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Arabic Interdentals: Variation and Linguistic Change

ABSTRACT In contrast to other Semitic languages, the Arabic language has retained the interdentals /θ/, /ð/ and /ð̤/ (Versteegh 2001: 19). However, in many Arabic dialects, the plain interdentals have merged with the stops /t/, /d/ or the sibilants /s/, /z/, respectively. The emphatic interdental /ð̤/ changes to its stop or sibilant counterpart /d/, /z/ (see Al-Wer 2004). Whereas stop variants are associated with particular standard regional varieties, e.g. Egyptian and Levantine Arabic, the fricative variants are generally found in the Arabic varieties spoken in the Arabian Peninsula, the Gulf region and Iraq.

Different linguistic patterns of variation in the use of the interdentals were found to exist in contact situations in the Arab world between speakers of different dialects, and the direction of linguistic change takes a different course in different regions. In empirically and statistically tested data from different sociolinguistic studies in Arabic-speaking communities where both the fricative and stop variants are found, the tendency is for the stop variants to expand at the expense of the interdental fricative sounds (see for example, Jordanian Arabic and Palestinian Arabic, among others).

This paper investigates processes of variation and change affecting the interdental variables (θ), (ð) and (ð̤) in the Arabian Peninsula in general and Saudi Arabia in particular. The majority of the dialects spoken in the Arabian Peninsula have the fricative variants; stop variants are used in urban Hijazi dialects in the western region and in Qatif dialect in the region of al-Ahsa in the Eastern Province of Saudi Arabia and Bahrain. Various studies surveyed in this paper show that in contact zones between speakers of the fricatives and stop variants, the diffusion of the stop variants is characterised by a low rate of frequency. In this paper, I will present the details of the analysis of the process of variation and change affecting the interdental variables in many contact zones in Saudi Arabia in general and among Najdi speakers in Hijaz in particular, and I will argue that, with regard to the pattern and direction of linguistic change, in Saudi Arabia, speakers of the interdentals orient to a supra-local norm rather than the local norm.

KEYWORDS Arabic, interdentals, Najdi, Hijazi, supra-local, variation

1 Introduction

One of the consequences of dialect contact situations is the transmission of variants from one dialect to the other (Trudgill 1986: 12). This paper investigates processes of variation and change affecting the interdental sounds /θ/, /ð /and /ð/ in contact zones in the Arab world in general and in Saudi Arabia in particular. Since the interdentals are realised variably as fricatives or stops in different regions in the Arab world, they will be treated as sociolinguistic variables and therefore represented as the following symbols henceforth in this paper: (θ), (ð) and (ð̣).

The majority of the dialects spoken in the Arabian Peninsula have the fricative variants [θ], [ð] and [ð̣]; stop variants /t/, /d/ and /ḍ/ are used in urban Hijazi dialects in the western region and in Qatif dialect in the al-Ahsa region in the Eastern Province of Saudi Arabia and Bahrain. Various studies surveyed in this paper show that in contact zones between speakers of the fricatives and stop variants, the diffusion of the stop variants is characterised by a low rate of frequency.

In this paper, the details of the analysis of the process of variation and change affecting the use of the interdental sounds in many contact zones in Saudi Arabia in general and among Najdi speakers in Hijaz in particular will be presented, and I will argue that, with regard to the pattern and direction of linguistic change, in Saudi Arabia, speakers of the interdentals orient to a supra-local norm rather than the local norm

The variation between interdental and stop variants of (θ), (ð) and (ð̣) is a well-known phenomenon in Arabic dialects; in communities where both variants are found, the tendency is for the stop variants to expand at the expense of the interdental fricative sounds (see for example, Jordanian Arabic and Palestinian Arabic, among others). In the contact situation under investigation, my data show that the diffusion of the urban Hijazi stop variants in the speech of 61 Najdi speakers in the city of Jeddah is characterised by a low rate of frequency. This linguistic outcome is not in proportion with the length of stay of the Najdi community in Hijaz, which extends over 70 years. The low rate of acquisition of the urban Hijazi variants by the second generation of Najdi youngsters born in Hijaz contradicts the widely accepted principle in sociolinguistic research that ‘when families move into a new speech community, the children adopt the local vernacular rather than that of their parents’ (Labov 2001: 423).

The data for this paper come from empirical research carried out in 2004 in the city of Jeddah, Saudi Arabia, to investigate patterns of language variation and change in the speech of 61 Najdi speakers who speak a dialect that is distinct from the local urban Hijazi dialect. Najdi and urban Hijazi are two varieties of Arabic which employ different sets of variants of the interdental variables (θ), (ð) and (ð̣). Whereas the stop variants [t], [d] and [ḍ] are used in the urban Hijazi dialect spoken in the western province of Saudi Arabia and the Baharna dialect spoken in Qatif in the Eastern



MAP 1. The geographic distribution of the fricative and stop variants of the interidental variables in the Arabian Peninsula.

province of Saudi Arabia, the fricative variants [θ], [ð] and [ð̤] are the normative use in the Najdi dialect and all other varieties spoken in Saudi Arabia (see Map 1). My data show that the rate of diffusion of urban Hijazi variants in the speech of Najdi speakers in Jeddah is variable and the diffusion of the urban Hijazi variants of the interidental variables is quite low compared to other linguistic variables investigated in my research. In this paper, I will attempt to account for the high rate of maintenance of the fricative variants among Najdi speakers vis-à-vis the stop variants of the interidental variables used by the local natives of Jeddah.

