

## LOSS OF EMPHASIS IN MALTESE

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FROM descriptions of Classical Arabic by medieval Arab grammarians, and from comparative data from other dialects of Arabic, we can assume that the language ancestral to Maltese had a phonologic component of emphasis. However, modern Maltese does not have anything that could be described as emphasis. Therefore, Maltese has lost this component of emphasis, and the purpose of this paper is to trace that loss, and see what effects it has had on the phonological structure of Maltese.

The loss of emphasis is especially distinctive in Maltese, since, in general, Arabic dialects have increased rather than decreased the pervasiveness of emphasis. The recognized emphatics in Classical Arabic were /t̤ ṣ ḍ z/, reflected as such in the writing system, with reported emphasis of /t̤/ and /ṣ/.<sup>1</sup> Many modern dialects are described as having these, and also secondary emphatics such as /b/ and /m/.<sup>2</sup> Egyptian Arabic, perhaps the best known of the modern dialects, has been reported to have emphatic/non-emphatic pairing for all the consonants of the system.<sup>3</sup> It is possible that other dialects would also be found to have this wide-spread emphasis were they to be subjected to the same thoroughgoing analysis as Egyptian. However, the spread of emphasis in Egyptian and other dialects is a topic to be investigated at a later date, and we will restrict ourselves in the present paper to its loss in Maltese.

Emphasis is described as a coarticulatory motion of the tongue during the pronunciation of the affected consonant. The back of the tongue is raised, with a flattening of its normally concave surface. In addition, a certain amount of labialization occurs. The combination of these motions, with the possible effect of laryngeal or sub-laryngeal subsidiary muscular activity, imparts a distinctive acoustic effect to both the consonant being pronounced and to adjacent vowels. Some consonants cannot by their nature be heard as emphatic – the glottal stop /ʔ/ is one of this type – but do affect the adjacent vowels, and are phonemically if not phonetically emphatic. This affect on the neighboring vowels has led various investi-

<sup>1</sup> J. CANTINEAU, 'Esquisse d'une phonologie de l'arabe Classique', *Etudes de linguistique arabe* 182 (Paris, 1960).

<sup>2</sup> H. BLANC, *Communal dialects in Baghdad* 17 (Cambridge, 1964).

<sup>3</sup> W. LEHN, 'Emphasis in Cairo Arabic', *Language* 39.29-39 (1960).

gators to consider emphasis a vocalic or syllabic component rather than a consonantal one,<sup>4</sup> but since the syllabic structure of all the Arabic dialects so analysed presupposes a consonantal constituent for every syllable – in other words, every syllable has to have at least one consonant as well as at least one vowel – the analysis of emphasis as a syllabic component is equivalent to, or can be converted into, the more traditional analysis of emphatic consonant. The thesis that emphasis in Proto-Semitic times consisted of glottolization, as is the case in the modern Ethiopic languages,<sup>5</sup> is of no pertinence to this discussion since we are concerned only with Arabic, and there is no reason to believe that Arabic had other than the present system of emphasis from its earliest days as an independent language.

The Maltese cognates of forms which contain emphatic consonants in other dialects have plain consonants:<sup>6</sup> Egyptian /ʃu:f/ 'wool', Maltese /sú:f/; Egyptian /tawí:l/ 'long', Maltese /twí:l/; Egyptian /dúfr/ 'finger-nail', Maltese /dífer/; Egyptian /ʔálla/ 'God', Maltese /ʔálla/; Egyptian /ná:r/ 'fire', Maltese /ná:r/. The Classical emphatic /z/ does not survive in the modern dialects as a phoneme distinct from /d/: Classical /zahr/ 'back', Egyptian /dáhr/, Maltese /dá:r/. The modern Egyptian /z/, as in /záhar/ 'he appeared', Maltese /dé:r/, is regarded as a borrowing from Classical Arabic, since both the Classical phonemes /z/ and /d/ appear in Egyptian as either /z/ or /d/ with no phonetic conditioning factor that could account for the different developments. In Maltese, the former emphatics, as seen in the preceding examples, have simply lost the emphatic component and are indistinguishable from the former non-emphatics. They also participate with the former non-emphatics in the voiced-voiceless morphophonemic alternation characteristic of Maltese: Classical /marð/ 'sickness', Maltese /márt/, but /márdu/ 'his sickness'.

