The prosodic contribution of clitics: Focus on Latin

Frans Plank

Universität Konstanz

Summary

There are various ways for clitics to be left out or to be integrated prosodically. The focus

of this paper is on clitics, usually ones with a focusing function, which are not only not left

out, but which make an active prosodic contribution, in the form of adding a stress (or

enforced foot) or a tone or a mora to their hosts.

Frans Plank

Sprachwissenschaft

Universität Konstanz

D-78457 Konstanz

Germany

E-mail:

frans.plank@uni-konstanz.de

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## **NOTE**

This paper has been published in *Lingue e Linguaggio* 4 (2005) 281-292, an issue honouring my colleague, Christoph Schwarze.

To be able to read it, this conversion table needs to be made careful use of:

Š	is to be read as	ä	
š		ö	
•		ł	
^		à	
¤		§	
§		В	
ß		fl	(An interesting chain reaction!)
Þ		fi	(Amazing how frequent fi is in English!
			Friends of frequency should be made aware of
			this.)
Ð		_	(This and the preceding conversion of Il
			Mulino's make the paper look positively Anglo-
			Saxon: a great pity it's mainly on Latin.)
Õ		,	i.e., a humble apostrophe
Ç		4	smart (!) quote
È		,	smart (!) unquote

Not nearly as consistently, but only in a few Latin examples:

vowels with an acute are to be read as the corresponding vowel with a macron

Perhaps Il Mulino, the publishers of *Lingue e Linguaggio*, should consider renaming themselves Il Mulinello: The Conversion Specialists.

## The prosodic contribution of clitics: Focus on Latin

## Frans Plank Universität Konstanz

Take a language with word stress as in Classical Latin: the last syllable is extrametrical, regardless of its weight (heavy in (a) and (b.i), light in (b.ii)); stress is on the penult if heavy (a), and otherwise on the antepenult (b).

(a) [po.pu.'lor.rum] genitive plural of populus 'people', morphologically: popul-ō-rum Stem-STEMFORMATIVE-GEN.PL ['po.pu.lus] (b) i. nominative singular of *populus* 'people', popul-u-s Stem-STEMFORMATIVE-NOM.SG ii. ['kor.po.ra] nominative/accusative plural of corpus 'body', corpor-a Stem-NOM/ACC.PL

For present purposes, we may ignore marginal deviations from this right-to-left trochaic stress pattern (superseding an older left-to-right pattern with initial stress) as well as the segmental phonological processes shaping inflectional word forms like those given above. And we need not translate this informal version of Latin word stress into a more subtle metrical analysis, either: there are plenty on the market to choose from. The questions to be broached here are these — and, despite their simplicity, they don't seem ones comprehensively answered: What are the stressing options such a language has WHEN (EN)CLITICS ARE ADDED TO WORD FORMS? Since there evidently ARE alternative options, what is influencing the choice between them?

A first option, perhaps the most obvious one that one would think of in view of customary assumptions about the prosodic invisibility of clitics, would be for the ordinary rules of stress assignment to apply to just the host and to ignore the clitic. I illustrate with an enclitic, [kwe], a coordinative conjunction for joining words and phrases, but apparently not clauses:

(a)		[po.pu. lor.rum.kwe]	popul-ō-rum=que
			Stem-STEMFORMATIVE-GEN.PL=and
(b)	i.	['po.pu.lus.kwe]	popul-u-s=que
			Stem-STEMFORMATIVE-NOM.SG=and
	ii.	[ˈkor.po.ra.kwe]	corpor-a=que
			Stem-NOM/ACC.PL=and

A second option would be for the ordinary rules of stress assignment, as applying in the absence of a clitic, to apply also to host=clitic constructions — as if clitics indeed WERE regular word parts.

(a)		[po.pu.lo:.'rum.kwe]	penult heavy
(b)	i.	[po.pu.'lus.kwe]	penult heavy
	ii.	[kor. 'po.ra.kwe]	penult light

It can be plausibly assumed that the onset cluster of [kwe] was not broken up, so as to resyllabify the first consonant as the coda of the preceding syllable and thereby make it heavy (Pulgram 1975: 162-163) — which would make a difference on this stressing option:

A third option would be for host=clitic constructions to require principles of stress assignment of their own, differing from those applying to words unaccompanied by clitics.

