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## On Interdental Fricatives in the First-Layer Dialects of Maghrebi Arabic

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**Abstract:** The present paper aims at revisiting the question of fricative interdentals in the so-called pre-Hilali Arabic dialects, that is the descendants of the first stage of Arabicization in North Africa. It attempts to challenge, from a diachronic and comparative approach, the view that the absence of interdental fricatives – and their merger with dental stops – is a hallmark of pre-Hilali Arabic. On the basis of neglected data, we will provide evidence suggesting that interdental phonemes occur or did occur in some of the Arabic dialects which resulted from the early Muslim conquest of North Africa.

**Keywords:** Phonetics, interdental fricatives, pre-Hilali dialects, Maghrebi Arabic, diachrony.

### 0. Introduction

Old Arabic is believed to have retained the interdental triad of Proto-Semitic, with the only peculiarity of the shift of  $*/t̪/$  to  $*/d̪/$ <sup>1</sup>. The preservation vs loss of interdental fricatives is an important issue in Arabic historical linguistics and dialectology. Whereas some Arabic dialects retained the interdentals, others shifted them to stops, sibilants or labio-dental fricatives. This is why the presence vs absence of this series of phonemes is often regarded as a distinctive feature that allows us to classify Arabic varieties (Taine-Cheikh 1998).

As announced by its title, the present paper aims at reviewing the question whether the preservation of interdental fricatives may be regarded as a distinguishing feature of what is known in Maghrebi dialectology as pre-Hilali dialects. These are intended as the continuation of the Arabic dialects spoken by the first Muslim soldiers that set foot in North Africa (mid-7th century). The pre-Hilali group of Maghrebi Arabic comprises the dialects of the inhabitants of some ancient urban centres (e.g.: Tangiers, Tlemcen, Cherchell, Tunis...) as well as those spoken by some of the dwellers of the nearby countryside (the Jbala in northern Morocco, the Trāra and Msīrda in Northwestern Algerian, and the people from Jijel and Collo in Eastern Kabylia). Pre-Hilali varieties are a group because they share in many features in which they differ with the so-called Hilali ones, a further category of dialects that originated with the invasions of the Banū Hilāl, the Banū Sulaym and the Banū Maṣqil in the late 10th and 13th centuries. These nomadic tribes slowly arabicized most of the Berber-speaking populations that dwelt in the plains and high plateaux of present-day Libya, Tunisia, Algeria, Morocco and Mauritania.

It is usually taken for granted that interdental fricatives were lost in pre-Hilali dialects. Indeed, many of the pre-Hilali varieties described so far are characterized by the loss of the interdentals ( $*/t̪/$ ,  $*/d̪/$ ,  $*/d̪ˤ/$ ) which have been fused with their corresponding

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<sup>1</sup> It is believed that Proto-Semitic  $*/t̪/$ ,  $*/d̪/$  and  $*/d̪ˤ/$  were inherited in Old Arabic as  $*/t̪/$  (voiceless interdental fricative),  $*/d̪/$  (voiced interdental fricative) and  $*/d̪ˤ/$  (voiced emphatic interdental fricative) respectively. These interdental phonemes are rendered in Arabic script by the letters ت̪, د̪, and د̪ˤ.

stops (\*t/, \*/d/, \*/d/)². This is, for instance, the case of the dialects of Tangiers, Larache, Tlemcen or Jijel³. However, as has been noted by Souag 2005, the aforementioned statement is not valid for some dialects. Actually, if we make an inventory of the pre-Hilali varieties, we will find that many of them do (or did) have interdental consonants. This is for example the case of almost all Tunisian pre-Hilali dialects⁴.

It can be inferred from the works of several scholars that the shift from interdental spirants to dental stops is a common feature among pre-Hilali varieties. For instance, when listing the features of Tripoli Arabic, Ch. Pereira (2009: 549) states that: “The development of the interdental fricatives to dental plosives is an innovation that can be observed in other pre-Hilalian sedentary dialects as well”. A more straightforward claim is made by D. Caubet who goes against Colin’s assumption that the presence of interdentals in the Jebli dialect of the area north of Taza is a case of maintenance: “Il s’agit de sa première publication et il ne connaissait pas encore ce qu’on appelle aujourd’hui les parlers préhilaliens, c’est pourquoi il parle de conservation des interdentes” (“It was his first published work, so he did not know yet what we nowadays call pre-Hilali dialects, that is why he speaks of preservation of the interdentals”⁵, cf. Caubet 2017: 107, note 19). I myself have claimed in some of my works that the loss of interdentals is a distinctive feature of pre-Hilali Arabic: “Se trata de un rasgo característico de los dialectos prehilalíes y de los sedentarios en general, así dialectos como los de Tánger, Tremecén, Djidjelli o Acre, no tienen interdentes” (“It is a distinguishing feature of pre-Hilali dialects and, more generally, sedentary ones. Thus, dialects such as those of Tangiers, Tlemcen, Jijel or Akka lack interdentals”⁶, cf. Guerrero 2015: 38).