This paper is organised as follows. Section 1.1 explains the diachronic change that affected Arabic interdentals and resulted in the synchronic variation found in different regions in the Arab world. Section 1.2 surveys the sociolinguistic studies that examined these patterns of variation in the use of the interdentals in the Levant region and the Arabian Gulf region. Section 2 surveys the sociolinguistic studies of interdentals in Saudi Arabia. Section 3 examines the use of interdentals by Najdi speakers in Jeddah and presents results of the analysis of the correlation between the use of the interidental variables and the social factors of age, gender. Section 4 discusses the

results of analysis and attempts to explain the attested pattern of variation found in the speech of Najdi speakers in Jeddah with reference to the process of supralocalisation. Section 5 concludes this article.

1.1 The diachronic change of the Arabic interdentalals

The interdentalals /θ/, /ð/ and /ð̤/ are traditionally used for the typological classification of Arabic dialects: Bedouin-rural-urban (Cadora 1992: 1). Whereas interdentalals are preserved in the more conservative Bedouin dialects, they are lost in most of the sedentary Arabic dialects (Versteegh 2001: 143; Holes 2004: 70). In the sedentary dialects, the plain interdentalals /ð/ and /θ/ merged with dental stops /t/ and /d/:

/θ/ + /t/ → /t/, e.g. [θa:ni] → /ta:ni/ ‘second’

/ð/ + /d/ → /d/, e.g. [ha:ða] → /ha:da/ ‘this’

The merger between the interdental fricative /θ/ and the stop /t/, and /ð/ and /d/ is very common in most urban Arabic dialects used in the Levant countries, Morocco and Egypt (Abdel-Jawad and Awwad 1989). In the Arabian Peninsula, the merger is attested in the varieties spoken in the cities of Mecca, Jeddah and Medina, and Qatif, Saudi Arabia. The fricative interdentalals are used in the rest of the Arabian Peninsula (including the Gulf countries and Iraq) by most of the sedentary and Bedouin populations (Map 1).

As for the third emphatic fricative /ð̤/, Al-Wer (2004) argues that a phonetic change and not a merger had taken place in sedentary dialects. She proposes the following historical development of interdentalals into stops. At some point in time during the pre-Islamic period, a merger occurred first between the original *dād* /ɟ/, a voiced emphatic lateral fricative sound which was described by Sibawayh but not heard today except rarely in some remote areas in the south of Saudi Arabia, and the emphatic voiced fricative interdental /ð̤/. At a later stage, a phonetic change took place resulting in the change of /ð̤/ to its emphatic stop counterpart /ɟ̤/:

/ɟ̤/ + /ð̤/ > /ð̤/ > /ɟ̤/

The latter phonetic change only affected the sedentary dialects. Modern Bedouin dialects did not incorporate the change of the fricative /ð̤/ into dental stop /ɟ̤/. Whereas Bedouin dialects retained the interdental system of Classical Arabic: /θ/, /ð/ and /ð̤/, sedentary dialects merged interdentalals with stops: [t], [d] and [ɟ̤]. In modern sedentary Arabic dialects, the process of change continues as stops variably change into sibilants [t] > [s], [d] > [z], [ð̤] > [z̤]. No contemporary Arabic variety has both sounds, the interdental fricative [ð̤] and the emphatic stop [ɟ̤], as separate phonemes (Al-Wer 2004: 22).

1.2 The synchronic sociolinguistic variation in the use of interdentals in studied Arabic-speaking communities

Various sociolinguistic studies investigated the correlation between the use of the interdental variants and stylistic and other social factors in urban Arabic dialects where the interdental fricative variants are no longer in casual everyday use. Schmidt's (1974) study of Cairene Arabic, Kojak's (1983) of Damascus and Hama (Syrian), Abdel-Jawad and Awwad's (1989) of Jordanian Arabic and Daher's (1998) study of Damascus Arabic investigated and compared the distribution of the dialectal stop variants with the standard fricative variants in different speech styles. All the studies indicated that dental stops are replaced by their counterpart standard fricative.

The interdentals are also investigated as sociolinguistic variables in dialect contact studies which focus on contact situations in Arabic-speaking communities where the speakers of two varieties which employ different sets of the interdental variants come into contact. In such communities, the contact takes place between sedentary dialects where stop variants are used and Bedouin dialects where fricative variants are the normative use. Different linguistic patterns of variation were found to exist in these contact situations.