Such a special rule could be to have stress on the syllable preceding the enclitic regardless of the weight of that syllable:

- (a) [po.pu.lor. rum.kwe]
- (b) i. [po.pu. lus.kwe]
  - ii. [kor.po. ra.kwe]

A fourth option, in a sense combining the first and third, would be to leave the clitic itself stressless (as supposedly behoves items of this class, and as recognised in all other options, too), but having it add a (main) stress to the host, on top of that which the host has owing to the regular rules of (main) stress assignment to inflectional word forms:

- (a) [po.pu.'lo:.'rum.kwe]
- (b) i. ['po.pu.'lus.kwe]
  - ii. ['kor.po.'ra.kwe]

To relate these possible options to familiar prosodic representations, the second is best captured by this one, assuming a simple phonological word:

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(host=enclitic)<sub>\omega</sub>
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Options No. 1 and 3, individually and in combination, are compatible with both of the following representations, pending evidence about the prosodic status of the construction — phonological word ( $\omega$ ) or phrase ( $\phi$ ) (or also clitic group):

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((host)_{\omega} = enclitic)_{\omega}

((host)_{\omega} = enclitic)_{\phi}
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Now, opinions continue to be divided about the option that Classical Latin IN ACTUAL FACT took for clitics such as [kwe].

The most plausible answer is that option No. 3 was the one taken, or at any rate was crucially part of it. Relevant evidence includes the explicit statements of Roman grammarians themselves, including Varro's: 'particulas coniunctas, quarum hoc proprium est ACUERE PARTES EXTREMAS UOCUM QUIBUS ADIUNGUNTUR'. For Latin, this sort of behaviour is really special, being exclusively characteristic of this sort of enclitics. In particular, there are no stress-retracting/pre-stressing SUFFIXES: genuine suffixes all abide by ordinary stress assignment to word forms (stress on antepenult if penult is light, which it is in (b.ii)). Pre-stressing is not characteristic of phonological phrases in Latin, either; so, presumably the best prosodic representation here would be ((host)<sub>o</sub>=enclitic)<sub>o</sub>.

It has also been argued (among others by Gildersleeve and Lodge 1895: 8) that Latin rather took option No. 4, at least with hosts that are themselves stressed on the antepenult (as in (b)); stress on the penult (as in (a)) would be removed to prevent it from clashing with the enclitic-induced stress. If this assumption is modified to the effect that the original main stress of the host only survives as secondary stress (unless there would be a stress clash), it is seen not to be so different in spirit from option No. 3: there is prestressing, as per No. 3, plus original word-stressing (though downgraded), as per No. 1; host=clitic constructions are not stressed as word forms would be stressed, as option No. 2 would have it.

Also on record is a suggestion (Wagener 1904), based on some metrical evidence from Latin hexameter verse arguably militating against pre-stressing, that the option taken was No. 1, with a secondary stress on the enclitic itself, rather than on the preceding syllable, when the primary stress was on the antepenult of the host word — thus:

['kor.po.ra.,kwe]
[po.pu.'lo:.rum.kwe]

-

<sup>&</sup>lt;sup>1</sup> Varro, as rendered by Martianus Capella, is quoted from Allen 1973: 159. For details see Schöll 1876. More recently Jacobs 1997 has further discussion, also giving classical sources and surveying how option No. 3 is accommodated in various metrical frameworks.

In support of some such assumption, Allen (1973: 158-159; 1978: 87-88) suggests that the special clitic rule (our option No. 3) given by the Roman grammarians may be another instance where they blindly copied the Greek model, doing violence to Latin as actually spoken. Although he is suspicious of general pre-stressing, and even seems prepared to countenance option No. 2 (stressing of clitic groups like they were inflectional word forms: [kor.'po.ra.kwe], with no difference from option No. 1 in cases where word forms on their own have penult stress: [po.pu.'lor.rum.kwe], ['mur.sa.kwe]), Allen (1978: 88) also endorses Priscian's invocation of "analogy" to account for pre-stressing, if not necessarily for the classical period. The idea of analogy here is that the by far more common case of a heavy syllable preceding the clitic, with pre-stressing effectuated by regular word stress (as per option No. 2), serves as a model for stressing other word forms of the same lexeme where the pre-enclitic syllable is light, hence would be skipped by regular word stress:<sup>2</sup>

[kor.	pus.kwe]	nominative/acci	usative	singular.	penult heavy
L	L			, , ,	P

[kor.po.'ris.kwe] genitive singular, penult heavy

etc.