As mentioned above, in the present study I intend to take up the issue of interdentals in pre-Hilali dialects by using neglected evidence and reinterpreting the hypotheses put forward by some scholars. The paper is organized as follows: Firstly, I will provide an overview of the issue and will attempt to demonstrate the unlikelihood of the interdentals of some Tunisian and north-central Algerian dialects being a case of phonetic borrowing from Bedouin varieties, as posited by Cantineau (1960). Secondly, I will sift the available evidence suggesting that etymological interdental fricatives did occur at the earliest stage of pre-Hilali dialects – or at least some of them. Thirdly, I will discuss the limitations of my argumentation. Lastly, I will briefly analyze the implications of my hypothesis and will draw some conclusions.

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² It is worth mentioning that etymological \*/d/ and \*/d/ are confused in the overwhelming majority of Arabic dialects. Thus, /d/ generally stands for \*/d/ in dialects displaying interdentals, while /d/ occurs instead of \*/d/ in dialects having merged the interdentals with the corresponding set of dental plosives. For instance, Old Arabic \*daw? “light” and \*ṣaḍm “bones” are rendered by daw and ṣḍam in Sousse Arabic, whereas in the dialect of the Jews of Tunis these two words arise as daw and ṣḍam, cf. Talmoudi 1980; Cohen 1975.

³ Cf. Assad 1978: 2-4, Guerrero 2015: 38-40, W. Marçais 1902: 13-14, and Ph. Marçais respectively 1952: 5-9.

⁴ Tunisian pre-Hilali dialects displaying interdental reflexes of old \*/t/, \*/d/ and \*/d/ are, for instance, those of Tunis (Durand 2007: 245) and Sousse (Talmoudi 1980: 26-29).

⁵ Translation mine.

⁶ Translation mine.

## 1. An overview of the issue

In many scholarly works, the absence of interdentalals is regarded as a characteristic feature of pre-Hilali Arabic. Although these consonants are well attested in several Maghrebi dialects which may be typologically classified as “pre-Hilali”, various kinds of arguments have been made to support the view that the interdentalals of these vernaculars are the result of a restitution process. According to this hypothesis, the interdentalals of some pre-Hilali Arabic dialects are not a continuation of the old \*/t̪/, \*/d̪/ and \*/ð̪/, but they have been reintroduced through language or dialect contact.

Geographically, modern pre-Hilali dialects displaying interdental realizations may be split into three major groups:

A) The Tunisian group: This encompasses all Tunisian pre-Hilali dialects except Mahdiya, Moknine and the Jewish varieties<sup>7</sup>, e.g.:

Old Arabic	Sousse (Talmoudi 1980)	Tunis Jewish (Cohen 1975)
* <i>t̪ūm</i> “garlic”	<i>t̪ūm</i>	<i>tawm</i>
* <i>h̪āḏā</i> “this”	<i>h̪āḏa</i>	<i>āda</i>
* <i>ʕadm</i> “bones” <sup>8</sup>	<i>ʕdam</i>	<i>ʕdam</i>

Table 1. Reflexes of Old Arabic interdentalals in the dialects of Sousse and Tunis Jewish.

B) The north-central Algerian group: This includes the pre-Hilali dialects spoken in several towns lying around Algiers. On an east-west axis, these towns are: Dellys, Algiers, Blida, Médéa, Miliana, Cherchell and Ténès<sup>9</sup>, e.g.:

Old Arabic	Cherchell (Grand’Henry 1972)	Jijel (Ph. Marçais 1952)
* <i>talāta</i> “three”	<i>tlāta</i>	<i>tlāta</i>
* <i>dirāʕ</i> “arm”	<i>ḏrāʕ</i>	<i>ḏrāʕ</i>
* <i>difr</i> “nail”	<i>ḏfar</i>	<i>ḏfar</i>

Table 2. Reflexes of Old Arabic interdentalals in two central Algerian pre-Hilali dialects.

C) The Algero-Moroccan group. This comprises some of the pre-Hilali village dialects spoken across the Jbala region in northern Morocco and those of the Msīrda and Trāra in northwestern Algeria, e.g.:

Old Arabic	Chaouen (Moscato 2003)	Larache (Guerrero 2015)
* <i>taʕlab</i> “fox”	<i>taʕlab</i>	<i>taʕlab</i>
* <i>talāta</i> “three”	<i>tlāta</i>	<i>tlāta</i>

Table 3. Reflexes of Old Arabic interdentalals in two Moroccan pre-Hilali dialects.

<sup>7</sup> Cf. Taine-Cheikh 1998: 31; Mion 2014: 59. For a transcribed text in the Arabic dialect of Mahdiya, see Attia 1969. On the shift of interdentalals to stops in the Jewish dialects of Tunis, Sousse and Djerba, see Cohen 1975, Saada 1969, and Behnstedt 1998 respectively.

<sup>8</sup> In Tunisian dialects, this word is also used as a euphemism for “testicles”.

<sup>9</sup> We may add to this group a northeastern Algerian dialect, that of Constantine, cf. Ph. Marçais 1977: 9 (quoted in Souag 2005: 155). It should be noted that in some of these dialects, for instance Algiers (Boucherit 2002: 42-45), there seems to be a fluctuation between retention and merger of interdentalals. Such a phonetic variation could be due to dialect contact.

