**Stress in Modern Greek Dekapentasyllavo:**

*(a)symmetric patterns and challenges to the theory of poetic meter*

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**Aims**

- to offer the first, to our knowledge, preliminary formal account of Modern Greek Dekapentasyllavo (15σ or DPS)
- to highlight the role of edges and distance from it, with regard to phrasing and metrical inversions
- to tentatively suggest the use of doubly-headed intersecting feet

**Roadmap**

- §1. Introduction to the meter, corpus used, method of scansion
- §2. Analysis
  - §2.1: Metrical patterns
  - §2.2. The role of phrasing
  - §2.3. Half-line asymmetries and intersecting feet
- §3. Discussion and conclusion

**1. Introduction**

**Setting the stage**

- **Dekapentasyllavo**: the most important indigenous meter of the Modern Greek poetic tradition.
- It is both the meter of most national literate poetry (e.g. Solomos' poetry) and, most important, of the folk songs (*dimotiká tragoúdia*, DT).
- No linguistic analysis has yet focused on the properties of this metrical form. Nespor (1999) briefly discusses DT, but in a rather cursory manner. DT are still taught in school nowadays.
- Native speakers have intuitions about what a correct DPS line is like/sounds.

**Data**

- Nikolaos Politis (1852-1921) compiled a landmark collection of Greek folk songs in his 1914 book *Εκλογαί από τα τραγούδια του ελληνικού λαού* ['Selections from the songs of the Greek people']
- Many editions have followed since then. Our corpus follows the 2009 edition, but we have occasionally consulted the versions of 1925 and 2001 (for lines missing, possible typos, etc)
- It should be noted that, e.g. Beaton (1986) claims Politis' collection to be hypercorrected, sometimes regularized.
- This paper: scansion of 3 sections in the Politis (2009) corpus. Following his numbering, these are: 
  - Istorika Tragoudia 'historical songs' (songs 1-19)
  - Kleftika Tragoudia 'songs of the partisans' (songs 20-68)
  - Nanarismata 'lullabies' (songs 148-154)
• Of those a few were excluded, because they are not in 15σ, but in other patterns, e.g. 8σ, 12σ, etc.
  o In particular: 10B, 17, 18B, 22, 34, 40, 44, 61A, 151. Since 10A, 18A, 61B&C were in 15σ, they were examined, hence included in the counts below
• Our corpus:
  o 18 Istorika = 298 lines
  o 44 Kleftika = 651 lines
  o 5 Nanarismata = 60 lines
  o Total = 1009 lines

A word on terminology and notation
• the term ‘metrical’ is used in the literature to refer both to patterns arising in poetry, as well as in language generally. To clarify the distinction, we reserve metrical for poetic purposes and phonological or grammatical for the general language
• Example-lines are followed by an (X,Y) schema, where X=song number, Y=line number
• PZ where P=position and Z=1-15, refers to the metrical position, e.g. P8 = position 8
• The lines quoted, along with IPA transcription and translation, are in the APPENDIX

Prototypical 15σ-Pattern
• two half-lines/hemistichs (8+7), with iambic alternation of phonological and metrical stresses as 2-4-6-8 / 10-12-14
  e.g. Το Σούλι κι αν προσκύνησε, κι αν τούρκεψε νη Κίάφα (8.8)
  2 4 6 8 10 12 14
• however, in practice, very few examples match every strong metrical position with a phonological stress
  βαρεί δεξιά, βαρεί ξερβιά, βαρεί μπροστά και πίσω (56.16)
  2 4 6 8 10 12 14

Our working assumption
• is conservative in the sense that, unlike e.g. Golston (1998), we do not assume that the correspondence between metrical positions and phonol. stresses is strictly 1-to-1, thus producing a vast number of possible variations. Instead, we assume that a 15σ consists of 7 strong metrical positions and speakers provide all of them, even if not all of them correspond to a phonol. stress
  e.g. Ταηδό δό δό δόνια της Ανατολής λής λής λής και τα πουλιά λιά λιά λιά της Δύ Δύ Δύ Δύσης (1.1)
  2 4 6 8 10 12 14
• is liberal in the sense that, unlike most other researchers, e.g. Spatalas (1960) or the teachings at school, we take into consideration a wider variety of possible scansion beyond the prototypical one, in an effort to capture a more accurate picture of what speakers understand and perform as 15σ, hence variations such as 2-4-5-8 or 1-4-6-8 are also admitted, when motivated by the location of phonological stress.