\*[kor. po.ra.kwe] nominative/accusative plural, penult light

 $\Rightarrow$  [kor.po.'ra.kwe] by analogy

One must conclude, then, that it remains to some extent controversial what solution(s) Classical Latin found for stressing such enclitic groups. Possibly there was a period of variation where more than one of the options outlined above could be taken, especially under metrical pressure in verse.<sup>3</sup> Given that options Nos. 3 and 4 were among those favoured, as seems undeniable, there is something one can confidently conclude,

<sup>&</sup>lt;sup>2</sup> For a similar appeal to analogy in the case of a light syllable preceding an enclitic see Kuryłowicz 1958: 383.

<sup>&</sup>lt;sup>3</sup> This is the conclusion Allen 1973: 161 resigns himself to.

though: namely, THAT THESE ENCLITICS THEMSELVES CAME WITH PROSODIC PROMINENCE, of one form or another. It seems likelier that this extra prominence was added to their host word forms, most likely to their last syllable, adjacent to the clitic, than that it materialised on the enclitics themselves (as per the Wagener version of option No. 1). Not forming the most prominent syllables themselves would superficially have given =que and its companions the attentuated flair characteristic of clitics in general. (It is only when clitics are fully integrated into regular domains for prominence assignment that they would be expected to be able to bear prominence themselves.) However, even CONTRIBUTING prosodic prominence is not something one would normally expect for this sort of element: clitics would rather be expected to LACK any such prominence or potential for any prominence enhancement — which for Latin would have meant that options Nos. 1 or 2 should have been favoured.

Actually, some combinations with =que clearly WERE stressed like words are stressed (as per option No. 2), rather than like constructions with enclitics — but this only happened once they had become lexicalised, which confirms that productive cliticisation was different: itaque ['i.ta.kwe] 'therefore' (as opposed to ita=que [i.'ta.kwe] 'and so'), ubique ['u.bi.kwe] 'and wheresoever' (thus 'everywhere'), utique ['u.ti.kwe] 'in any case', undique ['un.di.kwe] 'on all sides'.

When option No. 4, taken as including No. 3, is translated into a footing conception, with the trochee as the regular foot type, right-to-left as the parsing direction, and the endrule set right in Classical Latin, contributing extra prominence means that such enclitics, unlike other final syllables, force the building of a trochaic foot, thereby revoking extrametricality at the word form level:

- (a) (PO.pu) (LOO) (RUM.kwe)
- (b) i. (PO.pu) (LUS.kwe)
  - ii. (KOR.po) (RA.kwe)

This is to be contrasted with footings where enclitics make no contribution, either insofar as they remain outside the footing domain and do not interfere with the extrametricality of final syllables of inflected word forms (option No. 1; e.g., (KOR.po) <ra> <kwe>) or insofar as they are included in the footing domain and are treated like final syllables of inflected word forms, i.e., as extrametrical (option No. 2; e.g., (KOR) (PO.ra) <kwe>).

Theoretically, a language with a word stress system like that of Classical Latin should have been able to take ANY option of those outlined above, since all of them are in principle available for clitics, and are observed somewhere or other. (And all of them can be accommodated in various metrical frameworks.) The next question, then, is how to predict which option will be the preferred one under given circumstances. Conceivably, the choices could be taken at random, and then would need to be stipulated for each individual clitic, or for each subclass of clitics, or even for all clitics as a class, in each individual language. If, on the other hand, the choices are predictable, to some extent, the task would be to identify predictors.

For Classical Latin, although the peculiarity of enclitic stress has often been discussed (and reconstructed in all kinds of frameworks), no such predictors have been identified — at least by the time Sommer wrote, less than a century ago (1914: 297), subscribing to the pre-stressing view (option No. 3 above):

In bisher unerklärtem Gegensatz zum Paenultimagesetz bekommt auch eine **kurze** Schlußsilbe bei antretender einsilbiger Enclitica den Ton: *Mūsáque*, *līmináque*.