Besides this, it is worth mentioning two other groups which represent peripheral varieties of Maghrebi Arabic: the extinct Andalusī Arabic, and Maltese<sup>10</sup>.

Cantineau (1960: 44) accounts for the presence of interdental fricatives in the two first groups by appealing to a bedouinization process. According to this hypothesis, the sedentary dialects of Tunisia and north-central Algeria, which once lacked interdental fricatives, have acquired them under the influence of neighbouring Hilali varieties. Cantineau founds his hypothesis on the cases of hesitation he noticed in the speeches of the populations of Cherchell and Miliana: “[...] il faut probablement voir dans cette conservation des interdentes le résultat sur ces villes de l’influence des parlers nomades : il s’agit plutôt d’une *restitution* que d’une *conservation*, car sur certains points, à Cherchell et à Miliana par exemple, j’ai remarqué des hésitations et j’ai eu l’impression que certains éléments de la population pouvaient avoir des occlusives : cette restitution pourrait n’être pas très ancienne” (“[...] this preservation of interdental fricatives is likely due to the influence of nomadic dialects exerted on these cities: it is rather a *restitution* than a *preservation* phenomenon as, in certain locations such as Cherchell or Miliana, I noticed some cases of hesitation and I had the impression that some speakers might realize interdental fricatives”)<sup>11</sup>. Even if such a phonological restitution is feasible and may well have happened, Cantineau’s theory must be balanced against the following considerations:

- The nomad stigma: It must be borne in mind that the preservation of interdental fricatives is, generally speaking, one of the hallmarks of Bedouin Arabic dialects (Taine-Cheikh 2017: 29). Considering that the Bedouin speech has historically been looked down upon by speakers of the old medina dialects, I find it unlikely that a city dweller adopts a pronunciation which makes him sound “rude” and “impolite”. This is especially true for pre-colonial Maghreb societies where the Bedouin-sedentary cleavage must have been more marked.
- The rarity of interdental fricatives: Assuming that these pre-Hilali dialects lacked interdental fricatives when they came into contact with Hilali varieties, why would they have borrowed a group of phonemes (i.e. interdental fricatives) which are well known for their articulatory complexity and are therefore relatively uncommon cross-linguistically? For example, their tendency to vanish in pidgins and creoles is widely attested. So, even though the borrowing theory is not impossible, it seems to be highly unlikely<sup>12</sup>.

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<sup>10</sup> Maltese does not currently display interdental realizations, nevertheless interdental fricatives existed in this dialect until the second half of the 18<sup>th</sup> century, cf. Avram 2014. For a discussion of this issue, see section 2.2. below.

<sup>11</sup> Conversely, Ph. Marçais (1977: 9) and Souag (2005: 155) share the view that the interdental fricatives of these Algerian dialects are a case of retention. Translation is mine.

<sup>12</sup> On the rarity of interdental fricatives across languages, see Maddieson 1984: 45. On the difficulty of acquiring the interdental fricatives by L2 learners, see Brannen 2011. Interestingly enough, in a study carried out in the Beni Sous area (Algeria), Kherbache (2017: 141) observes how, in a contact situation, speakers never accommodate to the interdental-preserving dialect.

- Absence of confusion/hypercorrection<sup>13</sup>: It is a well-known fact that the unmerging of a merged phonological class is highly rare. The main reason for this seems to be the difficulty second dialect learners find in acquiring a distinction (i.e. interdental vs. dental) which is not present in their own dialect. However, a merger can be reversed when the right social conditions are given (Labov 2010). Besides this, and as far as pre-Hilali Arabic is concerned, the number of minimal pairs opposing interdentals to dentals does not seem to be very significant, so a word-by-word relearning of the distinction might have been feasible<sup>14</sup>. But, if an unmerging took place in the above-mentioned pre-Hilali dialects there should be here some cases of confusion or hypercorrection like *trāb* instead of *trāb* “soil, earth” (\**turāb*). However, the fact is that, all interdental fricatives in these dialects always correspond to etymological \*/t/, \*/d/ and \*/ð/<sup>15</sup>.

As far as the Cherchell dialect is concerned, the alleged Bedouin origin of the interdentals has been put into question by Grand’Henry (1972: 6-7), who argues that the only cases of hesitation he came across in Cherchell were those of speakers who were originally not from the city. Furthermore, he points out that the town of Cherchell is surrounded by mountains inhabited by Berber-speaking populations, a geolinguistic peculiarity which would have helped this Algerian dialect remain impermeable to the influence of the Bedouin varieties which spread throughout the Chelif Valley<sup>16</sup>. Grand’Henry claims that the interdental fricatives exhibited by Cherchell dialect speakers can be accounted for by the arrival in the city of an important number of Andalusian refugees whose native language was an Andalusian Arabic dialect. Grand’Henry’s assumption is very realistic, but still problematic, as it does not lend enough support to postulate a case of phonological restitution. Interdentals may have existed in the Cherchell dialect before the arrival of the Andalusian refugees. If this assumption is true, the dialect of the latter would have done nothing but contribute to the maintenance of an already existing feature.

