

# Phrase Accents in Maltese: distribution and realisation

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## ABSTRACT

The analysis of Maltese intonation presented in Vella [10] identifies two “post-nuclear tunes”, entities involving something similar in many respects to the phenomenon of “phrase accent” as redefined in Grice, Ladd and Arvaniti [4]. One of the aims of this paper is to re-interpret these two “post-nuclear tunes” following Grice et. al. as phrase accent and boundary tone sequences. Various structural contexts (e.g. contexts involving topicalisation resulting from changes in constituent order, the use of pronominal clitics, negation and the use of indefinite pronouns etc.) that give rise to the use of such post-nuclear tunes in Maltese are identified. The extent to which it is possible for a single, focused, prominence-lending constituent to be followed by more than one phrase accent and boundary tone sequence within the same intonation phrase is also explored briefly and some possible implications of multiple realisation of such sequences discussed.

## 1. PHRASE ACCENTS IN MALTESE

Maltese provides us with a clear example of a language whose intonation utilises, amongst other things, the phenomenon of “phrase accent” introduced by Bruce [2], integrated by Pierrehumbert [9] into her seminal work on intonation and redefined in Grice, Ladd and Arvaniti [4:180] as “edge tones with a secondary association to an ordinary tone-bearing unit (...). Such secondary associations give rise to tonal configurations that may resemble ordinary pitch accents, but do not signal focus or prominence in the same way reflecting their essentially peripheral nature”. This phenomenon has been shown to be common in a variety of European languages. The two “post-nuclear tunes” identified by Vella [10] may be considered to constitute further exemplars.

Vella [10] identified two post-nuclear tunes in Maltese, the choice of which is determined following, and dependent on, the choice of nuclear tune. In cases involving late focus, where focus is defined as in Gussenhoven [5], when the nuclear tune chosen is a falling (statement) tune,  $H^*+L$ , this is followed by a  $L$  boundary tone attached to the edge of the phonological phrase, notationally following Vella [10],  $L_p$ . In cases involving, for whatever reason, early focus, this  $H^*+L$   $L_p$  sequence is followed by a movement to very low pitch on a stressed syllable close to the edge of the phrase, followed by a slight rise to the edge of that phrase. This pitch movement was originally represented as  $L^* H_I$ , the notation being intended as a means of indicating the presence of a  $L$  tone with a

secondary attachment to the post-nuclear stressed syllable,  $L^*$ , followed by a slight rise, notationally  $H_I$ . The  $L$  tone in this sequence is here being reinterpreted as a phrase accent, notationally  $L_-$ , in line with Grice et. al. [4]. The choice is therefore either between, a  $H^*+L$  pitch accent and a  $L_p$  boundary tone associated with the nuclear syllable and boundary tone respectively of a focused P-phrase, and a sequence involving this  $H^*+L$   $L_p$  sequence followed by a  $L_-$  phrase accent and a  $H_I$  boundary tone linked to the stressed syllable closest to the edge of the I-phrase and the following boundary respectively. A schematisation of this is provided in Figure 1 below.

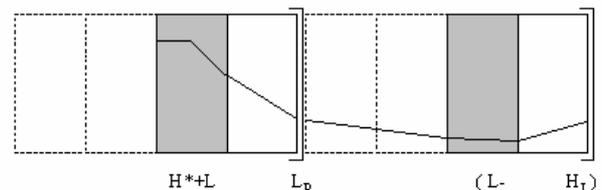


Figure 1<sup>1</sup>

When on the other hand, the nuclear tune involves a rising (question) tune, there is a  $L^*$  attached to the nuclear syllable. This is followed by a  $H_p$  in cases of late focus. In cases involving early focus, a nuclear  $L^* H_p$  is followed by a post-nuclear tune  $L+H-$   $H_I$  consisting of an upstepping phrase accent  $L+H-$  and a final  $H_I$ . A schematisation of this is provided in Figure 2 below.

