohnayya (2015)

Albohnayya (2015) studied dialect contact in Al-Ahsa, an eastern Saudi region known for its linguistic influences from Najdi and Gulf Arabic varieties. The study focused on phonological and lexical variation and analysed how younger speakers in Al-Ahsa mix features from both dialects due to increased cross-regional mobility and economic interconnectivity. The study investigated the use of (ʤ) and (g), which are highly marked features that distinguish Najdi from Gulf Arabic varieties. In addition, the study examined lexical borrowing patterns and the adaptation of stress patterns influenced by Gulf Arabic phonology. The study found that younger speakers in Al-Ahsa tend to use Gulf Arabic features in casual speech settings while maintaining some Najdi lexical items in more formal settings. Phonetic simplification was observed, with a notable trend towards the Gulf Arabic realisation of (ʤ) as [d͡ʒ] rather than the Najdi variant [g]. The study also found that younger speakers used Gulf-originated lexical terms more frequently than their older counterparts. The results suggest that dialect contact in Al-Ahsa is driven by socio-economic mobility and exposure to Gulf cultural influences through trade and media. Albohnayya (2015) argued that this pattern among younger speakers indicates an ongoing process of koineisation. However, the study also noted that older speakers, on the other hand, exhibited resistance and used traditional speech patterns.

Alaodini (2019)

Alaodini (2019) studied dialect variation in Dammam, a city in the Eastern Province of Saudi Arabia. The city has which has experienced significant internal and external migration due to its economic development. The study focused on phonological and lexical variation, particularly the adaptation of stress patterns, the pronunciation (ʤ), and the influence of Gulf Arabic phonology on local speech. Morphosyntactic features, such as verb conjugation and the use of definite articles, were also examined to assess the extent of convergence with Gulf Arabic norms. The study found that Dammam's speech community is undergoing considerable dialect levelling due to migration from different parts of Saudi Arabia and neighbouring Gulf countries. In addition, younger speakers were found to incorporate Gulf Arabic features, such as the realisation of (ʤ) as [j], a characteristic of Gulf dialects, instead of the traditional Najdi [ʤ]. Lexical choices indicated a preference for Gulf Arabic marked features, which show the influence of media and social interactions with Gulf nationals. Phonological variation was also observed in which the tendency to simplify stress patterns, aligning more closely with Gulf Arabic, which is perceived as more

prestigious due to the economic and cultural dominance of the Gulf Cooperation Council (GCC) countries. The findings of Alaodini (2019) suggest that Dammam serves as a linguistic melting pot, where speakers are gradually adopting features from Gulf Arabic due to economic and social integration. The study highlights the role of migration and intermarriage in influencing linguistic convergence. However, Alaodini (2019) also noted that older speakers maintain traditional Eastern dialect features, which shows a generational gap in dialect change. This indicates a gradual process of accommodation wherein younger speakers negotiate between maintaining local identity and adopting prestige forms from Gulf Arabic to facilitate broader communication and social integration.

Al-Qahtani (2019)

Al-Qahtani (2019) study on dialect contact in the Tihama region of Saudi Arabia, an area known for its strong cultural identity and relative linguistic isolation, aimed to examine the extent of dialect contact and change resulting from increased exposure to urban and Gulf Arabic varieties due to modernisation and migration patterns. The study focused on the realisation of the velar (q) versus the glottal stop (ʔ), the pronunciation of interdental fricatives (θ) and (ð), and the use of negation structures. These variables were analysed to determine whether younger speakers were shifting towards urban or Gulf-influenced speech patterns or not. Al-Qahtani found that while younger speakers exhibited some influence from urban dialects, particularly in lexical choices and phonetic realisations, the overall linguistic situation in Tihama showed strong resistance to dialect change and levelling. The study found that older speakers retained traditional features, while younger speakers displayed partial accommodation in professional and educational settings. Despite exposure to external influences such as media, the dialect maintained distinctive and marked phonetic and morphological features such as the retention of the traditional realisation of (q) and the use of emphatic consonants. The results highlight the role of local identity in resisting dialect convergence in Tihama. Al-Qahtani (2019) argues that preserving local speech patterns reflects the community's strong attachment to cultural heritage and social networks, which act as barriers to linguistic change, yet is potentially weakened by the continuous exposure to urban centres and mass media, which could lead to gradual phonological adaptation over time.

2.6 Conclusion

This chapter provided an overview of the literature and theories on the definition and construction of the speech community. Jeddawis who live in low-contact neighbourhoods cannot

be considered to be members of the same speech community due to lack of contact with the other ethnic group. The chapter also dealt with how complex the notion of identity is in Saudi Arabia and how it has developed from only tribal to include a larger Saudi identity. It also emphasised that almost all Saudis are Bedouins nowadays, which makes non-Bedouin communities a minority. In addition, the chapter provided an overview of how migration can influence dialect change. Finally, the chapter concluded with a review of literature that focused on the effect of migration on dialect change.

Chapter Three: Background

3.1 Overview

In order to better understand language variation and change in Jeddah, the present research study sets out to analyse the effects of contact, ethnicity, sense of identity and social attitudes on the outcome of dialect contact in Jeddah. This chapter highlights the demographic distinctiveness of Jeddah by offering a historical account of the factors that contributed to the population growth in the Hijaz region in 3.2. It also discusses the demographic diversity and heterogeneity in Hijazi cities in 3.3. Furthermore, this chapter concludes with a description of the current Hijazi Arabic varieties in 3.4.

3.2 Jeddah's Urban Growth: Historical Account and Primary Factors

The second largest and most populated city in Saudi Arabia, Jeddah, has a population of over 3.4 million (Saudi Arabia General Authority of Statistics 2020). It is one of the main cities in the Hijaz region. Located in western Saudi Arabia, the Hijaz region covers a relatively large area of the country. Comprised of more than 35% of the country's population, Hijaz's largest and most populated cities are Makkah, Madinah, and Jeddah (Riedel 2011).

> Jeddah has experienced rapid urban growth, spatial expansion and transportation infrastructure expansion over the last 40 years, with rates of change ranging from 0% to over 100%, indicating a wide variability across space and a complex urban dynamic. (Aljoufie 2012: 115).

Being one of the oldest cities in Saudi Arabia, Jeddah has always held a unique position for religious, demographic, and economic reasons. The following sections provide a chronologically detailed account of the factors that contributed to the population growth, ethnic and linguistic heterogeneity of the region in general and of Jeddah in particular.

Figure 3. 1: Map of the Hijaz Region (Source: Bagader 2017: 684)

3.2.1 Geographical and Religious Factors

The development of Jeddah began 2500 years ago (Ministry of Interior and Municipal Affairs 1973). Historically, the city was mainly known as a fishermen's settlement with no political or economic significance to the region (Pesce 1977). The earliest relevant period of the city's development and population growth occurred as a result of the advent of Islam in 611 (Al-Hathloul and Mughal 1991). The pilgrimage to Makkah is among the five pillars of Islam that one must pursue to formulate one's faith fully. Hajj is a pilgrimage ritual in which Muslims converge on Makkah during the twelfth month of the lunar Hijri calendar. This last pillar of the five attracted Muslims to visit and eventually settle in the region (Bianchi 2013). Muslims also visit Makkah periodically to perform Umrah[2]. According to Al-Bassam (2012: 132), external migration as a result of religious factors can be attributed to the growth of only the Saudi cities of Makkah, Madinah, and Jeddah. Moreover, Hajj presented one of the early instances of both language and dialect contact in Hijaz wherein different tribes communicated during Hajj and Umrah, and

[2] An Islamic pilgrimage to Makkah that can performed anytime of the year. Umrah and Hajj are relatively similar in rituals but differ in term of time restriction. Hajj can only be performed during a specific date in the lunar year whereas umrah can be performed any time.

pilgrims who came from all over the world had to learn Arabic in order to communicate with local custodians (Al-Ken 1995). Such early economic growth of the region led by Hajj trades and markets resulted in many pilgrims choosing to settle in Hijaz (Chiffoleau 2015). This also was caused by the fact that travelling across the world for Hajj is not cheap. Some pilgrims even had to sell their homes in order to fulfil this religious obligation (Ochsenwald 1984). Other pilgrims chose to stay in Makkah for spiritual reasons (Chiffoleau 2015). This new wave of settlers that migrated during the early Islamic era provided the region with more than economic prosperity. Some of the settlers were educated, while most of them were skilled workers (Chiffoleau 2015). Since local Hijazis were primarily farmers and herd gatherers, the skills brought by the new settlers were welcomed since they presented no competition. Settlers worked in jobs varying from jar-making to teaching (Al-Ken 1995). This made Hijaz one of the most populated regions in what was formerly known as an uninhabited desert. Moreover, the region was governed by many empires throughout history. Hijaz was under the Ottoman Empire before the emergence of Saudi Arabia (Ochsenwald 1984).

The region was significant to the Ottoman Empire for its religious affiliation. This resulted in Turkish settlers choosing the region as their new destination (Ochsenwald 1984). This example of external migration resulted in language contact between Turkish and Arabic, which led to Hijazi Arabic borrowing from Turkish. It can be argued that since Turkey was an already developed region under the Ottoman Empire, the development and advancement brought by the Turkish were given Turkish names. Words such as *Dolab* (borrowed from the Turkish *Dolap,* meaning wardrobe and cupboard) and *Bastirma* (borrowed from the Turkish *Bastirma,* meaning dried meat) are still part of the Hijazi lexicon.

Jeddah has benefited from being the only port of entry for pilgrims who came from overseas. The city's strategic location contributed to its population growth. Historical records of pilgrims indicate that Jeddah served as the port entry for pilgrims from as early as 646 (Al-Hathloul and Mughal 1991). Jeddah was also affected by waves of external migration from pilgrims who chose to stay in Hijaz. It is also argued that pilgrims were initially the primary source of the city's population (Abdu *et al.* 2002). The city's population is highly linked to the growth in pilgrim numbers who used the city as their entry point for centuries (Al-But'hie and Saleh 2002). Abdu *et al.* (2002: 111) notes that:

Jeddah is by far one of the most important cities of the Kingdom of Saudi Arabia. Not only for its importance as a contemporary national centre, but also for its history, geographical location, and role as a unique pilgrims reception centre for the holy cities of Makkah and Al-Madina.

Nowadays, Jeddah has the closest airport to Makkah, and it still serves as the only entry point for international Hajj pilgrims (Jeddah Chamber 2017: 2). Every year, more than 12 million visitors come to the area for religious purposes (Ministry of Municipal and Rural Affairs 1997).

3.2.2 Economical Factors

The port of Jeddah was already an important entry point for imports into the peninsula prior to the establishment of Saudi Arabia and the discovery of oil. Jeddah served as one of the largest ports for commerce in the Middle East. Jeddah was also one of the region's main commercial and business centres (Abdu *et al.* 2002). The city's economy mainly consisted of fishing revenue prior to its being an important port in the region. The establishment of Saudi Arabia further cemented Jeddah as one of the most important commercial cities of the peninsula (Al-Hathloul and Mughal 1991).

Hijaz eventually became part of Saudi Arabia in 1932. King Abdulaziz, the founder of the current Saudi country, instituted major economic, communicational, educational, and commercial transformations. This was mainly led by the discovery of oil in 1933. Having the second largest oil reserves in the world, the discovery of oil helped in making the country one of the largest economies in the world (Central Intelligence Agency 2016). The discovery of oil helped build the country's infrastructure, improving the educational, transportation, and health systems. This also contributed to an increase in the number of pilgrims and enhanced quality of life for Saudis all over the country (Bianchi 2013). Since the country's growth provided more job opportunities, animal herding and farming were no longer providing sustainable incomes. Consequently, rural Bedouins started migrating to urban centres to find better jobs. This era presents the beginning of stages of dialect contact among rural Bedouins who moved to the city due to industrialisation and the Saudi urban communities.

Urban development of modern Jeddah is associated with the economic development of Saudi Arabia that took place in three periods: pre-oil discovery (1927-1970), oil discovery (1973-1983), and the post-oil discovery period (1984-1995). The three-year period between pre-oil

discovery (1970) and oil discovery (1973) periods was marked by preparations for economic expansion, with the government implementing policies to support the growing oil industry and attract foreign investment. Oil was discovered in 1933 and marked a turning point that transformed Jeddah into what it is today. However, the full economic benefits of this discovery were not immediately realised. Large-scale oil production and exportation required extensive infrastructure, which only began to take shape in the 1970s (Abdu *et al*. 2002). Further, Population growth did not reflect an expansion in urban development in Jeddah. During the pre-oil discovery period, Jeddah's population was 10,000 to 25,000 (ibid). In addition, in 1948, foreigners comprised 55% of the city's population (Al-Hathloul and Mughal 1991). By the end of that period, the population rate had doubled (Al-Hathloul and Mughal 2004).

3.2.3 Institutional Factors

During the oil-discovery period (1973-1983), significant economic developments resulted in the city's urban development, in which both settlement programs and housing policies were initiated. This presents a wave of internal migration where rural Bedouin communities were encouraged to migrate into cities. The government fully funded these programs, which also provided funding for hospitals, schools, electricity, and water services (Al-Hathloul and Edadan 1993). These efforts, among others, such as paying tribes compensations for any lost income caused by uprooting to cities and offering jobs with good salaries in the armed force, aided in making the Urbanisation of Saudi Arabia a success. The government also encouraged and paid for rural Bedouins to migrate to the city in vehicles rather than camels (Vassiliev 2000). This was mainly done to ensure peaceful and conflict-free integration of rural and urban communities. Government-led urbanisation efforts were also implemented due to a sudden need for employment in Saudi Arabia (Al-But'hie and Saleh 2002). According to Al-Hathloul and Maghul (1991), housing policies initiated in the 1950s contributed to the rapid growth of Jeddah. The Surplus housing situation has emerged as a result of the aggressive and sustained housing policies of the government whereby large-scale infrastructure was provided by the public sector and interest-free loans were granted by the government (Al-Hathloul and Maghul 1991: 269). Thus, the city's population grew from 30,000 to 350,000 in 1970 (Abdulgani 1993). Compared to other Saudi metropolitan cities, Jeddah's population growth was rapid. For instance, the urbanisation of Dammam, the capital of the Eastern province, resulted in the population growing from 360,000 in 1974 to 430,000 in 1980, based on the GEOPOLIS database (cited in Miller 2007; Abou-koin

2011). In comparison, Jeddah's population grew from 600,000 to 800,000 during the same period. Such planned urbanisation efforts resulted in the city's population exceeding a million in 1982 (Aljoufie 2012). Table (3.1) illustrates the city's overall population growth from 1927 to 1983 to highlight the effects of urbanisation.

Table 3.1 Population Growth in Jeddah as an effect of urbanisation

Year	Population
1927	5,000-10,000
1948	30,000
1971	381,000
1974	600,000
1983	1,000,000

During the third post-oil discovery period (1984-1995), urbanisation efforts succeed in Jeddah. Nowadays, the city's population exceeds 3.4 million. Moreover, according to the Ministry of Municipal and Rural Affairs (2014), there is a high rate of urbanisation in Saudi Arabia, with more than 80% of the Saudi population occupying cities. The Makkah province, of which Jeddah is the largest city, is reported to have had an 87.6% growth rate in recent years. This high rate of urbanisation is expected to reach up to 97.6% by 2030. Compared to the total Saudi population, the urban population has increased, from 21% in 1950 to 58% in 1975 and 81% in 2005 (Al-Ahmadi *et al.* 2009).

What makes Hijaz a fascinating region is that it is the only region in Saudi Arabia where non-Bedouin communities reside. Unlike other cities in Saudi Arabia where internal migration resulted in rural Bedouins settling in cities that were already populated by other Bedouins who settled there before urbanisation (see Al-Rabdi 2005 and Al-Bassam 2012 studies in Buraydah, and Al Sharif 1994, Alsakran 1995, and Al-Rabdi 2001 work in Riyadh), urban Hijazi cities were already populated by the previously mentioned settlers who settled in the region before the establishment of Saudi Arabia as a country. After the country's establishment, it was announced that those who were born or have settled in Saudi Arabia for a long time had the right to be granted Saudi citizenship in 1953, and all Hijazi residents became citizens then[3] (The Saudi Arabian Citizenship System 1954). In a country where all cities are populated by those of Bedouin descent

[3] The situation is much stricter nowadays, with much more extensive requirements.

who originally came from various locations in the Arabian Peninsula, Hijaz is considered a unique region in Saudi Arabia for the demographic diversity of its cities.

3.3 Diversity in Hijaz

Hijaz presents a unique, demographically diverse region due to having two social groups. Unfortunately, there is no data on the statistics for the Hijazi population in terms of social group stratification. The first group, named Bedouin Hijazis, consist of those of tribal descent who originally came from various regions of the Arabian Peninsula and settled in Hijaz (Al-Jehani 1990). The date of their emigration from multiple locations to Hijaz is poorly documented, but it is believed to occur in two waves: pre-Islam and post-Islam (Al-Ansari 1970). One of the earliest documents to mention Bedouins in Hijaz was in Al-Hamadani's (945) book, where he mentions the Harb tribe as neighbouring other tribes in the region. One of the characteristics of the Bedouin tribes in the Arabian Peninsula is that they were all somewhat related (Ingham 1982). The genealogically connected group is also characterised as being conservative, allowing intermarriage to save the bloodline (Hamdan 1990). They are also characterised as having strong tribal loyalty and pride (Nahedh 1989). Hijazi Bedouin tribes settled outside of Hijazi cities and worked in sheepherding, farming, and honey making, but they only moved to cities relatively recently (Al-Jehani 1985). They historically controlled most of the roads leading the urban Hijazi cities, raided each other during drought seasons, were perceived to be powerful, and were only controlled by tribal chiefs (Al-Jehani 1990).

The second social group living in the Hijaz region is named Ḥaḍari[4] Hijazi, henceforth non-Bedouin Hijazis. This group consists of the previously mentioned pre-Saudi settlers who came due to external migration for religious and economic reasons. They are also known as *City Folks* and have no tribal affiliation in the Arabian Peninsula. Since they originally come from different regions of the world, such as Turkey, Yemen, Indonesia, Afghanistan, and Egypt, they are characterised as heavily influenced by their non-Bedouin and non-tribal heritage (Al-Ansari 1970). This makes them an interesting social group in which different ethnicities, cultures, heritages, and places of origin come together and are labelled as one group solely based on their non-tribal affiliation. Historically, they were speakers of different languages tied by religion and locality, but

[4] *Hadhar* or Ḥaḍar is a term that translated to 'Urbanite' or 'Urbans'. It's been used by Saudis to describe other Saudis of non-Bedouin and multi-ethnic backgrounds and descents.

the non-Bedouin group's language changed to Arabic, becoming a monolingual group over time. As mentioned above, they were granted citizenship after the establishment of Saudi Arabia, and they still remain part of society today.

3.4 Hijazi Arabic

Since the present research study aims to investigate the linguistic situation in Jeddah, this section highlights the spoken varieties in the city. Hijazi Arabic, also known as Western Arabic, is a dialect spoken by over 14 million in Hijaz (Alnosairee and Sartini 2021). The emergence of new dialects in the Middle East can be attributed to urbanisation, as noted by Holes (1995). Holes (1995) also found that city dwellers contribute to the new variety, while old dialects are used in other regions to highlight regional heterogeneity and identity. Moreover, Hijaz represents a unique region from a sociolinguistic perspective. This is mainly due to the existence of two distinct varieties: Urban Hijazi Arabic and Bedouin Hijazi Arabic (Alzaidi 2014). Both varieties are sometimes spoken in the same region, city, and sometimes neighbourhood, which makes the distinction between the two varieties is social rather than regional (Alhazmi 2017). Furthermore, the variety spoken in cities differs from those spoken in rural areas. The following sections briefly highlight the research that describes both varieties.

3.4.1 Urban Hijazi Arabic

As mentioned above, this dialect is spoken in urban Hijazi cities such as Makkah, Jeddah, Yanbu, and Madinah. It is regarded as one of the most intelligible dialects in Saudi Arabia (Omar 1975). It is worth noting that there is insufficient research on UHA in Jeddah. However, the variety spoken in urban Hijazi cities share most linguistic patterns, and the distinction among them is minimal (Alzaidi 2014). In addition, Sieny's (1978) *The Syntax of Urban Hijazi Arabic* shows the overall unity of the variety spoken in Jeddah, Makkah, and Madinah.

Ingham's (1971) work in Makkah provided a description of the linguistic features of UHA, along with a comparison between the variety and others in Saudi Arabia. The findings suggest that in terms of general classification, UHA shares more in common with other Arabic varieties, such as Egyptian and Sudanese, than it does with other Saudi dialects (Ingham 1971). It is also affected by both dialect and language contact over time due to migrations. Ingham (1971: 274) notes that:

> It can be seen that Meccan is a dialect of mixed affinities of basically Egypto-Levantine type in terms of its morphology and phonology. The population of Mecca is an extremely cosmopolitan one and it is almost certain that the non-Arabian elements in the dialect are due to foreign influence over a long period.

Despite describing the effects of dialect contact on UHA, Ingham (1971) does not investigate the attitudes associated with it. UHA speaker attitudes towards both the similarity of their dialect to other Arabic dialects along with the dissimilarity of their dialect to other Saudi dialects would provide a deeper understanding of the linguistic situation in urban Hijazi cities. Further, Prochazka (2013) *Saudi Arabian Dialects* provides a detailed description of the morphology of Saudi dialects such as Najdi[5], Tihami[6], and Eastern Arabian. The book, however, does not deal with the urban Hijazi variety, as Prochazka notes that "standing outside the scope of this book are the urban Hijazi dialects of Makkah, Madinah, Taif, and Jiddah, which are more akin to the dialects spoken in Africa" (2013:21). The heterogeneity of urban Hijazi Arabic noted by Ingam (1971), Jarrah (1993), and Prochazka (2013) contributes to how the dialect is perceived in Saudi Arabia.

Alrumaih (2002) is one of the few perceptual dialectological studies conducted to investigate the perception of Najdi[7] Saudis towards their dialect and others. The study found that participants stereotypically labelled Hijaz as the region of settlers. Alrumaih (2002) also found that participants labelled the variety spoken in Hijaz in the '*Names of Other Countries*' category. "The Western region was also given some labels that indicated stereotyping such as 'the leftovers,' (i.e., settlers who came originally on a pilgrimage and then settled in the country)" (2002: 32). In addition, 86.1% of participants perceived UHA to be distinct from their own but demonstrated that they could understand it. While Hijazi Arabic was not considered as prestigious or "correct" as MSA, it was seen as relatively intelligible and associated with urban centres such as Jeddah, Makkah, and Madinah. The results showed that participants rated Hijazi Arabic to have great differences from their dialect despite it being intelligible to them. The study suggested that speakers perceived Hijazi Arabic as a socially and geographically significant dialect due to the historical and religious importance of the Hijaz region. However, it was not ranked as highly as the Najdi dialect.