As regards the interdentals of the Algero-Moroccan group, which is made up of some village dialects, most scholars agree that they are due to language contact between Arabic and Berber. The fact that further phonemes in these dialects also undergo spirantization

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<sup>13</sup> I thank Jonas Sabony for drawing my attention to this matter. The issue of the absence of hypercorrections involving interdental fricatives in the Muslim dialect of Tunis has already been brought up by Cohen (1973: 232, n. 41).

<sup>14</sup> In the Hans Wehr’s *Dictionary of Modern Written Arabic* I have found a total of 130 minimal pairs for the opposition interdental - dental, 28 for /t/ - /t/, 73 for /d/ - /d/, and 29 for /ð/ - /ð/. In pre-Hilali Arabic dialects, this number seems to be smaller. For instance, only two minimal pairs are reported for the pre-Hilali dialect spoken in Sousse: *tāyib* “repenter” - *īyib* “benefactor”, *dabb* “he went slowly” - *ḍabb* “he jumped”, cf. Talmoudi 1980: 20-21.

<sup>15</sup> Durand argues that the lack of irregularities in the distribution of dental plosives and interdental fricatives in relation to Classical Arabic renders highly unlikely the assumption of a phonological restitution: “[...] se la confluenza di interdentali in dentali semplici è prefettamente concepibile, viceversa risulta altamente poco credibile la ‘riacquisizione’ di interdentali perdute – senza alcuna irregolarità o devianza rispetto al modello CLA – nell’intero lessico dialettale per via di un modello beduino, per quanto prestigioso.”, cf. Durand 2007: 268.

<sup>16</sup> An interactive map on <http://www.centrederechercheberbere.fr/la-berberophonie.html> enables us to obtain an overview of the Berber varieties which are spoken around the town of Cherchell.

is good evidence to suppose a Berber substratum influence, as spirantization is a common feature of most Northern Berber dialects<sup>17</sup>.

	<b>Riffian</b>	<b>Kabyle</b>	<b>Tašəlhīt</b>	<b>Mozabite</b>
“Mountain”	<i>aḍrar</i>	<i>aḍrar</i>	<i>aḍrar</i>	<i>aḍrar</i>
“Honey”	<i>ṭamamt</i>	<i>ṭamənt</i>	<i>tammənt</i>	<i>tamemt</i>

Table 4. Examples of spirantization in two Northern Berber dialects and their counterparts in Tašəlhīt (Southern Morocco) and Mozabite (Eastern Algeria).

<b>Old Arabic</b>	<b>Chaouen (Moscoso 2003)</b>	<b>Trāra (Cantineau 1960)</b>
* <i>madīna</i> “city”	<i>ṃdīna</i>	<i>ṃdīna</i>
* <i>hūt</i> “fish”	-	<i>ḥūt</i>
* <i>zayt</i> “oil”	<i>ẓīt</i>	-

Table 5. Examples of spirantization in the village dialects of Chaouen (Northwestern Morocco) and Trāra (Northwestern Algeria).

All scholars see in the presence of these interdental fricatives a case of secondary affrication of occlusives triggered by a Berber substratum influence<sup>18</sup>. Only Corriente (1969: 157) seems to reject the Berber theory by appealing instead to the role played by the strong stress which characterizes Moroccan Arabic.

As far as I can determine, the Berber substratum is certainly responsible for the general trend towards spirantization reported for some village dialects. Nevertheless, such a fact does not necessarily imply that the three interdental fricatives /ṭ/, /ḍ/ and /ḍ/ were absent from the phonological inventory of these vernaculars by the time their speakers settled down in the western side of the Rif mountain range and in the Trāra massif. In other words, we have no evidence to rule out the possibility that interdental fricatives were present in these dialects before coming into contact with Berber varieties. On the other hand, and as far as Jebli dialects are concerned, it is important to bear in mind that the region of northern Morocco was for centuries under the Andalusian social and political sphere of influence, which also resulted in the adoption of some linguistic features from the more prestigious Andalusian Arabic dialects<sup>19</sup>. Moreover, this impact of Andalusian Arabic on northern Moroccan varieties must have lasted beyond the fall of Granada in 1492 as a consequence of the arrival in northern Morocco of an important number of Andalusian refugees whose mother tongue was in most cases Andalusian Arabic<sup>20</sup>. Thus, we have good grounds for assuming that the presence of interdental fricatives in the more prestigious Andalusian Arabic dialects may have favoured the maintenance of these phonemes in some Jebli dialects.

In the preceding paragraphs, I have tried to show how most scholars explained the occurrence of interdental fricatives in some pre-Hilali dialects as being a contact-induced phonological restitution, not considering the possibility of being a case of retention

<sup>17</sup> Cf. Kossmann & Stroomer 1997: 466. In the dialects of the Algero-Moroccan group, historical stops, i.e. \*/t/, \*/d/ and \*/ḍ/ are sometimes realized as interdental fricatives, for example in the Taza dialect we find *ḷəfṭ* “turnip” for \**laft*, cf. Colin 1921: 53.

<sup>18</sup> See Vicente 1999: 32, Heath 2002: 141, Moscoso 2003: 39, Aguadé 2018: 45.