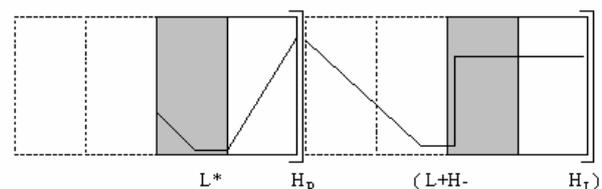


Figure 2

In view of the fact that the phrase accent  $L+H-$  is followed by a levelling of, rather than an increase in pitch, a final boundary tone was not actually specified in Vella’s original analysis of this tune. It is being introduced here however, although further work is necessary in order for a more definitive understanding of what happens in cases of this sort to be reached.

The domain of focus in Maltese, as also, for example, in

<sup>1</sup> In this figure, as well as in Figure 2, stressed syllables are indicated by means of shading; broken lines indicate the possibility of an unspecified number of syllables occurring prior to a stressed syllable.

Bengali, see Hayes and Lahiri [7], is assumed by Vella [10], to be the phonological phrase, (henceforward P-phrase), rather than the intonational phrase, (henceforward I-phrase), a distinction also following Hayes and Lahiri. The two post-nuclear tunes in Maltese  $L^* H_1$  and  $L+H- H_1$  occur outside and to the right of a final focused P-phrase as optional adjuncts whose choice is dependent on the choice of nuclear tune. In Vella's analysis these post-nuclear tunes are accounted for as being extrametrical to a final P-phrase although still part of the same I-phrase. The entities in question, although stress-seeking in a way similar to normal pitch accents, are peripheral in nature, syntactically and in terms of information structure as well as phonologically. They coincide with material which can be considered "Given" as opposed to "NEW INFORMATION", [-focus] as opposed to [+focus] (see Gussenhoven [5] for a discussion of the use in the literature of these near alternative pairs of terms) and in this respect serve some sort of backgrounding function.

In what follows I identify various structural contexts for the occurrence of the post-nuclear tunes described above. In so doing I hope to throw fresh light on the nature of these tunes specifically as well as, more generally, on the nature of the phenomenon of phrase accents.

## 2. DISTRIBUTION OF PHRASE ACCENTS

This section presents evidence for contexts in which phrase accents occur in Maltese.

### 2.1 Constituent order changes and focus

Constituent order in Maltese exhibits a great deal of freedom, with Borg [1] reporting only \*VSO, from among the logically possible constituent orders as unacceptable. Borg suggests that it is likely that Maltese utilises two or three canonical orders with the possibility of topicalisation giving the semblance of free constituent order.

Like Borg, Fabri [3] also concludes that, with the exception of \*VSO, constituent order in cases involving a topic subject is completely free. In his account, SVO and VOS sentences, in other words those orders having VO as a constituent and a topic S, are taken to be unmarked; SOV, OSV and OVS sentences without an object clitic, in other words orders in which VO is not a constituent, on the other hand, are taken to be marked. Fabri argues that a contrastive effect is implicit in sentences having a marked order of constituents. Both Borg and Fabri conclude that prosodic factors play an important role in differentiating between the various possibilities.

The interplay of constituent order and focus produces two possible conditions, one involving late, and another involving early, focus. In cases of late focus, in other words, cases having broad focus, as well as those involving narrow focus but with [+focus] assigned to the final element within the P-phrase, the choice of tune involves a  $H^*+L$  pitch accent and a following  $L_p$  for

statements, or a  $L^*$  followed by a  $H_p$  for questions. In cases of early focus, on the other hand, the choice of tune is either a  $H^*+L$   $L_p$  followed by a  $L- H_1$  phrase accent and boundary tone sequence for statements, or a  $L^*$  followed by a  $H_p$  followed by an upstepping  $L+H-$  phrase accent which stays level to the final  $H_1$ .

Annotated pitch contours for the VOS statement (1) *KIElu l-kla'Mari Ian u MaRIja*. 'Ian and Marija ate the squid.' and its question counterpart (2) *KIElu l-kla'Mari Ian u MaRIja?* 'Did Ian and Marija eat the squid?' are shown in Figures 3 and 4 respectively<sup>2</sup>.

