

The syntax of Maltese cardinal numerals

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This paper examines the inflection and other formal alternations of Maltese cardinal numerals, when occurring with nouns and on their own, and their position relative to other parts of noun phrases, and considers the implications of the morphology and syntax of numerals for the syntactic structure of noun phrases, especially those with attributive constituents.

The numeral "1" is the only Maltese numeral to have distinct masculine and feminine forms: *wiehed* (masculine) and *wahda* (feminine). It is also the only numeral to follow rather than precede the noun:

- (1) a. *raġel* *wiehed*
man (M.SG) one (M.SG)
'one man'
b. *mara* *wahda*
woman (F.SG) one (F.SG)
'one woman'.

The position of *wiehed* is immediately after the noun and before any other adjectives or phrasal attributes:

- (2) *raġel* *wiehed* *twil* *mill* *ministeru*
man (M.SG) one (M.SG) tall (M.SG) from-the ministry
liebes *libsa* *griza*
dressed (M.SG) suit grey
'one tall man from the ministry dressed in a grey suit'.

In spoken Maltese, the forms *wiehed* and *wahda* can also be found preceding the noun as indefinite singular articles. This usage is especially limited in literary and journalistic styles of Maltese (Fenech 1978: 70-71), and may owe some of its origin to interference from Italian, although a similar construction exists in colloquial Arabic dialects (e.g. Egyptian Arabic).

The numerals "2" to "10" in Maltese lack any distinction of gender, precede a plural noun, and occur in distinct independent and attributive forms. Within the attributive paradigm, with the exception of "6", there

are two variants depending on phonological properties of the modified noun:

	INDEPENDENT	ATTRIBUTIVE
'two'	tnejn	zewġ / zewġt
'three'	tlieta	tliet / tliitt
'four'	erbgha	erba' / erbat
'five'	hamsa	hames / hamest
'six'	sitta	sitt
'seven'	sebgha	seba' / sebat
'eight'	tmienja	tmien / tmint
'nine'	disgha	disa' / disat
'ten'	ghaxra	ghaxar / ghaxart.

The independent form is used whenever the numeral does not immediately precede an overt noun, for example in counting, in expressions such as tnejn 'two at a time', in ellipsis, and in the partitive construction. Examples of the use of the independent form tnejn 'two' in ellipsis and in the partitive construction are given in (3) and (4):

- (3) a. Kemm kien hemm irġiel?
how-many be (PAST) there man (PL)
'How many men were there?'
b. Tnejn.
two
'Two.'
- (4) tnejn mid djar ta' missieri
two from-the house (PL) of father-my
'two of my father's houses.'

The (possibly normative) conditions governing the selection of attributive forms are given in Aquilina (1965: 118). The form ending in t, the so-called t marbuta or "connective" t, is used before (i) nouns beginning with a vowel, (ii) monosyllabic plural nouns, and less commonly (iii) disyllabic plural nouns beginning with a consonant cluster (two consonants or a consonant and a semi-vowel). When the noun begins with a consonant cluster, i.e. in cases (ii) and (iii), an initial euphonic vowel i is added to the noun. We have therefore:

- (5) a. elef hamest elef
thousand (PL) five thousand (PL)
'thousands' 'five thousand'

- b. rġiel man (PL)
'men'
hamest 'five men'
five man (PL)
- c. żwiemel izwiemel
horse (PL) horse (PL)
'horses' 'five horses'
- d. żwiemel żwiemel
horse (PL) horse (PL)
'horses' 'five horses'
- e. hobżiet hobżiet
loaf (PL) loaf (PL)
'loaves' 'five loaves'

In practice, the forms without t seem frequently to replace those with t. For example, Aquilina (1959: 295) gives as variants żewġt irġiel and żewġ irġiel 'two men'.

Historically, the t marbuta of the numerals appears to have the same origin as the t marbuta which occurs in feminine nouns ending in -a when they are in the construct state (i.e. followed immediately by another noun or pronominal suffix in a genitive construction). For example, mara 'woman' becomes mart when followed by tabib 'doctor' in the construction mart tabib 'doctor's wife' or the suffix -i 'my' in marti 'my wife'. The ending t is simply a feminine suffix which has been preserved in nouns in the construct state and dropped elsewhere (Aquilina 1965: 58). In the case of the numerals, however, there is no synchronic connection between the t marbuta and the existing gender classes. Plausibly the t marbuta forms of the numerals were originally collective nouns which belonged to the feminine gender, governing the genitive of the following noun and therefore in the construct state (Grande 1972: 303).