I suggest that there IS a predictor: it is that the relevant Latin enclitics are special, as was observed above, in coming with prosodic prominence, though not realised on the enclitics themselves, and that this is to do with their meaning or function.

The enclitics which in relevant respects behave like =que 'and, and also, and indeed' in Classical Latin include some monosyllabic items (a.i) and a potentially

extendable set of bisyllabic or even trisyllabic items (a.ii):

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'or, or perhaps' (presumably a short form of the non-clitic
(a)
       i.
               =ve
                      disjunction vel, occurring between disjuncts);
               =n(e) the marker for yes/no questions encliticising onto whatever
                      constituent is in focus (cf. n, a clause-initial, non-clitic pre-
                      pronominal assertive marker),
                              a demonstrative particle;
               =c(e)/=ci
                      an emphatic particle;
               =te
                              also emphatic particles, '-self, own';
               =pse/=pte
               =met 'indeed, -self, own';
                              'only, just' (and its inflected variants);
       ii.
               =modo
                              'whenever, at any time';
               =quand
               = libet generalising like the preceding, 'who/whatever pleases';
                              adversative, 'but, nevertheless, however, yet';
               =tamen
                              'but'
               =autem
               =enim 'actually'
               =vero 'truly'
(b)
               =cum 'together with' (enclitic with personal and relative pronouns,
       i.
                      otherwise a non-clitic preposition);
       ii.
               =circ 'by reason of';
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Most of the monosyllabic enclitics, namely those without final consonant (=que etc.), violate the minimal word requirement of Latin, where open monosyllables are otherwise all long, be they lexical words or function words. So, a central subset of enclitics is really special, in addition to lacking prosodic prominence (in the sense of not being stressable themselves) and to adding prosodic prominence to an adjacent word part.

'because of'.

=propter

A shared semantic property of most of the Latin enclitics listed above, now, is that they are FOCUSING elements: their function is to do with emphasis and contrast. For only a very few relevant Latin enclitics, those in (b), this characterisation does not fit, insofar as they are of a purely relational, adpositional nature.

Emphasis or contrast is typically expressed through a pitch accent on (the relevant syllable of) the word or larger constituent in focus. Although there need not be any syntactic or lexical means to subserve focusing, languages typically have special constructions and/or dedicated words or morphemes specifically for this purpose. Such focusing elements can occur in constructions where the extra accentual prominence is on the constituent in focus (as with English *only* and *even*) or on themselves (as with English *PRO-self*, *too*, *indeed*). Even in the latter case one would probably not consider such prominence as an inherent lexical property of these focusing elements themselves: rather, they come out as prominent because they happen to be in such positions in their constructions where accentual prominence is regularly signalled (at the right phrase edge in English).

Focusing elements like =que and the others in (a) above, however, would seem to come lexically specified with prosodic prominence, adding a stress to their host at the closest possible distance — namely its final syllable, immediately preceding the focusing element. Irrespective of the fact that they have a contribution to make to prosodic prominence, and thus are not atonic (though themselves unaccented), these elements have a distribution that distinguishes them from affixes as well as from morphosyntactic words in Latin and that justifies subsuming them under the general rubric of clitics. Whatever their scope (word, phrase, or clause), they are placed in second-position; in particular, they come after the first morphological word of the scope construction containing the focused element, whose final syllable they add prosodic prominence to. The positioning of the enclitics is quite sensitive to morphological wordhood; once syntactic combinations have been reanalysed as words, albeit as ones which continue to be morphologically complex,

the enclitic goes to the end of the new word (e.g.,  $s\hat{e}=que\ greg\bar{a}re>s\bar{e}-greg\bar{a}r\acute{e}=que$  'and to separate from the flock' > 'segregate').

On this interpretation, plausible for the great majority of the enclitics above, those in (a), the option that Latin took would not seem to be such an idiosyncratic one, but one that would not come unexpected for the special class of clitics which mark focus. Indeed, focus enclitics with similar prosodic properties have been observed in several other languages, including Ancient Greek (Allen 1973: 240-254, passim) and Modern Bengali (Lahiri and Fitzpatrick-Cole 1999).