In the Levantine region, data from Jordanian Arabic show that the stop variants are expanding at the expense of the interdental fricative variants (Al-Wer 1991, 1999, 2004). Al-Wer (1991) investigated the variation in the use of the local fricative variants [θ] and [ð] and the non-local (Palestinian) prestigious variants [t] and [d] in the speech of 116 indigenous Jordanian women in three different towns in Jordan. Her data show that the younger and more educated female speakers of indigenous Jordanian varieties adopt the urban Palestinian variants. Al-Wer (1999) reports that the alternation between interdental and stop has become commonplace among speakers of the indigenous varieties of both sexes and ascribes the high rate of maintenance of the local variants [θ] (approx. 70 %) and [ð] (approx. 63 %) in her 1991 study to 'a correlation between the pressure exerted by the local community and speaker's awareness of alternations: the greater the awareness of the alternation the stronger the pressure to maintain the local features, thus resulting in limited diffusion of the non-local forms' (Al-Wer 1991: 54). Al-Wer (2004) provides information in real time on the progression of the change from interdental to stop in Jordan. She revisited the town of Sult, one of the towns which was investigated in her 1991 study to collect data from a smaller sample of speakers. The data show that the interdental variables have undergone a dramatic change. Whereas the change from local [ð] to urban [d] is near completion in the speech of young women, the change from interdental fricative [θ] to stop [t] has roughly doubled (from 28 % to 45 %). Al-Wer explains the difference in the behaviour of plain interdental /θ/ and emphatic interdental /ð/ in terms of the different parameters involved in the change from one sound to the other. She argues that the change which affects (θ) is a merger between the variants [θ] and [t]. However, the change

which affects the emphatic /ð/ is a straightforward phonetic change from fricative to stop, i.e. [ð] to [d̥]. Al-Wer explains the disappearance of the local fricative variant [ð] in terms of sociolinguistic stereotyping. She argues that, unlike plain interdentals /θ/ and /ð/, /ð/ is extremely stigmatised in Jordan. She maintains that ‘this sound is used to mimic and ridicule speakers of the dialects which have it’ (Al-Wer 2004: 25). Therefore, it is abandoned in favour of the urban variant.

In the Gulf region, Holes (1995) points to the emergence of new patterns of dialect use in Bahrain and Iraq. Holes examined the dialect used in Manama, capital of Bahrain, to show the effect of urbanisation on dialect change. He reported that the contact situation in Bahrain between the Baharna group and the Arab group in Manama led to the rise of a new standard based on the dialect of the more dominant group: the Arab group. The change in the Baharna speakers’ realisation of Arabic interdentals from [f] to [θ], [d] to [ð] and from [d] to [d̥] is one of the features which are changing towards this new standard which is the product of the fusion of Arab and Baharna dialects in Manama. Holes also examines a similar case in Iraq which was documented by Abu-Haidar (1991). In Baghdad, Christian Baghdadis, who speak a sedentary dialect which employs stop variants of the interdental variables, invariably style-shift when they interact with Muslim Baghdadis. On the other hand, Muslim Baghdadis are not changing the interdental fricatives of their dialect in any context.

2 The sociolinguistic studies of interdentals in Saudi Arabia

In Saudi Arabia, the majority of the dialects spoken in different regions use the fricative variants of the interdental variables. The stop variants /t/, /d/ and /d̥/ are used in the cities of Mecca, Jeddah, Medina (in the western region). In Qatif (in the eastern region), the reflexes of /θ/ and /ð/, /ð/ are /f/, /d/ and /d̥/ (cf. Watson 2011). The investigation of the variation in the use of interdentals has been carried out in two cities in Saudi Arabia: Mecca and Jeddah. No research has been conducted to investigate the use of the interdentals in the eastern region of Saudi Arabia.

Al-Jehani’s (1985), Al-Ahdal’s (1989) and Al-Ghamdi’s (2014) studies of Meccan Arabic investigated the use of interdentals in the speech of Meccans. The population in Mecca is ethnically divided into tribal and non-tribal groups. Whereas non-tribal Meccans use the stop/sibilant variants of the interdental variables, the tribal group use the fricative variants. The variation in the use of the interdentals across the social groups is exemplified in Table 1.

Al-Jehani and Al-Ahdal reported a general low rate of transmission of the stop and sibilant variants in the speech of the tribal population. They found that the fricative and stop/sibilant variants of the interdental variables function as ethnic markers: the former for the tribal group and the latter for the non-tribal group, hence the low accommodation to these variants by both parties. Data in Al-Ahdal study show

TABLE 1. The variation in the use of the interdentals in Mecca.

The interdental variable	Tribal pronunciation	Urban pronunciation	Gloss
/ð/	a. [ha:ða] b. [iða]	a. [ha:da] b. [iza]	'this' 'if'
/θ/	a. [θa:ni] b. [maθalan]	a. [ta:ni] b. [masalan]	'second' 'for example'
/ð/	a. [naði:f] b. [ðulm]	a. [naði:f] b. [zulm]	'clean' 'injustice'

that the tribal speakers used [s] the urban sibilant variant of (ð) 20 % of the time. On the other hand, the non-tribal speakers used the tribal variant [ð] 20 % of the time. Based on this reciprocal convergence, Al-Ahdal predicted that tribal and non-tribal variables are moving towards each other and therefore the diffused variety in Mecca has a chance of focusing. He predicted that the target model for this focused variety would be the Najdi variety which he identified as the 'national identity' of the country. Al-Ghamdi (2014) examined the variation in the use of the interdentals in the speech of Ghamdi emigrants from the south western region of al-Baha in Mecca. The data from her study show a high rate of maintenance of interdental fricatives and a low rate of use of the stop variants. The adoption of the stop variants was found to be significantly correlated with the integration of the Ghamdi community in the Meccan society.