<sup>19</sup> Cf. Hachemi 2011: 33. On some features of possible Andalusian origin to be found in the dialects spoken in the north of Morocco, see Vicente 2011: 202-206.

<sup>20</sup> Vincent 2004: 106-107, cited in Vicente 2011: 201, note 31.

instead. This is logical since all these authors start from the premise that pre-Hilali dialects are characterized by the merger of interdental consonants with their corresponding stops. Evidence for their assumption comes from the fact that pre-Hilali vernaculars fall within the group of sedentary varieties, a macro-category of Arabic dialects which generally display the change of interdentals to plosives. Nonetheless, it is worth recalling that interdentals have been retained in other sedentary dialects across the Arabic-speaking world. For instance, interdentals are reported for the Mesopotamian *qeltu* dialects, the Omani sedentary dialects, the dialects spoken in the Qalamūn area, or those of the Druze. So, why should we not view the interdentals of some pre-Hilali varieties as an early pre-Hilali trait that faded out in some dialects and survived in others?

In what follows, I shall sift the available evidence suggesting the presence of interdentals at the earliest stages of some pre-Hilali Arabic dialects.

## 2. Possible evidences for the occurring of interdentals in the main bulk of early pre-Hilali dialects

The main evidence suggesting the antiquity of the interdental fricatives in some pre-Hilali dialects comes from Andalusi Arabic and Maltese<sup>21</sup>, two peripheral Maghrebi dialects which could be genetically closely related as they share an important number of isoglosses<sup>22</sup>.

### 2.1. The Andalusi Arabic evidence

It is a well-known fact that the Andalusi dialect bundle displayed historical interdentals until the late 15th century<sup>23</sup>. As stated by Ferrando (2002:192, 197), the contact-induced restitution hypothesis may not be argued for Andalusi Arabic, as the Hilali invasions never reached the Iberian Peninsula. I concur with this author's view that the presence of the interdentals in both some sedentary dialects and most Bedouin ones should be seen as an archaic feature<sup>24</sup>.

### 2.2. The Maltese evidence

In the light of its insularity and particular history, Maltese may be considered as the only living pre-Hilali dialect to have remained relatively impermeable to the influence of

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<sup>21</sup> Please note that Maltese examples are presented in standard Maltese orthography. Where necessary, a broad phonetic transcription in the IPA is added.

<sup>22</sup> Among others, these isoglosses are: 1) phonetically, the retention of short vowels in unstressed syllables (e.g.: Old Arabic *nadā* "dew", AA and MI *nida*, Moroccan *nda*; Old Arabic *sanah* "year", AA *sene* and MI *senā*, Moroccan *sna*), 2) lexically, the use of the terms: AA *raḥāl*, MI *raḥal* "village"; AA *ḥallāl*, MI *ḥalliel* "thief", AA *zafan*, MI *zifen* "to dance", and AA *qatt*, MI *qatt* "never". On some other common features linking Andalusi Arabic and Maltese, see Zammit 2009-2010.

<sup>23</sup> The use of diacritics "th" and "dh" to render etymological Arabic \*/t/ and \*/d/ in Andalusi Arabic materials, as well as the transcription of Ibero-Romance /d/ (a slightly spirantized dental stop) as the voiced interdental fricative ð, convincingly suggest the existence of interdental realizations in the Andalusi dialect bundle, cf. Corriente 2013: 21-25; Colin 1930.

<sup>24</sup> Cf. Ferrando 1998: 62. The occurrence of interdentals in Bedouin dialects, Andalusi Arabic and some old Maghrebi urban dialects is also seen by Colin (1930: 99) as an archaic feature: "[...] les parlers arabes hispaniques marchent donc d'accord avec les parlers archaïsants du Maghrib moderne, c'est à dire avec l'ensemble des parlers de type bédouin et avec quelques parlers citadins conservateurs comme ceux de Tunis, de Constantine et de Cherchel".



Hilali varieties<sup>25</sup>. As shown by Avram (2014), several textual documents provide clear evidence for assuming that Maltese retained both the voiced and voiceless interdental fricatives until the second half of the 18<sup>th</sup> century. In the above-mentioned documents, the diagraphs *th* and *dh* are used to render etymological Arabic \*/t̪/ and \*/d̪/, which may also appear sometimes reflected by the labiodental fricatives /f/ and /v/. The shift from an interdental to a labiodental fricative may not be easily explained if we suppose an earlier dental stop, i.e. /t/ and /d/ respectively. Let us have a look at some of the examples quoted by Avram:

- (1) 1450, Pietru Caxaru's *Cantilena: nichadithicum* "shall tell you" (\**ħaddaṭa*)<sup>26</sup>.
- (2) 1606, Hieronymus Megiser's word-list: *fnas* "twelf" (\**itnā ʕašara*)<sup>27</sup>, *Veheb* "gold" (\**dahab*)<sup>28</sup>.
- (3) 1647, Abela's description of Malta: *Dhoccara* "Wild Fig (a place name)" (\**dukkāra*)<sup>29</sup>.
- (4) 1750, de Soldanis' grammar: *Thieleth* "the third" (\**tālīt*)<sup>30</sup>.