In Ancient Greek, the counterparts of the focusing clitics of Latin (and in fact other enclitics, too), themselves unaccented, were likewise able to contribute an accent to the final syllable of their host (or also to protect the host's accent against neutralisation), but they would only do so — as in (a) or also (b), where a final liquid or nasal lengthens the first syllable, as opposed to (c) and (d) — if the host's own prominent syllable or mora would otherwise have been farther away from the right (phonological) word edge, defined by the enclitic itself, than was permissible for word forms without enclitics (owing to the limitational rule variously known as the Law of Three Syllables or Three Morae, as reformulated by Jakobson 1937: 'the span between the accented and the final mora cannot exceed one syllable'):

(a)	'an.thrō.,pos=te;	cf. 'an.thrō.pos	NOM.SG
	person=and		
(b)	'an.,dra=te;	cf. 'an.dra	ACC.PL
	men=and		
(c)	'chro.nos=te;	cf. 'chro.nos	NOM.SG
	time=and		
(d)	pa. 'tēr=te;	cf. pa. tēr	NOM.SG
	father=and		

This essentially corresponds to option No. 4 above, except that primary and secondary prominences are reversed vis-à-vis Latin, with the former in Greek contributed by the host and the latter by the enclitic. This assumption about Ancient Greek (held by Allen 1973 and others) has not gone unchallenged, however: the alternative interpretation is that, in Ancient Greek just like in Latin, primary prominence was in fact contributed by the enclitic (e.g., Vendryes 1945: §93). Though at odds with Greek grammatical tradition, where the host's accent would be referred to as "main" (*kyrios*), this is perhaps the more plausible view, especially in light of subsequent history, with the enclitic accent clearly the more prominent and the host's accent weakened or even eliminated in Koine Greek (Mussies 1971: 61) as well as in Modern Greek (Warburton 1970, and especially Arvaniti 1992; see Janse 1997 for discussion).

In the case of contemporary spoken Bengali (Indo-Aryan), =o 'also' and =i 'even, the very, indeed' attach to a phonological word or a phonological phrase (rather than to a morphological word, as in Latin) and add a H\* pitch accent at its end, overriding the phrasal H boundary tone which normally attaches to the right edge of the focused word or phrase. To illustrate, with the focused phrase in small caps in the translation:

L\* 
$$H^*[H_p]$$
  $didi-r$   $dxor-er=o$   $dfonno$   $upohar$   $kinetf^hi$   $elder.sister-GEN$  brother.in.law-GEN-too for present I.bought 'I bought a present for SISTER'S BROTHER-IN-LAW, too'

For Latin, the customary assumption is that the added prosodic prominence took the form of a main stress (in other terms: forced a trochaic foot even when its head was a light syllable), probably accompanied by some downgrading of regular word stress (or its removal, to avoid a stress clash). But then, these focusing enclitics =o and =i are rather unusual in that they are the only words in Bengali, not otherwise known as a tone language, coming with a lexical pitch accent, and it has required some rather subtle instrumental analysis of spoken language to recognise that this is how they add prominence. For Latin, it is too late for this sort of analysis; and in its daughter language none of the relevant

enclitics survived to give us a clue. For Ancient Greek, the prominence added by enclitics, when overtly realised in accordance with the limitional rule, took the form of an acute accent, and the implementation of the acute was through a high or rising pitch.

The equivalents of these enclitic focusing particles in other Indo-European languages, more popular at their older stages than now, bear little evidence of extra prosodic prominence accruing from them. It remains to be seen how accent systems like those of Latin, Greek (ancient and modern), or Bengali could accommodate such prominence contributed by clitics, while others didn't.

In Old Indic, coordinative =ca, disjunctive =va, adversative =u, etc., seem to have been simply atonic, and not to have interfered in any special way with the accentuation of their host word forms — which was not subject to a Law of Three Syllables as in Greek, hence could support plenty of unstressed syllables after the accent.