Al-Shehri (1993) examined the variation in the speech of rural immigrants from the south-western region of Saudi Arabia in Jeddah. Al-Shehri found that the accommodation of urbanised rural speakers to the urban usage of the stop variants [t] and [d] is extremely low, and no accommodation to the sibilant variants [s] and [z]. Like Al-Jehani and Al-Ahdal, Al-Shehri drew upon the concept of ethnicity to explain the lack of accommodation to the urban stop variants. He explains that stop variants are the most salient phonological features of the urban Hijazi dialect because 'linguistically speaking, these variants represent radical phonetic distance from the local norm (i.e. interdental variants) of the indigenous Arabian dialects, and thus represent a marker of unindigenous speech' (Al-Shehri 1993: 119). The fricative interdentals have become markers of ethnicity and the indigenosity of the rural immigrants vis-à-vis the urban Hijazi locals.

Al-Qahtani (2015) examines the variation in the use of /ð/ in Tihāmat Qaḥṭān, a remote southern location in Saudi Arabia. In this region, Al-Qahtani found that [ḷ^s], the ancient lateral realisation of the phoneme /ð/ which was described by Sibawayh, is used variably with the emphatic interdental [ð] (the supra-local and majority realisation in Saudi Arabia). The data strongly suggest that there is a change in progress from the old variant (the lateral) to the supra-local variant (the interdental). This change appears to be led mainly by the younger women in the two villages investigated in this study. She adds that this change is socially motivated by the presence of speakers from outside these villages which could have influenced the local dialect and raised

the locals' awareness of this variant as a 'minority feature' vis-à-vis other dialects spoken in Saudi Arabia (Al-Qahatani 2015: 174).

3 The use of interdentalals by Najdi speakers in Jeddah

3.1 Methodology

Data for this research were collected over a five-month period from February through June 2004 from 61 male and female speakers by means of social interviews. I conducted the interviews with 50 male and female speakers. Eleven male speakers were interviewed by two male assistants and by two of my female speakers. Speakers were interviewed for 30–60 minutes in their homes most of the time and some at work. The speakers were born in Hijaz or emigrated from their cities of origin at an early age, not later than their late teens. The interdental variables were examined in relation to three social variables: age, gender and contact. The sample was stratified into 4 age groups that represent three generations of male and female Najdi speakers. Out of the 61 speakers interviewed for this study, 55 represent different generations of different families. This generational scheme allowed me to trace linguistic changes across different generations and to reveal the intricacy of the sociolinguistic situation in the community. Speakers were also classified according to their level of contact with Hijazi locals. A contact index which focuses on regular face to face verbal interaction with locals was used to classify speakers into two groups: low contact speakers and high contact speakers. It is a hierarchy of four criteria which correspond to different levels of interaction or contact with urban Hijazi locals. Speakers scored one point for each criterion they fulfilled. These criteria include (1) formal relationships at school and work or marketplace; (2) participation in neighbourhood affairs; (3) close friendships with Hijazi locals and (4) kinship and intermarriage with Hijazis in the family. A score of 1 indicates 'low contact'; a speaker in this case maintains only formal contact with urban Hijazis. Participants who score between 2–4 are considered high contact speakers. The data were auditorily analysed. At least 30 tokens per speaker for each variable were quantified and coded. In cases where a lexical item is repeatedly used by the same speaker, a ceiling of three tokens of individual items was imposed to avoid lexical effects. The collected data were further subjected to statistical analysis of variance using SPSS 14.

3.2 Data and analysis

The linguistic analysis of the variation in the use of the interdental variables among Najdi speakers shows that the stop variants [t], [d] and [ɖ] occur mostly in frequently used words which have /θ/ or /ð/; for example [d] is used in words such as [hada]

‘this’, [kida] ‘like that’ and the verb [haða] ‘take’ and its derivations, and [t] is used in numerals which have /θ/, for example [itne:n] ‘two,’ and in other words such as [aktar] ‘more.’ Najdi speakers are transferring particular words into their inventory. It seems that the diffusion of the urban Hijazi variants takes place gradually through certain lexical sets, such as the ones that were present in the speech of our informants. According to Trudgill, in contact situations the incomplete accommodation of adult speakers to the target variety involves lexical diffusion (Trudgill 1986: 58). As for preadolescents, Chambers (1992: 693) recognises lexical diffusion as one of the mechanisms of dialect acquisition. The phonological acquisition of the variants begins with individual words, and then at a later stage after a considerable number of instances have been acquired, a rule is generalised. Al-Wer (2004: 25) states that the merger which affected the Arabic interdentals, i.e. the change from fricatives to stops, may have taken place by gradual lexical diffusion. Mergers by transfer are externally motivated in the sense that they are triggered by contact between different speech communities (Labov 1994: 327). The lexical diffusion of the stop variants in the speech of Najdi speakers in Jeddah involves different phonological processes i.e. a merger in the case of (θ) and (ð), but a simple phonetic change from fricative to stop in the case of adults’ acquisition of [d].

3.3 The social embedding of the variation in the use of the interdental variables

The results of the analysis of the variation in the use of the interdental variables of (θ), (ð) and (ḏ) in relation to three social factors: contact, age and gender is presented in Table 2.