When it comes to the perception of the dialect in Hijaz, on the other hand, Alahmadi's (2016) study of 80 participants in Makkah found that UHA is highly rated among its urban speakers

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[5] Several Arabic varieties originating from the Najd region of Saudi Arabia

[6] A variety spoken in the Tihamah region of Saudi Arabia.

[7] Najd is the geographic central region of Saudi Arabia.

of all age groups due to its strong connection to their culture. He also found that participants regarded the dialect as a representative of their identity.

3.4.2 Bedouin Hijazi Arabic

BHA is spoken in rural Hijazi towns such as Asfan, Al-Kamel, Al-Jammom, and Khulais. This variety represents those of Bedouin ancestry who had historically lived in rural areas before urbanisation. This variety is also spoken by members of tribes living in small tribal towns and villages. Since both Hijazis and outsiders, even the media, refer to UHA as Hijazi Arabic, this Bedouin variety is somewhat neglected.

The link between Bedouins of cities and rural areas was not affected by urbanisation, as noted by Nahedh (1989: 92) wherein he emphasises that:

> This unity does not only come from the fact that genealogy is a vital criterion for social differentiation, for both groups, but also that they are linked by common heritage of the Arabic language and culture, as well as the Islamic heritage.

Ingham's (1982) study of the variety spoken by the Dhafir tribe in Hijaz showed that BHA remained similar among tribe members of different regions. The linguistic patterns of tribe members were found to be similar to another Hijazi tribe, Harb. However, the study also found minimal patterns of language change among tribe members who settled outside of Hijaz. In addition, Al-Hazmy (1975) provided a descriptive analysis of the variety spoken by the Harb tribe in Hijaz. He found no distinction among the variety spoken by tribe members in Hijaz and those in Najd, with only slight morphological differences. This can indicate that BHA is an identity marker wherein, despite expanding to distant regions, the Hijazi tribes' language use reflects an attempt to conserve the original dialect. Thus, it is interesting to observe whether both natural and institutional urbanisation, as well as dialect contact, have affected the Bedouin variety of those living in Jeddah since Al-Hazmy (1975), Ingham (1982), and Nahedh (1989) were conducted.

3.4.3 BHA and UHA Linguistic Features

Although the two Hijazi varieties have long existed side-by-side within proximity, each variety has its distinctive characteristics. These unique features are on phonological, morphological, syntactic, and lexical levels. It is worth noting that the present study does not attempt to describe the differences extensively but rather briefly highlight them. Thus, the subsequent briefly sketches the most distinctive features of the two varieties within the scope of the present study.

3.4.3.1 Phonological Features

Table 3. 2: UHA Phonemic Inventory

	Labial	Dental	Alveolar	Palatal	Velar	Pharyngeal	Glottal
Stop	b	t tˤ d dˤ			k g		ʔ
Nasal	m		n				
Fricative	f		s sˤ z	ʃ ʒ	x ɣ	ħ ʕ	h
Trill			r				
Approximant			l				

One distinctive phonological feature of UHA is the lack of interdental phonemes (Abu Mansour 1987) (see Table 3.2 above). The lack of interdental phonemes yields a 'backing' process, substituting them with alveolar phonemes. The phoneme (θ), for instance, is substituted with (t) (see table 3.3 below). On the contrary, the phonemic inventory of BHA resembles that of MSA's, where interdental phonemes are present except for the phoneme (dˤ) is replaced with (ð)/ (Al-Mozainy 1981). Unlike Urban varieties, Bedouin dialects typically preserve interdental consonants. In addition, in UHA, the phoneme /p/ is not native to the dialect's phonological system. However, due to contact with other languages, mainly through loanwords, /p/ has been incorporated into UHA vocabulary.

In Modern Standard Arabic (MSA), the emphatic coronals are typically described as /tˤ/, /dˤ/, /sˤ/, and /ðˤ/ (Al-Ani 1970; Watson 2002). In contrast, UHA is reported to have a reduced set of emphatic coronals, retaining only /sˤ/ and /zˤ/, with the original MSA emphatic stops /tˤ/ and /dˤ/ often realised as their plain counterparts /t/ and /d/ (Abu-Mansour 1995). This phonological simplification reflects a broader trend in urban dialects, where emphatics may undergo neutralisation in favour of plain consonants (Watson 2011). BHA, on the other hand, retains more of the MSA emphatic inventory, preserving /sˤ/, /ðˤ/, and /zˤ/ but showing variation in the realisation of /dˤ/ as /zˤ/ in specific phonetic environments (Al-Mozainy 1981).

These differences highlight the ongoing processes of phonological change and dialectal variation in Arabic, influenced by factors such as urbanisation and dialect contact (Al-Wer 2007).

The correspondence between MSA and these dialects can be summarised as follows: MSA /tˤ/ corresponds to UHA /t/ and BHA /t/, MSA /dˤ/ corresponds to UHA /d/ and BHA /zˤ/, while MSA /sˤ/ and /ðˤ/ are retained in both dialects but with some variation in articulation.

Table 3. 3: UHA Interdental Substitution

MSA Interdental phonemes	UHA Interdental phonemes	Alveolar substituted phonemes
θ	-	t
ð	-	d
ðˤ	-	dˤ

As for the vowel inventory, there are no dissimilarities in both varieties: both Hijazi dialects have the following vowels [a, a:, e, e:, i, i:, o, o:, u u:]. Further, there is an apparent difference between the two varieties with respect to stress assignment; however, this variation is beyond the scope of the study (see Ingham 1971,1982, Omar 1975, Al-Mozainy 1981, Alzaidi 2014, and Al-Somali 2018).

Table 3. 4: BHA Phonemic Inventory

	Labial	Dental	Alveolar	Palatal	Velar	Pharyngeal	Glottal
Stop	b		d t	d͡ʒ	k g		ʔ
Nasal	m		n				
Fricative	f v	θ ð ðˤ	s sˤ z zˤ	ʃ ʒ	x ɣ	ħ ʕ	h
Trill			r				
Approximant			l				

3.4.3.2 Morphological Features

From a morphological standpoint, both Hijazi varieties have several distinctive features (see Al-Hazmy 1975, Sieny 1978, and Albalawi 2015). However, the present research study only focuses on those that are the most distinct and are identity markers. The use of the future marker is one of the apparent differences between the two dialects. UHA solely uses the prefix [ha-] to

mark a future tense. Conversely, BHA exclusively uses the prefix [bi-] as a future marker (Al-Hazmy 1975).

Furthermore, the use of negation promotes another distinctive characteristic between the two dialects. Whilst BHA speakers tend to use the morpheme [ma-] to mark negation, UHA speakers employ both [ma-] and [mu-], depending on the negated item. Specifically, [ma-] is used to negate verbs, while [mu-] is used to negate nominals. Marking the third-person masculine accusative suffix is another distinctive feature differentiating both varieties. The suffix [-u] is unique to UHA, while the suffix [-ah] is unique to BHA, as demonstrated below.

1. Both UHA and BHA:

ʔl-walad *ʃirib* *ʔal- ʕasˤi:r*
DEF-boy drink.PAST DEF-juice
‘The boy drank the juice’

2. UHA:

ʔl-walad *ʃirbu*
DEF-boy drink.PAST- MASC.ACC
‘The boy drank it’.

3. BHA:

ʔal-walad *ʃiribah*
DEF-boy drink.PAST-MASC.ACC
‘The boy drank it’.

3.4.3.3 Lexical Features

Speakers of both the urban and rural varieties of HA have unique lexicon. One of the semantic differences is in the use of the conditional ‘when’. Urban speakers of the variety tend to use *lamma* and *lamman* ‘when’ while the BHA speakers tend to use *lamman* ‘when’. Similarly, UHA speakers use *ʃu:f,* meaning ‘look’, while BHA speakers use the word *ʕa:n.*

3.5 Conclusion

The chapter provided historical factors that led to the growth of Jeddah and becoming one of the largest cities in Saudi Arabia. Such factors included its proximity to Makkah and Madinah, the Red Sea, which attracted fishermen and merchants, job opportunities created after the discovery of oil in Saudi Arabia, and urbanisation policy initiated in the 1970s. The chapter also briefly described the diversity in Hijaz and how the previously mentioned factors resulted in cities

having Bedouin and non-Bedouin populations. This chapter concluded with a description of the phonological, morphological, and lexical features that distinguish both Hijazi varieties from one another.

Chapter Four: Methodology

4.1 Overview

This chapter sets to describe the methods of the study. It starts with ethical considerations in 4.2. This is followed by a 4.3 in which sampling, size, and stratification of participants are described. The section also explains how participants were recruited in 4.3.2. section 4.4 describes my relationship with the studied communities. This is followed by 4.5, in which data collection method is described in detail. The chapter also describes the studied variables in 4.6. It also briefly describes how the data was transcribed, coded, and analysed in 4.7. This is followed by the variation of (ð) across three linguistic predictors of the variable's position in the word, the type of syllable the variable is part of, and the variable segmentation in the syllable in 4.8.

4.2 Ethical Consideration

It is worth noting that the ethical procedure for academic research regarding how informants should explicitly agree to be interviewed and how their information should be protected were all considered and followed. The key elements explained by Labov (1984) and Milroy and Gordon (2003: 79-87) to maintain good ethical practice involving human participants were all considered; participants were thoroughly informed, consented to participate, were given pseudonyms, and given the right to withdraw from participating at any time. It is worth noting that the research was approved in February of 2020. However, as the pandemic affected, the initial in-person interviews were modified to virtual ones to adapt to the new normal. Participants were all emailed information sheets that explained the purpose of the study, their roles and rights, and a consent form to sign instead of doing so in person. The consent form was sent to participants via *DocuSign*, an electronic signature and agreement platform that enables users to send, sign and manage agreements virtually. The ethical approval was amended and approved by Dr Pederson on behalf of the Faculty of Humanities and Social Sciences Ethics Committee in June 2020 (see consent form in Appendix A).

4.3 Sampling

4.3.1 Sampling, Size, and Stratification

Deciding a sampling universe is essential in ensuring that samples are representative. When it comes to deciding on the sampling universe, the investigated location is Jeddah. This is mainly due to its dynamic demographic, as mentioned in 3.3. To investigate the effects of dialect contact in Jeddah, the sampling universe included three types of neighbourhoods: 1-a Bedouin neighbourhood where most residents are Bedouin, 2- a non-Bedouin neighbourhood where the majority of residents are non-Bedouin, 3- a mixed neighbourhood where both social groups live together with no dominant group. The two non-integrated neighbourhoods were developed as part of government-led urbanisation and housing policy programs. In contrast, the integrated one was developed due to natural urbanisation, wherein Bedouins migrated to the city for educational and economic reasons. The sample universe includes a mixed neighbourhood in order to examine the effects of integration and assimilation on language use between the two social groups in said neighbourhood. Sampling considered the type of population, growth rates, and size of each neighbourhood.

A researcher must choose a sample size that accurately represents the targeted community as a whole and reflects different social factors. In the present research study, I adapted Milroy and Gordon's (2003) stratified sample to ensure that the sample is enough to make generalisations across the target community. The sample size represents the two social groups in the previously mentioned three types of neighbourhoods in Jeddah. Thus, participants were put into four cells: Bedouins in Bedouin neighbourhood, non-Bedouin in non-Bedouin neighbourhood, Bedouins in integrated neighbourhood, and non-Bedouin in integrated neighbourhood. This would ensure that all social variables of interest to this study are represented. In addition, I was able to interview a total of 32 participants, stratified as shown in the table below (4.1).

Table 4. 1: Number of Participants Based on Ethnicity and Neighbourhood Type.

Neighbourhood Type	Bedouin Participants	Non-Bedouin Participants
Bedouin	8	0
Non-Bedouin	0	8
Mixed	8	8
Total	**16**	**16**

It is worth mentioning that the sample is not stratified by age or gender. As elaborated on in the next section, I was unsuccessful in recruiting female participants, especially in Bedouin neighbourhoods. Further, I focused on participants aged 19-22 for a few reasons. As previously mentioned, Hijaz's policy-induced migration is relatively recent. Thus, the sociolinguistic outcomes of migration might be as apparent in older age groups. The different effects of migration among different migrant generation speakers are fundamental, as noted by Sancho-Pascual (2019). In addition, levelled norms usually emerge after three to four decades, so this age group would represent the effect of dialect contact in the best way. Moreno-Fernández (2016) model of integration demonstrates that such integration takes four stages, from survival identity to identity integration. Examining the speech of this age group would ensure that the sociolinguistic integration of both social groups is represented since they are at least the grandchildren of migrants. In addition, this age group would represent any possible formation of new dialects through koineisation and levelling. However, A more comprehensive analysis that includes speakers from various age groups would have provided deeper insights into the influence of dialect contact, if there is any (See 8.3 for limitations of the study).

4.3.2 Participant Recruitment

When it comes to the sampling method, both the *Judgment Sampling* and the *Snowball Sampling* methods were used in recruiting participants. Both methods were proven effective and helpful in collecting samples for the pilot study. The *Judgment Sampling* method, on the other hand, is the most preferred and commonly used sampling method for data collection today (Chambers 2003: 44). Such a method has been established in early sociolinguistic research, including Wolfram and Fasold (1974) and Trudgill (1974), and has since been applied in more recent studies within similar communities, such as those conducted in Saudi Arabia (e.g., Alghamdi 2020; Al-Qahtani 2021). This method involves identifying the type of participants suitable for the research based on different factors. Samples are usually stratified based on various factors, including social class, ethnicity, gender, and age (Tagliamonte 2006). This method then involves recruiting a number of participants from each group. In addition, it requires researchers to use their own knowledge of the targeted speech community and, therefore, use their judgment in recruiting participants (Milroy and Gordon 2003).

Since I was born and raised in the city, navigating the city to recruit participants was supposed to be relatively straightforward. In case finding the first informant turns out to be more

challenging than expected, I had planned to ask a community broker to introduce me to someone in the community. Community brokers are individuals with access to the community, such as priests and teachers, who would help facilitate communication between the community and outsiders (Schilling-Este 2007). As mentioned above, the *judgment sampling* method was used to recruit at least the first participant from each neighbourhood. After interviewing the first participant from either neighbourhood, I employed the *Snowball Sampling* method in recruiting the rest. Such a method is used when the target participants are not easily accessible (Naderifar *et al.* 2017). It is also a useful method in qualitative research that aids in finding participants of different age groups. Given that the sample age group is younger than mine, employing this method in which researchers ask participants to nominate and encourage a friend who they think would not mind participating in the study was proven effective. This method consists of two simple steps in which researchers (1) find potential participants and (2) ask those participants to recruit, nominate, or encourage others to participate.

The two steps are repeated until the sample size is met. However, recruitment was not an easy task by any means. The global pandemic and the resulting worldwide lockdowns halted recruitment plans. This made face-to-face interviews an unrealistic option. In-person recruitment was changed to a virtual one, which made it harder to convince participants. As mentioned above, I am viewed as an outsider to at least two of the three neighbourhoods, limiting the participants' willingness to participate. In addition, due to the fact that safety measures in various countries forced regular schooling to change to virtual platforms, volunteering in yet another virtual 'meeting' was not appealing to students who grew to resent online schooling. I was initially met with some interest, but such interest fostered no interviews. Participants would promise but then never show up or answer messages. In addition, recruiting female participants was difficult, especially in Bedouin communities. Despite using a female recruiter for this demographic, female participants were unwilling to participate in the pilot study. Thus, the study had to be adjusted to investigate male Jeddawis only. Given the difficulties I faced trying to recruit participants from June 2020 to February 2021 due to the pandemic, I travelled to Jeddah and recruited them in person once the travel restriction was lifted and safe social gathering was permitted. I recruited two participants from each neighbourhood type and conducted virtual interviews with them in April of 2021. Once I gained their trust and ensured their help in recruiting other participants, I flew back to the U.K., where the rest of the virtual interviews took place.

4.4 The Researcher

It is worth noting that I'm an outsider to the three targeted neighbourhoods. Having emigrated to Jeddah before the government-led *settlement project and* housing programs, my family lived in an integrated neighbourhood. Thus, my neighbourhood was older than the three selected neighbourhoods that developed relatively around the same time. However, growing up in the city made me a *community insider* to a degree. Thus, this made it easier for participants to be interested in participating in my study. It is worth noting that I was initially viewed as an outsider of both Bedouin and non-Bedouin communities. Since I was considered a Bedouin, with family ties and tribal affiliation in southern Saudi Arabia, I was viewed as a Bedouin by the non-Bedouin community.

On the other hand, I was viewed by the Bedouin group as a non-Bedouin since I spoke UHA. However, this was easily overcome once I told them my Bedouin surname. Being a native of Jeddawi and having multiple social networks also helped me in asking friends, former colleagues, and classmates to suggest participants who would then introduce me to their friends and more potential participants. In addition, being from the city contributed to the *researcher-participant* relationship being more casual, and the power dynamic between the participants and me was mitigated. However, as mentioned above, global paramedic elongated the data collection process due to lockdowns.

4.5 Data Collection

4.5.1 Sociolinguistic Interviews

Interview topics focused on what such age group is typically interested in, such as cars, music, pop culture, movies, and university life. The global pandemic served as an icebreaker; almost everyone had something to say about how it should have been handled. Given the semi-structured nature of the interview, when a particular topic was interesting to a participant, follow-up questions would generally stay on the same topic. Most questions were open-ended, which gave the participants more freedom to elaborate. Such follow-up questions usually minimise the distance between the interviewed and the researcher (Feagin 2002). Given the semi-structured nature of the questions, when a participant showed interest in a particular topic, mainly football, college life, or a certain TV show, the questions were tailored to those topics where follow-up questions would not stray away from such topics. Each interview question had a sub-topic in order

to make the interview feel more natural. The interview questions and their sub-topics are exemplified below:

1. What is your favourite TV show? (Why? Favourite character? How to improve other TV shows? Online Streaming vs. Cinema. Netflix vs. Disney Plus).
2. What is your favourite subject in school? (Why? How to improve the college experience? How can the campus/library be improved?)
3. What do you like about your neighbourhood? (Friends. Accessibility. Close to school. Neighbours)
4. What is your favourite application to use on your phone? (Technology advantages vs. disadvantages. Social media. Social media and self-esteem)

As shown in the above examples, most interview questions were open-ended, allowing participants to elaborate on their answers freely. It also helped in minimising any possible formality the interview might have had. Such follow-up questions made participants interact more naturally and minimise the distance between the participant and interviewer (Feagin 2002: 29). The sub-topics also allowed the participants to elaborate on their answers, which provided more chances for linguistic features to emerge in their speech. This led the study to analyse richer data. These types of questions also allowed participants who were shy and provided one-sentence answers to be more open, elaborate freely, and expand on their answers. Thus, in cases where participants gave a brief or summarised version of their answers, the follow-up question gave them a chance to elaborate and expand on their answers.

4.5.2 Social Attitudes Interview

The second part of the interview aimed to observe participants' attitudes and perceptions of the Hijazi Arabic varieties and the social groups in Jeddah. Many methods have been used to determine individual attitudes towards languages, including societal treatment and direct and indirect approaches (Garret 2010; Kristiansen 2020).

Unlike the societal treatment approach, both direct and indirect methods involve participants. The direct method involves asking participants language-related attitude questions regarding their opinions, feelings, and beliefs directly (Kristiansen 2020). This approach usually solicits participants' beliefs and views about a language and its speakers through the use of

interviews, rank tasks, and mental maps (see Francis *et al.* 2009; Dede 1999; Garret 2010). For instance, Karahan (2007) uses the direct method of investigating Turkish students' attitudes towards the use of English in Turkey. In addition, Bichani (2015) uses interviews of both children and adults to explore language attitudes and identity among two Arab communities in the U.K. Conversely, the indirect method involves engaging participants in tasks that encourage them to offer attitudes indirectly (see Ihemere 2006; Lourerio-Rodriguez and Goldsmith 2012; Gooskens *et al.* 2016). This method usually involves using the matched-guise test developed by Lambert *et al.* (1960). Schüppert *et al.* (2015) employed a match-guise test in analysing the attitudes of two bilingual groups of Danish and Swedish speakers were examined to investigate how listeners evaluate the speaker's language.

The present research study employed the direct method wherein speakers are engaged in a set of questions regarding how they view both urban and Bedouin Hijazi Arabic and those who speak it. This method also aided in soliciting participants' attitudes on both their own social group and the other one in Jeddah. To ensure more genuine views and responses, I ensured that the first part of the interview served as a conversation starter so that participants would be more comfortable during this social attitude questions part. In addition, the types of questions ranged from how non-Bedouins are viewed in Jeddah to the settlement project's effects on the city's demographic and identity.

Regarding the design of questions, the questions were tailored to those types of topics where follow-up questions would not stray away from such topics. Interview topics included the differences between both Bedouin and non-Bedouin communities in Jeddah, attitudes towards the dialect of the city, attitudes towards Bedouins and non-Bedouins in Jeddah, attitudes towards the variety Hijazi Arabic by other Jeddawis, discrimination against non-Bedouin communities in Jeddah, and unmixed neighbourhoods in Jeddah. In addition, each interview question had a sub-topic in order to make the interview feel more natural. The following is an extract of the questions used in this part of the interview (see complete list of social attitude interview questions in Appendix B).

Q1: Have you ever experienced discrimination in Jeddah?

Q1.1 Can you please elaborate?

Q1.2 What do you think such discrimination is based on?

Q1.3 Is this common in your experience?

Q1.4 Do you think there is discrimination in Jeddah based on ethnic background?

4.5.3 Interview Setting

As mentioned above, the interviews were conducted virtually due to the safety of both the researcher and participants; the interviews were conducted via *Zoom*, a cloud-based video communication program. The use of *Zoom* for conducting interviews was rated above other videoconferencing programs (Archibald 2019). This program aids researchers in recording interviews on a hard drive or the cloud, but the interviews were not recorded using the recording features provided by the program. Instead, the interviews were recorded using *Tascam DR-07X* portable audio recorder. I had sent the device to the first participant before our interview, instructed him on how to use it, how to send the recording file to my email once the interview was over, and then deleted the data before sending it to the next participant, who was given the exact instructions. The interviews were also recorded on my phone until I received the audio file and ensured its quality, and then they were deleted.

4.5.4 The Questionnaire

As mentioned above, the semi-structured nature of the interview provides interviewers with many privileges, including asking participants to elaborate on their answers. Still, due to the general nature of interviews, factors such as the setting, atmosphere, and set of questions, including follow-up questions, cannot be precisely duplicated in each interview. Such inter-subject differences can affect how a question is perceived and answered (Boberg 2013). In addition, even the interviewer can affect how participants answer the questions. Something that can hardly be avoided is that the researcher's presence can also influence the neutral behaviours of informants (Blommaert 2006: 35). Moreover, it is not far-fetched for humans to want to present themselves in a perfect way and a positive light and therefore try to provide the least controversial and most politically correct answers. To avoid such limitations, I also employed a questionnaire to avoid such disadvantages.