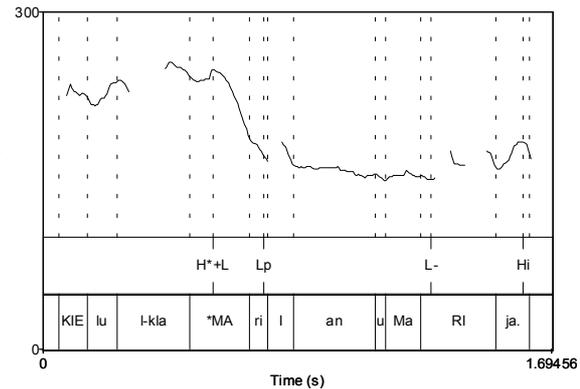


Figure 3<sup>3</sup>

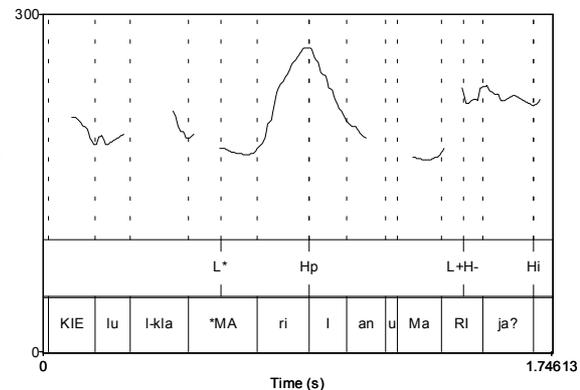


Figure 4

[+focus] in both cases is assigned relatively early to *kla'Mari*. Of the five possible constituent orders, VOS is the more marked of the two "unmarked" constituent orders identified by Fabri.

The pitch contours in Figures 3 and 4 above are clear examples involving nuclear tunes,  $H^*+L$   $L_p$  and  $L^* H_p$  respectively assigned to *kla'Mari*. These nuclear tunes are followed by a phrase accent and boundary tone sequence  $L- H_1$  in the former case and by  $L+H- H_1$  in the latter.

<sup>2</sup> In the examples given, stressed syllables are indicated where necessary by means of capital letters (although sentence and proper noun initial capitals have also been retained). The position of the stressed syllable of the focused element within sentences is indicated by means of a stress mark preceding a syllable which has been capitalized to indicate stress.

<sup>3</sup> The pitch contours shown in Figures 3-5 were obtained using PRAAT version 4.0.4.

## 2.2 Use of pronominal clitics and focus

Fabri [3] shows further that all the logical constituent order possibilities are acceptable in the presence of a verbally attached pronominal direct object (henceforward dO) clitic. Two of the possibilities for question versions of the sentence given above are given in (3) and (4) below:

- (3) *Ki'LUhom il-klaMAri Ian u MaRIja?*  
[+focus]  
(4) *Ian u MaRIJA l-klaMAri Ki'LUhom?*  
[+focus]

Fabri [3] analyses the object in the various constituent order possibilities of SV+dO clitic sentences as a topic. In these cases, unlike in clitic-less versions of the different constituent order sentences, there is no contrastive effect. The V+dO clitic OS version of (2) in (3) is therefore no more marked than its SOV+dO clitic version in (4) in spite of the fact that [+focus] is assigned earlier in the former case than in the latter. As in cases of structures not involving the use of dO clitics, however, intonation and other factors such as pause contribute to the acceptability or otherwise of the distinct possibilities. In fact, while nuclear rises are assigned to the element which receives [+focus] in both 3 and 4, each non-final non-focused constituent in (3) is assigned a post-nuclear tune, in this case L+H- H<sub>1</sub>. The result of this is that, despite the lack of difference in markedness at other levels of analysis, the use of the post-nuclear pitch movements in (3) mark this version intonationally in a way not so for (4). The pitch contours for (3) is given in Figure 5 below.