The analysis of the use of the interdental variables across age groups which is given in Table 2 shows a low rate of variation in the use of the stop variants [t], [d] and [ḏ]. The ANOVA test at 5 % significance level indicates that the differences between

TABLE 2. The use of the interdental variables according to age.

Age group	(θ)			(ð)			(ḏ)		
	% [θ]	% [t]	N	% [ḏ]	% [d]	N	% [ḏ]	% [d]	N
10-24	99	1	607	99	1	658	99	1	618
25-38	99	1	369	97	3	413	94	6	434
39-55	98	2	350	97	3	356	94	6	376
over 55	5	95	380	89	12	464	89	12	451
Total	1706			1891			1789		
ANOVA	F = 1.6, P = 0.196			F = 4.866, P = 0.004			F = 1.855, P = 0.148		

speakers in the use of the stop variants by age are significant at $P = 0.004$ in the case of [d], but insignificant in the case of [t] ($P = 0.196$) and [ɗ] ($P = 0.1480$). Three observations can be made about the data presented in Table 2. Firstly, the rate of variation in the use of the interdental variables is very low taking into consideration the length of time spent by the speakers in the city of Jeddah. 90 % of the speakers who participated in this study, including 81 % of the oldest age group, were born and raised in Jeddah or in the cities of Mecca and Medina where the urban Hijazi variety is used. The length of stay of the Najdi community extends over 70 years. For the majority of speakers, the exposure to the urban Hijazi variety supposedly took place early in their lives, at school and/or at work. However, in relation to the adoption of the urban Hijazi stop variants [d], [t] and emphatic [ɗ], the linguistic outcome is not in proportion with this long period of time spent in Jeddah. The phonological distinction is maintained in the speech of Najdi speakers although the opposition between the variants involved in the contrast does not carry significant semantic functional load. In the absence of intra-linguistic constraint, the diffusion of the urban Hijazi variants is expected to occur. Nevertheless, the data indicate that the diffusion of the urban variants is characterised by a low rate of frequency. More importantly, the distribution of the variants across the age groups indicates the low rate of acquisition of the urban Hijazi variants by the Najdi youngsters, which contradicts the widely accepted principle in sociolinguistic research that ‘when families move into a new speech community, the children adopt the local vernacular rather than that of their parents’ (Labov 2001: 423). The youngest speakers in this study show a minimal rate of variation (1 %). The majority of speakers in the young age group (70 %) belong to the second generation of Najdis born in Jeddah to mothers who themselves were born in the region of Hijaz.

Equally important, the distribution of the urban variants across the age groups show that the urban variants [d], [t] and [ɗ] were adopted by first-generation speakers, but the transmission of the urban variants was thwarted in the following younger generations. Table 3 shows that the difference between the oldest speakers and all other age groups with regard to use of the urban variant [d] is statistically significant; however, the difference between the oldest age group and the youngest age group is highly significant at $P < 0.001$. With the exception of the oldest age group, the linguistic behaviour of all age groups indicates a case of dialect divergence as the use of the stop variants is receding in the speech of Najdi speakers. It seems that the adoption of the urban Hijazi variants which had started at an earlier point of time as shown by the variation rate in the speech of the oldest speakers has not further progressed in the speech of the subsequent generation. The fricative variants, on the other hand, show a high rate of maintenance among speakers of all age groups. It seems that age is not the determinant factor for the acquisition of the interdental urban variants.

To be able to account for the lack of acquisition of the urban variant among young Najdi speakers, we have to probe further the social context of the dialect

TABLE 3. T-test of the significance of the difference between age group (over 55).

Age groups in comparison	T-test
Over 55\39–55	P = 0.018
Over 55\25–38	P = 0.008
Over 55\10–24	P = 0.001

TABLE 4. The use of the interdental variables according to contact.

	(θ)			(ð)			(ḏ)		
	% [θ]	% [t]	N	% [ð]	% [d]	N	% [ḏ]	% [ḏ]	N
Low contact	100	0	770	100	0	890	99.80	0.20	830
High contact	97	4	936	91.52	8.48	1001	95	5	1049
	t-test = -3.079, P = 0.003			t-test = -3.410, P = 0.001			t-test = -2.722, P = 0.0109		

TABLE 5. The use of the interdental variables according to gender.

	(θ)			(ð)			(ḏ)		
	% [θ]	% [t]	N	% [ð]	% [d]	N	% [ḏ]	% [ḏ]	N
Male	99	1	836	94	6	889	94	4	889
Female	97	3	870	97	3	1002	98	2	1002
	t-test = -1.450, P = 0.152			t-test = 0.168, P = 0.867			t-test = 0.968, P = 0.339		

contact situation. We have to uncover the ‘social embedding of language change’ (Labov 1972: 162) by examining the correlation of the interdental with the other social variables of contact and gender.

The results of the quantitative analysis given in Table 4 clearly establish contact as an important social variable. The data in Table 4 indicate that there is a correlation between the use of the urban Hijazi variants [d], [t] and [ḏ] and the level of contact with Hijazi locals. The data show that variation in the use of the urban Hijazi variants is limited to speakers who maintained a high level of contact with urban Hijazis. High contact speakers used [d] 9 % of the time and [t] 4 % of the time. The difference between speakers according to the level of contact is statistically significant at P = 0.001 in the case of [d]; at P = 0.003 in the case of [t] and at P = 0.010 in the case of emphatic [ḏ]. We can establish with confidence that there is a correlation between the rate of usage of the stop variants and the level of contact with urban Hijazi locals. It is urban Hijazi-oriented speakers who adopted the stop variants in their speech.