Questionnaires provide an easy way to record and obtain participants' language attitudes (Codo 2008; Nortier 2008). Questionnaires are proven to be beneficial in studying individuals' beliefs, knowledge, and social characterises (Meyerhoff *et al*. 2015). In addition, sociolinguists have used questionnaires to explore language use (see Choi 2005) and language use among ethnic minorities (Extra and Yagmur 2004). Questionnaires are also used to elicit social attitudes towards

a variety of languages. When employed correctly, written questionnaires can be helpful in sociolinguistic studies. The study also used a questionnaire to classify participants' sense of identity and attitudes.

Similar to any data collection technique, written questionnaires are prone to have both advantages and disadvantages. Among the many benefits of using written questionnaires is quantity (Boberg 2013: 131). Using such a technique allows researchers the ability to collect a copious amount of data in a short amount of time. In addition to saving researchers time that would have been spent on face-to-face interviews, written questionnaires also allow researchers to work remotely. Further, written questionnaires are more straightforward to analyse quantitatively. Finally, and the most important advantage of this technique is that written questionnaires allow participants to answer the same exact set of questions. As mentioned above, many factors, including the interviewer, can influence interview questions. Moreover, the semi-structured nature of face-to-face interviews makes it hard to ask all participants the same set of questions in the same order, setting, and atmosphere. Thus, using written questionnaires helps ensure that all informants are asked the same questions in the same order without inter-subject differences or outside influence (Boberg 2013).

On the other hand, using this technique has its own disadvantages. Researchers cannot ensure that all participants have answered all the questions. Further to this, participants tend to give wrong answers just to finish the questionnaire sooner (Meyerhoff *et al.* 2015: 74). In addition, Dörnyei (2003) notes that when responding to questionnaires, participants tend to agree and overgeneralise rather than being truthful. Since both interviews and written questionnaires have disadvantages, employing both techniques is beneficial because each method's disadvantages are minimised by using the other. Using both direct method techniques eliminates any room for error or obstacles in eliciting participants' social attitudes.

4.5.4.1 The Design of the Questionnaire

While designing the structure of the questionnaire, I followed both Schleef's (2014) and Meyerhoff *et al.*'s (2015) instructions on how to design the structure of a questionnaire (refer to Appendix C for the questionnaire questions). The structure of the questionnaire is as follows:

A. Introduction Section

This section includes the title, my name, and a brief research topic outline without giving too much information. It also includes a friendly request to complete the questionnaire as honestly as possible. Most importantly, this section promises anonymity to the participants and their responses. It also promises that besides being used for the purpose of the study and the analysis, all answers are kept strictly confidential and never associated with participants' names.

B. Questions Section

The question part of the questionnaire includes two parts. The first part is a set of yes/ no questions. This set of questions aims to measure whether participants have any friends of the other social group in their social networks. This section also asks participants about how diverse their neighbourhoods are. The questions aim to reveal and establish whether participants have any immediate contact with the other variety. It also asks participants if they have ever faced any ethnic discrimination to establish social attitudes towards both social groups. The second set of questions aims to ask questions involving a rating scale in which participants are to choose from a scale of 1 to 5 to express their degree of agreement. The second set of questions also aims to elicit social attitudes towards both language varieties. The classification of participants based on their answers is detailed in 4.5.5.

C. Conclusion Section

This section includes a thank you to the participants. It also encouraged them to contact either my academic supervisors or myself in case they have any questions or want to withdraw from participating in the study, followed by a reminder that both my contact details as well as my academic supervisors are on the information sheet that they are taking home with them.

4.5.5 The Stratification of Participants Based on Their Scores

In order to ensure that the distributional analysis captured whether identity and attitudes contribute to the variation, participants were stratified into three different identity and three different attitude groups based on their answers on the questionnaire. The mixed-effect regression analysis, on the other hand, analysed both identity and attitudes as continuous variables to account

for the small differences between participants and did not rely on the categories presented in this section (see 4.7).

As mentioned in 3.3, Jeddah's demographic consists of both Bedouin and non-Bedouin communities. Unlike the current demographic of Arab cities, in which native urban residents (i.e. Ḥaḍar) originate from various locations within the same region (e.g. Kuwait (Taqi 2010), Jordan (Al-Wer 1997), and Algeria (Dendane 2007), the urban non-Bedouins in Jeddah comes from multiple native origins outside the region. Given how the urban variety is viewed among Saudis outside of Hijaz as the variety spoken by non-Bedouins (see Alrumaih 2002), it is crucial to analyse whether the attitudes towards the other group, those of non-Bedouin descent, contribute to the variation in the city. It is also imperative to investigate the attitudes towards those Bedouin groups and whether such attitudes contribute to the variation. This section dives into the variation in relation to social attitudes regarding Jeddah's two main social groups.

As mentioned in 4.5.4.1, the questionnaire consisted of two types of questions, with one set designed to measure participants' sense of identity and belonging to their social group, while the other aimed to measure their attitudes towards the different social groups and spoken varieties in Jeddah. To ensure objectivity, all participants were given the same set questionnaire, regardless of their social background. The questions were the same for all participants. However, the questions were categorised differently based on the participants' social group. This method ensures objectivity while being the most effective in serving the purpose of the research.

The second part of the questionnaire consisted of 40 questions that were analysed differently. For example, participants were given a set of questions to assess their agreement on statements regarding both the Bedouin and the non-Bedouin groups in Jeddah. For those in the Bedouin group, the questions regarding their own social group were considered a part of the identity section, while questions about the non-Bedouin group were viewed as a part of the social attitudes section. Consider both questions 21 and 22 from the questionnaire (translated):

A. Urban Hijazi Arabic is one of the many Arabic dialects spoken in the Arabian Gulf:
   1-Strongly disagree. 2-Disagree. 3-Neutral 4-Agree 5- Strongly agree
B. Bedouin Hijazi Arabic is one of the many Arabic dialects spoken in the Arabian Gulf:
   1-Strongly disagree. 2-Disagree. 3-Neutral 4-Agree 5- Strongly agree

Both questions were presented to all participants. However, Bedouin participants' answers to question 21 were considered part of the attitude section, while their answers to 22 were considered part of the identity one. Thus, participants were placed into three groups based on their answers to the identity section of the Likert Scale questionnaire. The groups were: Strong Sense of Identity (70-100), Neutral Sense of Identity (45-69), and Weak Sense of Identity (20-44). Likewise, participants were grouped into three social attitude types based on their answers to the questionnaire. The categories are: Positive Attitudes (70-100), Impartial Attitudes (45-69), and Negative Attitudes (20-44). The following table highlights how participants scored based on their answers. In Table 4.2, participant name codes are structured using three components: social group (B for Bedouin, NB for non-Bedouin), neighbourhood type (B for Bedouin, N for non-Bedouin, MN for mixed), and participant number. For example, the code "NBN2" represents the second non-Bedouin participant from a non-Bedouin neighbourhood, "BMN3" refers to the third Bedouin participant from a mixed neighbourhood, and "BB6" indicates the sixth Bedouin participant from a Bedouin neighbourhood.

Table 4. 2: Participants Scores Based on their Responses to the Likert Scale Questionnaire.

Participant	Identity Score	Social Attitudes Score
BB1	78	30
BB2	95	30
BB3	90	35
BB4	68	49
BB5	61	47
BB6	83	56
BB7	80	36
BB8	79	38
NBN1	80	79
NBN2	61	38
NBN3	69	81
NBN4	65	53
NBN5	90	60
NBN6	25	54
NBN7	83	66
NBN8	80	39
BMN1	83	49
BMN2	81	51
BMN3	84	37

BMN4	69	59
BMN5	81	83
BMN6	71	80
BMN7	41	63
BMN8	57	35
NBMN1	63	61
NBMN2	68	57
NBMN3	83	30
NBMN4	33	39
NBMN5	56	49
NBMN6	55	90
NBMN7	61	79
NBMN8	54	81

Table 4.3 presents the distribution of participants in the unmixed neighbourhood in the three identity levels based on their answers to the questionnaire. It shows that all Bedouins in this neighbourhood type scored above the 'weak sense of identity' level, while six of them scored in the strong identity level. The scores of non-Bedouin participants, on the other hand, show that one participant scored in the 'weak sense of identity' level, three in the 'neutral sense of identity', and four in the 'strong sense of identity'. Table 4.4 highlights the distribution in the mixed neighbourhood.

Table 4. 3: The Overall Distribution of Participants' Sense of Identity in the Bedouin and non-Bedouin Neighbourhoods.

Social Group / Identity	**Bedouin**	**Non-Bedouin**
Strong Sense of Identity	75% (6)	50% (4)
Neutral Sense of Identity	25% (2)	37.5% (3)
Weak Sense of Identity	0	12.5% (1)

Table 4.4 shows that two non-Bedouin and one Bedouin participants scored in the lowest identity level. It also highlights that the majority of non-Bedouins scored in the neutral identity level, 62.5%. Half of the Bedouin participants in this neighbourhood type, on the other hand, scored in the strong identity level.

Table 4. 4: The Overall Distribution of Participants' Sense of Identity in the Mixed Neighbourhood

Social Group / Identity	Bedouin	Non-Bedouin
Strong Sense of Identity	50% (4)	12.5% (1)
Neutral Sense of Identity	37.5% (3)	62.5% (5)
Weak Sense of Identity	12.5 (1)	25% (2)

Few conclusions can be drawn based on the data in Tables 4.3 and 4.4. First, in the non-Bedouin group, 3 participants scored in the 'weak identity' category' while 50% had a neutral sense of identity. Further, sense of identity tends to be stronger among individuals who reside in a predominantly Bedouin neighbourhood. This may be influenced by the notion that the Bedouin identity is essential to being an Arab. In the 2003 article "Where have the Bedouins Gone?", Cole reviews the transformation of the Arab Bedouin lifestyle. He argues that the notion of the Bedouin identity transcends place and traditions. He also emphasises that the notion has less to do with lifestyle and more with identity (2003: 273). Krishenblatt-Gimblett (1998) suggests that Bedouinsim has shed its old life that was linked to traditions and particular lifestyle in favour of acquiring a second one that became more heritage-centric, which involves the commodification of heritage, identity, and culture (1998: 50). About the Hijazi Bedouins, Nahedh (1989) notes that the sense of identity is not linked to a place but rather something more substantial.

Table 4.5 presents the attitudes among those in both Bedouin and non-Bedouin neighbourhoods. In the Bedouin neighbourhood, no participant had positive attitudes about the non-Bedouin group and their spoken variety; three participants had impartial attitudes (37.5%), while the majority, five out of eight, had negative attitudes (62.5%). Most participants in the non-Bedouin group had impartial attitudes at 62.5%; five participants, two participants had negative attitudes (25%), and one participant had positive attitudes regarding the Bedouin group and their dialect.

Table 4. 5: The Overall Distribution of Participants' Social Attitudes regarding the other Group in the Bedouin and Non-Bedouin neighbourhoods

Social Group / Social Attitudes	Bedouin	Non-Bedouin
Positive Attitudes	0	12.5% (1)

Impartial Attitudes	37.5% (3)	62.5% (5)
Negative Attitudes	62.5% (5)	25% (2)

Table 4.6 highlights how participants scored in the mixed neighbourhood. Unlike those in the Bedouin neighbourhood, four of eight participants had impartial attitudes towards the non-Bedouin group, two participants had negative attitudes, and two had positive attitudes. The table also shows how the non-Bedouins in the same neighbourhood type scored. Six participants were split between positive and negative attitudes categories: three in each group and two with impartial attitudes.

Table 4. 6: The Overall Distribution of Participants' Social Attitudes regarding the other Group in the mixed neighbourhood

Social Group / Social Attitudes	Bedouin	Non-Bedouin
Positive Attitudes	25% (2)	37.5% (3)
Impartial Attitudes	50% (4)	25% (2)
Negative Attitudes	25% (2)	37.5% (3)

Based on the scores presented in Tables 4.5 and 4.6 about the attitudes of both social groups regarding each other, the overall scores reveal that 7 Bedouin participants had impartial attitudes towards the non-Bedouin group and their spoken variety (43.75%), 7 had negative attitudes (43.75%), and two had positive attitudes (12.5%). The non-Bedouin participants, on the other hand, had seven participants with impartial attitudes (43.75%), five with negative attitudes (31.25%), and four with positive attitudes (25%) towards the Bedouin group.

4.6 Linguistic Variables

The present study analysed two types of variables, phonological and morphological, to investigate whether patterns of dialect contact can be present in one level of linguistic structure or none at all. These linguistic variables were realised in two different forms: a Bedouin variant and an Urban Hijazi one. The phonological and morphological variables were chosen since they are usually linked to both social groups in Jeddah. For instance, the realisation of phonological variables such as (θ) and (ð) as [t] and [d] are stereotypically linked to non-Bedouins. The same can be said about the other urban variants. Furthermore, the selected phonological variables are the most distinct when realised in UHA. They highlight the most distinctive, ethnically, and

socially marked features associated with non-Bedouins, as mentioned earlier in 3.4. Conversely, the morphological variable is less marked and stigmatised than the other two phonological ones.

Table 4. 7: Linguistic Variables.

Variable Level	Linguistic Variable	Bedouin Variant	UHA Variant
Phonological	**(θ)**	[θ]	[t] and [s]
	(ð)	[ð]	[d] and [z]
Morphological	**3rd person masculine accusative suffix**	[-ah]	[-u]

It is important to note that Arabic has a third interdental fricative, /ðˤ/ (the voiced emphatic interdental fricative), which was not included in the scope of this study. The focus of this research was limited to the non-emphatic interdental fricatives (θ) and (ð), as they are more variable and socially marked in the Jeddah dialect contact situation. Future research could explore the role of /ðˤ/ in dialect contact scenarios to provide a more comprehensive analysis of interdental fricatives in Hijazi Arabic.

4.6.1 An Overview of the Variables

(ð)

The interdental variable (ð) has undergone numerous changes across Arabic dialects, resulting in a range of variants. Its realisation has been linked to its stop [d] and sibilant [z] counterparts in modern urban Arabic dialects. The variation observed can be attributed to factors such as historical sound change, language contact, and the influence of social and economic change (Holes 1987; 1995).

The relationship between the voiced interdental (ð) and its variants is classified as a phonological merger, a linguistic phenomenon wherein a distinct phoneme merges with or becomes another phoneme; in the case of interdental fricatives, this usually results in mergers with a stop or sibilant. The origin of this phonetic change in several urban varieties of Arabic dates back to the 9th century (Garbell 1958). For instance, according to Schmidt (1974), as the Egyptian dialect evolved in the 14th century, the interdental was merged with its stop and sibilant counterparts, which resulted in making (ð) absent in modern Cairene Arabic. The variable is now realised as either [z] or [d], as in the example of the word ‘wolf’: *di:b* in Cairene Arabic, compared to *ði:b* in Modern Standard Arabic. Loanwords with the interdental are typically realised with [z], reflecting

approximation strategies. This means that when new words borrowed from other languages contain the interdental fricative, speakers of Cairene Arabic tend to pronounce these sounds as [z] instead.

Al-Wer (2003) classifies Arabic dialects into two main categories based on their phonemic inventory and phonological merger. The first category includes dialects where /ð/ has systematically merged into /d/, resulting in a lack of interdental phonemes in their inventory. Consequently, /d/ encompasses lexical items that originally contained /ð/. The second category consists of dialects that maintain both /ð/ and /d/, such as Bedouin dialects, which have not undergone the merger.

Martinet (1955, cited in Al-Wer 2003) suggests that phonological merger occurs due to functional load reduction, wherein phonemes with fewer minimal pairs and distinctive features are more susceptible to merging. For example, the word *ðura* 'corn' has merged into *dura* in various dialects. This type of phonological change is observed in Maltese, Ammani, Palestinian, Beiruti Arabic, and several Maghrebi varieties (Cotter 2017; Shetewi 2018; Al-Hloul *et al.* 2023). Some of these dialects have influenced the contemporary urban Hijazi dialect spoken in Saudi Arabia (Ingham 1971; Prochazka 2013; Alzaidi 2014).

Ingham (1971) provides a comprehensive description of the linguistic features of the urban variety in Makkah, comparing it with other Saudi dialects. His findings suggest that, in terms of classification, UHA shares more similarities with other urban Arabic varieties than with other Saudi dialects. The interdental phoneme /ð/ is absent from urban Hijazi Arabic but remains present in Bedouin varieties and other regional dialects such as Najdi, Bahraini, and Kuwaiti Arabic (Alshahwan 2015).

(θ)

The voiceless interdental /θ/ has undergone many changes in the history of spoken Arabic. These changes can be attributed to several factors, such as structural changes in societies, changes in literacy levels, and the urbanisation of Arab countries in the Middle East and North Africa (Holes 1987; 2004). The relationship between (θ) and its variants in spoken Arabic varieties is also a result of phonological merger, which is argued to have occurred due to contact with Aramaic or was inherent in certain Arabic varieties (Cantineau and Helbaoui 1953; Al-Wer 1991). According to Garbell (1958), this phonetic change was common in many sedentary Arabic dialects outside of Arabia and Mesopotamia. This is supported by the fact that Aramaic was the dominant language in the Levant region up until the 8th century. Thus, the use of dental stops in Arabic sedentary

varieties occurred as a result of contact (Cantineau 1960; Abd-El-Jawad and Awwad 1989). This type of phonological merger resulted in two types of Arabic dialects (Al-Wer 2014).

The first type of dialects is argued to be Arabic sedentary varieties that have had a systematic sound change in which /θ/ merged into /t/, /s/, or /f/ at some point. As a result, this category of dialects does not have the interdental fricative in its inventory and includes dialects such as the Urban varieties of Egyptian, Hijazi, Ammani, Palestinian, Beiruti Arabic, Maltese and some of the Maghrebi dialects (Mustafawi 2018; Cotter 2017; Shetewi 2018; Al-Hathloul *et al*. 2023). Some of the above-mentioned dialects, such as Jordanian, Egyptian, and Palestinian Arabic, are found to have influenced the current urban Hijazi dialect in Saudi Arabia phonologically and morphologically as a result of dialect contact in Hijaz (Ingham 1971; Omar 1975; Prochazka 2013; Alzaidi 2014). The second type of dialect consists of varieties that have undergone no merger and maintained the use of interdentals. 'Preservation dialects' include Arabic varieties of Bedouin origin, such as rural sedentary dialects of Central Palestine, Jordan, Tunisia, and Mesopotamia, in which /θ/ is part of the sound system (Watson 2011). It also includes the Bedouin varieties spoken in the Arabian Gulf, such as Najdi, Kuwaiti, Omani, and Emarati Arabic, to name a few.

As mentioned in Section 3.4, Hijazi Arabic consists of two main varieties: UHA and BHA. As one of the urban dialects discussed above, the sound system of UHA, as canonically described, does not have /θ/; in its place, speakers use /t/ (Ingham 1971). In canonical descriptions of BHA, by contrast, the phonemes have not merged; the variety's phonemic inventory contains both /θ/ and /t/. UHA is the only sedentary variety in The Arabian Peninsula (Gulf countries and Iraq) in which /θ/ is replaced with /t/ (Al-Essa 2008). Both phonemes are also represented in the Arabic Alphabet (ث for θ) and (ت for t). The contrast between the varieties is illustrated in Table 4.8.

Table 4. 8: Examples of θ and t in Hijazi Arabic

Example #	Gloss	UHA	BHA	MSA
1	Third	**t**a:li**t**	**θ**a:li**θ**	θa:liθ
2	Snake	**t**uʕba:n	**θ**uʕba:n	θuʕba:n
3	Triangle	mu**t**alla**t**	mu**θ**alla**θ**	muθallaθ
4	Fox	**t**aʕlab	**θ**aʕlab	θaʕlab
5	Apple	**t**uffaħa	**t**uffaħa	tuffaħa
6	House	be**t**	be**t**	Bajt

7	Girl	bIn**t**	bIn**t**	BIntun
8	Oil	Ze:**t**	Ze:**t**	Zajt

Interdentals are arguably among the most studied Arabic variables in Arabic sociolinguistics. Al-Wer (1991) examined phonological variations in Jordanian women's dialects. She focused on four phonological variables: (q), (θ), (ð) and (ʒ). First, she observed that (ð) was not variable at all; hence, it was excluded from the study. This is due to the fact that the (ð) variable didn't occur frequently enough in the data. With (θ), Al-Wer (1991) found that the higher a speaker's level of education, the less she used [θ] and the more she used the non-local and non-standard variant [t]. Her data also showed that the youngest speakers produced more [t] than [θ] because of its association with prestige and modern lifestyle. Her study indicated the early stages of the dialect change towards [t] in the Levantine city dialects. Ten years later, Al-Wer (2004) collected a small sample from one of the urban towns she studied in 1991 and reported on the progress of the merger. She found that the change from [θ] to [t] increased from 28% to 45% in the speech of young women.

Albdairat (2021) investigated the phonological variation in the traditional dialects in South Jordan. Albdairat focused on five linguistic variables: (k), (q), (dˤ), (θ) and (ð) and how their variation is affected by gender, education, and age. (θ) has three variants in Jordanian Arabic: the standard [θ] and non-standards [t] and [s], while the voiced interdental variable has four variants, the standard [ð] and non-standards [ðˤ], [d], and [z]. One of the aims of the study was to investigate whether male speakers use the standard variants [θ] and [ð] more than female speakers since, generally, they are claimed to prefer standard variants more than female speakers (Al-Tamimi 2001). The study found that [θ] had the highest frequency among the speakers at 96%. The study also found that men categorically used the standard-like variant [θ] while women did with a frequency of 89%. Women used the local variants [t] and [s] at 11% and 0.23% respectively.

Al-Jehani (1985), in Makkah, Saudi Arabia, investigated the use of (θ), (ð) and (ðˤ) among two social groups: Bedouins and 'Al-Hadhar' (non-Bedouins). The social variables Al-Jehani investigated were style, ethnicity, education, and age. Al-Jehani noted that the Bedouin group in Makkah dropped most of their lifestyle to imitate prestigious urban ones. He interviewed participants of different age groups and found that the use of (θ) in Makkah is influenced by the above-mentioned predictors. Non-Bedouin participants shifted to the UHA [t] variant in formal

contexts while using [θ] in informal ones. Al-Jehani (1985) likewise found that ethnicity influences the variation; non-Bedouins are more likely to use [t] while Bedouins would use [θ]. Education also contributed to the variation among the non-Bedouin group. Educated non-Bedouins used [t] more than uneducated non-Bedouins, who preferred the sibilant variant [s]. The study also revealed that education did not influence the variation among the Bedouin group and that they used the BHA variant [θ] more than [t] and [s]. Moreover, the study revealed that the use of the UHA variant [t] was influenced by age, wherein older participants used more [t] than younger participants. This implies a change in progress in which both Hijazi varieties in Makkah were converging towards increased use of [θ] among non-Bedouins and [s] among young Bedouins.