In practice
• Our scansion proceeded as follows, for each line, we:

1 It is not clear to us at present, whether the meter requires those 7 strong positions to be there even when they’re not, or if it’s that poets/speakers merely provide them.
defined phonol. stresses as those of words, including functional words with two or more syllables, e.g. ἀπό (from), ὅπως (where) etc.
considered monosyllables as carrying phonol. stress only if this is lexical, e.g. γῆ 'earth'
marked the position of phonol. stresses relative to syllable counting (e.g.: 2-4-8-10-14);
listed the possible performances of the line, e.g. a single line could allow both 2-4-6-8 as well as 1-4-6-8

2. Analysis

2.1 Patterns

1st half-line

(1) **Attested vs. (Some of the) Unattested patterns in Hem.A.**

[Table:]

<table>
<thead>
<tr>
<th>Attested</th>
<th>Instances in corpus</th>
<th>Foot Pattern</th>
<th>Unattested</th>
<th>Foot Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. 2-4-6-8</td>
<td>756</td>
<td>III</td>
<td>*2-4-5-7</td>
<td>IITI</td>
</tr>
<tr>
<td>ii. 1-4-6-8</td>
<td>261</td>
<td>TIII</td>
<td>*2-4-6-7</td>
<td>IITI</td>
</tr>
<tr>
<td>iii. 2-3-6-8</td>
<td>15</td>
<td>ITII</td>
<td>*1-2-5-8</td>
<td>UTTI</td>
</tr>
<tr>
<td>iv. 1-3-6-8</td>
<td>11</td>
<td>TTTI</td>
<td>*2-5-6-8</td>
<td>IRTU</td>
</tr>
<tr>
<td>v. 1-4-5-8</td>
<td>5</td>
<td>TTTI</td>
<td>*3-4-6-8</td>
<td>RTTU</td>
</tr>
<tr>
<td>vi. 2-4-5-8</td>
<td>4</td>
<td>TTTI</td>
<td>*2-3-5-8</td>
<td>ITTI ???</td>
</tr>
<tr>
<td>vii. 1-3-5-8</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 1. Metrical Patterns for Hem.A
• Most common of all: 2 – 4 – 6 – 8, followed by 1 – 4 – 6 – 8 by large margin. All other patterns are quite peripheral.

• 1 – 3 – 6 – 8 is reported in Spatalas (1960) as the most common inversion, but our data do not support this.

Main idea: The well-formedness or not of the first half-line, depends on:
  o whether the number of metrical feet within the half-line is exactly 4 or not
  o the foot type (trochee/iamb) and its position within the half-line
  o whether feet are binary or not

Generalizations
• The half-line consists of 4 iambic feet.
• Inversions, i.e. trochees, are better admitted the closest to the L-edge they are. Trochees at the R-edge are banned, hence any pattern that has *7 – 8 is ungrammatical.

• III > TII > ITII, TTTI > TITI, ITTI, TTTI
• Inversions can (but *don’t* have to) be repaired through destressing and shift of stress [N.B: the de-stressed position is underlined and the position with stress shift is capitalized]
  o Leftward shift allowed in:
    \[\Sigmaώπασε \, Κυρά \, Δέσποινα \,(2.17)\]
    \[\begin{array}{cccc}
    1 & 4\Rightarrow 5 & 6 & 8 \\
    \end{array}\]
    But not in: *Καλά \, τρώμε \, και \, πίνουμε \,(29.7)
    \[\begin{array}{cccc}
    1 & 4\Rightarrow 5 & 6 & 8 \\
    \end{array}\]
  o Rightward shift also allowed, as in:
    \[\text{καλά \, τρώΜΕ \, και \, πίνομε \,(29.7) \, or \, χωρίς \, ύΠΝΟ \, στό \, μάτι \,(66.7)\]
    \[\begin{array}{cccc}
    2 & 3\Rightarrow 4 & 6 & 8 \\
    \end{array}\]
• Upshot:Destressing and stress shift is regulated by iambic rhythm, thus shifts from odd-numbered to even-numbered positions occurs, but not vice versa.

• Even so, such adjustment is not necessary and in some cases it feels weird or even impossible, cf.
  */??Σώπασε κυρά Δέσποινα \,(2.17) [*/??sopáse ciɾá ðéspina] ‘hush lady Despoina’

Understanding the Unattested Patterns
• All of the unattested patterns above involve at least one of the following factors: a trochee on the last foot, a unary or a ternary foot. Note that patterns 2 – 5 – 6 – 8 and 3 – 4 – 6 – 8 could alternatively be analysed with an initial extrametrical syllable and then binary feet; it can be equally assumed that Initial-Extrametricality is impossible.