With regard to correlation between the use of the stop variants of the interdental variables with gender, the data presented in Table 5 show that male speakers use

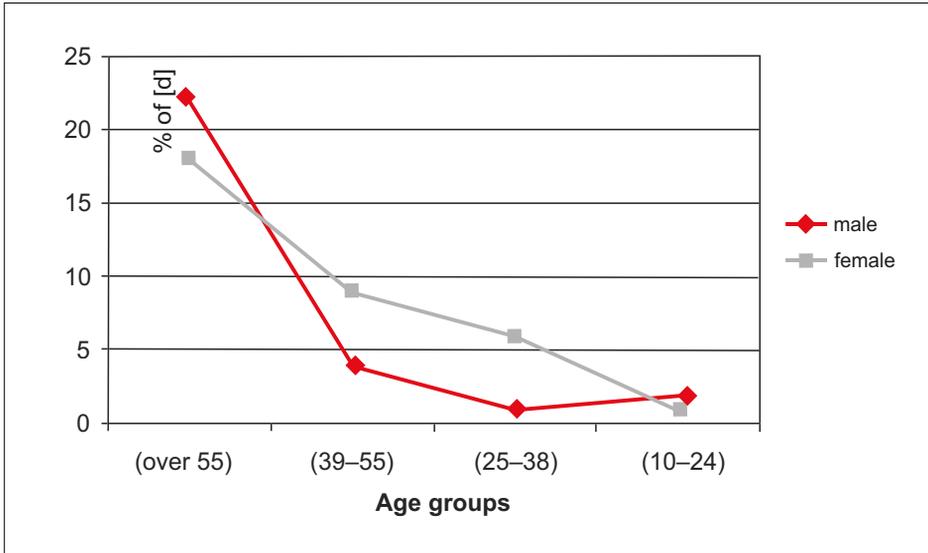


FIGURE 1. Use of [d] by age and gender in high contact speakers.

more of the stop variants of the variables (δ) and (δ) than women. Men used [d] 6 % of the time and they used emphatic [d] 4 % of the time. On the other hand, female speakers' use of the urban Hijazi variant [t] is higher than male speakers. However, this difference between men and women with regard to the usage of the urban Hijazi variants is not statistically significant.

Since contact emerged as a determinant factor in the variation of the interdental variables, the correlation between age and gender in high contact speakers with regard to the use of the stop variants [d], [t] and [d] is investigated and the results are illustrated in Figures 1, 2 and 3.

A glance at Figure 1 quickly ascertains that there is a steady decline in the use of the urban Hijazi variant [d] among speakers from both sexes. As we explained before, this inverse pattern of variation is actually the result of the level and degree of contact which speakers maintained with urban Hijazi locals. The information illustrated in this figure clearly indicates difference by gender. Male and female speakers differ in their use of the urban Hijazi variant. The oldest male speakers produce the highest number of tokens with [d] realisation of the variable (δ); they used [d] 22 % of the time. The oldest female speakers, on the other hand, used less of [d]; they used the urban Hijazi variant 18 % of the time. In the middle-age group, male speakers' use of [d] sharply drops to 4 %. On the other hand, 9 % of the token of the variable (δ) were realised as [d] by female speakers from the same age group. In the age group (25-38), female speakers used the urban Hijazi variant 6 % of the time whereas male speakers' rates of usage of the urban Hijazi variant drop to 1 %. However, in the youngest age group, male speakers' use of the urban Hijazi variant starts to rise again; 2 % of

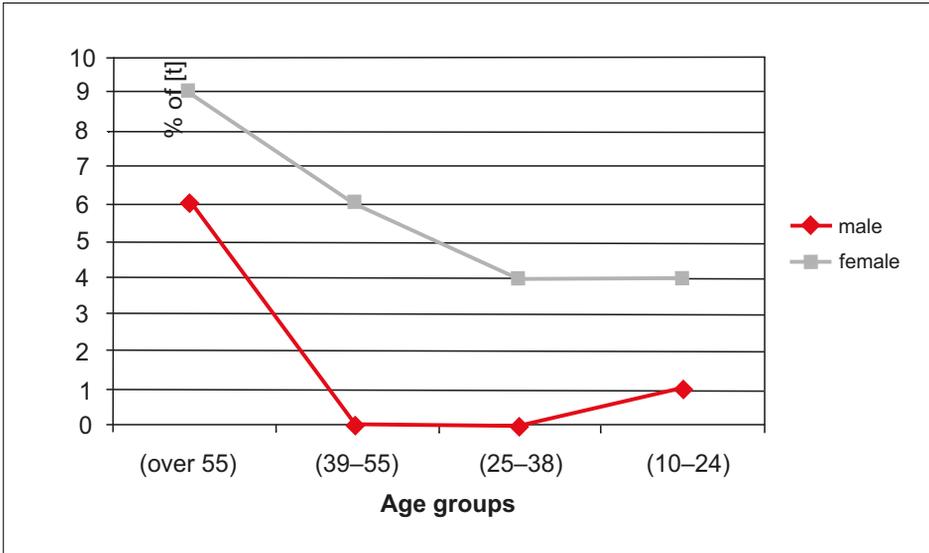


FIGURE 2. Use of [t] by age and gender in high contact speakers.