Al-Shehri (1993) analysed the change in the use of (θ) by Hijazi Bedouins who migrated from a rural area in southern Hijaz to work in Jeddah. The results generally showed that in correlation with all factors (age, gender, education, and length of stay), changes from rural to urban features were highly inhibited. The highest frequency of [t] and [d] used by Bedouins in Jeddah was 7%, which indicated a great tendency toward conservativeness. One of the reasons Al-Shehri (1993) attributed this to the notion that urban [t], [d], [s], and [z] variants are always associated with non-tribal communities in Hijaz, which are socially stigmatised. He noted that the realisation of interdentals as stops or sibilants is a characteristic of Egyptian and the Levant varieties rather than Saudi ones and that [θ] is an ethnicity marker for Saudis. “This is due to the fact that the ‘interdental’ variable is a marker of ethnicity in the Saudi community, but not in the other Arab regions” (1993: 104-105). Another reason is that the urban variants already exist as separate phonemes in the sound system of the rural variety; they are distinctive units. Therefore, replacing interdentals with stops or sibilant would create a homonymic clash.

A few revelations can be deduced from the studies mentioned above. First of all, urban variants of the voiceless interdental fricatives are associated with prestige. They are also associated with women, educated, and young individuals. This, however, does not seem to be the situation in Makkah and Jeddah, as we observed in both Al-Jehani (1985) and Al-Shehri (1993). Despite being considered a prestigious variety, the progress of adopting the UHA variant by the Hijazi Bedouins was inhibited by the fact that the loss of [θ] represented a loss to their Bedouin identity in Saudi Arabia.

Thirty years since Al-Shehri (1993), observing how the linguistic situation has evolved in Jeddah is interesting. It is also imperative to scrutinise whether the use of the UHA [t] is still

inhibited due to its stigmatisation and being a non-Bedouin identity marker or not. One study examines whether the degree of contact between the two social groups in the three neighbourhood types influences the variation.

3rd person masculine suffix

The variable, third person masculine suffix, is underrepresented in Saudi sociolinguistic studies, and to my knowledge, the only study that scrutinised the effects of contact on the variable is Al-Essa (2008) in Jeddah. Al-Essa examined the variation of the 3rd person masculine suffix in the speech of Najdi Arabic speakers in Jeddah, a group outside this study's scope due to non-nativeness to the Hijaz region. The participants were divided into two groups based on location: Najdis (central Najd region) and Qasimis (northern Najd region). Al-Essa (2008) found that the Najdi group used the UHA variant [-u] at a 41% rate while the Qasimi group did at 76%. Regarding the age variable, the Qasimi speakers produced the urban variant far more than the Najdi group across all age groups. The distribution of variants across age groups showed a change in progress in the use of the urban variant, [-u], as the age decreases between the two groups, except for the third Najdi age group (25-38) and the Qasimi youngest age group (10-24).

Al-Essa (2008) attributed this pattern to the fact that age is not the only factor influencing the variation and that positive attitudes towards UHA also contributed to the change towards [-u]. In addition, to analyse the contact variable, participants were classified into 'High' and 'Low' contact groups based on their level of contact with local Hijazis in Jeddah. The study analyses the speech of Najdi participants with varying degrees of contact with Jeddah residents. However, it does not provide clear distinctions regarding whether the contact was primarily with urban or Bedouin Hijazis. As previously noted, Jeddah's population comprises diverse social groups, each with a distinct linguistic heritage reflected in their speech patterns. This distinction is crucial, as linguistic variation in Jeddah is influenced by the sociocultural backgrounds of its inhabitants, and without specifying the nature of contact, it becomes challenging to fully interpret the study's findings in relation to broader dialectal trends within the city.

Nevertheless, the results highlighted a clear correlation between contact and the use of [-u]: both Najdis and Qasimis in the high-contact group exhibited a higher frequency of the urban variant, [-u], than the Bedouin one, [-ah]. The study found contact is a crucial influencer in acquiring the urban [-u] variant. Those born and raised in Jeddah but had low contact with locals showed lower rates of [-u] than those who moved to the city at a young age and had high contact

with locals. Al-Essa (2008) also found that male speakers used the urban [-u] variant more than female speakers, with the difference being more significant among those in the Najdi group than among the Qasimis. The study suggests that male speakers are leading the change towards [-u]:

> Because women are restricted from expanding their contact beyond the circle of their relatives, which means that face-to-face interaction with Hijazi males is limited, their exposure to masculine suffix is less intense as they rarely engage in long-term personal communication with Hijazi men.
> (Al-Essa 2008: 202).

4.7 Data Transcription, Coding and Analysis

The interviews were transcribed orthographically using Elan 5.9, a software that can be used to segment audio files into utterances for more straightforward transcription.

Compared to more complex features, the features in my study were easy to recognise and transcribe. However, several attempts were made to listen and code the audio files to ensure precision and accuracy. Moreover, Milroy and Gordon's (2003) suggestion of having a second coder, a trained auditory analyst, analyse the transcription was followed to ensure accuracy and that no errors were made. Data coding was straightforward since each variant had different phonemes and features and had its own code.

The quantitative analysis used in this study is essential in variationist sociolinguistics. The analysis included both a distributional analysis to observe the pattern in dialect use of both groups as well as a mixed-effect logistic regression model to observe whether the effect of the social factors is significant or not. The p-value was set at 0.05. The analysis was carried out using the programming language R software, which has become an industry standard in performing statistical analysis of this nature, was used to perform the statistical analysis this study (R Core Team 2012). The package used for the mixed-effect logistic regression model was 'lme4' version 1.1-35.1 for its reliability in aiding researchers in investigating variations (Drager and Hay 2012). By using the 'glmer' function, the model also ensures accuracy due to its ability to include both participant and word as random effects (Gorman and Johnson 2013; Winter 2019). One model was used for each Linguistic variable.

4.8 Linguistic Predictors

This section presents the variation of (ð) across three linguistic predictors. The linguistic factors were 1- The variable's position in the word, 2- The type of syllable the variable is part of,

and 3- The variable segmentation in the syllable. This was inspired by studies such as Omari and Van Herk (2016), in which various linguistic factors, such as immediate phonological context, stress, word class, syllable structure, and word position, were examined to determine their influence on the use of interdental fricatives in Jordanian Arabic. Their findings indicate that social and linguistic factors, including word position, significantly affect interdental variation. My data provided tokens in words ranging from one to three syllables. The syllable types found in the data were CV, CVV, CVC, CVVC, and CVCC. The data also provided tokens in first, middle and final positions in words. Also, based on its relationship with the nucleus, the tokens found were both onset and coda. Overall, the distributional analysis did not reveal anything significant (See Appendix D).

Taken in isolation, these results do not provide a cohesive explanation for the variation of (ð). No linguistic factor consistently predicts when [ð] will be used instead of [d]. Instead, the results highlight that the variation must be understood in relation to social variables such as social background, neighbourhood type, sense of identity, and social attitudes. External variables might affect this variation, which is why the study aimed to analyse linguistic internal variables on linguistic variation across neighbourhoods was examined using a smaller sample of 188 tokens from participants, 12% of the overall data.

The analysis revealed no significant variation of the voiced interdental across neighbourhoods when it comes to linguistic variables of word position, syllable type, and segment, as the variation was not consistent, which suggests that it is not being driven by syllable structures. Instead, this variation is likely influenced by broader sociolinguistic dynamics such as ethnicity, contact, sense of identity, and attitudes (explored in the following three chapters). The study did not analyse the linguistic variables on linguistic variation throughout the whole data.

4.9 Conclusion

The chapter explained the methods of the study and detailed how the data was collected through both conducting a semi-structured interview and employing a questionnaire. The study aims to collect data from 16 Bedouins and 16 non-Bedouin Jeddawis from three neighbourhoods in the city. Participants were classified based on their answers to a questionnaire set to measure their sense of belonging and attitudes towards the other group. This chapter also detailed how the data was transcribed using ELAN 5.9 and how the tokens were extracted with AntConc. The

chapter also detailed how the data was analysed using a distributional analysis and a mixed-effect regression model using R software.

Chapter Five: The Voiced Interdental Fricative (ð)

5.1 Overview

This chapter presents the results of the analysis of the first phonological variable (ð). The chapter begins with a distributional analysis of the variation of (ð) across social factors in 5.3, 5.4, 5.5, and 5.6. The social variables include Social Background, Neighbourhood Type, Sense of Identity and Social Attitudes. This is followed by a mixed logistic regression model analysis of the variation in 5.7.

5.2 The Voiced Dental Fricative (ð): Variable Distribution

The data encompassed a total of 1553 tokens for the phonological variable (ð). Two main variants were found for the variable: the Bedouin variant [ð] and the local urban [d]. With 894 tokens, the Bedouin variant was the most frequent across the data, at 58%, while the non-Bedouin variant was used at a 42% rate (659 tokens). No utterances of the urban variant [z] were found in the data.

5.3 Social Background

Figure 5.1 presents the variations of (ð) based on participants' social backgrounds. It demonstrates that Bedouin participants uttered 667 tokens of the variant [ð] as a group. Bedouin participants only used 8% of the local variant [d]. The non-Bedouin group, on the other hand, produced 886 tokens of the variable. 69% of the uttered tokens were of the variant [d], while 31% were [ð]. It is worth noting that there were realisations of (ð) wherein participants borrowed from Standard Arabic, the Quran, and quoted famous sayings and expressions. In those instances, non-Bedouin participants exclusively used the Bedouin variant. For instance, two examples in which a participant realised the same variable differently are presented below. The first example presents the participant realising (ð) as [d] in utterance, while the second example highlights the realising of the same variable as [ð] while quoting a famous saying.

1- tʕələm.na nʕtadɪr mən.u
learned.1stP apologise from.3rdS
'We learned apologising from him'.

2- ʔal.ʔeʕtiðaːr mɪn ʃɪjam ʔan.nʊbalaːʔ

DET. Apologise from instincts nobles.
'Apologising is a noble instinct'.

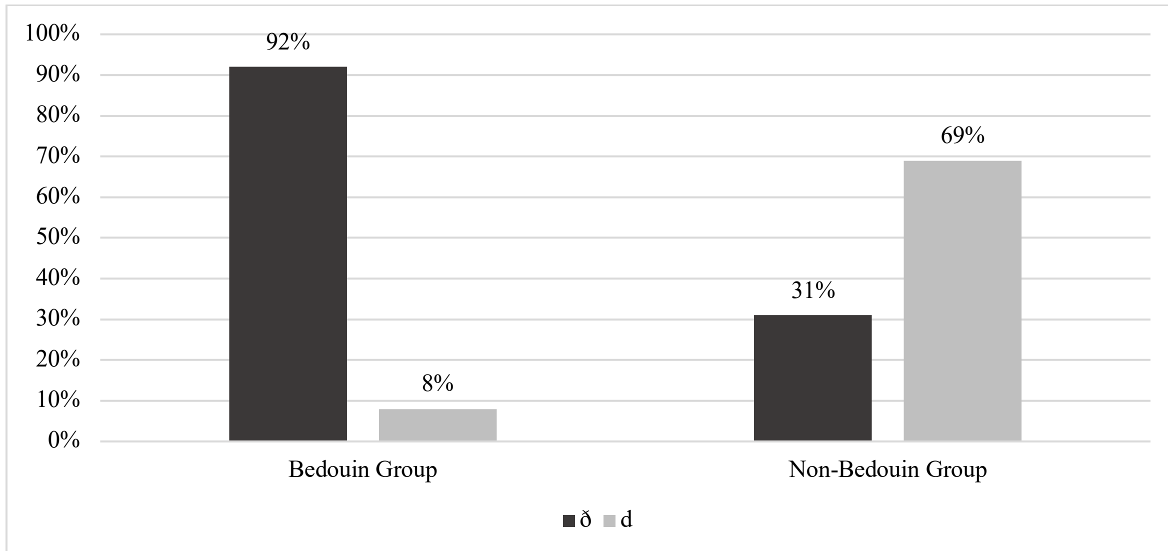

Figure 5. 1: Variations of (ð) across Social Groups.

The above variation is also found in some Levant dialects in which [q] has many variations. Studies found that both independent and dependent variables do not affect the variation when it comes to borrowing from Quran, Hadiths, Standard Arabic, famous sayings, etc. (see Habib 2010; Miller 2005; Ornaghi 2010). However, since the 18 tokens of [ð] found in the data only represent 6.4% of all the non-Bedouin group's realisation of the variable, this does not seem significant enough to draw any conclusions.

5.4 Neighbourhood Type

This section analyses the variation of (ð) across the neighbourhood type variable. As mentioned in 4.5, in the first section of the questionnaire, participants were asked to answer 10 questions to measure the degree of contact they had with the other group. The purpose of the questions was to measure the degree of contact participants have with the other social group. Based on their answers, participants were grouped into two groups: low and high contact. All 16 participants in both the Bedouin and non-Bedouin neighbourhoods only had friends, neighbours, and classmates of their own social background. As predicted, those in the mixed Neighbourhood had friends, neighbours, or classmates from other social groups. The fact that those in the mixed Neighbourhood had mixed social networks growing up, unlike those in the other two

neighbourhoods, lends to the argument that the neighbourhood type influenced the degree of contact participants had, at least while growing up.

The overall distribution of variants based on the neighbourhood type of non-Bedouin participants is highlighted in Table 5.1. The table demonstrates that the lack of contact in the Bedouin neighbourhood affects the variation. Participants in the Bedouin neighbourhood used the Bedouin variant categorically. They only used two tokens of the local urban variant [d]. However, since the two tokens Bedouin participants used were used to imitate non-Bedouins in Jeddah and as part of a metalinguistic discussion, they were excluded from the data. In addition, the table shows that the local non-Bedouin variant [d] was the most frequent among non-Bedouins in the non-Bedouin neighbourhood.

Nevertheless, unlike those in the Bedouin neighbourhood, participants in the non-Bedouin neighbourhood used the Bedouin [ð] at 35%. Participants in the mixed neighbourhood, on the other hand, exhibited a preference towards both variants at similar rates.

Table 5. 1: Variations of (ð) across Neighbourhood Types.

Neighbourhood Type	Variant	N of Tokens	% of Tokens
Bedouin	**[ð]**	394	100%
	[d]	0	0%
Non-Bedouin	**[ð]**	176	35%
	[d]	317	65%
Mixed	**[ð]**	324	49%
	[d]	342	51%

Figure 5.2 presents the variations based on the social background of participants in the mixed neighbourhood. Compared to those in the Bedouin neighbourhood, Bedouin participants in the mixed neighbourhood used the local urban [d] at 19%, which can indicate an effect of contact. Conversely, the non-Bedouin group used less of the Bedouin variant than those in the non-Bedouin neighbourhood.

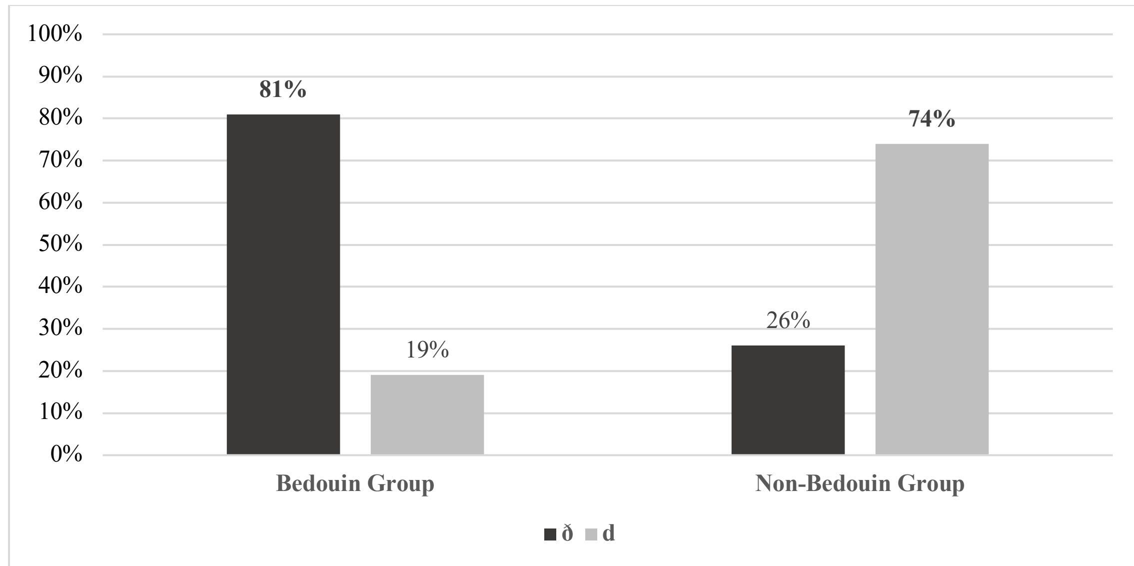

Figure 5. 2: Variations of (ð) across the Mixed Neighbourhood.

5.5 Sense of Identity

As explained in 4.5.5, participants were classified into three identity levels: Strong (15 participants), Neutral (13 participants), and Weak (4 participants) for the purpose of the distributional analysis. This section reports on the variation of (ð) across the identity variable. Figure 5.3 highlights the overall variation across the identity variable among all participants. The Bedouin [ð] is the preferred variant among those in the Strong Identity group. The local [d] is the most frequent across both the Neutral and Weak identity types, with the highest being produced by those in the 'weak sense of identity' category, 80%. The same group produced the Bedouin variant at the lowest rate, 20%.

In order to understand the influence of identity on the variation, this predictor needs to be analysed in relation to both of the previous predictors ('social background' and 'neighbourhood type'). On its own, this predictor does not reveal anything. Participants in the Bedouin neighbourhood used the Bedouin variant categorically. Thus, they are excluded from the following distributional analysis.

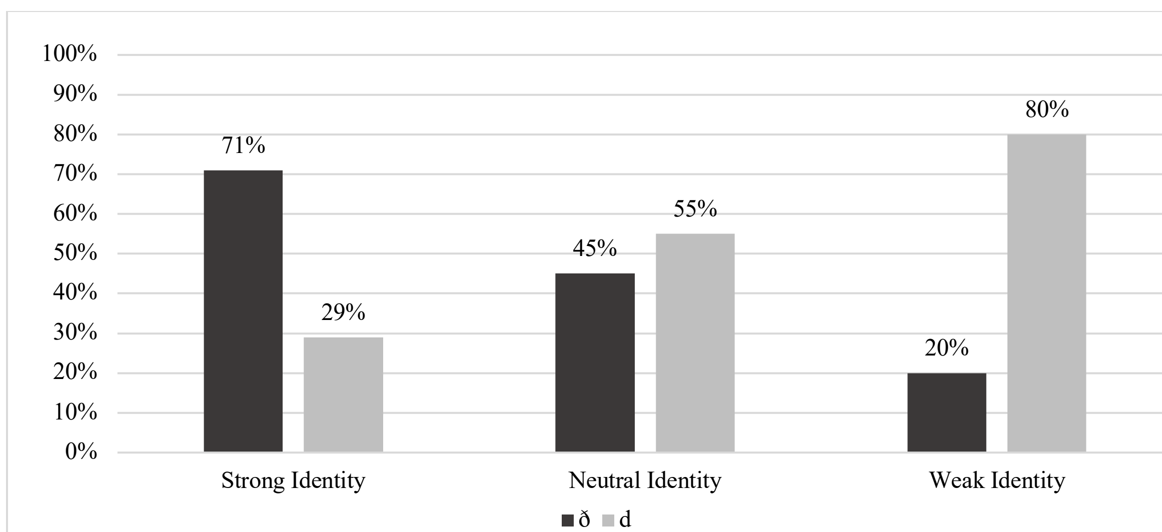

Figure 5. 3: Variations of (ð) across the Three Identity Groups.

Overall, the local urban variant was the most preferred in this neighbourhood, 65%. The local variant [d] was produced the most among non-Bedouins across all identity types, in both non-Bedouin and the mixed neighbourhood types, as seen in Tables 5.2 and Figure 5.4. The relationship between how close an individual feels to the speech community did not affect the variation. Participants in the weak identity category produced the non-Bedouin variant at the highest rates in both neighbourhood types, 88% in the non-Bedouin neighbourhood and 83% in the mixed neighbourhood. The Bedouin variant, on the other hand, was uttered the most by those in the 'neutral sense of identity' category in both neighbourhoods, 42% in the non-Bedouin neighbourhood and 30% in the mixed neighbourhood. Based on the distributional analysis provided in Table 5.2 and Figure 5.4, it can be assumed that this variable did not contribute to the variation of (ð) among the non-Bedouin group, as participants in this neighbourhood are not affected by the contact variable.

Table 5. 2: Variations of (ð) across Identity Levels in the Non-Bedouin Neighbourhood.

Identity Type	N of participants	Variant	N of Tokens	% of Tokens
Strong	4	**[ð]**	86	35.5%
		[d]	156	64%
Neutral	3	**[ð]**	83	42%
		[d]	113	58%
Weak	1	**[ð]**	7	12%

		[d]	48	88%

Additionally, Figure 5.4 also presents the distribution of (ð) across Bedouin participants in the mixed neighbourhood. The four Bedouin participants in the strong identity level favoured the Bedouin variant at 87%, the highest among their peers, while the one participant in the weak identity level used it the least, 44%. On the other hand, those in the neutral identity level favoured the Bedouin variant and used it at an 82% rate. Moreover, non-Bedouins favoured the urban local [d] across all identity levels. Based on the distributional analysis, the relationship between how close an individual feels to the speech community did not affect the variation among non-Bedouins, at least. As for the Bedouin group, the sample size of one participant in the weak identity level is too small to make any assumptions, however interesting they may appear.

