Metrical Structure and its Interaction with Vowel Deletion in the Northern Dialects of Modern Greek

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Modern Greek dialects are traditionally divided into southern and northern, on the basis of the latter's two general processes:

(a) deletion of unstressed high vowels [i], [u] and

(b) raising of unstressed mid vowels [e] to [i] and [o] to [u].

One of the problems, however, that linguists face when studying the northern dialects is that of accounting for the numerous cases where the deletion of unstressed high vowels is blocked. For, as Brian Newton, in his study of M.Greek dialects (1972), has pointed out,

> ..It is by no means the case that all unstressed high vowels are deleted and all unstressed mid vowels raised in northern dialects.(p.182)

Segmental factors, such as the creation of non-permissible syllable initial clusters, do play an important role in impeding deletion. But these factors seem to be different for different dialects,

depending on the surface syllable structure constraints of each dialect. On the other hand, there are other than segmental factors which impede the deletion. Thus, Margariti (1976) in her study of the phenomenon in the dialect of Siatista in Western Macedonia, notes that in addition to segmental factors there are stress factors blocking the deletion as well. She points out, that as observed before in other dialect studies, the high vowels are deleted when stress falls either on the preceding or the following syllable; but, the high vowels are retained when the stress falls on the second syllable after the unstressed high vowel; for example.

<u>southern</u>: psilós vs. <u>northern</u>: pšlós "tall
θélun vs. θéln "they want"

BUT:	<u>southern</u>	vs.	<u>northern</u>
nikólas "Nickolas"	nikolákis "little Nickolas"	nkólas	nikuláks
zimóno "I knead"	zimoménos "kneaded"	žmónu	žimuménus
ɣuðí "mortar"	ɣuðoxéri "pestle"	ɣðí	ɣuðuxér

Similar cases, where an unstressed high vowel is deleted in a word and is retained in derivative words, have been reported by other linguists working with the northern dialects and a representative group is presented by Margariti; for example:

<u>southern</u>		vs.	<u>northern</u>	
ɣinéka "woman"	ɣinekísyos "feminine"		ɣnéka	ɣinikísus (Zagori dialect)
pináki "trough"	pinakíðes "troughs"		pnák	pinakíðis (Velvendos dialect)
kutsós "lame"	kutsoðémonas "lame-devil"		ktsós	kutsuðémunas (Vohiu district)
kulós "armless"	kuloxéro "armless-one"		klós	kuluxéru (Thessaly dialect)
filáɣo "I guard"	filaɣménos "guarded"		fláɣu	filaɣménus (Grevena dialect)
piróno "I fire-heat"	piromáxos "fire-stand"		prónu	pirumáxus (Epiros dialect)

zilévo	zileménos	žlévu	žiliménus
"I envy"	"envied"	(Germa Kastoria dialect)	

An explanation of the phenomenon in the northern dialects has been suggested by many of the linguists studying these dialects and is summarized by Margariti as follows:

> ...For the retention of the vowel in Siatista and other northern dialects, the distance from the stressed syllable plays an important role. (LP's translation)

In other words, unless there is a stress before or after it, the unstressed high vowel is not deleted. Though general and accounting for the above data, this observation is problematic with another set of data, reported by Margariti for the Siatista dialect but found in other northern dialects as well, where the distance of the unstressed high vowel from the stressed syllable would predict its retention, but which is actually deleted; for example:

<u>southern</u>	vs.	<u>northern</u>
simazónome		šmazónumi
"I get myself together"		NOT: *šimazónumi
sikonómaste		škonumésti
"We got up"		NOT: *šikonumésti
simaδévo		šmaδévu
"I target"		NOT: *šimaδévu
sixariki		šxarík
"congratulation"		NOT: *šixarík
skularíki		sklarík
"earring"		NOT: *skularík

An explanation of these data based on segmental factors would have no motivation, to say the least. For, segmental conditions are not enough to account for the deletion/retention of the unstressed high vowels in the northern dialects, especially when it has already been observed that stress factors are important too.

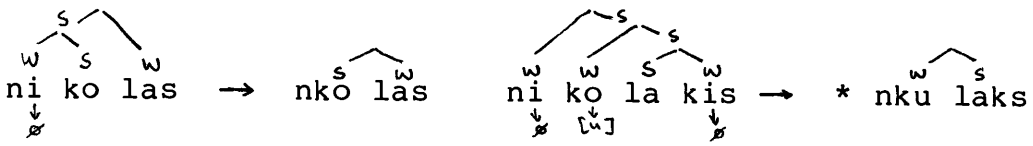
Therefore, a metrical condition for all the above data is more probable, at a level where syllable structure has been established and the relative prominence of weak vs. strong syllables has already been assigned.