• These generalizations are easier to draw if one assumes that there is some level of abstractness/template (contra Golston 1998, Fabb & Halle 2008, but in line with Hayes 1988, 2011, etc.) that speakers match the metrical positions to, rather than multiple individual instantiations of the lines (see Appendix).

• *2 – 3 – 5 – 8 is puzzling, because it is predicted that it should be rare (cf. 1v - vii), but possible
  e.g. *Καλό \, δώμα \, πήρε \, η \, μικρή \, /... \, ‘The small girl got a nice room’
  o This could be an accidental gap. We’ll postpone any firm conclusions about it, until further songs are scanned. However...
  o It could be hypothesized that *2 – 3 – 5 – 8 is banned because it has too many inversions that lack reference to the L-edge of the lines: on P3←4 and P5←6
We suggest that processing of a DPS line requires combined reference to the L-edge and a limit to the number of inversions, otherwise the half-line is too complex:

- e.g. 1-3-5-8 is fine because, although seemingly more complex than 2-3-5-8, it has a series of inversions starting from the L-edge
- equally, 2-3-6-8 is not too complex, because the inversion, though it doesn’t start from the L-edge, is just one

An alternative (that is insufficient): clashes and lapses

- Considerations with respect to lapses and clashes
  - 2-4-6-8: entirely rhythmic
  - 1-4-6-8: lapse near L-edge
  - 2-3-6-8: clash near L-edge & lapse in the middle
  - 1-3-6-8: lapse in the middle
  - 1-4-5-8: lapse near L- and R-edge & clash in the middle
    - This pattern only appears with formulaic expressions, e.g. σκάψτε πλατιά, σκάψτε βαθιά ‘dig wide, dig deep’ (9B.14)
  - 2-4-5-8: clash in the middle & lapse near the R-edge
  - 1-3-5-8: lapse near R-edge

- Lapses are better tolerated compared to clashes
- Lapses closest to L-edge are better tolerated; lapses near the R-edge are strongly avoided (cf. 5-8)
- The only clashes permitted are 2-3 and 4-5. While the lack of *6-7 or *7-8 can be attributed to the need of position 7 to always be a metrical trough, the lack of *1-2 and *5-6 remains unexplained
- Forms that produce both a clash and a lapse are generally worse
- Potential inconsistency: if all the above hold, then why is 2-3-6-8 > 1-3-6-8 and 2-4-5-8 > 1-3-5-8 (although, admittedly, marginally so)?
  - Role of rhythm/footing: 2-3-6-8 has single inversion (P3←4), i.e. one trochee, unlike 1-3-6-8 which has two (P1←2, P3←4). Similarly for the other pair. In fact, 1-3-5-8, although it has just one lapse, it’s the least preferred pattern of all, since it involves three inversions/trochees, i.e. P1←2, P3←4, P5←6
    - Thus, rhythm is indispensable. Reference to clashes/lapses is however not
    - The surfacing of certain preferences for lapses and clashes is a by-product of the foot and phrase structure of 15σ

2nd Half-line

- Presents much less variation than the 1st half-line
- The overall picture is the same, i.e. III > TII > TTI, ITI
2.2 Phonological Phrasing and the R-edge

A two-part generalization on positions 6 – 8 and 13 – 14 – 15

- Position 7 must always be unstressed
- Both P6 and P8 must always coincide with either a phonological or a metrical stress
  - metrical stress as it may arise in
    - a clitic
    - an article
    - a polysyllable. Specifically, on P6 when final syllable (P8) is phonologically stressed (e.g. οὐρανοῦ [ουραν] ‘sky-GEN-SING’ (2.8)) or on P8 when the antepenult (P6) is phonologically stressed (e.g. ταράχτηκε [ταράτ] ‘got upset’ (2.16))
- This condition is slightly less strict in P6:
  - In less than 3% of the corpus, P6 is unstressed, and a phonological stress appears to be matched to P5:
    e.g. Α θέλετε χίλια φλορία και χίλιους μαχαντιέδες (11.34)
  - It should be noted, however, that speakers show preference for destressing or even shifting the stress on position 6.
- P6 and 8 are strictly patterned: in 97% of the corpus, they exhibit alternation between metrical and phonological stress. In a limited number of lines both P6 and 8 carry phonol. stress, as below:

(2) a. Μουχάτη Παλάκα (5.13)  b. ταλαφρά σπαθίδα (11.14)  c. εφτά μεράν ζωή (11.35)

- This, however, only occurs in formulaic expressions, involving recurring two-part names, as in (2a), and adjective-noun couples, as in (2b)
(2c) is the one of the two examples found in the corpus of a more complex configuration, displaying PP and Noun; it is however possible that they can be restructured in a single phonological phrase