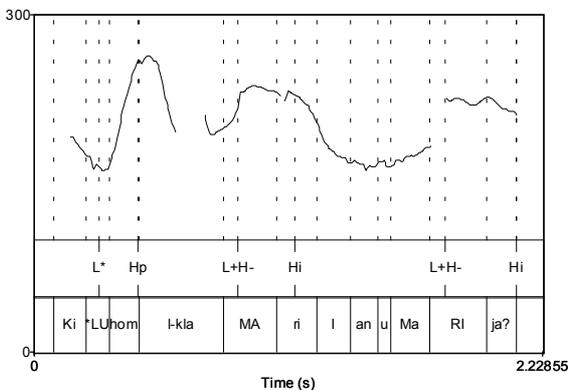


Figure 5

It is clear if one examines Figure 5, that the nuclear movement in such structures falls on the V+dO clitic component (new information) which always attracts focus rather than on the object co-indexed with it (given information).

## 2.3 Negation, indefinite pronouns and focus

The negative in Maltese is formed by the addition of *ma* preceding the verb together with the negative particle *x* (phonemically /ʃ/) following and attached to the verb, thus, (5) *'KIElu.!? 'They ate./Did they eat?' and its*

negative counterpart (6) *Ma ki'LUX.!? 'They didn't eat./Didn't they eat?'*. Negation and indefinite pronouns are being treated together here since there are interesting parallels between them in the way they interact with focus.

Haspelmath and Caruana [6] distinguish between two series of indefinite pronouns in Maltese, the *xi* (*xi* 'some', *xi ħaġa* 'somebody', *xi ħadd* 'somebody', *xi mkien* 'somewhere', *xi darba* 'sometime' and *b'xi mod* 'somehow') and the *ebda* (*ebda* 'no', *ħadd* 'nobody', *xejn* 'nothing', *imkien* 'nowhere', *qatt* 'never' *bl'ebda mod* 'in no way') series.

The two series are distinct in a number of ways, not least by the fact that whereas members of the *xi* series co-occur with a positive verb, the *ebda* series are negative polarity items which require a negative verb. The diametrical opposition in polarity between the V(erb) in Maltese and the respective indefinite pronouns is shown in Table 1.

IndPr V	+ve	-ve
+ve	<i>Kielu xi ħaġa.</i> 'They ate something.'	* <i>Kielu xejn.</i> 'They ate nothing.'
-ve	? <i>Ma kilux xi ħaġa.</i> <sup>4</sup> 'They didn't eat something.'	<i>Ma kielu xejn.</i> 'They didn't eat anything.'

Table 1

Apart from the differences in collocation between positive and negative Vs and the *xi* or positive series of indefinite pronouns, and the *ebda* or negative series respectively, there also appear to be differences in the prosodic characteristics associated with the respective structures.

Let us begin by considering the use of the positive series of definite pronouns on the basis of the following (possible) statement versions of *Kielu xi ħaġa.*:

- (7a) *'KIElu xi ĦAġa.*  
[+focus]  
(7b) *KIElu xi 'ĦAġa.*  
[+focus]

While the meaning of (7a) is more consistent with a translation such as 'They've EATEN something.', that of (7b) translates more closely as 'They (actually) ate SOMETHING.'. In other words, (7a) with the verb assigned [+focus] is a more "natural", possibly less "marked" version of the sentence than is (7b) in spite of the fact that focus is early in (7a) rather than late. In other words, in the case of non-negative indefinite pronouns in Maltese, although it seems possible to accent the indefinite pronoun, accentuation on the verb reflects a less marked rendering. Intonationally, the deaccented positive indefinite in (7a) above is assigned the L- H<sub>1</sub> sequence described earlier.