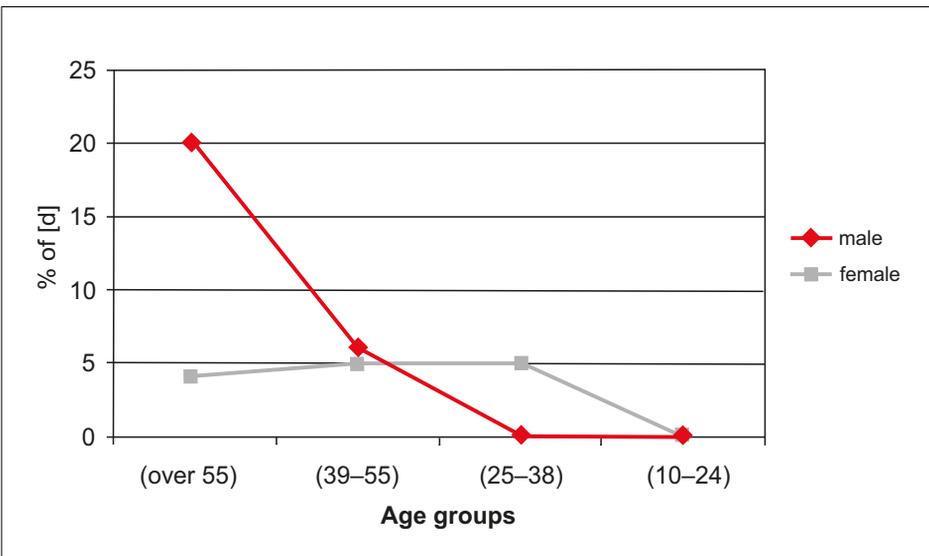


FIGURE 3. Use of [d] by age and gender in high contact speakers.

the tokens of the variable (δ) were realised as [d] by young male speakers. On the other hand, the use of [d] continues to decrease in the speech of young female speakers; it falls from 6 % to 1 %. The apparent time data given in Figure 1 illustrate the recessive use of the urban Hijazi variant [d] among male and female speakers except for the young male speakers.

Figure 2 clearly shows that there is a correlation between the use of the urban Hijazi stop variant [t] and female speakers. Female speakers showed a higher rate of use of [t] than male speakers across all age groups. It is noticed that although there is a decline in the use of [t] among male and female speakers, it is steeper in the case of male speakers. In the oldest age group, whereas women used [t] 9 % of the time, men used the urban Hijazi variant 6 % of the time. In the middle-age group, women's use of [t] decreased; female speakers in the (39–54) age group used [t] 6 % of the time. On the other hand, male speakers from the same age group did not use the urban Hijazi variant. In the (25–38) age group, female speakers used [t] 4 % of the time. However, the stop variant [t] was not used by the male speakers in the same age group. In the youngest age group, [t] is showing a tendency to stabilise in the speech of the youngest female speakers who used it 4 % of the time. The use of [t] reappears in the speech of the youngest speakers as they used it 1 % of the time.

Figure 3 illustrates the distribution of [d̥] in male and female speakers across different age cohorts.

The data in Figure 3 show that male speakers' use of [d̥] has receded to disappear from the speech of age groups (25–38) and (10–24). On the other hand, women's use of [d̥] increased in the middle-age group. Female speakers in the next age group showed the same rate of usage as the middle-age group; however, the use of [d̥] drops to 1 % in the speech of the youngest female speakers.

Like [d̥] and [t], [d̥] emerges as a recessive variant in male and female speakers. Although, the younger women appear to be leading the change towards the urban Hijazi variant [d̥] in age groups (25–38) and (10–24), the disappearance of [d̥] from the speech of young male speakers and its decline in the speech of the youngest female speakers indicate that [d̥] is a recessive variant.

4 Discussion

The analysis of the data has shown the maintenance of the fricative variants in the speech of low contact Najdi speakers and a low rate of variation and recessive use of the stop variants in the speech of high contact Najdi speakers. Although contact emerges as the most significant social factor determining the diffusion of the stop variants in the speech of Najdis, the low rate of use of these variants in the second generation of young high contact speakers remains remarkably low. In the ideal circumstances of dialect contact situations, children usually speak the local vernacular following the linguistic pattern of their peers (Kerswill and Williams 2000; Payne 1980). The linguistic behaviour of young Najdi speakers seems to contradict this widely reported outcome of dialect contact. However, it concurs with the previously reported pattern of variation found in the speakers of other regional dialects which employ the fricative of the interdental variables in Saudi Arabia (see section 2 of this paper). The high