As regards the emphatic voiced interdental fricative \*/d̪/, no instances are reported since the loss of emphatic consonants in Maltese seems to have taken place at an early stage (Vanhove 2016: 7). In the documents analyzed by Avram, it is non-emphatic /d̪/ which stands for the old \*/d̪/ and \*/d̪/, e.g.: *ħelam* "darkness" (\**dalām*), *Ġeħba* "anger" (\**ġadba*)<sup>31</sup>.

Further evidence in support of an earlier interdental realization in Maltese comes from different lexical items whose current pronunciation seems to reflect an old voiceless interdental fricative /t̪/:

- In the word *silġ* [sild͡ʒ] "ice" (\**talġ*), the sibilant fricative /s/ stands for an etymological \*/t̪/. In a North African context, this sound change cannot be easily accounted for unless we suppose an earlier interdental \*/t̪/ which would have undergone partial assimilation to a following /l/<sup>32</sup>. It is worth noting that a similar cognate (*silż* "coldness, chilliness") is reported for Sfaxi Arabic, a Tunisian dialect which has preserved the interdentals to this day, cf. Zammit 2014: 36.

<sup>25</sup> Cf. Zammit 2009-2010: 21.

<sup>26</sup> Cf. Avram 2014: 20.

<sup>27</sup> Cf. Avram 2014: 22.

<sup>28</sup> Cf. Avram 2014: 23.

<sup>29</sup> Cf. Avram 2014: 25.

<sup>30</sup> Cf. Avram 2014: 26.

<sup>31</sup> Cf. Avram 2014: 24.

<sup>32</sup> It is a well-known fact that in some Eastern Arabic dialects such as Cairene or Damascene, the interdentals in loanwords from Modern Standard Arabic are realized as their sibilant counterparts, e.g.: *masalan* "for example" (\**maṭalan*), *kaza wa-kaza* "and so on" (\**kaḏā wa-kaḏā*), *zāhira* "phenomenon" (\**dāhira*). As the two aforementioned dialects lack interdentals, these sibilant realizations are not but an attempt to imitate a "foreign" phoneme. It must be noted that these pronunciations are very rare in the Maghreb area and as far as I know only occur sporadically in Libyan Arabic and in some Saharan-type dialects in southern Algeria (Bouhania 2006: 20-21).

- The Maltese adverb *hemm* “there”, which also functions as an existential particle<sup>33</sup>, has been related to Old Arabic *\*tamma*. Cognates of this adverb and existential particle are well known for Andalusí Arabic and Tunisian dialects where it arises sometimes as *famma/famma*. This fronting of /t/ is very common in other Arabic dialects and, as we have seen above, it may have existed in Maltese. Whatever the case, the laryngeal /h/ in *hemm* can be better understood if we presume a shift from a labiodental /f/ rather than from a dental /t/. Such an aspiration is rare in Arabic dialects, but it is known for other languages. In Spanish for example, Latin *\*f/* is mainly reflected by /h/, e.g.: Lat. *facite*, Fr. *faire*, It. *fare*, Por. *fazer*, Sp. *hacer*.

- Other Maltese lexical items in which /f/ could hark back to an earlier /t/ are: *felula* “wart” (*\*taʔlūla*) and *mafrad* “terracotta plate” (*\*maʔradʔ*), cf. Vanhove 1991: 174, 192.

### 3. Confronting the counterevidence

As shown throughout this paper, there are good grounds for supposing that interdental realizations were once more common among the pre-Hilali Maghrebi dialects and that *\*t/*, *\*d/* and *\*ɗ/* were inherited as interdental fricatives in some varieties (e.g. Maltese) exhibiting nowadays plosive reflexes. Nevertheless, such a hypothesis should be counter-balanced against a set of facts that hint at the absence of interdentals in the early stages of some pre-Hilali dialects:

#### 3.1. Cases of hesitation in 12<sup>th</sup> and 14<sup>th</sup> century Moroccan Arabic

Aguadé (2018: 42) suggests that the merger of the interdental fricatives with the corresponding set of dental plosives were already present in the Moroccan Arabic dialects spoken at the Almohad period. He bases his claim on the dialectal features found by Colin (1930: 109) in several manuscript fragments dating back to the twelfth and fourteenth centuries. In his linguistic study of these historical documents, the French scholar pointed out at a few instances in which an old interdental fricative was rendered by its corresponding dental plosive. This is a very interesting finding, but it only allows us to infer that the loss of interdental fricatives was a widespread feature at that time. Besides, Colin only reported 3 examples, one of which seems to be a loanword: كيتارات *\*[gi:ta:ra:t]* “guitars”<sup>34</sup>. In any case, I think this scarce number of instances should not be regarded as an evidence to immediately rule out the presence of interdental fricatives in twelfth and fourteenth-century Moroccan Arabic.