It is not difficult to demonstrate that, despite the possible presence of the t marbuta, there is no synchronic connection in Maltese between the construct state and the attributive construction with numerals. One major property of a noun in the construct state is its inability to be preceded by the definite article. Instead, the definiteness of the whole construction depends on the definiteness of the following noun:

- (6) a. mart tabib
wife doctor
'doctor's wife' (INDEF)
- b. mart it-tabib
wife the-doctor
'the doctor's wife' (DEF)

- c. *il-mart it-tabib
the-wife the-doctor
'the doctor's wife' (DEF).

By contrast, a construction involving an attributive numeral is definitized by prefixing the definite article to the numeral, and not to the following noun:

- (7) a. żewġ irġiel
two man (PL)
'two men' (INDEF)
b. iz-żewġ irġiel
the-two man (PL)
'the two men' (DEF)
c. żewġ ir-rġiel
two the-man (PL)
'the two men'.

In a complex noun phrase involving the numerals "2" to "10", the numeral immediately precedes the noun. The noun is then followed by adjectival and participial modifiers which agree in plural with the noun:

- (8) żewġ irġiel twal mill ministeru
two man (PL) tall (PL) from-the ministry
lebsin libsa griza
dressed (PL) suit (SG) grey (SG)
'two tall men from the ministry dressed in grey suits'.

The phrase *libsa griza* 'grey suit' may be singular as in (8), reflecting the fact that each man wears one suit, or plural as in (9), reflecting the fact that there are a total of two suits:

- (9) żewġ irġiel twal mill ministeru
two man (PL) tall (PL) from-the ministry
lebsin ilbiesi grizi
dressed (PL) suit (PL) grey (PL)
'two tall men from the ministry dressed in grey suits'.

Like the numerals "2" to "10", the Maltese numerals "11" to "19" directly precede the noun, and occur in independent and attributive forms. Within the attributive paradigm, however, there is no distinction of forms with and without *t marbuta*:

	INDEPENDENT	ATTRIBUTIVE
'eleven'	hdax	hdax-il
'twelve'	tnax	tnax-il
'thirteen'	tlettax	tlettax-il
'fourteen'	erbatax	erbatax-il
'fifteen'	hmistax	hmistax-il
'sixteen'	sittax	sittax-il
'seventeen'	sbatax	sbatax-il
'eighteen'	tmintax	tmintax-il
'nineteen'	dsatax	dsatax-il.

The -il ending of the attributive forms is etymologically part of the number (Aquilina 1965: 120). It is related to the final *ar* in *ghaxar* 'ten', i.e. *hmistax-il* < *hames + ghaxar* 'five + ten'. The simple numerals from "20" upwards lack this distinction between independent and attributive forms: *ghoxrin* 'twenty', *tletin* 'thirty', *erbghin* 'forty', *hamsin* 'fifty', *sittin* 'sixty', *sebhghin* 'seventy', *tmnin* 'eighty', *disghin* 'ninety', *mija* 'hundred', *elf* 'thousand', *miljun* 'million'.

The numerals "11" to "19" and the simple numerals above "20" share the syntactic property of preceding a noun in the singular rather than the plural. Most interestingly, a simple adjective following the noun is singular in agreement with the noun, while an adjectival or participial phrase is plural in agreement with the number of the whole noun phrase (an observation first made by Aquilina 1965: 120):

- (10) ghoxrin irġiel twal mill ministeru
twenty man (M.SG) tall (SG) from-the ministry
lebsin libsa griza
dressed (PL) suit (SG) grey (SG)
'twenty tall men from the ministry dressed in grey suits'.

It is interesting to note that the position of a single adjective is fixed directly following the noun; a single adjective cannot follow a prepositional phrase:

- (11) *ghoxrin irġiel mill ministeru twil
twenty man (M.SG) from-the ministry tall (SG)
lebsin libsa griza
dressed (PL) suit (SG) grey (SG)
'twenty tall men from the ministry dressed in grey suits'.