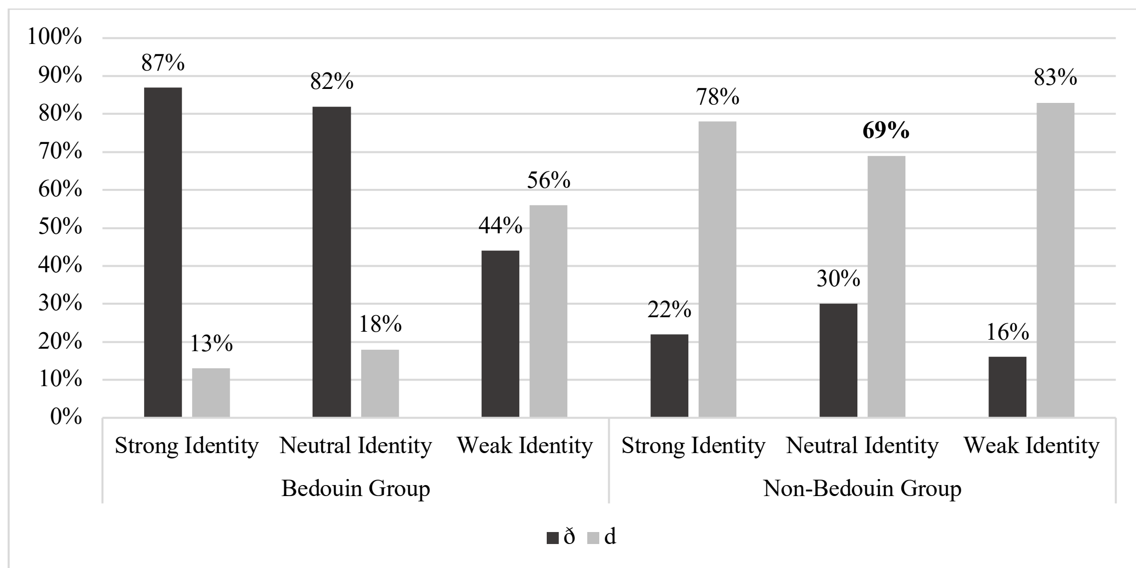

Figure 5. 4: Variations of (ð) across the Sense of Identity Variable the in the Mixed Neighbourhood.

5.6 Social Attitudes

This section reports on the variation of (ð) across these three categories of social attitudes. As explained in 4.5.5, participants were classified into three social attitude levels based on their answers to the questionnaire. Similar to that of the identity variable, the categorisation here was undertaken for the purpose of the distributional analysis only, as the mixed-effect regression model used participants' scores in the questionnaire as a continuous variable. The categories are positive attitudes (6 participants), impartial attitudes (14 participants), and negative attitudes (12 participants). Figure 5.5 highlights the overall variation across the identity variable among all

participants. Unlike the sense of identity variable reported above, The Bedouin [ð] is not the preferred variant among the six social attitude levels. Those with positive and impartial attitudes used both variants at similar rates, while those with negative attitudes preferred the Bedouin variant at a 79% rate. However, to understand the influence of this predictor on the variation, it needs to be analysed in relation to the previous predictors ('social background' and 'neighbourhood type'). On its own, this predictor does not reveal anything. Participants in the Bedouin neighbourhood used the Bedouin variant categorically. Thus, they are excluded from the next distributional analysis.

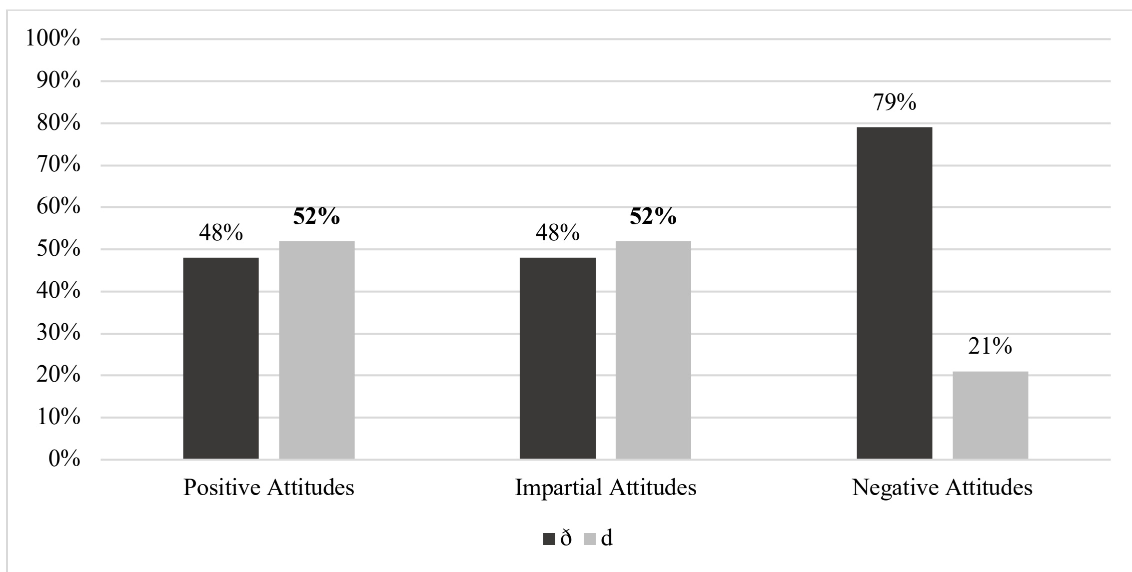

Figure 5. 5: Variations of (ð) across Social Attitudes Categories.

The overall distribution of (ð) across the three levels of social attitudes of non-Bedouins as a social group is presented in Figure 5.6. The local non-Bedouin variant has the highest frequency across all three attitude levels. It was realised that the most among those with impartial attitudes towards the Bedouin group, at 78%, and the least among those with negative attitudes, 55%. The Bedouin variant, on the other hand, was produced the most by those with negative attitudes, 44%, and the least by those with impartial attitudes, 21%.

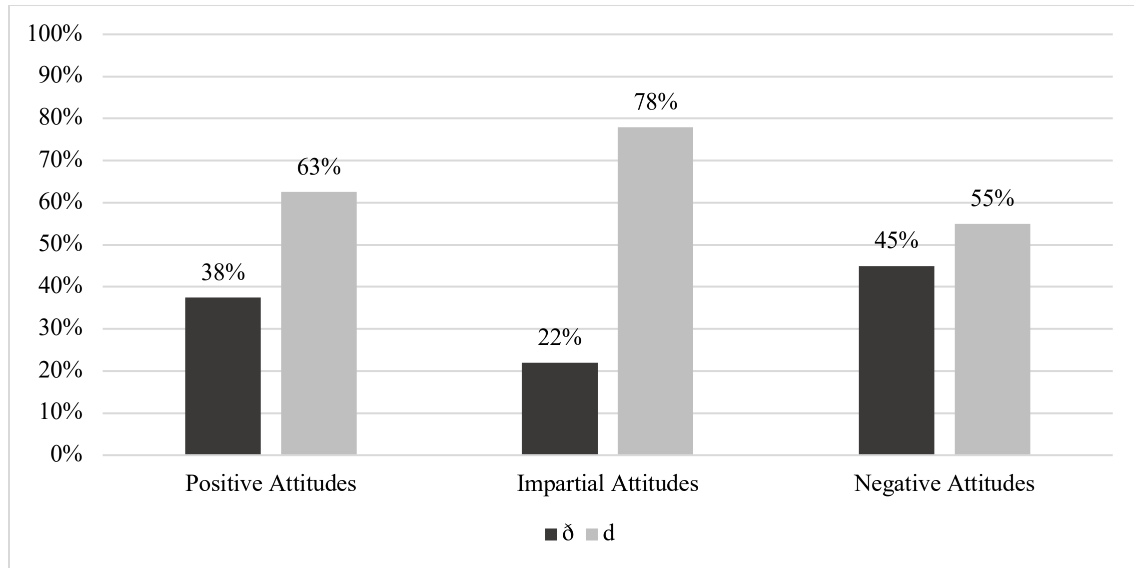

Figure 5. 6: Variations of (ð) across Social Attitudes Categories across non-Bedouin participants.

Table 5.3 provides the distribution of variants across the social attitude levels in the non-Bedouin neighbourhood. The non-Bedouin variant was realised the most by those in the impartial attitudes category, 80% (210 tokens). Participants with negative attitudes produced more [ð] tokens than [d], 58%, while those with positive attitudes produced both variants at similar rates. Moreover, the variation of (ð) in the mixed neighbourhood is presented in Figure 5.7 below.

Table 5. 3: Variations of (ð) across the Social Attitude Variable in the Non-Bedouin Neighbourhood.

Variant / Attitudes	[ð]	[d]
Positive	50.8% (65)	49.2% (63)
Impartial	19.2% (50)	80.8% (210)
Negative	58.1% (61)	41.9% (44)
Total	35.7% (176)	64.3% (317)

The figure shows that each group preferred their variant the most across all attitude groups; The non-Bedouin variant was realised the most across all social attitude groups among non-Bedouins, and the Bedouin variant was uttered the most among non-Bedouins across all social attitude groups. The only interesting observation is that the two Bedouin participants with negative attitudes did not use the local urban variant at all. However, similar to the effects of the identity predictor, the sample size of two participants is too small to make any assumptions.

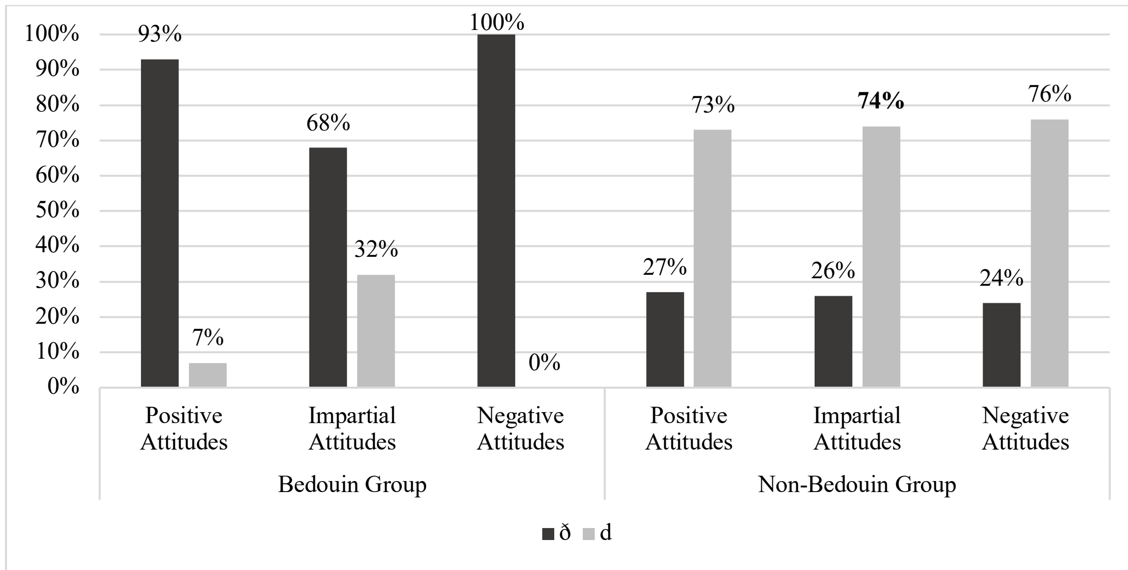

Figure 5. 7: Variations of (ð) across Social Attitudes Categories in the Mixed Neighbourhood.

5.7 Mixed-Effect Logistic Regression Model

To dive deeper into the influence of each variable, Table 5.4 presents the results of the mixed-effect logistic regression analysis. The benefit of this model lies in its ability to provide accurate predictions and statistical validity by considering group-level variability and interaction between the variables. Due to the categorical use of the Bedouin variant by the Bedouin participants from the Bedouin neighbourhood, their data were excluded from this analysis. Since the data consist of categorical variables (i.e. ones that have specific fixed categorical values), the behaviour of one of the variable levels is compared to the baseline of Bedouin speakers from the Mixed neighbourhood. To facilitate model robustness, the baseline for each social predictor was determined based on the frequency of observations in each variable level. For example, the Bedouin participants had the most observations compared to the non-Bedouin ones; thus, it was set as a baseline for the neighbourhood-type variable. To compare the effect of identity and attitude on participants' use of the tested variable, their data were divided into two categories for each variable based on their social background. For instance, the variable sense of identity was split into two groups: Bedouin identity and non-Bedouin identity. To further account for individual differences, the data for both the identity and attitude variables were analysed as continuous variables.

Table 5.4 provides the coefficients of the mixed-effect logistic regression model (the estimates, standard errors, z- values and p-values). The analysis aims to summarise the variables that influence the variation. It is worth noting that the three linguistic predictors were not included due to multicollinearity. The model used the Bedouin Hijazi Arabic [ð] variant as the reference level and the Hijazi Arabic, *non-Bedouin,* voiceless interdental variant [d] as the application level.

Table 5.4 suggests that the non-Bedouin participants used the non-Bedouin variant at an insignificant rate; the results indicated that the use of [d] was more likely among the non-Bedouin group while the use of [ð] was favoured among the baseline (Bedouins) as indicated by the estimate values. However, as seen in Table 5.4, the p-value of the non-Bedouin neighbourhood type is statistically significant compared to the mixed neighbourhood. This indicates that participants in the non-Bedouin neighbourhood are significantly less likely to use the non-Bedouin variant compared to the baseline. This implies that the use of the Bedouin variant is more likely to increase by the increase of participants from the non-Bedouin neighbourhood, while an increase in the mixed neighbourhood participants reduces the Bedouin variant usage. Additionally, the results reveal no significant effect of strong sense of identity for both Bedouin and non-Bedouin participants. However, it indicates nonsignificant favour for the use of the Bedouin variant. Although the effect of the fixed variable, attitude, is insignificant, the results suggest that the likelihood of the use of the non-Bedouin variant increases by the increase of Bedouin participants with positive attitudes towards non-Bedouins. In contrast, it is more likely that the use of the non-Bedouin variant decreases with the increase of non-Bedouin participants with positive attitudes towards Bedouins.

Table 5. 4: Mixed-Effect Logistic Regression Model of (ð).

Fixed Effects			**Report**		
	Predictors	**Estimates**	**Std. error**	**Z value**	**P(>|z|)**
	(Intercept)	-21.2832	58.4592	-0.364	0.716
	Social Background				
	Bedouin (Baseline)				
	Non-Bedouin	23.7752	46.2375	0.514	0.607
	Neighbourhood Type				
	Mixed N (Baseline)				

Non-Bedouin N	-1.1974	0.2342	-5.112	**0.001** ***
Identity				
Bedouin Identity	-0.6541	47.1083	-0.014	0.989
Non-Bedouin Identity	-0.2404	0.1905	-1.262	0.207
Attitudes				
Attitudes towards non-Bedouin	0.1256	64.0849	0.002	0.998
Attitudes towards Bedouin	-0.2799	0.1790	-1.564	0.118
Model fit: Residual Min (-3.0413), 1Q (0.0000), Median (0.1494), 3Q (0.3979), Max (4.5107)				
Random Effect				
Group		**Variance**	**Std. Dev.**	
Participants Number (Intercept)		4.508	2.123	
Words (Intercept)		5.03	2.243	

Data in bold represent significant results: P < 0.05 '', P < 0.01 '**', P < 0.001 '***'.*

5.8 Discussion and Conclusion of the Results of (ð)

This chapter analysed the effect of the four social predictors of social background, neighbourhood type, sense of identity, and social attitudes on the variation of (ð) among a group of 32 participants in Jeddah. The voiced interdental fricative variable (ð) was analysed using distributional analysis and mixed-effect logistic regression models. First of all, the distributional analysis showed that, overall, the two variants were used at similar rates. When it comes to the social background (i.e. ethnicity), the analysis highlights that each group favoured their own variant while still using the other variant; the Bedouin group used [ð] at a 92% rate while the non-Bedouins used [d] at 69%. Moreover, regarding the neighbourhood type variable, the analysis shows that Bedouins were clearly affected by the lack of contact, wherein those in the Bedouin neighbourhood used the Bedouin variant categorically, compared to those in the mixed neighbourhood who used [d] at 19% rate. The distributional analyses also showed that both sense of identity and social attitudes variables did not contribute to the variation of (ð) because any interesting observation was hindered by the fact that the participant group was too small.

The linguistic behaviour of those in the Bedouin neighbourhood does not reflect that of Migration-induced contact. They categorically used the variant they acquired growing up, [ð]. However, this can be explained by the fact that they grew up with no friends, neighbours, or

classmates of the non-Bedouin group. This can explain the difference between their linguistic behaviour and that of Bedouin participants in the mixed neighbourhood who used the local urban [d] at 19%. Lack of contact, however, did not influence the variation of the variable among non-Bedouins who used it slightly more in the non-Bedouin neighbourhood than in the mixed neighbourhood, 35% and 26%. This can be the result of [ð] being part of one of the prestigious varieties in Saudi Arabia, Najdi Arabic. Al-Rojaie (2023:23) notes, "One major recurring finding was a dichotomous view of certain dialects in which Najdi Arabic is often regarded as prestigious, dominant, and more associated with the standard Saudi dialect". As one of the Bedouin dialects that maintain the production of interdentals, the sound system of BHA resembles that of the Najdi Arabic more than the sound System of UHA does. Thus, an argument can be made that this is a reason for its prestige in Hijaz. The urban variety, on the other hand, is usually adopted by Saudi speakers of other stigmatised dialects, such as the Jizani Dialect, spoken in the southwestern region of Saudi Arabia (Al-Rojaie 2023).

The next chapter analyses the effect of the social predictors on the variation of the voiceless interdental fricative.

Chapter Six: The Voiceless Interdental Fricative (θ)

6.1 Overview

This chapter presents the results of the influence of the social predictors on the variation of (θ) in the three neighbourhoods in Jeddah. The chapter begins with a distributional analysis of the variable is presented in 6.2 through 6.6. This is followed by 6.7, which presents the mixed-effect logistic regression model results. Along with the effect of the social predictors, the interaction between them is also analysed. The chapter concludes with a summary and a discussion of the results in 6.8.

6.2 Overall Distribution of the Variable

The 32 interviews yielded a total of 1900 tokens of (θ). These were coded impressionistically as one of two variants: the BHA variant [θ] and the UHA variant [t]. There were 79.5% observations of [θ] and 20.5% of [t]. Despite being one of the two variants of (θ) attested to be in the Urban Hijazi inventory (Ingham 1971; Al-Jehani 1985; Al-Ahdal 1989), the local UHA variant [s] was not found in the data.

6.3 Social Background

Figure 6.1 shows the choice of (θ) variants by social group: Bedouin and non-Bedouin. For both social groups, the BHA variant [θ] is the majority variant; it is used with far higher frequencies than the local UHA variant [t], especially among the Bedouin group.

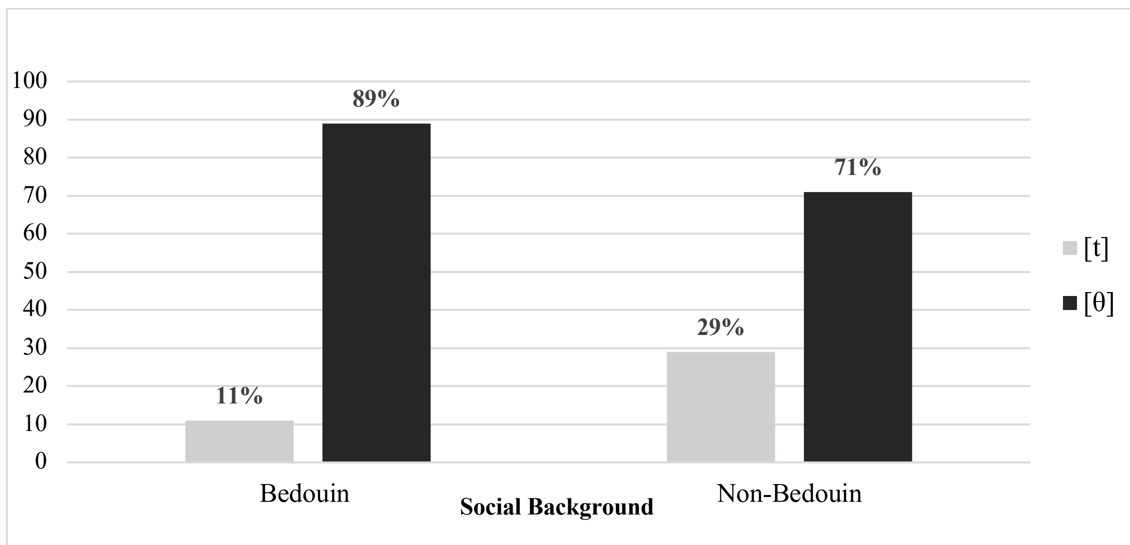

Figure 6. 1: Variations of (θ) across Social Backgrounds.

6.4 Neighbourhood Type

The distribution of (θ) based on the neighbourhood-type variable is presented in Table 6.1. Bedouin participants in the Bedouin neighbourhood used [θ] categorically. Participants in the non-Bedouin Neighbourhood used the BHA variant [θ] at only 35% and [t] at 65%. This is Despite [θ] not being canonically described as part of the sound system of UHA and the non-Bedouin in the non-Bedouin Neighbourhood here being part of the low-contact group.

Table 6. 1: Variations of (θ) across Neighbourhood Type.

Neighbourhood Type	Variant	N of Tokens	% of Tokens
Bedouin	θ	209	100%
	t	0	0%
Non-Bedouin	θ	88	35%
	t	164	65%
Mixed	θ	1214	84%
	t	225	16%

Table 6.1 also highlights that Participants in the mixed Neighbourhood produced [θ] at 84% and [t] at 16%. However, the distributional analysis in this table does not take into account the social group of the participants in this neighbourhood type. This information can be found in Figure 6.2, which shows variant distribution among Bedouins (on the left) and non-Bedouins (on the right) in the mixed Neighbourhood.

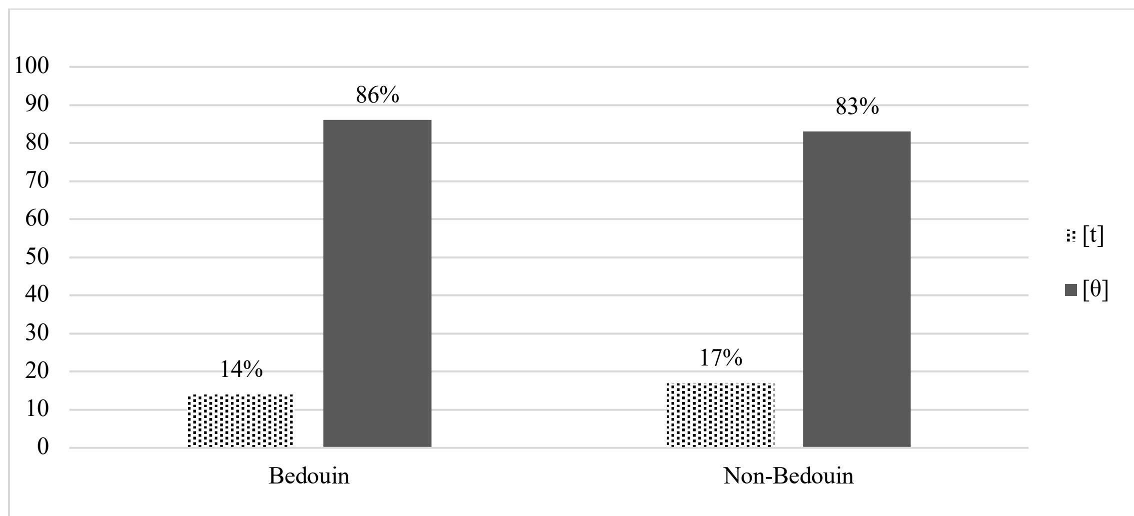

Figure 6. 2: Variations of (θ) across Social Groups in the Mixed Neighbourhood.