- Conditions are even stronger for positions 13 – 14 – 15:
  - P14 must always coincide with a phonological stress
  - P13 – 14 – 15 must always coincide with a W – S – W sequence
  - No clashes are ever allowed at R edge of the 2nd half-line

Alignment with φ-boundaries explains most R-edge features
- In fact, these potential exceptions provide an explanation for these R edge features, firmly holding for each DPS line
- R-edge of each half-line coincides with a Right φ-boundary
- However, the L boundary of the same φ is banned from P6-8 and P13-15
  - In other words, no φ-break can ever occur after P6 for the 1st half-line, and P13 for the 2nd half-line.
- This also explains the exception noted above:
  - All formulaic expressions normally consist of a single φ
  - The exception PP-Noun in (2.c) can be thought of as a single restructured φ.
- Therefore, the stress alternation on P 6-8 is predictable on the grounds of prosody, allowing for the following patterns
  - 1) P6 has phonol. stress, P8 carries metrical stress
  - 2) P6 has metrical stress, P8 carries phonol.
    ▪ we assume that phonol. stress is stronger than metrical stress
  - 3) Both P6 and P8 carry phonol. stress with the strongest at the φ level corresponding to P8
- Since P14 is always the head of φ, it falls out that P13-15 present a stricter configuration

2.3 On Half-lines

The half-line as a unit in DPS
- The φ-break separating P8 and P9 requires pausing in performance
- The two half lines don’t interact as far as rhythm is concerned, i.e. it is not the case that the structure of one half-line regulates the structure of the other
- Inversions/trochees are allowed in either hemistich or in both, e.g. 63.11, 66.A7, 149.7
- Clashes across half-lines (between P8 & P9) are routinely allowed, but within half-lines they are rare and present positional restrictions
- Synaloepha (the metrical convention enabling two adjacent vowels to count as one single metrical P though belonging to different syllables/words/phrases) never applies across half-lines

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1 We haven’t found so far a phenomenon that unambiguously requires reference to the line, but we still consider it a constituent, since 15σ is necessarily made of 8+7σ half-lines (never the other way round as possibly expected, if those were totally independent), plus the line as a constituent fits better with the idea of saliency developed below.
A possible superficial asymmetry?

Half-line A: 8σ; Half-line B: 7σ → asymmetric? Maybe not...

We tentatively argue in favour of binary overlapping/intersecting feet, which look like amphibrachs, thus combining insights by Hyde (2002) and Halle & Vergnaud (1987), respectively.

A possible counterexample is the line 2.7: Να μπου νε 'ς το χερουβικό, και να βγάλει ο βασιλέας, where the scansion 10→12 suggests that the phon. stress con 'τι' moves to 'ντ', i.e. a 10→11 shift.

In our approach so far, we have suggested that Half-line A = 4 feet, Half-line B = 3 feet, but there's also P15 that is never stressed.

Many accounts would treat P15 as extrametrical, i.e. (F)(F)(F)(F) ‖ (F)(F)(F)<σ>

He allows for intersecting feet and uses them for ternary systems, e.g. intersecting iambs below.

We suggest that a 15σ line is footed with a final sequence of intersecting iambs&trochee (σ(σ́)σ)

Footing in 15σ: focus on P13-15; stress marks only indicated for invariant P8 and P14 positions

A ternary amphibrach: (σσ)(σσ)(σσ)(σσ́) ‖ (σσ)(σσ)(σ(σ́)σ)

A welcome result: since P14 is represented as a double-head, it can be argued that this is the strongest position in the line.

The constellation of special properties on P14 (double head, intersecting foot, final trochee) may also serve as a cue for the reader/performer, who needs to know when the line has ended.

This idea is compatible with Golston (1998: 733): “calexis makes a line more salient through the intersecting foot.”

In the present case, saliency is achieved through the intersecting foot.

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We tentatively argue in favour of binary overlapping/intersecting feet, which look like amphibrachs, thus combining insights by Hyde (2002) and Halle & Vergnaud (1987), respectively.
• If that’s correct, then the half-lines in 15σ are only superficially asymmetrical (8P+7P), but truly symmetrical as $4F+4F$

3. Discussion & Conclusions

Major points of the talk

• 15σ structure is regulated by two major components: (a) phonological phrasing at the end of half-lines, (b) rhythm/foot pattern
• While phrasing is very strict at half-line endings, rhythm allows more variation
• Metrical inversions are positionally restricted
• The footing of the last three positions in the line into two feet is an adaptation of the amphibrach in Halle & Vergnaud (1987) and intersecting feet of Hyde (2002)
• Various asymmetries, some of which prove to be only apparent