Thus assuming a theory of metrical structure, as

presented and developed among others by Liberman & Prince (1977), Kiparsky (1979), McCarthy (1979), and Hayes (1981), the data from the northern Greek dialects can be analyzed as follows:

Underlyingly, the northern forms are identical to those in the southern dialects (including the standard); i.e. with all high vowels intact. This, in turn, means that these forms have their metrical structure already assigned; for the purpose of this study and consequently not crucial for the phenomena at hand, we would assume that words in Modern Greek are probably listed in the lexicon already stressed, as it has been sometimes assumed for English. Thus the following metrical account of high vowel deletion/retention in the northern dialects should be regarded as a stress adjustment process, that does not imply any lack of rules assigning initial metrical structures in Modern Greek.

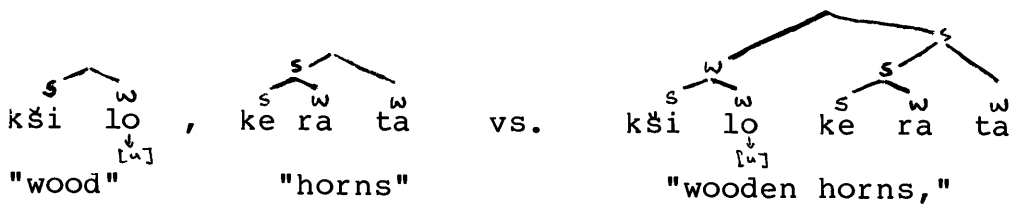
Examining first the metrical structure of the Siatista dialect examples, we observe the following:



In other words, if we assign metrical structure to each word separately, the retention of the high vowel in "nikuláks", and all other words above, is not predicted, since the node above it is weak and therefore subject to deletion. If, on the other hand, we adopt Kiparsky's claim that:

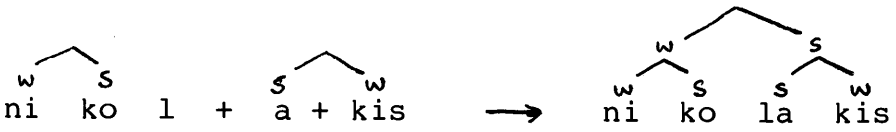
> .. metrical structure assigned in earlier cycles is kept, insofar as it is not redrawn by the reapplication of feet assignment..

we could motivate the retention of the vowel in the data from the northern dialects, and predict when the vowel deletes and when it stays. Cf:



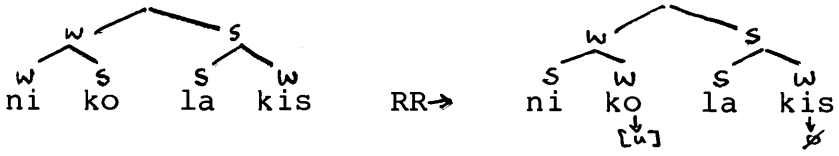
where each word's initial metrical structure is carried over to the compound derivative word without change. But in our data, a metrical structure assigned to an

earlier cycle and carried over to the derived word creates a stress clash; cf.



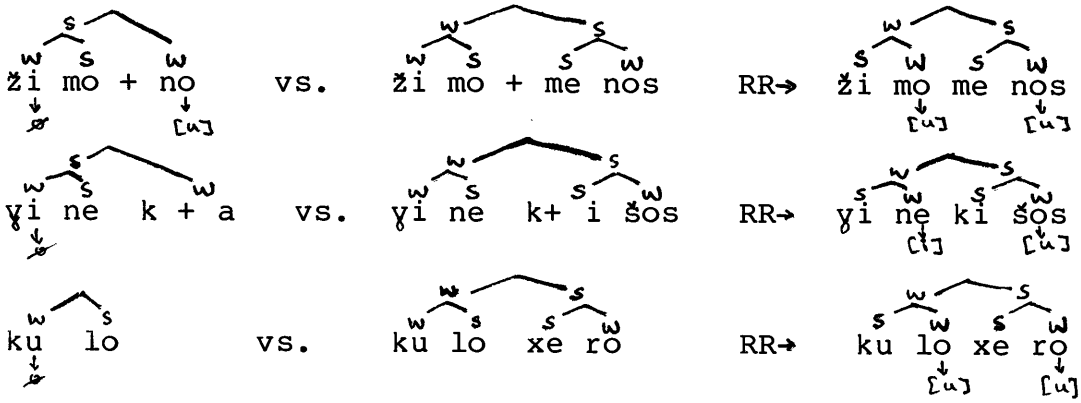
But such a stress clash can be remedied by the so-called Rhythm Rule formulated by Kiparsky, and others, as follows:

and thus applied to the metrical structure above, with the following result:



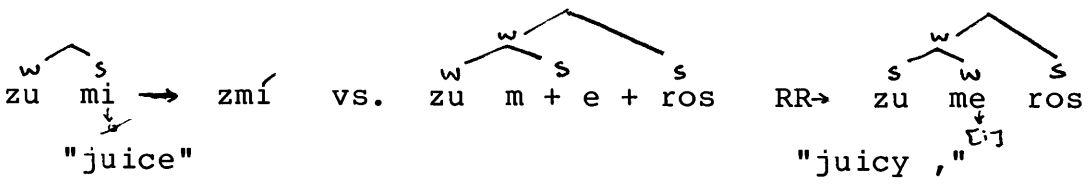
In other words, shift of w s to s w ; notice, that in addition to explaining the retention of the high vowel in this derivative word, the Rhythm Rule has also motivated the raising of [o] to [u], since the node dominating it became weak , and therefore the vowel under it unstressed and subject to raising.