On the other hand, the development of the Maltese vowels has been extensively conditioned by the former state of emphasis. The most obvious emphatic-conditioned development is the continuation of earlier /a:/ as Maltese /a:/ in most positions contiguous to an earlier emphatic: /ʃa:fi/ 'pure' > Maltese /sá:fi/. In non-emphatic position the Classical *imala* has caused /a:/ to go to /ie/ in Maltese: /ka:n/ 'he was' > Maltese /kíen/. In Maltese, this *imala* was merely an allophonic variant as long

<sup>4</sup> W. LEHN, *op. cit.*

<sup>5</sup> J. CANTINEAU, 'Le consonantisme du sémitique', *Semitica* 4.91.93 (1951-52).

<sup>6</sup> In transcribing Maltese forms, I use the phonemicization outlined by me in *Language* 36.182 (1960). In the Maltese examples, I have avoided verbs and other forms that exhibit a good deal of morphophonemic alternation as much as possible because of the analogical influences that they have undergone, and which disturb the regular sound changes.

as the emphatic/non-emphatic contrast was phonemically present. This is the situation in Egyptian, where /a:/ has the allophone [æ:] in a non-emphatic environment, as in [kæ:n] = /ká:n/; but the allophone [a:] in an emphatic position: [sa:fi] = /sa:fi/. However, upon the loss of emphatic consonants, the Maltese allophone [ie] became phonemic. Not all Maltese vowels show this kind of development, even though the comparative data would lead us to expect it. For example, in Moroccan Arabic, the vowel /i/, which is phonetically [i:], and historically descended from earlier /i:/, has the allophone [e:] next to an emphatic: [tɛ:n] = /tín/ 'mud'. Similarly, the vowel /u/, phonetically [u:], and historically descended from /u:/, has the allophone [o:] in emphatic position: [tɔ:l] = /tál/ 'length'. However, in Maltese, an earlier /u:/ has remained both phonetically and phonemically [u:] in both emphatic and non-emphatic position: /sur:/ 'wall' > Maltese /sú:r/; /šú:f/ 'wool' > Maltese /šú:f/. The same is true of /i:/ /ħali:b/ 'milk' > Maltese /ħali:p/; /ʕaši:da/ 'porridge' > Maltese /ʕaši:da/. Developments which differ from these, as /ša:hib/ 'friend' > Maltese /šiehep/, or /ti:n/ > Maltese /táj:n/, are due either to further conditioning, as with the first of these two examples, or to unknown factors that have disturbed the regular phonologic change, as with the second.

The development of the short vowels has also been affected by emphasis. In general, the Arabic /a/ has remained Maltese /a/ in emphatic position, but has become /e/ in non-emphatic position: /ʔarḥ/ 'earth' > Maltese /ʔart/; /kalb/ 'dog' > Maltese /kél:p/. The Arabic /i/ has gone to Maltese /e/ in emphatic position, but remained /i/ in non-emphatic, reversing the procedure with /a/: /šidq/ 'truth' > Maltese /šetʔ/; /bint/ 'girl' > Maltese /bínt/. The Arabic /u/ generally became Maltese /o/ in all positions, both emphatic and non-emphatic: /xubz/ 'bread' > Maltese /hops/; /šufur/ 'yellow (plural)' > Maltese /sófor/. This /o/ became phonemic with the introduction of loan words containing /u/, such as /ʔúrna/ 'urn'.

These are the main developments of the short vowels. A number of variant developments can be specified in terms of other phonological factors. In an open syllable before a long stressed vowel, /i/ and /u/ were elided in all environments, but /a/ was elided only in non-emphatic position: /ħima:r/ 'donkey' > Maltese /hmá:r/; /tura:b/ 'dust' > Maltese /trá:p/; /sami:n/ 'fat' > Maltese /smí:n/, but /naḥi:f/ 'clean' > Maltese /nadí:f/. After /ʕ/ or /ɣ/ the pretonic /a/ fused with them to form a pharyngealized /a/: /ʕaru:s/ 'bridegroom' > Maltese /ʔaru:s/; /ɣari:b/ 'stranger' > Maltese /ʔari:p/. A stressed /a/ following an emphatic did not remain /a/ if the following syllable began with /ʕ/: /šanʕa/ 'skill' > Maltese /séna/. Also, a stressed /a/ following a /b/ fell together with

/o/: /baʕn/ 'belly' > Maltese /boton/.

A number of deviant developments – such as /zufr/ 'fingernail' > Maltese /difer/, or /ʕadr/ 'chest' > Maltese /sider/ – cannot be accounted for in terms of regular sound change, and must be left residual at present. They may be the results of analogical developments, borrowing from other dialects of Arabic or Maltese, or may be in some way connected with the segolization and shift of stress characteristic of this type of form in the North African area generally.<sup>7</sup>

Although we cannot say why Maltese lost the component of emphasis, we can trace its loss in the development of allophonic variations of vowels depending upon emphatic and non-emphatic environments, and the subsequent phonemicization of these allophonic variants when the component of emphasis was no longer present as a conditioning factor.