#### 3.2. Lack of interdental fricatives in Moüette’s account<sup>35</sup>

<sup>33</sup> E.g.: *Hemm nies li m'ghandomx fiduċja f'Adrian Delia* “There are people who have no confidence in Adrian Delia”, cf. <http://www.one.com.mt/news/2019/05/21/hemm-nies-li-mghandhomx-fiducja-fadrian-delia-kandidata-tal-pn/>

<sup>34</sup> The other two examples are the verb form جبدووا *\*[dʒəbdu]* “they pulled” (< *\*ğadabū*) and the nickname *Ūmar al-birdawn* “Omar the Nag”. (< *\*Ūmar al-birdawn*) Also consider that dots are sometimes dropped in manuscripts writing, so ٤ [θ] and ڨ [ð] may easily become ٤ [t] and ڨ [d] respectively.

<sup>35</sup> Moüette, Germain. 1683. *Relation de la captivité du Sieur Moüette*. Paris. For a detailed study of this book, see González Vázquez 2014.

A stronger piece of counterevidence may be found in a captivity account written by Germain Moüette, a Frenchman captured by Ottoman pirates in 1670. Sold into slavery upon his arrival in Sale, Moüette lived in this and other Moroccan cities (Fez, Meknes, Alcazarquivir) for about 11 years. Apparently, his slave status allowed him to interact closely with local people and, eventually, learn the Arabic dialect they used in their daily life. The linguistic interest of Moüette’s account lies in its including a French-Moroccan Arabic wordlist. As pointed out by González Vázquez (2014: 72-73), the Arabic variety which served as the basis for Moüette’s *dictionnaire* could have been any of the ones spoken in the towns where he dwelled, or even a mixture of them. Whatever vernacular he made use of in order to elaborate his wordlist, we have some indications to suppose it was a northern pre-Hilali variety. Thus, the following features to be found in Moüette’s *dictionnaire* are very common among northern Moroccan dialects:

a) French 2<sup>nd</sup> person singular pronoun *toy* (*toi*) is rendered by *intinan*<sup>36</sup>.

b) Etymological \*/q/ is mainly reflected by *c* and *qu*, which can be interpreted as an attempt to render a voiceless uvular stop /q/. e.g.: *tric* (\**ṭarīq*) “*chemin*”<sup>37</sup>, *lecalb* (\**al-qalb*) “*coeur*”<sup>38</sup>, *lequedra* (\**al-qidra*) “*marmite*”<sup>39</sup>.

c) Lexical items: *techor* (*tšar*) “*village*”<sup>40</sup>, *lehachon* (*l-ḥāššūn*) “*matrice*”<sup>41</sup>.

Returning to the object of our study, an analysis of Moüette’s wordlist shows no traces of interdental realizations. Reflexes of \*/t/, \*/d/ and \*/ḏ/ are always transcribed with *t* and *d*. Let us see some examples: *tom* (\**tūm*) “*ail*”, *metecal-de déheb* (\**miṭqāl*; \**ḏahab*) “*ducaton d’or de deux écus*”, *deba* (\**ḏiḥb*) “*loup*”, *leténin* (\**al-iṭnayn*) “*lundy*”, *leteleta* (\**al-ṭulātā?*) “*mardi*”, *teilg* (\**ṭalġ*) “*neige*”, *defar* (\**adḥār*) “*ongles*”, *leburgot* (\**al-burġūt*) “*puces*”<sup>42</sup>. This could be a piece of evidence that by 1683 some Moroccan pre-Hilali dialects have already started merging interdentals with their corresponding stops.

### 3.3. Merger of interdentals in the Jewish dialects of Maghrebi Arabic

The hardening of interdental fricatives to stops, together with the realization of \*/q/ as a voiceless consonant [q], [kʰ] or [ʔ], are generally regarded as the only two phonetic features to be shared by all Judeo-Arabic dialects in the Maghreb area<sup>43</sup>. Such a fact raises a very challenging question: assuming that the preservation of the interdentals was a common feature in early pre-Hilali Arabic, why did these phonemes vanish in a variety

<sup>36</sup> Cf. González Vázquez 2014: 73. Note that the same pronoun is also rendered sometimes by *inta* or *inti* e.g.: *qui-finta* (*kīf inta*) “comment te porte-tu”; *mejouge-inti* (*mžūwwāž inti*) “e[ḥ]-tu marié”, cf. Moüette 1683: 338; 341.

<sup>37</sup> Cf. Moüette 1683: 336.

<sup>38</sup> Cf. Moüette 1683: 337.

<sup>39</sup> Cf. Moüette 1683: 348.

<sup>40</sup> Cf. Moüette 1683: 361.

<sup>41</sup> Cf. Moüette 1683: 348.

<sup>42</sup> Cf. Moüette 1683: 361, 348, 331, 340, 348, 348, 350, 350 and 355 respectively.

<sup>43</sup> Cf. Chetrit 2015: 5.

of vernaculars, i.e. the Jewish ones, which are typologically classified within the group of first-layer dialects?<sup>44</sup>

### 3.4. Cases of hesitation in Andalusí Arabic

As stated in 2.1., interdental fricatives were preserved until the 15<sup>th</sup> century in some Andalusí Arabic dialects. However, it is worth noting that several documents suggest a tendency among the Andalusí lower class to shift the interdentals to plosive stops<sup>45</sup>. Such a fact may be better understood if we recall that interdental fricatives were absent from the phonological inventory of the early Romance dialects spoken in Al-Andalus<sup>46</sup>. Thus, we could assume that the lack of these cross-linguistically rare phonemes in the mother tongue of some Andalusis boosted their merger with plosive stops. Whatever the reason, the instability of interdental fricatives in the speech of some speakers of Andalusí Arabic may be seen as the beginning of their collapse.