Symmetries and asymmetries

• The relation between symmetry and asymmetry plays a crucial role in determining the form of DPS
• The 1st and 2nd half-line are asymmetric in some ways ($\S 2.3$), but superficially so in others
  o an asymmetric symmetry: same number of feet (symmetry) in half-lines of different length (asymmetric)
  o a symmetric asymmetry: P6-8 present a SWS pattern, whereas P13-15 a WSW one (asymmetry) located in the same position (symmetric), i.e. in the last three syllables of each half-line
• L- and R-edge behave asymmetrically
  o L-edge is loose; R-edge is strict (cf. Golston 1998)
  o Inversion is regulated with respect to the L-edge
  o But phrasing with respect to the R-edge

Challenges and Future Directions

• Based on the data of DPS, we suggest that prosodic phrasing is another component of meter – missing from other analyses, e.g. Kiparsky (2006) – that needs to be taken into consideration
• Hanson & Kiparsky’s (1996: 294) parameter FIT seems well-suited to explain the P6-8 facts of DPS, through, e.g. the 3-syllable window effect
  o «FIT: Languages select meters in which their entire vocabularies are usable in the greatest variety of ways»
• But, an extension of this idea as in “meter is language imitating itself” (Hanson & Kiparsky 1996: 325), seems to be contradicted by some of the DPS facts. For example,
  o 1) Why does DPS make use of a periodic meter, when MG has been argued not to have secondary stress? (other than under enclitic stress, that is, cf. Arvaniti 1994)
  o 2) Why does DPS avoid (half-line-internal) clashes, when MG tolerates them? (Revithiadou, p.c., but see Arvaniti 2000 on lengthening of the first vowel in a clash)
• More broadly, why does the Modern Greek major poetic tradition make use of a highly rhythmical kind of verse if the language itself is less rhythmical?
APPENDIX

(PARTIAL) LINES USED IN HANDOUT WITH IPA TRANSCRIPTION AND TRANSLATION

• Το Σούλι κι αν προσκύνησε, κι αν τούρκεψε νη Κιάφα (8.8)
  [to Súli ci an proskínise, ci an túrkepse ni Cáfa]
  'even if Souli bowed, even if Ciafa became turkish'
• βαρεί δεξιά, βαρεί ζερβιά, βαρεί μπροστά και πίσω (56.16)
  [vaɾí deksça, vaɾí zervjá, vaɾí brostá ce píso]
  '(Xronis) hits to the right, hits to the left, hits in front and behind (him)'
• Ταηδόνια της Ανατολής και τα πουλιά της Δύσης (1.1)
  [tajðóɲa tis anatolís ce ta puʎá tiz dísis]
  'the nightingales of east and the birds of the west'
• Σώπασε κυρά Δέσποινα, και μη πολυδακρύζης (2.17)
  [sópase ciɾá ðéspina ce mi poliðakrízis]
  'hush lady Despoina and don’t cry so much'
• καλά τρώμε και πίνουμε και λιανοτραγουδάμε (29.7)
  [kalá tɾóme ce pínume ce ʎanotɾaɣuðáme]
  'we eat and drink well and we sing little songs/couplets'
• χωρίς ψωμί, χωρίς νερό, χωρίς ύπνο στο μάτι (66.Β7)
  [xoɾís psomí, xoɾís neɾó, xoɾís ípno sto máti]
  'without bread, without water, without sleep'
• σκάψτε πλατιά, σκάψτε βαθιά (9B.14)
  [skápste platçá, skápste vaθçá]
  'dig wide, dig deep'
• Να μπούνε 'ς το χερουβικό, και να βγή ο βασιλέας (2.7)
  [na búne sto çeɾúviko ce ná vʝi o vasiléas]
  'so that they enter the heruviko (a type of hymn) and the king comes out’
• Α θέλετε χίλια φλοριά και χίλιους μαχμουτιέδες (11.34)
  [a ðélete çíʎa floɾʝá ce çíʎus maxmutiéðes]
  '(that?) you want 1000 coins and a 1000 maxmutiedes (type of coin)'
• Μουχτάρ Πασάς (5.13)
  [Muxtáɾ Pasás]
  'Muhtar Pasha'
• ταλαφρά σπαθιά (11.14)
  [talafrá spaθçá]
  'the light swords'
• εφτά μερών ζωή (11.35)
  [eftá meɾón zoí]
  'life of seven days'
(II) OTHER GRAPHS

Fig. 3. Hem. A. Phonological stress patterns [i.e. full match between phon.stress and metrical position]

Fig. 4. Hem. B. Phonological stress patterns [i.e. full match between phon.stress and metrical position]
REFERENCES