level of maintenance of the fricative variants and the low rate of transmission of the stop variants in the speech of Najdi and speakers of other regional dialects can be explained in terms of the operation of the process of supralocalisation which is a ‘process by which, as a result of mobility and dialect contact, linguistic variants that have a wide geographical currency spread at the expense of those which are much more locally restricted’ (Britain 2011). Supra-local varieties which emerge in dialect contact zones tend to favour features that are found across a region or a country, and they tend to avoid salient linguistic features that are strongly associated with a particular dialect or particular social group. The operation of the process of supralocalisation is evidenced by the fact that Najdi speakers, like other regional groups in the city, do not make wholesale adoption of the urban Hijazi variety. On the one hand, they abandon traditional Najdi forms on the phonological and morphosyntactic level in favour of the urban Hijazi forms (cf. Al-Essa 2008, 2009). On the other hand, they maintain the use of the fricative variants of the interdental variables and avoid the local stop variants. As mentioned earlier, a supra-local variety favours ‘unmarked’ features that have a wider regional distribution. The Najdi speakers rid their speech of the marked forms of their dialect, e.g. affricated variants of /k/ and /g/, but they maintain the fricative variants of the interdentals because they are aware that fricative variants have a wider geographic and demographic distribution in the region. Unlike the stop/sibilant variants which are restricted to the Hijazi cities of Mecca, Medina and Jeddah, the fricative variants of the interdentals have a wider regional distribution, not only in Saudi Arabia but in the Gulf countries and Yemen, as well (see Map 1).

The high rate of maintenance of the fricative variants of the interdental variables in the speech of Najdi speakers and speakers of other Arabian varieties in Saudi Arabia is also associated with the speakers’ perception of the stop and sibilant variants of the interdental variables as an ‘exonorm.’ Unlike all other varieties in Saudi Arabia, the urban dialect of Hijaz has been largely shaped by geopolitical and socio-religious factors, most importantly the external migration of different ethnic groups from outside the Arabian Peninsula in the past centuries. Previous sociolinguistic studies which investigated the use of the interdental variables in other speech communities in Mecca and Jeddah reported that the stop and sibilant variants have become stereotypical of the urban Hijazi variety and that they are perceived by the tribal population as ‘non-Arabian’ speech features. (cf. Al-Jehani 1985; Al-Ahdal 1989; Al-Shehri 1993). This social perception of the stop variants as ‘substrate’ features is accentuated by their phonetic saliency. The stop variants [t], [d] and [ɖ] are phonetically distinct from the fricative variants which make them overtly noticed by the community members and they become the subject of social comment. The fact that the stop variants carry such detectable social loading as a marker of another distinct ethnic group whose roots lie outside the Arabian Peninsula worked as a deterring factor against the adoption of the stop variants.

Finally, we cannot conclude this discussion of language variation and change in Saudi Arabia in relation to the interdental sounds without alluding to the fact that there is a lack of a standard spoken variety that is associated with the people of the country. We cannot speak with certainty of 'Saudi Arabic' which is based on a 'prestigious' dialect associated with a politically or commercially urban centre in the same way we speak about Egyptian Arabic which is associated with the speech of Cairo. We cannot speak of a standard Saudi dialect in which a foreigner may learn to interact with Saudi people. There are manuals to teach different varieties according to the purpose of the learners and the region where they plan to visit or work in geographic, political and social divisions worked against the rise of a standard variety that is recognised collectively by the people of Arabia as such prestigious. With the establishment of the Kingdom in 1932, the different regions of Arabia were unified under one central government for the first time in many centuries. The modernisation process which followed the discovery of oil in 1932 and accelerated after the oil boom in the 1970s led to massive internal migration to major urban centres. 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/, /ð̤/ are part and parcel of this emerging regional standard variety in Saudi Arabia.

5 Conclusion

The interdental variables (θ), (ð) and (ð̤) show different patterns of geolinguistic distribution in the Arab world. Whereas stop variants [t], [d] and [d̤] are associated with particular standard regional varieties, e.g. Egyptian Arabic and Levantine Arabic, the fricative variants /θ/ and /ð/, /ð̤/ are found in the Arabic varieties spoken in the Arabian Peninsula, the Gulf region and Iraq. The transmission of either type of variants is investigated in different Arabic-speaking countries in various sociolinguistic studies with different outcomes. Urban centres in Jordan, Bahrain, Iraq and Saudi Arabia were found to be the locus of language change with regard to the use of the interdental variables. Speakers of different dialects responded to the supra-local norms of their regions and hence linguistic change takes a different course in different regions. The urban centres of Hijaz, i.e. Mecca, Jeddah and Medina which are the locus of the stop variants of the interdental variables in Saudi Arabia witnessed massive in-migration by speakers of Arabian dialects that employ the fricative variants of the interdental variables. The results from this study and previous studies show a low rate of variation in the use of stop variants [t], [d] and [d̤] and a high degree of maintenance of the fricative variants of the interdentals /θ/, /ð/ and /ð̤/. I explained that

Najdi speakers are orienting towards a supra-local linguistic norm that is Arabian in essence. The fricative variants have become social markers used by the speakers to signal their Arabian identity. The survival of the fricative variants in the speech of Arabic-speaking communities which have longer history of urbanisation and contact, i.e. Iraq and Tunisia lend further support to the likelihood of the maintenance of the fricative variants in the speech of the people in Saudi Arabia. Another scenario still to be contemplated is that the large conurbation centres in Hijaz such as the city of Jeddah might facilitate the transmission of the stop variants in the speech of third-generation immigrants.

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