### 3.5. Merger of interdentals in Siculo Arabic

Another piece of counterevidence comes from what we know so far about the Arabic dialect which was once spoken in Sicily. Several documents written in this island during the Arab and Norman rules display a loss of the interdental fricatives in this dialect, a fact that somehow goes against the evidence we have from Maltese, another Maghrebi peripheral dialect which seems to be genetically related to the former<sup>47</sup>. Conversely, Greek and Latin transcriptions of personal names and toponyms seem to suggest a retention of fricative interdentals in Siculo Arabic<sup>48</sup>. As is the case with Andalusí Arabic, this contradictory data might hint at the instability of \*/t/, \*/d/ and \*/ð/ in the Arabic dialect of Sicily.

## 4. Conclusions

This paper has attempted to show that interdental fricatives occurred at the earliest stages of, at least, some pre-Hilali dialects. The following conclusions may be drawn from our study:

**4.1.** No evidence goes against the assumption that the interdentals of some pre-Hilali dialects such as Cherchell in Algeria or Chaouen in Morocco might be a case of phonological retention.

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<sup>44</sup> The Arabic dialects spoken by Maghrebi Jews are generally ascribed to the group of pre-Hilali varieties, cf. Aguadé 2018: 33.

<sup>45</sup> On the sporadic shift of the interdental spirants into dental plosives in Andalusí Arabic, see Corriente 2013: 21-25.

<sup>46</sup> The voiceless interdental fricative /t/ of Present-Day Standard Spanish is the result of a phonological shift dating back to the 15<sup>th</sup> century, e.g.: *hoz* [oθ] “sickle”, *caza* [kaθa] “hunting”. On the historical process that gave rise to interdental /t/ in late medieval Spanish, see Penny 2002: 98-101.

<sup>47</sup> On the loss of interdental fricatives in Siculo Arabic, see Lentin 2006-2007: 76, and La Rosa 2014: 68-69 (quoted in Avram 2017: 20).

<sup>48</sup> Cf. Avram 2017: 20-21.

**4.2.** Interdentals are recorded in Maltese and Andalusí Arabic, both peripheral Maghrebi dialects spoken in areas which remained out of reach of the Hilali invasions, a fact that dismisses the possibility of a Bedouin influence<sup>49</sup>. The retention of the interdentals in peripheral varieties should be regarded as a good argument for considering them an old pre-Hilali feature.

**4.3.** Since spirantization in Northern Berber dialects seems to have started at an early stage and probably before the first Muslim conquests in North Africa<sup>50</sup>, it is reasonable to assume that the maintenance of interdentals in early pre-Hilali Arabic was favoured by the presence of these phonemes in the phonological inventories of the indigenous Berber population.

**4.4.** The loss of the interdentals in some modern pre-Hilali dialects such as Maltese could be a relatively recent phenomenon. In the case of other pre-Hilali dialects such as for example Fez, the downfall of the interdentals could be older as the examples appearing in Moüette's account (1683) display no interdentals.

**4.5.** In the light of the evidence examined in this paper we may assume two different scenarios regarding the behaviour of old \*/t/, \*/d/ and \*/ð/ in early pre-Hilali Arabic:

a) All the dialects brought into North Africa by Muslim soldiers during the first wave of arabicization displayed fricative interdentals. By the same token, the offshoots of the latter varieties also retained this set of phonemes which ended up collapsing in certain vernaculars and survived in others. The downfall of the interdentals was made desirable and feasible by the following factors: contact with languages lacking interdental consonants (i.e. Romance, certain Southern Berber dialects), dialect levelling, drift and a precarious phonemic contrast<sup>51</sup>.

b) Among the dialects that gave birth to early pre-Hilali Arabic, some exhibited interdental fricatives and others did not<sup>52</sup>.

As the shift from interdentals to dentals is well documented for very early in periods in some Eastern Arabic dialects, the second scenario appears more likely, cf. Lentin 2018.

**4.6.** Whatever the scenario, and as shown in this paper, \*/t/, \*/d/ and \*/ð/ were maintained in a number of pre-Hilali varieties and so, the notion that the loss of interdental fricatives is a conspicuous feature of pre-Hilali Arabic should be regarded as not well founded.

## References

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<sup>49</sup> Cf. Aguadé 2018: 34.

<sup>50</sup> Cf. Kossmann 2013: 179.

<sup>51</sup> The number of minimal pairs opposing interdental fricatives to dental stops in Arabic is very small.

<sup>52</sup> This hypothesis has already been considered by David Cohen who saw in the lack of hypercorrections involving interdental fricatives in the Muslim dialect of Tunis a good argument suggesting the existence of different types of pre-Hilali dialects, cf. Cohen 1973: 232, n. 41.

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