On the other hand, the phrasal modifiers can occur freely in reversed order, as in (12):

- (12) *ghoxrin ragel twil lebsin
 twenty man (M.SG) tall (SG) dressed (PL)
 libsa griza mill ministeru
 suit (SG) grey (SG) from-the ministry
 'twenty tall men dressed in grey suits from the ministry'.

This suggests that in the Maltese noun phrase there is a separate position for unmodified adjectives. This "internal" position is immediately in construction with the noun, and the adjective shares the number of the noun. There is then a further "external" position for phrasal modifiers which is less closely bound to the noun and which does not necessarily share the number of the noun, instead bearing the number of the whole noun phrase. In noun phrases which contain the numerals "1" to "10", the number of the noun happens to coincide with the number of the whole noun phrase: hence the adjective and participial phrases in the looser external position appear to agree with the noun.

The syntactic similarity between the distribution of single adjectives and phrasal adjectival and participial modifiers in Maltese is remarkably similar to the distribution which obtains in English, except that of course single adjectives precede the noun in English and phrasal adjectives and participial modifiers follow. This similarity even extends to what counts as a phrase for the purpose of deciding which position the modifier must fill. As in English, adjectives modified by adverbs count as simple adjectives for distributional purposes. In English, they precede the noun, and in Maltese, they occur in the "internal" slot:

- (13) a. żewġ irġiel twal hafna
 two man (PL) tall (PL) very
 'two very tall men'
 b. ghoxrin ragel twil hafna
 twenty man (M.SG) tall (M.SG) very
 'twenty very tall men'.

It is adjectives and participles which themselves govern other phrases (noun phrases, prepositional phrases etc.) which must occur in the "external" position. The contrast is captured in (14):

- (14) a. ghoxrin ragel irrabjat
 twenty man (M.SG) angry (M.SG)
 'twenty angry men'
 b. ghoxrin ragel irrabjati bir rapport
 twenty man (M.SG) angry (PL) with-the report
 'twenty men angry with the report'.

Complex numerals are formed by combining simple numerals (with the assistance of u 'and'). The digits precede the tens but all numerals lower than a hundred follow the hundreds and above. Examples are: wiehed u ghoxrin 'twenty-one', mija u tlieta 'a hundred and three', mija u wiehed u ghoxrin 'a hundred and twenty one', elf disa' mija u hamsa u sittin 'a thousand, nine hundred and sixty five' (Aquilina 1965: 119). The syntax of complex numerals depends on the final numeral. This has the consequence that all numerals from "1" to "1000" require a noun in the singular except for "2" to "10", "102" to "110", "202" to "210" etc., which require a following noun in the plural. An example is given in (15):

- (15) mija u tliett irġiel twal mill
 hundred and three man (PL) tall (PL) from-the
 ministeru lebsin libsa griza
 ministry dressed (PL) suit (SG) grey (SG)
 'a hundred and three tall men from the ministry dressed in grey suits'.

One final point to note in the syntax of Maltese numerals is the incompatibility of the attributive numeral construction and the construct state. In Maltese, it is possible to form genitive expressions like (16a), which use a noun in the construct state unprefixed by the definite article and immediately followed by the possessor, or genitive expressions like (16b), which employ a noun in the absolute state prefixed by the definite article and followed by a prepositional phrase with the preposition ta' 'of':

- (16) a. djar missieri
 house (PL) father-my
 'my father's houses'
 b. id-djar ta' missieri
 the-house (PL) of father-my
 'the houses of my father'.

Only the second of these two constructions is compatible with a numeral:

- (17) a. *żewġ djar missieri
 two house (PL) father-my
 'my father's two houses'
 b. iż-żewġ djar ta' missieri
 the-two house (PL) of father-my
 'the two houses of my father'.

This may be a Maltese peculiarity, and does not admit to immediate explanation. The same constraint does not apply in modern Arabic dialects such as Syrian Arabic, where it is possible to have a numeral followed by a noun in the construct state (Cowell 1964: 504):

(18)	xams	ʔisābāt	malārya	ʔadad
	five	case (PL)	malaria	new (PL)
		'five new cases of malaria'		

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