In Gothic, with accent fixed on the stem as everywhere in Germanic, the corresponding enclitics, including =(u)h (the counterpart of Latin =que, Greek =te, Sanskrit =ca), attached to the first stressed word of the phrase in focus, apparently without adding any prosodic prominence at final word edges. However, they would even sneak in after verbal prefixes of prepositional origin if the verb (or the verbal phrase or whole clause) was in focus or after a preposition if the prepositional phrase was in focus:

- (a) *ip is ub-uh-\underline{wopida*and he out=and-cried

  'and/but he EXCLAIMED'
- (b) in=uh 'jainamma 'mēla in=and that time 'and at THAT time'

Contrary to occasional assumptions,<sup>4</sup> it is unlikely that the prepositions or preverbs hosting the enclitics would have had much inherent prominence in such instances, considering their relative semantic insignificance: main stress (by then) was on verb stems and on the noun or its modifiers in a prepositional phrase. Rather than to conclude that the prosodic prominence needed to host enclitics therefore must have come from these focus enclitics themselves, one would presumably interpret this sort of pattern as another instance of two low-key function words (preverb/preposition and conjunction) combining to form a unit of some prosodic independence — a foot, of the trochaic type as favoured in early Germanic.

To add two pieces of suggestive evidence from outside Indo-European, first, Meadow Mari (or Cheremis, of Uralic affiliation; Lewy 1922) has its word accent on the final syllable or, if its vowel does not support accent, on the penult; secondary stress propagates leftward on alternate syllables. There are a number of "emphatic" enclitics, including =at, =ok 'also', =ta 'and, but ... too', and the (not obviously focusing) quotative =manef, which are prosodically integrated with word forms and therefore receive main stress. However, they make a special prosodic contribution (according to Lewy 1922: 64, 73-76) insofar as the accent they carry appears to be stronger than elsewhere, and in particular is characterised by a marked rise and fall of pitch.

Second, Qafar (East Cushitic, Afroasiatic; Hayward 1998: 643-644) has three sets of enclitics: four postpositions, a nominaliser, and several conjunctions. Uniquely among these enclitics, the conjunctions = kee and = y (the latter also used as a topic marker, which additionally points to a focusing force) lengthen the final vowel of their hosts; for example:

lubak-waá=kee kabaaSá lion-PL=and leopard.PL '(both) lions and leopards'

Unless overridden by lexical accent, a high tone (marked by the acute accent) is regularly located on the final vowel mora of the first word of a phonological phrase. The focusing

<sup>4</sup> Among others by Streitberg 1906: 148-149; further discussion in Kieckers 1928: 103.

conjunctive enclitics, thus, are outside the domain for tone assignment. They do not themselves seem to contribute a tonal accent to that domain; but they do contribute the vowel mora that bears that phrasal high tone.

Prosodic contributions of focus clitics merit closer scrutiny across languages, as a corrective to the assumption that clitics are perforce prosodically inert or indeed non-existent.

To briefly return to the wider question of the predictability of the prosodic behaviour of clitics in general, clitics other than those marking focus should prefer the first or second options above. Arguably, this is what they do. But there would still be a choice — between extrametricality (option No. 1) and full prosodic integration (No. 2).

A predictor in that latter choice could be the developmental stage of a clitic. Arguably, the natural first step in the life cycle of a clitic, one never to be skipped, is to be ignored by stress (and other phonological) rules operating in a host domain, especially by stress rules like those of Classical Latin. (Affixes can appear to be "extrametrical", too, like -ing, -ly, -wise, -less, -ness, -(e)s, -(e)d are in English — but only in languages where stress is morphological, in the sense of falling on parts within a MORPHOLOGICAL domain, such as stems.) For example, the items in Latin that also qualify as clitics on at least some criteria (not that of unaccentability, although they will commonly have been unaccented) but do not mark focus, such as the copula verb or finite verbs in general (in Wackernagel position), or also object pronouns adjacent to verbs, remain without effect on the word stress of their hosts. A possible next step — not a necessary one, and perhaps only taken much later if at all, but never before the first step — would be for clitics to be treated like integral parts of that domain. At this second stage it would be difficult to draw a line between clitics and affixes, with the latter also forming one domain with their hosts for purposes such as stress assignment.

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