The results above show that both social groups used [θ] far more than the local [t] and with broadly similar rates. Moreover, the patterns suggest that the level of contact influences variant choice in the Bedouin and non-Bedouin groups. Unlike the Bedouins in the Bedouin neighbourhood who categorically use [θ], the Bedouins in the mixed Neighbourhood produced [t] at a 14% rate. Compared to the non-Bedouins in the non-Bedouin Neighbourhood, which have very high rates of [t] (65%), the non-Bedouins in the mixed neighbourhood use [t] with much lower frequencies (17%).

6.5 Sense of Identity

Overall, participants were distributed into three identity levels: Strong (15 participants), Neutral (13 participants), and Weak (4 participants), as explained in 4.5.5. In order to understand the influence of identity on the variation, this predictor needs to be analysed in relation to both of the previous predictors (‘social background’ and ‘neighbourhood type’).

On its own, this predictor does not reveal anything; The BHA variant was favoured across all identity levels at similar rates, 79-80%. Additionally, Since the use of [θ] in the Bedouin neighbourhood was categorical, the Bedouin neighbourhood group is not included in the upcoming analysis.

Table 6. 2: Variations of (θ) across Identity Levels in the non-Bedouin Neighbourhood.

Identity Type	N of participants	Variant	N of Tokens	% of Tokens
Strong	4	θ	29	23%
		t	95	**77%**
Neutral	3	θ	25	29%
		t	62	**71%**
Weak	1	θ	34	83%
		t	7	**17%**

Table 6.2 provides the distribution of (θ) based on Identity identity in the non-Bedouin Neighbourhood. As can be observed in the table, the results presented here are based on eight participants in three identity levels. Thus, they are based on very few participants, especially the variation in the weak identity group (one participant). Nevertheless, the table shows that [t] was used the most by those in the strong identity group, at 77%. This is followed by those in the neutral identity group, 71%. The one participant in the weak identity group used the non-Bedouin variant

the least, at 17%. Thus, while the non-Bedouin variant is used the most by those with strong identity, the Bedouin variant is used the most by those with weak identity. It seems, then, that identity influences the variation between (t) and (θ) in the non-Bedouin Neighbourhood. The stronger the sense of non-Bedouin group identity and belonging is, the more participants used their own variant rather than the Bedouin one. The distribution of (θ) based on identity in the mixed Neighbourhood is presented in Figure 6.3.

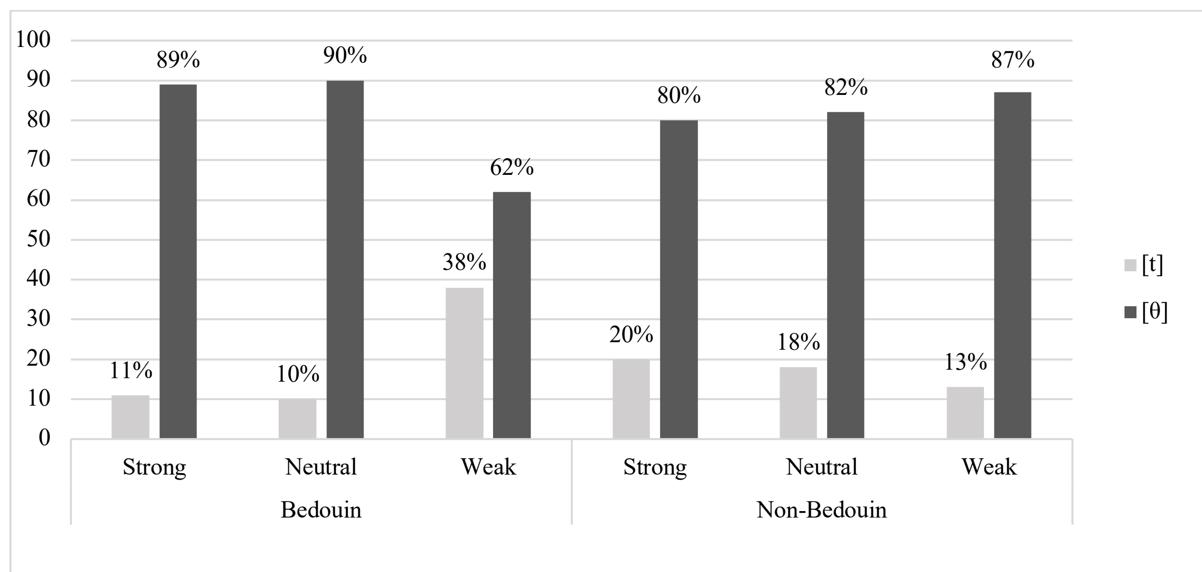

Figure 6. 3: Variations of (θ) across Social Groups in the Mixed Neighbourhood based on Identity.

Before diving into the variation of (θ) in the mixed neighbourhood, a reminder of how participants were distributed into the three identity levels is necessary. The distribution, presented in table 4.3, showed that out of the 8 Bedouin participants, 4 were in the strong identity group, 3 in neutral, and only 1 in weak. The non-Bedouins, on the other hand, were: 1 in strong, 5 in neutral, and 2 in weak.

Figure 6.3 shows that both social groups and all identity groups use the BHA and UHA variants, and across the board, the former far outnumber the latter. In the non-Bedouin group, the two weak identity participants used the BHA variant more than the UHA one, 87%. Non-Bedouin participants in this identity level produced the lowest frequency of their local variant, 13%. Despite producing the highest rate of [t] in their social group, the only Bedouin participant in the weak identity level, on the other hand, still maintained the use of his Bedouin variant at 62%. Nevertheless, he still produced the local variant at a higher rate than the two strong and neutral identity level Bedouins. This can indicate that the weaker sense of group identity is, the more open

participants are to use the other group's variant. However, this is based on three participants in the weak identity level, 1 Bedouin and 2 non-Bedouins. Overall, identity level does not considerably affect the use of [θ] in the non-Bedouin group. In the Bedouin group, the one speaker with weak identity level patterns differently from those with neutral and strong identity levels, using [t] with noticeably higher rates.

6.6 Social Attitudes

As presented in section 4.5.5, there were 6 participants in the positive attitude group, 13 in the impartial attitudes group, and 13 in the negative attitudes group. Similar to the sense of identity predictor, the social attitudes predictor needs to be analysed at the social group and neighbourhood type levels rather than on its own. Thus, I proceed to analyse the distribution of (θ) based on social attitude in the non-Bedouin and mixed Neighbourhood types. As above, the Bedouin neighbourhood was excluded from the analysis here because [θ] was used categorically.

Table 6. 3: Variations of (θ) across Social Attitude Groups in the non-Bedouin Neighbourhood.

Attitudes Type	N of participants	Variant	N of Tokens	% of Tokens
Positive	2	θ	19	**31%**
		t	42	69%
Impartial	4	θ	66	**48.5%**
		t	70	51.5%
Negative	2	θ	3	**5%**
		t	52	95%

Table 6.3 demonstrates the distribution of the variable in the non-Bedouin Neighbourhood. The distribution shows that the four participants with impartial attitudes used both variants at similar rates; those with positive attitudes regarding the Bedouin group (2 participants) used the Bedouin variant at 31%. Interestingly, the two participants with negative attitudes only produced three tokens of [θ], 5%. The variation of (θ) based on social attitudes across the two social groups in the mixed Neighbourhood is presented in Figure 6.4.

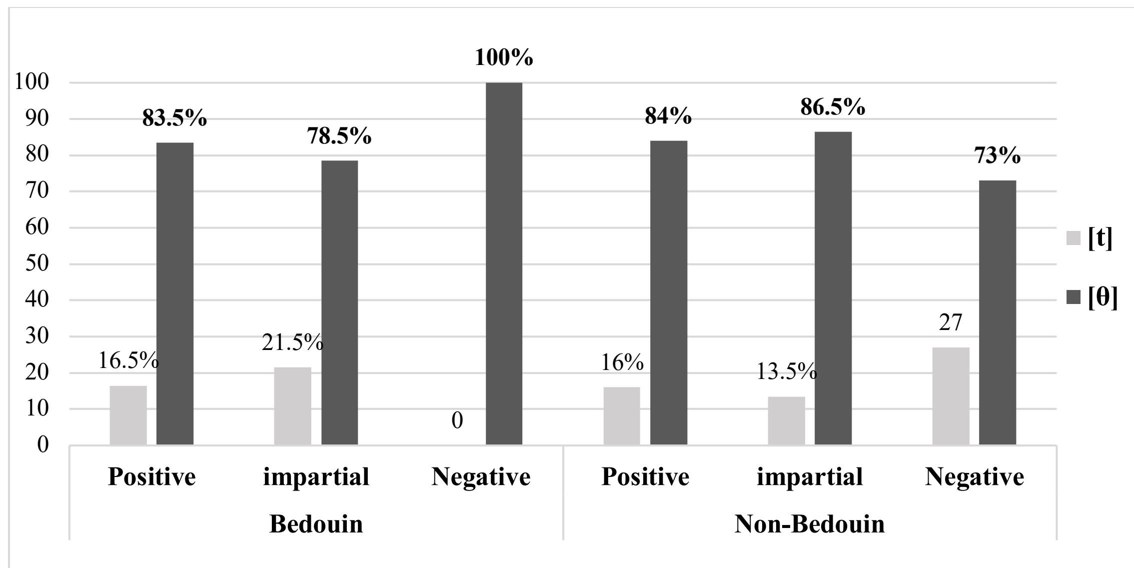

Figure 6. 4: Variations of (θ) across Social Groups in the Mixed Neighbourhood based on Social Attitudes.

Before exploring the distribution of the variable based on the social attitudes variable in the mixed Neighbourhood, it is worth noting that the sample sizes are relatively low. As mentioned in 4.5.5, the distribution of participants based on their social attitudes in this neighbourhood type was: positive attitudes (2), impartial (4), and negative (2). As for the non-Bedouin group, the distribution of participants was: positive (3), Impartial (3), and negative (2). With that in mind, a few observations can be seen in the mixed Neighbourhood. First of all, the influence of social attitudes on the variation can be seen in the Bedouin group, wherein the two participants with negative attitudes did not produce any of the non-Bedouin variant [t]. They used the Bedouin variant categorically. This can indicate that regardless of the degree of contact between the two groups, social attitudes as a predictor influence variant choice among Bedouins. In the same social group, those with impartial attitudes (4) produced the most tokens of [t], 21.5%. However, in the non-Bedouin social group, [θ] was used the least by those with negative attitudes (2 participants). However, the two participants still produced the BHA variant more than the local one, 73%. It seems that the level of high contact influences the variation in the non-Bedouin group regardless of how they feel about the Bedouin group, whereas it does not have the same influence in the Bedouin group. As for the Bedouin variant [θ], it was used across the three attitude groups in both social groups. It was used the most by Bedouins with negative attitudes and the least by non-Bedouins with negative attitudes.

6.7 Mixed-Effect Logistic Regression Model

To dive deeper into the influence of each variable, Table 6.6 presents the result of the mixed-effect logistic regression analysis. The benefit of this model lies in its ability to provide accurate predictions and statistical validity by taking into account group-level variability and interaction between the variables.

The model used the Urban HA [t] variant as the reference level and the Bedouin Hijazi Arabic voiceless interdental variant [θ] as the application level. To facilitate model robustness, the baseline for each social predictor was determined based on the frequency of observations in the social backgroind and neighbourhood type variables. Since the Bedouin participants from the Bedouin neighbourhood used the Bedouin variant categorically, their data were excluded from this analysis. The data for identity and attitude were analysed as continuous variables and further divided into two groups based on participants' social background to account for individual differences between the tested participants.

The model tested the effects of the social predictors of social background and neighbourhood type as fixed variables. To achieve robust results, the Bedouin participants in the Bedouin neighbourhood were excluded from the analysis since they categorically used the BHA variant. To include the Bedouin speakers would thus skew the model output. The interaction between identity and attitude was also excluded due to multicollinearity issues.

Table 6. 4: Mixed-Effect Logistic Regression Model of (θ).

Fixed Effects		**Report**			
	Predictors	**Estimates**	**Std. error**	**Z value**	**P(>|z|)**
	(Intercept)	10.24425	5.53497	1.851	**0.05 ***
	Social Background				
	Bedouin (Baseline)				
	Non-Bedouin	0.04917	6.35390	0.008	0.99383
	Neighbourhood Type				
	Mixed N (Baseline)				
	Non-Bedouin N	-30.55690	5..55655	-5.499	**0.001 *****
	Identity				
	Bedouin Identity	23.97793	9.48847	2.527	**0.05 ***

Non-Bedouin Identity	-7.67777	2.67879	-2.866	**0.01 ****
Attitudes				
Attitudes towards non-Bedouin	-19.70685	7.56072	-2.606	**0.01 ****
Attitudes towards Bedouin	0.66389	2.66060	0.250	0.80295
Model fit: Residual Min (-3.701), 1Q (0.0000), Median (0.0000), 3Q (0.0001), Max (4.476)				
Random Effect				
Group		**Variance**	**Std. Dev.**	
Participants Number (Intercept)		31.8	5.639	
Words (Intercept)		683.2	26.138	

Data in bold represent significant results: P < 0.05 '', P < 0.01 '**', P < 0.001 '***'.*

The results show that social background does not significantly affect the use of either of the tested variants on the tested participants. However, the analysis indicates a significant influence of non-Bedouin neighbourhood type on participants' use of the Bedouin variant. The results suggest a significant likelihood of a reduce use of the Bedouin variant by participants in the non-Bedouin neighbourhood compared to the baseline. Further, the results imply a significant influence of identity on participants' use of the variants that aligns with their background. That is, the stronger sense of Bedouin identity participants has the likelihood of using the Bedouin variant significantly increases while the stronger sense of non-Bedouin identity participants has the likelihood of using the Bedouin variant significantly decreases. In addition, the results from the fixed variable attitude show only a significant effect towards participants who have positive attitude towards non-Bedouin in which the increase of positive attitude towards non-Bedouin by the Bedouin participants decreases the Bedouin variant usage.

6.8 Summary and Discussion of (θ) Results

This chapter analysed the effect of the four social predictors of social background, neighbourhood type, sense of identity, and social attitudes on the variation of (θ) among a group of 32 participants in Jeddah. The voiceless interdental fricative variable (θ) was analysed using distributional and mixed-effect logistic regression models. Results of the variation of (θ) show that the Bedouin HA variant [θ] was the most frequent variant across the data, 79.5%. Unlike what they did with the voiced interdental variant [ð] when they produced no local variants, the Bedouin group produced the local [t] at 11%. Nevertheless, the variant was only used by Bedouins in the mixed

Neighbourhood. Because Neighbourhood acts as a proxy for the degree of Contact between Bedouins and non-Bedouins, this suggests that the level of contact between the two groups plays a role in the variation of (θ) in the Bedouin group. The non-Bedouin group used more [θ] than their own UHA local variant. The distributional analysis also revealed that there is a positive correlation between the level of identity and the use of [t] and a negative one between the levels of identity and the use [θ]. Regarding the social attitudes predictor in the mixed Neighbourhood, the analysis showed that those with negative attitudes in the Bedouin social group produced no tokens of the non-Bedouin variant. In contrast, those with the same kind of attitudes in the non-Bedouin group used [θ] at a higher frequency than their own local UHA variant.

The mixed-effect logistic regression model revealed that being non-Bedouin does not influence the variation significantly. However, the type of neighbourhood participants live in influences their variant use, in which speakers in the non-Bedouin Neighbourhood significantly disfavoured the BHA [θ]. The results reported a significant influence of the variable identity on participants' use of the tested variable. Further, Bedouin participants who had stronger Bedouin identity significantly favoured the use of the BHA [θ] variant while stronger non-Bedouin identity by the non-Bedouin participants was significantly associated with the non-use of the BHA [θ] variant. Furthermore, the use of the BHA [θ] variant significantly decreased among the Bedouin participants who had positive attitude towards non-Bedouins.

As mentioned in 3.4, /θ/ was not described as a part of the UHA sound system (Ingham 1979; Bakalla 1979). Al-Jehani (1985), Al-Shehri (1993), and Al-Essa (2008) typified the dialect as an urban variety wherein interdentals are replaced with stops and sibilants in the sound system. None of the three studies analysed the variation among non-Bedouins. Al-Jehani (1985) examined the variation among Hijazi Bedouins in Makkah, Al-Shehri (1993) only focused on Bedouin Hijazi in Jeddah, and Al-Essa (2008) focused on the effect of Contact on Najdi Arabic speaking participants in Jeddah. To the best of my knowledge, the impact of dialect contact on non-Bedouin communities in Jeddah has not been studied. Despite it being about one age group at one point in time (19-22). The results of this chapter clearly demonstrate that non-Bedouins used [θ], sometimes at higher frequencies than [t], which indicates variability in the sound system of non-Bedouins in Jeddah. However, without data from different age groups, it is not possible to confirm whether this represents a long-term linguistic shift or short-term accommodation.

In light of the findings presented in this chapter, a few conclusions can be drawn regarding the influence of prestige and contact on the variation of (θ) in Jeddah.

6.8.1 Prestige

As noted in 2.5, dialect contact is influenced by social perception and power dynamics (Winford 2003). The perception of a linguistic variety significantly affects its diffusion within a speech community. Previous studies have demonstrated that in urban varieties spoken outside of Saudi Arabia, such as Jordan, [t] is associated with education and modernity (Al-Wer 1991 and 2004; Albdairat 2021). In these contexts, young, educated women were identified as leaders of language change, favouring the adoption of [t] over [θ]. Conversely, traditional and rural dialects continued to maintain the use of [θ] (Albdairat 2021).

In the Hijazi context, Al-Jehani (1985) observed that Bedouins in Makkah favoured the modern lifestyle associated with Urban Hijazi Arabic (UHA), considering it prestigious. However, both Al-Jehani (1985) and Al-Shehri (1993) found that specific UHA variants, such as [t] and [s], were stigmatised by Saudis at large, including Hijazi Bedouins who were minority communities in Jeddah and Makkah at the time. Despite UHA's perceived prestige, the use of [t] among Bedouins remained relatively low.

This study's findings indicate that thirty years after Al-Shehri (1993), the variation of (θ) among Bedouins, who are now the demographic majority, remains stable. Bedouins continue using the BHA variant [θ] at higher frequencies than [t], as shown in Figure 6.1. The data suggests that Bedouin Hijazis in Jeddah have not accommodated to the urban [t], raising questions about the factors contributing to their linguistic stability.

The findings challenge the assumption that urban dialects universally represent linguistic prestige. In contrast to patterns observed in other Arab countries, such as Jordan (Al-Wer 1991 and 2014; Albdairat 2021), Egypt (Schmidt 1974), and Algeria (Kherbache 2017), the results suggest that in Saudi Arabia, Najdi Arabic—a Bedouin dialect—holds the highest level of prestige (Al-Rojaie 2023). Given that BHA shares key phonological features with Najdi Arabic, such as the maintenance of interdental fricatives, this may explain its elevated status in the Hijaz region.

An alternative interpretation could be the influence of Najdi Arabic as an emerging linguistic model in Jeddah, as previously predicted by Al-Ahdal (1989). He suggested that while Bedouin and non-Bedouin varieties in Makkah were converging, the target model for this linguistic

change may align more closely with Najdi Arabic, given its association with socioeconomic privilege and perceived prestige.

Additionally, the data suggests the possibility of a supra-local variety emerging in Jeddah. However, further research is needed to determine whether interdental-to-stop mergers observed in UHA will persist as features of this evolving variety.

Another argument can be made for the emergence of a supra-local variety in Jeddah. Nevertheless, the UHA interdental-to-stop merger would not be a feature of this new variety.

> The economic growth and in-migration affected the linguistic and cultural makeup of these urban centres. Speakers of different regional dialects interact in the melting pot of major cities like Jeddah, and it is these conditions of dialect contact and economic prosperity which actuate the rise of a supra-local variety which could function as a regional standard for the people of Saudi Arabia. It seems that the interdentals /θ/ and /ð/, /ð̣/ are part and parcel of this emerging regional standard variety in Saudi Arabia.
> (Al-Essa 2022: 60)

6.8.2 Contact

The contact effect is determined by the density of communication (Labov 2001). The linguistic behaviour of those in the Bedouin neighbourhood does not reflect that of Migration-induced Contact. They categorically used the variant they acquired growing up, [θ]. Labov (2001) emphasised the importance of early face-to-face interactions in his study of sound change in Philadelphia. His influential study on sound change in Philadelphia focused on vowel shifts within the speech community. He emphasised the critical role of early face-to-face interactions in the diffusion of linguistic changes and argued that social networks and interpersonal communication are essential for the transmission of new linguistic features. The study found that African Americans in Philadelphia were primarily non-participants in these sound changes due to social segregation and limited opportunities for direct interaction with other social groups, which hindered the diffusion of linguistic innovations to their speech community. The lack of face-to-face interactions is why African Americans were non-participants in the sound change. According to their answers to Part A of the questionnaire and their statements during the second part of the interview, participants in both the Bedouin and non-Bedouin neighbourhoods had no neighbours, friends, or classmates of the other ethnicity. Thus, they had a low degree of contact with the other group while growing up.

Unlike the Bedouin and non-Bedouin neighbourhoods, wherein participants lacked face-to-face interactions with each other during their formative years, participants in the mixed Neighbourhood grew up along with the other social group.

Previous findings by Al-Jehani (1985) and Al-Ahdal (1989) reported low usage rates of the UHA variant among Hijazi Bedouins. In addition, Alghamdi (2021) analysed the effects of dialect contact on non-Hijazi Bedouins in Makkah and found low rates of accommodation to [t]. Nevertheless, the three studies found that Bedouins used the [t] and did not categorically use [θ]. It is worth noting that Makkah consists of fairly mixed neighbourhoods. The migration to Makkah and Madinah was induced by factors other than the institutional ones mentioned in 3.2.3, and the growth of both cities was natural. The migration of most Bedouins to Jeddah occurred as a result of the government-initiated settlement program and housing policies wherein Bedouins occupied spaces that were close to other Bedouins.