The same cyclic application of metrical structure would account for the deletion/retention of the high vowel in all our data. cf.: some examples from that data:



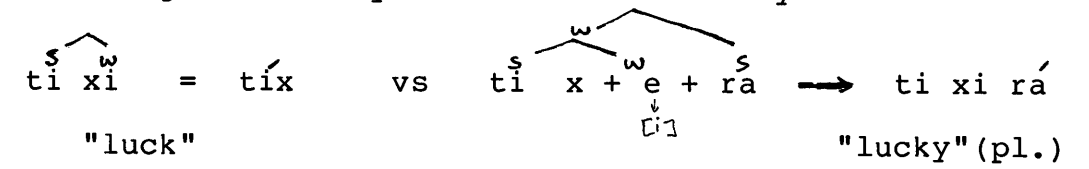
It is important to notice here that the feet in the base words, such as "nikólas", "žimóno", "ɣinéka", and all other forms having feet, are left branching.

One of the motivations comes from the fact that in the following derivation,



the retention of [u] is motivated, whereas a right branching foot would create a metrical structure with a high vowel subject to deletion; cf:

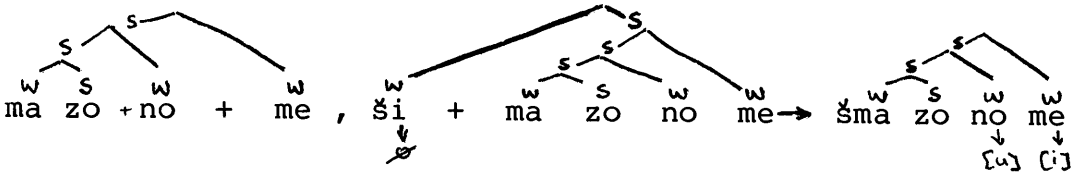
Now compare the following derivation which has left foot branching and no Rhythm Rule is necessary:



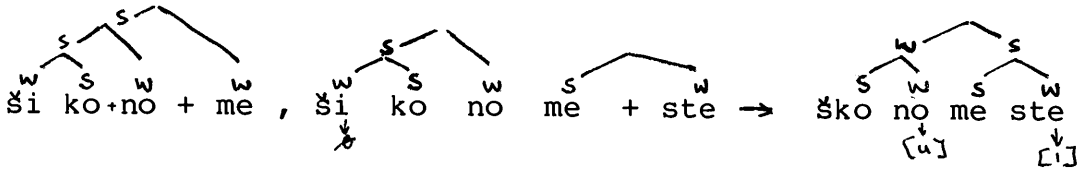
In addition, morphological considerations would favor a left foot branching. With the noun nikólas, the stem is níko, as in níkos "Nick", where the stress is on the first syllable of the stem. In the case of the verb žimóno , the verb root is žímo , as can be seen from the perfective past form žímo+sa "I kneaded ," where the stress on the root is s w. In the case of the noun γinéka , the stem is γinék , as can be seen from the compound palyo-γínek+o "bad-woman", with the stress on the stem s w. In other words, a left foot branching underlines the integrity of roots and stems, and captures the general metrical structure for the basic data in this study, since, as we will see below, the data on secondary stress also supports the left branching feet structure.

Our metrical account of the data so far would explain the retention of the high vowels in those cases where Margariti and the other linguists mentioned the distance of the high vowel from the stress syllable. If we now turn to the data where no stress explanation could be given, we can observe that depending on the

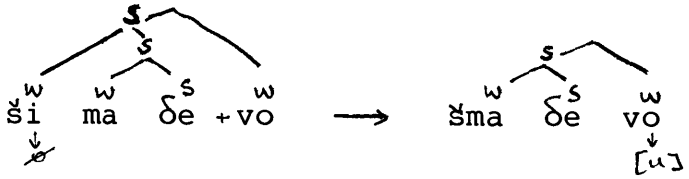
derivational history of the words from which they are formed, their metrical structure is as follows:



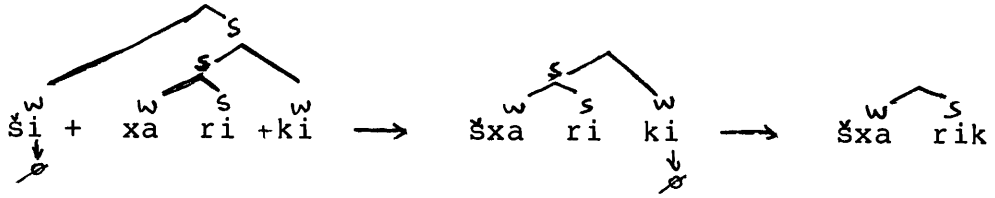
"I gather" + "myself", "together" + "I gather myself"



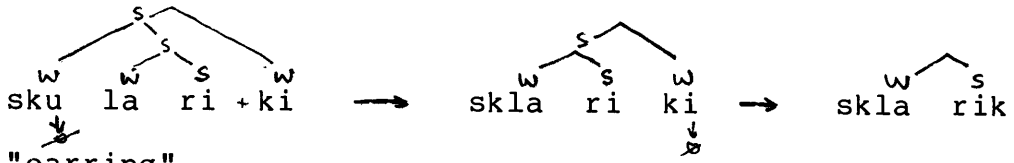
"I lift"+ "myself", "We lift ourselves "



"I target"



"con + gratulation"



"earring"

In other words the high vowel in these forms deletes because it is either the stressless prefix si meaning "together" or because it is in a weak syllable originally and no Rhythm Rule has been applied to remedy stress clashes.

Another piece of evidence supporting the claim that metrical structure assigned in earlier cycles is kept , comes from a special case in the northern dialects where, unlike southern dialects, a secondary stress appears. Margariti notes that C.Hoeg in his

study of the dialect of Sarakatsans has suggested that the retention of the high vowels in the forms discussed above , may be a result of the development of a secondary stress which appears mostly in polysyllabic words and especially in compounds; for example:

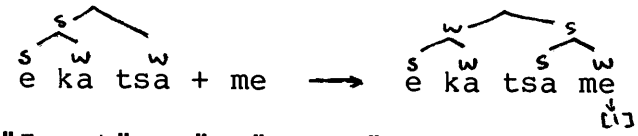
[kùtsuxérs] "lame + hand" , [kùtsupínu] "lame+I drink" etc.

But Margariti does not know whether this is true for her dialect of Siatista, because she has not found such a secondary stress in the data under discussion. Thus whether some of the above forms are actually

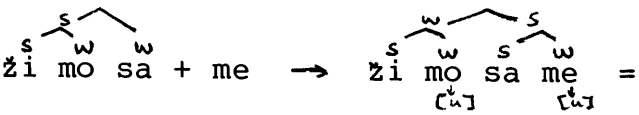
[nìkuláks] [ʒìmuménus] or [ɣùðuxér] etc. ,

is not clear. What is clear though, and it is reported in the literature on northern dialects, is the following:

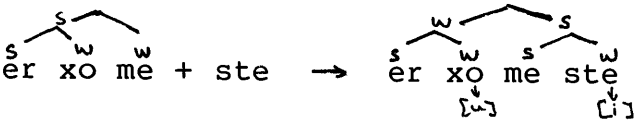
There exist in northern dialects verbal forms having a secondary stress; for example:



"I sat" + "we" "we sat" (medio-pass. past perf.)



"I kneaded" + "we" "we kneaded" (active past perf.)



"I come" + "we" "we come" (medio-pass. present irreg.)

Notice that this secondary stress is exactly where our cyclic metrical application would predict it to be; since it comes from a strong syllable that in the previous cycle carried the only stress. Also notice that the feet assignment is left branching in the base words. Furthermore, no raising of [e] to [i] occurs, since the secondary stress on the first syllable impedes it.

Now, whether at the output of the Rhythm Rule, the syllables marked strong do have a secondary stress is a matter for closer examination. For, if it turns out that Hoeg is right by suggesting a secondary stress in that position , this new evidence would nicely complement our metrical structures after the Rhythm Rule

has applied, and will further motivate the foot structure of the roots and/or stems of the base words. For, the least altering of the metrical structure should be desirable.

But, whatever that outcome may be, we can still point out to the fact that assuming a metrical theory assigning metrical structures cyclically (as defined by Kiparsky) the secondary stress in those verbal forms existing in the northern dialects is clearly accounted for, and is justified by our theory.

In conclusion, then, this study has shown that a metrical account of the data in northern Greek dialects offers an explanation of the stress conditions, under which unstressed vowel deletion is blocked, and thus brings together all relevant stress phenomena in those dialects, one of which is of cource the development of a secondary stress. Furthermore, it was shown that the Rhythm Rule cannot only account for stress displacement phenomena, as the well-known "expect _ expectation" and "thirteen - thirteen men" cases, but for segment deletion and retention phenomena as well.

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