Before considering the use of the negative series of

<sup>4</sup> It is important to point out that although a negative V normally requires a negative indefinite pronoun, structures such as *?Ma kilux xi ħaġa.*, although probably rare, may actually be possible.

indefinite pronouns, let us reconsider (6) above in a statement rendering of the structure, (6a):

- (6a) *Ma ki'LUX*  
[+focus]

By comparing (6a) to examples such as those in (6b) and (6c) it is possible to conclude that [+focus] in such cases is assigned to the verb, or possibly to the verb as a function of the presence of the negative particle *x*.

- (6b) *Ma ki'LUX fit alJOTta*  
[+focus]  
'They didn't eat some fish soup.'  
(6c) *Ma ki'LUX f'nofs in-NHAR*  
[+focus]  
'They didn't eat at lunchtime.'

Intonationally, a nuclear H\*+L L<sub>p</sub> is assigned to the stressed syllable of V in the above. The stressed syllable of *fit alJOTta* and that of *f'nofs in-NHAR* have a L-phrase accent assigned to them and this is followed by a slightly rising H<sub>1</sub> boundary tone. Although versions of the above with [+focus] assigned to the argument seem possible, such versions would be the mirror image of structures such as that in (7b) which, although possible, occur in what would seem to be rarer, somewhat contrived, discourse contexts.

Let us now consider negative indefinites. These clearly "cooccur only with preverbal negation" [6:5]. The impossibility of structures such as \**Ma kielux xejn*. show that indefinite pronouns cannot co-occur with the negative particle *x* in Maltese. Thus:

- (8) *Ma KIElu 'XEJN*  
[+focus]

This example differs from examples (7a) and (7b) in two ways. First of all, [+focus] is assigned to the indefinite pronoun rather than to the verb. Secondly, it is possible to state more categorically than for the positive indefinites, that alternative versions of this sentence with [+focus] assigned to the verb rather than to the indefinite pronoun are distinctly odd.

It can be concluded that while positive indefinites are not normally assigned prominence in Maltese, negative indefinites are. The negative particle *x* can be said to behave like negative indefinites in that it plays a role in attracting accentuation to the V to which it is attached. It appears (surprisingly) that Maltese behaves more like English is reported as behaving by Ladd [8] than like Italian with respect to indefinite pronoun accentuation. Intonationally, non-focused positive indefinites are assigned one of the two post-nuclear tunes described earlier. Negated verbs and negative indefinites, on the other hand, being themselves [+focus], trigger the necessity for phrase accent and boundary tone sequences on any following text.

### 3. MULTIPLE PHRASE ACCENTS

The pitch contour shown in Figure 5 is a clear example of the possibility in Maltese of repeated use of the post-nuclear tunes described earlier. In this case, the repetition is of the L+H- L<sub>1</sub> sequence. Examples of repeated use of this sort are commonplace in structures having early focus in Maltese. Thus, for example:

- H\*+L L<sub>p</sub> L-H<sub>1</sub> L-H<sub>1</sub> L-H<sub>1</sub>  
(9) *'MHUX se jmorru r-RAMla l-LEJla l-istuDENti...*  
[+focus]  
'They aren't going to Ramla, tonight, the students...'

Unless the speaker deems it important to reaffirm subordinated information, multiple realisation of phrase accents also seems possible in structures involving the use of the subordinator *li* as in, for example:

- H\*+LL<sub>p</sub> L-H<sub>1</sub> L-H<sub>1</sub> L-H<sub>1</sub>  
(10) *'CERT li se jagħmlu GAGġa għall-amorIini ILUM...*  
[+focus]  
'I'm sure they'll make a cage for the budgies today..'

It is not clear whether examples such as the above can be accounted for as some kind of "tone copying" as described in Grice et. al. [4]. Moreover, the extent to which such multiple realisation takes place and the exact details, and implications for prosodic structure of what gets "copied", whether solely T- or also T<sub>1</sub>, also await further study.

### 4. CONCLUSION

This paper has shown that focus conditions in Maltese interact with intonational choice in various contexts. Further research on the prosody associated with e.g. adverbials, complement phrases, subordinated structures etc., may help throw light on various issues relating to both the distribution and the realisation of phrase accents.

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