It can be argued that whereas [θ] and [t] serve as identity markers for both social groups in the Bedouin and non-Bedouin neighbourhoods, they lose their markedness in the mixed Neighbourhood. This can be supported by the distributional analysis presented in Figure 6.2 in which both groups produced the variants at similar rates in the mixed Neighbourhood. It can be observed that local features are losing their distinctiveness in favour of the mainstream ones, which is an expected outcome of dialect contact (Kerswill 2001).

Chapter Seven: The Third Person Masculine Accusative Suffix

7.1 Overview

This chapter presents the results of the influence of the social predictors on the variation of the third-person masculine suffix in the three neighbourhoods in Jeddah. The variable has two main variants in Jeddah: the urban [-u] and the Bedouin [-ah]. The distributional analysis of the variable is presented in 7.2 through 7.6. This is followed by 7.7, which presents the results of the mixed-effect logistic regression model in which, along with the effect of the social predictors, the interaction between them is also analysed. The chapter concludes with a summary and a discussion of the results in 7.8.

7.2 Overall Distribution of the Variable

The 32 interviewees produced 795 tokens of the variable, third-person masculine suffix. These were coded auditorily as one of two variants: the Bedouin variant [-ah] and the UHA variant [-u]. Overall, there were 28% observations of [-ah] and 72% of [-u], i.e., the UHA variant dominates overall.

7.3 Social Background

The effect of ethnicity on variations in using the 3rd person masculine suffix is presented in Figure 7.1, which shows that non-Bedouins near-categorically use the non-Bedouin or UHA variant [-u]. This is unlike the findings for the interdental variables analysed in chapters 5 and 6, where the same group used Bedouin variants at more than 25% rates. With regard to the third-person singular suffix, the Bedouin group used the [-ah] and [-u] variants at broadly similar rates.

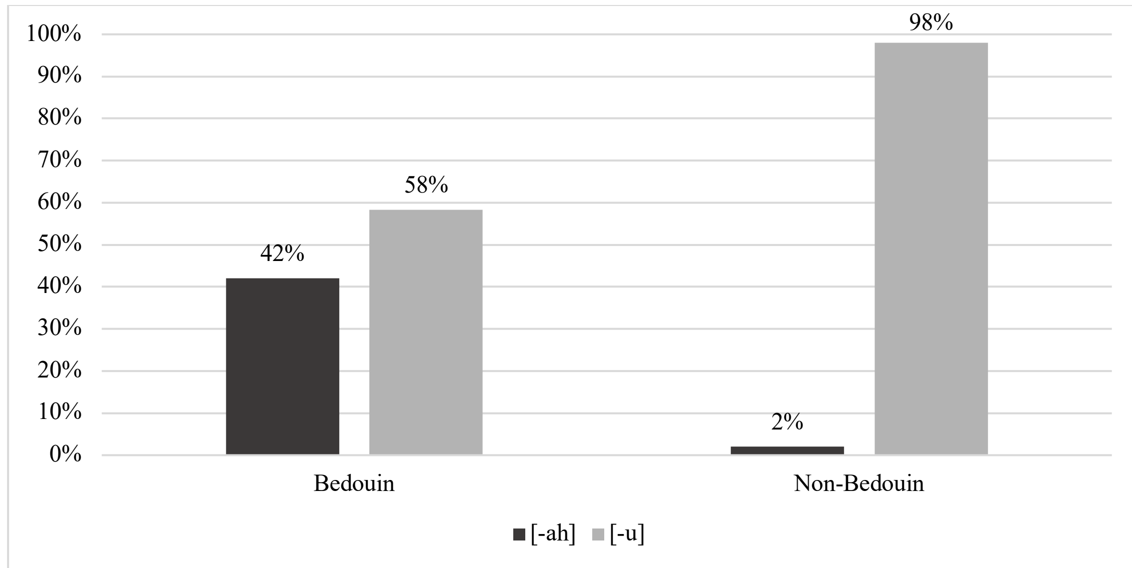

Figure 7. 1: Variations of the 3rd person masc. suffix across Social Backgrounds.

7.4 Neighbourhood Type

The distribution of the variable across the neighbourhood variable is presented in Table 7.1. The results suggest an interesting contact effect. Participants in the Bedouin neighbourhood use the Bedouin variant [-ah] near categorically (97%), while those in the non-Bedouin neighbourhood almost categorically use the non-Bedouin variant [-u] (99%). Participants in the mixed neighbourhood produced [-u] far more than they did with [-ah] (9% vs. 91%).

Table 7. 1: Variations of (θ) across Neighbourhood Type**.**

Neighbourhood Type	Variant	N of Tokens	% of Tokens
Bedouin	[-ah]	178	97%
	[-u]	6	3%
Non-Bedouin	[-ah]	2	1%
	[-u]	196	99%
Mixed	[-ah]	38	9%
	[-u]	375	91%

The distributional analysis in Table 7.1 does not take into account the social group of the participants in this neighbourhood type. This information can be found in Figure 7.2, which shows variant distribution among Bedouins (on the left) and non-Bedouins (on the right) in the mixed neighbourhood only. The patterns suggest that both social groups use non-Bedouin [-u] far more

than Bedouin [-ah]. Contact seems to influence variant choice in both the Bedouin and non-Bedouin groups. Unlike the Bedouins in the Bedouin neighbourhood, who near categorically use [-ah], the Bedouins in the mixed neighbourhood produced [-u] at an 84% rate. These patterns suggest an effect of contact on the variant choice.

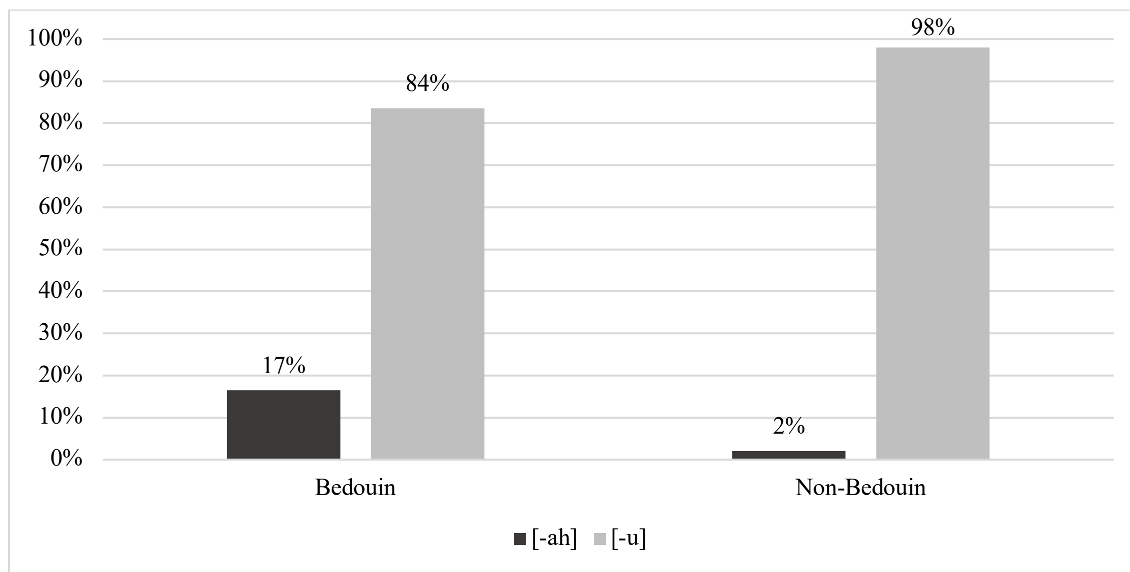

Figure 7. 2: Variations of the 3rd person masc. suffix across Social Groups in the Mixed Neighbourhood.

7.5 Sense of Identity

As with the analyses presented in the previous two chapters, participants were classified into three identity levels: Strong (15 participants), Neutral (13 participants), and Weak (4 participants) (see section 4.5.5). In order to understand the influence of identity on the variation, this predictor needs to be analysed in relation to both of the previous predictors ('social background' and 'neighbourhood type'). The urban variant was favoured across identity levels at different rates, 57-89%. Tables 7.2 and 7.3 provide the distribution of variants based on identity separately for the Bedouin and non-Bedouin neighbourhoods. As can be observed in the table, the results presented in each neighbourhood are based on eight participants in three identity levels. Thus, they are based on very few participants, especially the variation in the weak identity group in the non-Bedouin neighbourhood (one participant).

Table 7. 2:Variations of the 3rd person masc. suffix across Identity Levels in the Bedouin Neighbourhood.

Identity Type	N of participants	Variant	N of Tokens	% of Tokens
Strong	6	[-ah]	141	100%
		[-u]	0	0%

Neutral	2	[-ah]	37	86%
		[-u]	6	14%
Weak	0	[-ah]	0	0%
		[-u]	0	0%

Table 7.2 above highlights that Bedouins with strong and weak sense of identity used the Bedouin variant categorically while those in neutral identity did so at 86%. Table 7.3 shows that the only two tokens of the Bedouin variant found in the non-Bedouin neighbourhood were produced by a participant in the weak identity group. Due to their low frequency, these instances must be interpreted cautiously.

Table 7. 3: Variations of the 3rd person masc. suffix across Identity Levels in the non-Bedouin Neighbourhood.

Identity Type	N of participants	Variant	N of Tokens	% of Tokens
Strong	4	[-ah]	0	0%
		[-u]	102	100%
Neutral	3	[-ah]	0	0%
		[-u]	74	100%
Weak	1	[-ah]	2	9.1%
		[-u]	20	90.9%

Non-Bedouins in the mixed neighbourhood used the urban variant categorically, as shown in Figure 7.3 below. On the other hand, the Bedouin group used the urban variant more than the Bedouin variant [-ah]; this is the case across all identity groups. The one participant in the weak identity group did not use any [-ah] at all, while participants in the strong and neutral identity groups used the variant at the same rates, 81%. Overall, participants' sense of identity did not significantly influence the variation in any of the three neighbourhood types.

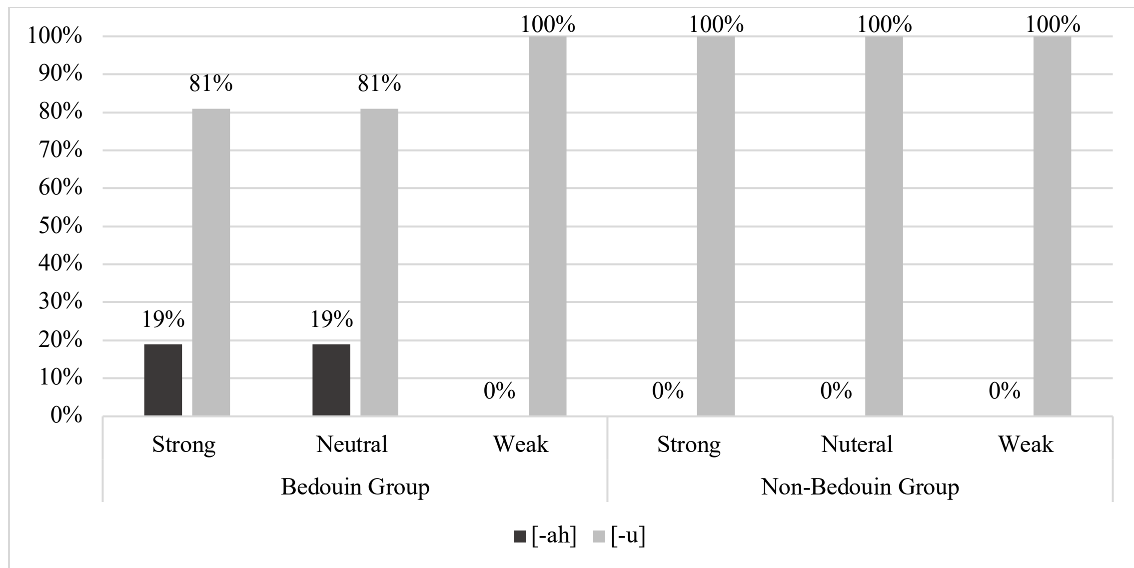

Figure 7. 3: Variations of the 3rd person masc. suffix across Social Groups in the Mixed Neighbourhood based on Identity.

7.6 Social Attitudes

As explained in section 4.5.5, there were 6 participants in the positive attitude group, 13 in the impartial attitudes group, and 13 in the negative attitudes group. Similar to the sense of identity predictor, the social attitudes predictor needs to be analysed at the social group and neighbourhood type levels rather than on its own. Thus, the distribution of the 3rd person masculine accusative suffix based on social attitude in the non-Bedouin and mixed neighbourhood types is analysed.

Table 7. 4: Variations the 3rd person masc. suffix of across Social Attitude Groups in the Bedouin Neighbourhood.

Attitudes Type	N of participants	Variant	N of Tokens	% of Tokens
Positive	0	[-ah]	0	0
		[-u]	0	0
Impartial	3	[-ah]	55	90.2%
		[-u]	6	9.8%
Negative	5	[-ah]	123	100%
		[-u]	0	0%

Tables 7.4 and 7.5 summarise the distribution of variants in both the Bedouin and non-Bedouin neighbourhoods. The distribution shows that the only participants to use the urban [-u] in the Bedouin neighbourhood were those with impartial attitudes. Similarly, the one participant with

impartial attitudes in the non-Bedouin neighbourhood was the only group to use the two Bedouin [-ah].

Table 7. 5:Variations the 3rd person masc. suffix of across Social Attitude Groups in the non-Bedouin Neighbourhood

Attitudes Type	N of participants	Variant	N of Tokens	% of Tokens
Positive	2	[-ah]	0	0%
		[-u]	47	100%
Impartial	4	[-ah]	2	2.1%
		[-u]	94	97.9%
Negative	2	[-ah]	0	0
		[-u]	55	100%

Variation in the use of the 3rd person masculine accusative suffix based on social attitudes across the two social groups in the mixed neighbourhood is presented in Figure 7.4. Before exploring the distribution of the variable based on the social attitude predictor in the mixed neighbourhood, it is worth repeating that cell sizes are small. As mentioned in section 4.5.5, the distribution of Bedouin participants based on their social attitudes in this neighbourhood type is: positive attitudes (2), impartial (4), and negative (2). As for the non-Bedouin group, the distribution of participants is: positive (3), Impartial (3), and negative (2). With that in mind, it can be observed that the sense of identity factor has a negligible effect on the variation of the 3rd person masculine accusative suffix since all three attitude groups used the urban variant far more than the Bedouin [-ah] variant. This suggests a clear contact, rather than attitudinal, effect. Nevertheless, the urban variant was used the least by participants with negative attitudes about the non-Bedouin group and its urban variety.

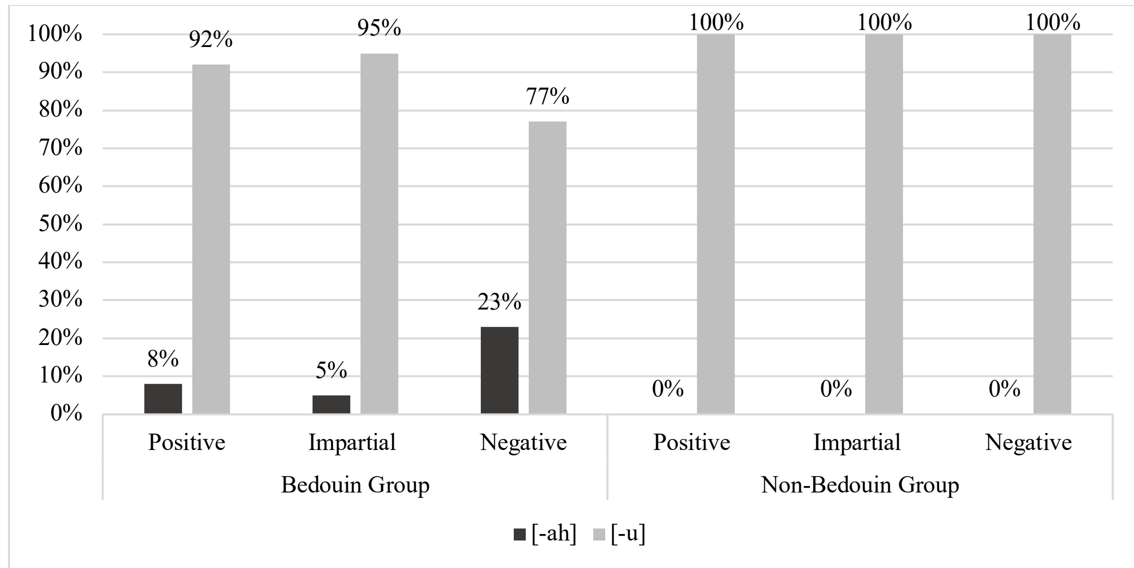

Figure 7. 4: Variations of the 3rd person masc. suffix across Social Groups in the Mixed Neighbourhood based on Social Attitudes.

Interestingly, the two participants with negative attitudes towards UHA and its non-Bedouin speakers used the urban variant the least. Nevertheless, they still used it more than the Bedouin [-ah].

7.7 Mixed-Effect Logistic Regression Model

Table 7.6 presents the mixed-effect logistic regression analysis results to assess contextual effects on variant choice when all predictors are considered simultaneously. The model used the Urban HA [-u] variant as the reference level and the Bedouin Hijazi Arabic [-ah] as the application level. The model tested the effects of the social predictors of social background, neighbourhood type, identity and attitudes as fixed variables. It should be noted that both identity and attitude data were analysed as continuous variables to account for the minor differences between participants. Both identity and attitude were divided into two groups based on participants' social background. The interaction terms between predictors were excluded due to multicollinearity issues.

Table 7. 6: Mixed-Effect Logistic Regression Model of the Third Person Masculine Accusative Suffix.

Fixed Effects			**Report**		
	Predictors	**Estimates**	**Std. error**	**Z value**	**P(>|z|)**
	(Intercept)	-2.8490	1.5715	-1.813	0.0698 .
	Social Background				

Bedouin (Baseline)				
Non-Bedouin	-2.6398	2.6676	-0.990	0.3224
Neighbourhood Type				
Mixed N (Baseline)				
Bedouin N	6.2264	1.4357	4.337	**0.001 *****
Non-Bedouin N	-0.2332	1.6851	-0.138	0.8899
Identity				
Bedouin Identity	0.5970	1.3288	0.449	0.6532
Non-Bedouin Identity	-2.1258	1.5885	-1.338	0.1808
Attitudes				
Attitudes towards non-Bedouin	-2.2162	1.0941	-2.026	**0.05 ***
Attitudes towards Bedouin	-0.1804	1.5263	-0.118	0.9059
Model fit: Residual Min (-4.7925), 1Q (-0.0976), Median (-0.0366), 3Q (0.0348), Max (3.9803)				
Random Effect				
Group		**Variance**	**Std. Dev.**	
Participants Number (Intercept)		2.9978	1.7314	
Words (Intercept)		0.5621	0.7497	

Data in bold represent significant results: P < 0.05 '', P < 0.01 '**', P < 0.001 '***'.*

The model reveals that the social background does not significantly affect participants' use of the tested morphological variables. The results also indicate that the non-Bedouin participants are less likely to use the Bedouin variant when compared to the Bedouin participants. Furthermore, the results imply that neighbourhood type plays a crucial role in participants' use of the Bedouin variant. The results reveal that participants from the Bedouin neighbourhood are significantly more likely to use the Bedouin variant compared to those from the mixed neighbourhood type. Further, the results suggest that a stronger Bedouin identity is linked to using the Bedouin variant. On the contrary, a strong non-Bedouin identity is associated with lower use of the Bedouin variant with no statistical significance. In addition, the results suggest a significant link between Bedouin participants with positive attitudes towards non-Bedouin and the use of the non-Bedouin variant

7.8 Summary and Discussion of the Morphological Variable Results

This chapter analysed the effect of the four social predictors of social background, neighbourhood type, sense of identity, and social attitudes on the variation of the 3rd person masculine accusative suffix among a group of 32 participants in Jeddah. The variable was analysed using distributional analysis and mixed-effect logistic regression models. Results show that the Bedouin HA variant [-u] was the most frequent variant across participants, at 72%. As a group, Bedouin participants used the urban variant at 58%, which differs from the phonological variables in chapters 5 and 6, in which Bedouins resisted using urban phonological variants. However, those in the Bedouin neighbourhoods used the Bedouin variant near categorically and only produced [-u] at 3%. The non-Bedouin group, by contrast, produced the urban variant near categorically. Regarding the effect of contact on the variation, it is clear that the Bedouin group linguistically behaves differently in the mixed neighbourhood than their social groups in the predominately Bedouin neighbourhood. The Bedouin group produced the urban variant more than their own, 84%, while the non-Bedouin group only used it 98%. This suggests that the level of contact between the two groups plays a role in variant choice for the morphological variable in the Bedouin group. On the other hand, aside from the two Bedouins with negative attitudes in the mixed neighbourhood, the distributional analysis highlighted that both sense of identity and social attitudes factors did not contribute to this variation.

The mixed-effect logistic regression model revealed that being non-Bedouin does not influence the variation significantly. In addition, the results indicated that the type of neighbourhood played an important role in participants usage of the tested variable in which the Bedouin variant was significantly favoured in the Bedouin neighbourhood. Moreover, participants' sense of identity did not seem to have a significant effect on the usage of the either variant by the tested participants. The results found that a positive attitude towards non-Bedouins was significantly associated with the Bedouin participants' use of the non-Bedouin variant.

Similar to their behaviour with the phonological variables, the linguistic behaviour of those in the Bedouin neighbourhood does not reflect that of Migration-induced contact., the non-Bedouin group also used urban variant [-u] near categorically. Both groups near-categorically used the variants that they acquired growing up. I suggest that the lack of face-to-face interactions with peers of the other group contributed to that. According to their answers to part A of the

questionnaire (see Appendix C) and their statements during the second part of the interview, participants in both the Bedouin and non-Bedouin neighbourhoods had no neighbours, friends, or classmates of the other ethnicity. Thus, they had a low degree of contact with the other group while growing up. By contrast, participants in the mixed neighbourhood grew up with the other social group, which is reflected by their linguistic behaviour.