Stage I: This is the stage represented by Arabic as described by the medieval Arab grammarians. *Imala* of /a/ and /a:/ were recognized, as was the opposite tendency of vowel retraction known as *tafkhim*. These vowels had the allophones [æ] and [æ:] in non-emphatic environments, and the allophones [a] and [a:] in emphatic environments. Other vowels were presumably not affected. Schematically it can be represented as follows:<sup>8</sup>

/ʕa/ -----> [ʕa]  
/Ca/ -----> [Cæ]  
/ʕa:/ -----> [ʕa:]  
/Ca:/ -----> [Cæ:]

Stage II: During this stage, the Classical *imala* further developed into the diphthongization of the long /a:/ that is the regular Maltese reflex. In addition, the [æ] allophone of the phoneme /a/ developed into the sound [e]. At the same time, the /i/ phoneme developed an allophone [e] in emphatic position. When these two developments were completed – that is, when there was complete intersection of allophones – it is necessary to recognize a new phoneme /e/, which contrasts with neither /a/ nor /i/, but is nonetheless phonemic. It is important to note that we must recognize this new phoneme at a stage prior to the disappearance of emphasis. The result in the phonologic structure is that the phonemes /a/ and /i/ now had greatly restricted privileges of occurrence: /a/ oc-

<sup>7</sup> H. BIRKELAND, *Stress patterns in Arabic* (Oslo, 1954).

<sup>8</sup> I use /C/ as a cover symbol for any plain consonant; /ʕ/ as a cover symbol for any emphatic consonant. The influence of emphasis is the same here whether the consonant occurs before or after the vowel, so the writing of /ʕa/ etc. is intended to include examples of /aʕ/ etc. as well.

curred only in a non-emphatic environment. The phoneme /e/, however, could occur in both environments, and had but a single allophone for both. This formulation is necessary because of the general phonemic principle of allophonic variation: a phone such as [e] must belong to only one phoneme. If there is no non-historical way of deciding in each case of occurrence to assign it to either /a/ or /i/, then we must recognize another phoneme to which the phone [e] can be unambiguously assigned in each case. Therefore, we recognize the phoneme /e/.

It is also to be noted that /a/ underwent this development even before the consonants /w/ and /y/. This is in contrast with some other dialects of Arabic, which, following a tendency of other Semitic languages, reduced /aw/ to /o:/ and /ay/ to /e:/. This development did not take place in Maltese. The Maltese /o:/ occurs only in borrowed words, like /bdó:t/ 'pilot'; the /e:/ is a result of the disappearance of /h/ in sequences like /-eh-/ , as, for example, in /ðahab/ 'gold' > \*/deheb/ > Maltese /de:p/. This elision of /h/ must have postdated the vocalic changes we are discussing, since otherwise a sequence like /oahab/ > \*/da:b/ > \*/diep/ would have occurred. The expected /a/ and /e/ reflexes of /a/ occur in Maltese in the diphthongs: /bayt/ 'house' > Maltese /béyt/ 'roof'; /bayð/ 'eggs' > Maltese /bayt/. The resultant scheme for stage II is as follows:

/Ca:/ -----> [Cie]  
 /Ça:/ -----> [Ça:]  
 /Ça/ -----> [Ça]  
 /Çe/ -----> [Çe]  
 /Ce/ -----> [Ce]  
 /Ci/ -----> [Ci]

Stage III: It is during this stage that emphasis was lost, with the result that the allophonic variation [ie] of /a:/ became phonemic. The restrictions on the occurrence of /a/ and /i/ no longer obtained since there were no emphatics. The long high front and back vowels /i:/ and /u:/ were not affected at any stage. Also, since /u/ went to /o/ in all cases, its development cannot be specified in terms of emphasis. Schematically:

/Cie/ -----> [Cie]  
 /Ca:/ -----> [Ca:]  
 /Ca/ -----> [Ca]  
 /Ce/ -----> [Ce]  
 /Ci/ -----> [Ci]

In other words, identity. The whole historical process can be charted thus:

STAGE I		STAGE II		STAGE III
/a:/	$\begin{bmatrix} \text{æ:} \\ \text{a:} \end{bmatrix}$	----->	$\begin{bmatrix} \text{ie} \\ \text{a:} \end{bmatrix}$	/a:/ -----> /ie/ -----> /a:/
/a/	$\begin{bmatrix} \text{a} \\ \text{æ} \end{bmatrix}$	----->	[a]	/a/ -----> /e/
		----->	[e]	/e/ -----> /e/
/i/	[i]	----->	[i]	/i/ -----> /i/