The linguistic behaviour of participants in the mixed group in Jeddah is an expected outcome in dialect contact situations. However, whereas the dominant phonological variants in the mixed neighbourhood were Bedouin in nature for the voiceless interdental fricative (see Chapter 6), the dominant morphological variant is not. The linguistic behaviour of Bedouin participants in the mixed neighbourhood shows a distinct pattern compared to other Bedouins in Makkah. Unlike previous findings by Al-Jehani (1985) and Al-Ahdal (1989), which reported low usage rates of the UHA variant among Hijazi Bedouins, the current study indicates that the [-u] variant is predominant among Bedouins in the mixed neighbourhood. This suggests a different trajectory of linguistic adaptation influenced by the social dynamics within mixed residential settings. However, their studies analysed phonological variables, which can explain the similar results we all found. Phonological variants play a role in shaping the linguistic identity of non-Bedouins in Hijaz. However, their diffusion may be influenced by the broader linguistic landscape in Saudi Arabia in which stop realisations of both voiced and voiceless interdentals are considered minority variants, as Hijazi Arabic is the only variety to have undergone this merger. This suggests that sociolinguistic factors, rather than purely identity-driven resistance, may also contribute to their limited diffusion. It can be argued that whereas [θ] and [t] serve as identity markers for both social groups, the morphological variants do not. Hence, the urban morphological variant is not stigmatised as 'non-Bedouin' or 'Ḥaḍari'; it does not serve as an identity marker for non-Bedouins. Another argument that can be made is that the morphological variant is not diffused as a part of UHA, but rather as a part of a more mainstream urban dialect, also known as the white dialect, "a dialect that has no regional linguistic markers which can be linguistically called a Saudi dialect or supra-local dialect" (Alghamdi 2022:46). It is still unclear whether the urban morphological variant is part of this dialect or not.

The next chapter discusses the notions of prestige, contact, and stigma and how they might have contributed to the variation in Jeddah described in Chapters 5, 6, and 7., the results found in this chapter refute the argument made in the previous chapter that Najdi might be emerging as the

new variety in Jeddah due to the morphological variant [-u] not being part of the Najdi morphological system. Instead, Najdi Arabic has the variants [-ih] and [-ah].

Chapter Eight: General Discussion and Conclusion

8.1 Overview

This study analysed the variation spoken by young natives of Jeddah, Saudi Arabia. It was set to examine the effects of the social predictors of social background (i.e. ethnicity), neighbourhood type, sense of group identity, and social attitudes on the outcome of dialect contact in Jeddah. The study results suggest that the linguistic situation in Jeddah is critically influenced by contact. The results also substantiate the theory that highly marked feature levels in favour of mainstream ones in urban centres (Kerswill 2001). This chapter further discusses the notions of contact and identity and how they affected dialect contact in Jeddah.

8.2 Discussion

The analysis reveals two interesting findings regarding ethnicity and dialect contact. According to Gumperz (1962), a speech community is a group of people who share a set of linguistic norms and communicative practices. However, the findings of this study indicate that the situation in Jeddah challenges the conventional notion of a unified speech community. The results, instead, highlight that linguistic differences reveal different communities that are shaped by factors such as ethnicity, identity, and contact levels. The study establishes that more than one Hijazi variety is spoken in Jeddah, which was assumed in 2.2. Native Jeddawis cannot be considered members of the same speech community. This is substantiated by the fact that ethnically, they are different. This is also supported by the fact that a speech community requires its members to share common values and attitudes regarding language use, practice, and varieties (Morgan 2014). In addition, the relationship between variants also reveals that ethnicity contributes to the linguistic situation in Jeddah. Each group predominantly used the variant associated with their social (i.e. ethnic) group. In addition to ethnicity, native Jeddawis cannot be viewed as one speech community due to the fact that groups of the same ethnicity in high-contact neighbourhoods exhibited different linguistic patterns than those of the same social group who live in low-contact neighbourhoods.

The findings confirm that dialect change in Jeddah is influenced by contact. Linguistic patterns in low-contact neighbourhoods (both Bedouin and non-Bedouion) differ notably from those in the high-contact one. The study supports Labov's (2001) argument that the impact of contact is shaped by communication density. While language acquisition in children is a topic

beyond the scope of this study, it is generally accepted that they first learn language from caregivers (Kerswill 1996; Kerswill and Williams 2000; Labov 2001). As they grow older, particularly between the ages of 6-12, peer influence becomes significant as they begin to form social connections outside the home. During this stage, they gradually adopt new linguistic forms, aligning their speech with that of their peers. Tagliamonte and D'Arcy (2007) suggest that phonological development stabilises around the age of 17.

The influence of contact is evident in the Bedouin group within high-contact neighbourhoods. Although this study focuses on a specific age group (19-22), the findings indicate that both social groups adopted linguistic variants, at times using them more frequently than those typical of their own social background. This suggests a shift in the sound system of both groups in Jeddah. In the mixed neighbourhood, wherein Bedouin and non-Bedouin speakers have frequent interaction (sustained contact), both groups have started to adopt similar ways of speaking, particularly in how they use the 3rd person accusative suffix in their speech.

The role of contact in dialect change is further observed among the Bedouin group, where those in predominantly Bedouin neighbourhoods consistently used Bedouin variants. Face-to-face interactions during early years play a crucial role in language diffusion. Labov (2001) emphasised the importance of early face-to-face interactions in his study of sound change in Philadelphia. His influential study on the sound change in Philadelphia focused on vowel shifts within the speech community. He emphasised the critical role of early face-to-face interactions in the diffusion of linguistic changes and argued that social networks and interpersonal communication are essential for the transmission of new linguistic features. The study found that African Americans in Philadelphia were primarily non-participants in these sound changes due to social segregation and limited opportunities for direct interaction with other social groups, which hindered the diffusion of linguistic innovations to their speech community. In this study, participants from both Bedouin and non-Bedouin neighbourhoods had minimal contact with members of the other group during their formative years, resulting in limited linguistic influence. In high-contact neighbourhoods, however, Bedouins displayed linguistic patterns distinct from those in low-contact areas. Bedouins in mixed neighbourhoods did not strictly adhere to Bedouin variants, with the 3rd person accusative suffix [-ah] largely replaced by the urban form [-u]. Nevertheless, the impact of contact was less pronounced with interdental fricatives, as Bedouins in mixed areas continued to prefer the traditional [θ] and [ð] sounds over the urban [t] and [d].

Table 8. 1: Participants' Social Networks Based on their Answers.

Neighbourhood Type	Bedouin Friends	N-Bedouin Friends	Bedouin classmates	N-Bedouin classmates	Bedouin neighbours	N-Bedouin neighbours
Bedouin	8	0	8	0	8	0
Non-Bedouin	0	8	0	8	0	8
Mixed	13	14	16	16	16	16

The study demonstrates that contact influences non-Bedouins, particularly with the voiceless interdental fricative variable. In low-contact neighbourhoods, non-Bedouins used both voiced and voiceless interdental variants at similar rates, with urban variants at 65% and Bedouin ones at 35%. However, in high-contact mixed neighbourhoods, their linguistic behaviour differed. Notably, in these neighbourhoods, the urban [t] was largely replaced by the Bedouin [θ], whereas the urban [d] remained the preferred variant regardless of contact. Interestingly, the use of [d] was even higher in mixed neighbourhoods compared to predominantly non-Bedouin ones.

In summary, participants in mixed neighbourhoods had greater exposure to the other social group compared to those in predominantly Bedouin or non-Bedouin areas, where interactions were limited. The linguistic behaviour of individuals in mixed neighbourhoods aligns with typical outcomes of dialect contact, as seen in both the voiceless interdental fricative and the 3rd masculine accusative suffix. This raises questions about the direction of dialect levelling in such environments.

The direction of dialect change in Jeddah's mixed neighbourhoods remains complex. While the urban voiceless variant is being replaced by the Bedouin form, the Bedouin morphological variant is shifting towards the urban one. One explanation is that features such as [θ] and [t], as well as [-ah] and [-u], which once served as identity markers in Bedouin and non-Bedouin neighbourhoods, are losing their distinctiveness in mixed environments. The shift of [t] to [θ] is a natural consequence of dialect contact (Kerswill 2001). Despite the thirty years since Al-Shehri (1993), Bedouins, now forming the majority, continue to favour the Bedouin variant over [t], as noted in Chapter 6. Although Bedouin Hijazis are newcomers to Jeddah, they have not fully adopted the urban [t]. Similar linguistic patterns have been observed in Makkah, where studies by Al-Jehani (1985) and Al-Ahdal (1989) report that Hijazi Bedouins used the UHA variant at low frequencies. Alghamdi (2021) also found that non-Hijazi Bedouins in Makkah showed

limited adoption of [t]. These studies confirm that Bedouins used [t] in their speech but did not entirely replace [θ].

Migration patterns further explain these linguistic trends. While the growth of Makkah and Madinah resulted from natural factors, the migration of Bedouins to Jeddah was primarily driven by government-led settlement programs and housing policies that placed them near other Bedouins. Additionally, the preference for the urban variant [s] among non-Bedouins, regardless of the contact variable, supports the argument that the shift in [ð] is not moving towards an urban form. However, it remains unclear why the urban [-u] is becoming more prevalent than the Bedouin [-ah] in mixed neighbourhoods.

The results of the morphological variable refute the previous argument that dialect change is occurring towards the prestigious Najdi variety. As mentioned in chapter 7, Another argument that can be made is that the morphological variant is not diffused as a part of UHA, but rather as a part of a more mainstream urban dialect, also known as the white dialect, "a dialect that has no regional linguistic markers which can be linguistically called a Saudi dialect or supra-local dialect" (Alghamdi 2022: 46). The emergence of supra-local variety is supported by Al-Rojaie (2020) who suggests that Bedouin and traditional variants are losing their markedness in favour of variants of cities.

As mentioned in 6.8.1, the urban Hijazi lifestyle and spoken variety were considered prestigious in Makkah due to its association with educated men (Al-Jehani 1985). Despite that, the variety was still stigmatised back then due to its association with non-Bedouin Saudis and its being a contact dialect (Al-Jehani 1985; Al-Shehri 1993). Despite being a variant of a prestigious variety, the use of urban variants among Bedouins in both Al-Jehani (1985) and Al-Shehri (1993) was low. Nowadays, it is argued that the prestigious variety is Najdi Arabic (Al-Rojaie 2023). Both urban voiceless and voiced interdental fricative are socially marked as 'non-Bedouin' and 'non-Saudi' among Saudis. Both stigmatisation and shift in prestige contribute to the diffusion of marked urban phonological features in Jeddah. When asked, participants referred to their spoken variety differently. Non-Bedouin participants referred to their dialect as Hijazi Arabic (or Jeddawi Arabic), while Bedouin participants did not. Instead, they referred to their dialect as Bedouin, while some claimed Najdi as their spoken variety despite having never travelled outside of Hijaz.

8.3 Limitations and Direction for Further Research

The limitations of this study include those that result from focusing solely on one age group and one gender. Scrutinising Jeddawis of different age groups would have provided a clearer picture of the direction of dialect change in Jeddah. It is worth noting that the interviews were conducted during the COVID-19 pandemic and lockdown (2020-2021), and finding participants was not an easy task by any means, which ultimately changed the original direction of the study.

8.4 Conclusion

It can be concluded that there is an emergence of a supra-loca variety in Jeddah and that the diffusion of its features is being influenced by the level of contact. Participants in low-contact neighbourhoods linguistically behaved differently than those of the same ethnicity in the high-contact neighbourhood. Non-Bedouins, as a group, used Bedouin variants that were not part of the phonological system of UHA, which suggests that dialect change has occurred at some point. Third-generation Bedouins who were born and raised in Jeddah displayed the use of variants that were not part of their dialect in the mixed neighbourhood. On the contrary, Bedouins in the low-contact neighbourhood did near-categorically use Bedouin variants throughout their interviews, which substantiates the theory that contact influences the diffusion of urban variants in Jeddah. Socially marked features are losing their dominance in favour of mainstream ones. UHA, being a minority variety in Saudi Arabia, also contributes to why Bedouin phonological variants are being used by non-Bedouins in Jeddah, regardless of the type of neighbourhood they live in.

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Appendices

Appendix A. Consent Form

DocuSign Envelope ID: 7FCECBEB-2F5D-4877-AFD2-0530A933D559

School of English Literature, Language and Linguistics
Percy Building, Newcastle University
Newcastle upon Tyne, NE1 7RU, United Kingdom

Participant Consent Form

Project	*Dialect Contact in Jeddah, Saudi Arabia.*
Researcher	*Sultan Alali*

Thank you for agreeing to be virtually interviewed as part of the above research project. Would you therefore read the accompanying information sheet and then sign this form to certify that you approve the following:

- Participation involves being interviewed by researchers from Newcastle University. The interview will last approximately 50-60 minutes using *Zoom*. Notes will be written during the interview. An audio tape of the interview and subsequent dialogue will be made. If you don't want to be recorded, you will not be able to participate in the study. Participation also involves answering an online questionnaire at the end of the interview.
- I don't anticipate that there are any risks associated with your participation, but you have the right to stop the interview or withdraw from the research at any time.
- Ethical procedures for academic research undertaken from UK institutions require that interviewees explicitly agree to being interviewed and how the information contained in their interview will be used.
- If you have any questions arising from this, please ask the researcher before you decide whether to take part. If having read the Information Sheet and discussed the project with the researcher you are still happy to participate, please complete and sign the form below.
- **This consent form is necessary for us to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation.**

In participating in the project named above, I confirm that I acknowledge, agree and understand the following:	Please check (✓) to acknowledge
Information About the Project I have been given the opportunity to ask questions about the project.	x
Age I am 18 years old or older.	x
Voluntary Participation My participation is voluntary, and I can withdraw, without needing to provide an explanation or reason, at any time before work on the project is completed.	x
Questions Type I understand that most interviewees in will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.	x
Transcription and Storage of the Data	

Appendix B. Social Attitude Questions

Appendix B.1 Social Attitude Question (Arabic)

1. هل سبق و تضررت من العنصرية او الطبقية ؟
2. على اي اساس كانت؟
3. هل سبق و كنت ضحية او استفدت من الواسطة؟
4. هل تعتقد بان هناك فرق بين الأحياء البدوية و غير البدوية في جدة؟
5. هل تعتقد ان يوجد عنصرية في التعامل مع الاشخاص بناء على كونهم بدو او حضر ؟
6. ايش اللهجة اللي تتكلمها؟
7. هل تصنف لهجتك كلهجة حجازية؟ لماذا؟
8. ما هي وجهة نظرك عن اللهجة الحجازية؟
9. هل تعتقد ان اللهجة الحجازية لهجة مستصغرة و محتقرة؟
10. هل تعتقد بان وسائل الاعلام تظهر اللهجة الحجازية و الناس اللي تتكلمها بصورة إيجابية؟ لماذا؟
11. من وجهة نظرك، هل تعتقد بان هناك صورة غير صحيحة عن الجداويين ؟ كيف؟
12. هل تعتقد ان متحدثين اللهجة الحجازية ينظر لهم نظرة دونية؟
13. هل تعتقد بان الناس تحكم عليك بنا على لهجتك؟ لون بشرتك؟ عرقك ؟ اصلك؟
14. هل فكرت تنقل من جدة؟ لماذا ؟
15. هل تغيير طريقك كلامك احيانا؟
16. ايش ممكن تغيير في طريقة كلامك اذا تقدر؟
17. ليش تعيش في هذا الحي؟
18. هل أقاربك ساكنين في هذا الحي ايضا؟
19. هل في قبايل ثانية ساكنة في هذا الحي ؟
20. هل في ناس حضر ساكنين في هذا الحي؟ ليش؟
21. هل في احد من أصحابك بدوي ؟ حضري؟ ليش لا؟
22. هل تعتقد ان البدو جداويين اصليين؟
23. هل تعتقد ان الحضر سعوديين اصليين؟
24. هل تفضل الكتابة باللهجة الحجازية؟
25. هل تعتقد بان متحدثين اللهجة الحجازية افضل من غيرهم؟ لماذا؟
26. هل تعتقد بان متحدثين اللهجة البدوية أفضل من غيرهم ؟ لماذا؟
27. هل تعتقد ان اللهجة البدوية افضل من اللهجة الحضرية ؟
28. هل تعتقد ان اللهجة الحضرية افضل من البدوية؟
29. اذا تزوجت، الأفضل تتزوج شخص يتكلم نفس لهجتك؟
30. اذا تزوجت، الأفضل تتزوج شخص يتكلم حضري؟
31. اذا تزوجت، الأفضل تتزوج شخص يتكلم لهجة بدوية؟

32. هل تعتقد انه يجب ان يكون هناك لهجة حجازية موجودة في المسلسلات و البرامج التلفزيونية ؟

33. هل تعتقد ان التكلم باللهجة البدوية يخليك اذكى / متعلم/ سعودي؟

34. هل تعتقد ان التكلم باللهجة الجداوية يخليك اذكى / متعلم/ سعودي؟

Appendix B.2 Social Attitude Questions (English Translation)

Social Attitudes Questions:

1- Have you ever experienced discrimination/ racism?
2- What was it based on?
3- Were you ever a victim of or benefited from nepotism?
4- Do you believe there are differences between Bedouin and non-Bedouin neighborhoods in Jeddah?
5- Do you feel like there is a discrimination based on whether a person is Bedouin or not?
6- What dialect do you speak?
7- Do you consider your dialect to be Hijazi? (why not)
8- What do you think about the Hijazi dialect?
9- Do you feel that the Hijazi dialect is being discriminated against?
10- Do you feel that the Hijazi dialect is portrayed unfairly in Tv? (how so?)
11- Do you feel that the Hijazi dialect is being stereotypically portrayed in media? (how so?)
12- Do you feel that Jeddans are being misjudged by others?
13- Do you feel like Hijazi speakers are being misjudged by others?
14- Do you think that you are misjudged/ discriminated against based on where you're from/ your dialect/ ethnicity?
15- Have you considered moving out of the city? Why?
16- What would you change about the way you speak?
17- Why do you live in this neighborhood?
18- Are your relatives living in this neighborhood as well?
19- Are there any other tribes living in this neighborhood?
20- Are there any other nontribal members living in this neighborhood? Why do you think that is?
21- Is any of your friends non-Bedouin/ Bedouin? Why not?
22- Do you consider Bedouin people to be true Jeddan? (for the non-Bedouin participants)
23- Do you consider non-Bedouin people to be true Saudis? (for the Bedouin participants)
24- Do you prefer if Jaddan Hijazi had a written form?
25- Do you think that being a speaker of Hijazi Arabic is better than speaking nay other Saudi dialect? Why?
26- Do you think that being a speaker of a Bedouin dialect is better than speaking any other Saudi dialect?

27- Do you think that being a speaker of Jeddan Hijazi Arabic is better than speaking a Bedouin dialect?
28- Do you think that being a speaker of a Bedouin dialect is better than speaking a Jeddan Hijazi Arabic?
29- If you are to marry, would you mind marrying someone who speak Jeddan Hijazi? Why not?
30- If you are to marry, would you mind marrying someone who speak Bedouin dialect? Why not?
31- Do you think more Tv programs should use Jeddan Hijazi Arabic?
32- Do you think that Speaking Jeddan Hijazi Arabic makes you sound more educated/ smart?
33- Do you think that Speaking a Bedouin dialect makes you sound more educated/ smart/ more Saudi?

Appendix C. Questionnaire Questions (English Translation)

A. Please answer the following with Yes or No:

1. Do you have non-Bedouin friends?
2. Do you have Jeddawi Bedouin friends?
3. Did you have non-Bedouin classmates in school when you were growing up?
4. Did you have Jeddawi Bedouin classmates in school when you were growing up?
5. Are most of your neighbours non-Bedouins?
6. Are most of your neighbours Jeddawi Bedouins?
7. Are most of your friends Jeddawi Bedouin?
8. Are most of your friends non-Bedouin?
9. Do you have any non-Bedouin neighbours?
10. Do you have any Jeddawi Bedouin neighbours?

B. **Please read through the following statements and decide how much you either agree or disagree with each.**

1. I prefer to read and write in Urban Hijazi Arabic.
2. I prefer to read and write in Bedouin Hijazi Arabic.
3. I would prefer if Urban Hijazi Arabic has a written form.
4. I would prefer if Bedouin Hijazi Arabic has a written form.
5. We should all speak Urban Hijazi Arabic in Saudi Arabia
6. We should all speak Bedouin Hijazi Arabic in Saudi Arabia:
7. Urban Hijazi Arabic is part of the Jeddawi culture.
8. Bedouin Hijazi Arabic is part of the Jeddawi culture.
9. Urban Hijazi Arabic is a part of the Hijazi Culture.
10. Bedouin Hijazi Arabic is a part of the Hijazi Culture.
11. If there were no Urban Hijazi Arabic dialects, there would be no Jeddawi culture.
12. If there were no Bedouin Hijazi Arabic dialects, there would be no Jeddawi culture:
13. If there were no Urban Hijazi Arabic dialects, there would be no Hijazi culture.
14. If there were no Bedouin Hijazi Arabic dialects, there would be no Hijazi culture.
15. Urban Hijazi Arabic is one of many Arabic dialects.
16. Bedouin Hijazi Arabic is one of many Arabic dialects.
17. Urban Hijazi Arabic is one of many Arabic dialects.
18. Bedouin Hijazi Arabic is one of many Arabic dialects.
19. If there were UHA speaking Tv programmes, I would watch them.
20. If there were BHA speaking Tv programmes, I would watch them.
21. Urban Hijazi Arabic is one of the many Arabic dialects spoken in the Arabian gulf.
22. Bedouin Hijazi Arabic is one of the many Arabic dialects spoken in the Arabian gulf.
23. Non-Bedouin Hijazi are part of the Saudi Culture.
24. Bedouin Hijazi are part of the Saudi Culture.
25. I like UHA as a dialect.
26. I like BHA as a dialect.
27. Hijazi Arabic has an urban variety.
28. Hijazi Arabic has a Bedouin variety.
29. I don’t mind marrying someone who is non-Bedouin.
30. I would not mind marrying someone who is Bedouin.
31. Speaking UHA makes a person likable.
32. Speaking BHA makes a person likeable.
33. Jeddawi non-Bedouins represent the Saudi culture and lifestyle.
34. Jeddawi Bedouins represent the Saudi culture and lifestyle.
35. We should have more Tv programmes UHA.
36. We should have more Tv programmes in BHA.
37. Jeddawi non-Bedouins are true Saudis.
38. Jeddawi non-Bedouins are true Saudis.
39. non-Bedouin Saudis deserve the same rights as other Saudis.
40. Jeddawi Bedouins deserve the same rights as other Saudis.

Appendix D Linguistic Predictors

A. Variation of (ð) across Word Positions.

Variant / Position	[ð]	[d]	Total
First	31.3%	68.7%	39.3%
Middle	28.7%	71.3%	40.2%
Final	36.8%	63.2%	20.5%

B. The Variation of (ð) across Syllables

Variant / Syllable Type	[ð]	[d]	Total
CV	39.5%	60.5%	20.9%
CVV	26.8%	73.2%	23.1%
CVC	28.6%	71.4%	47.4%
CVVC	35.2%	64.8%	8%
CVCC	100%	0	0.6%

C. The Variation of (ð) across Syllable Segments.

Variant / Syllable Segment	[ð]	[d]
Onset	30%	70%
Coda	36.8%	63.2%
Total	31.4%	68.6%