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PROSODIC VARIATION DUE TO PHRASING AND SPEECH RATE

This study examines the variability in the intonational structure of utterance-internal intermediate phrases in declarative utterances in Greek. The speech material comprised triads of coordinated proper nouns (N_1+N_2+N_3) in different phrasing conditions, speech rates, using nouns that vary in length and stress position. We investigated the variation in the alignment of H tones and selected features of the L tones that compose the tunes of these phrases. The results showed that in addition to the canonical patterns as described in the literature, there were four recurrent variant patterns, regarding (a) the alignment of H tones, (b) the f_0 interpolation between an L*+H accent and a following L*+H or L* accent, (c) the realisation of the nucleus in utterance-internal intermediate phrases, and (d) the realisation of the melodic pattern in utterance-internal intermediate phrases.

Keywords: prosody, phrasing, speech rate, alignment, Greek

1. INTRODUCTION

Prosodic phrasing is a major organisational aspect of the continuous stream of speech and has been shown to be hierarchical in nature involving higher- vs. lower-level phrases. Several acoustic markers signal prosodic phrases including pitch changes, segmental strengthening and lengthening and presence of pauses. Such acoustic events are influenced by the strength of the boundary with greater preboundary lengthening at higher- than lower-level phrases (Klatt 1975; Wightman et al. 1992 for English; Kainada 2007 for Greek) and differences in pitch accent scaling and alignment (Kainada 2014).

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Moreover, the contribution of acoustic markers in signalling prosodic phrasing has been shown to vary cross-linguistically. For instance, in European Portuguese pitch change and preboundary lengthening, but not pause, are important markers of higher-level boundaries whereas in Dutch, pause is an important marker used by adults to detect boundaries (Sanderman & Collier 1997; Johnson & Seidl 2008). In addition, evidence from cross-linguistic studies has shown that speech rate can also cause changes in these acoustic parameters. For example, at fast rates of production, pitch accents can occur later in relation to the vowel they are associated with (Silverman & Pierrehumbert 1990; Mücke et al. 2006; Prieto & Torreira 2007) and some boundaries may be deleted or reduced in strength (Fougeron & Jun 1998).

The prosodic organization of Greek laid out in GRToBI (Arvaniti & Baltazani 2005) is assumed here, that is, a hierarchical system with three prosodic levels, in descending order: the Intonational Phrase (IP), the intermediate phrase (ip), and the Prosodic word (PrWd). A strong prosodic boundary is present across IPs and boundary strength diminishes for the lower levels. Three types of tones are associated to these levels, (i) pitch accents on the stressed syllable of prominent words, (ii) phrase accents for ips, and (iii) boundary tones for IPs.

The degree of variability in the intonational structure of ips in Greek, especially of those in declarative sentences, has been understudied. Here we aim to examine this type of variability using triads of coordinated proper nouns in different phrasing conditions, that is, $[N_1+N_2+N_3]$, $N_1+[N_2+N_3]$, $[N_1+N_2]+N_3$. In a typical simple broad focus declarative utterance where there is only one ip within the IP, the tune consists of an H* or an H*+L nuclear accent followed by an ip L- phrase accent and an IP L% boundary tone (e.g., Arvaniti et al. 1998; Baltazani & Jun 1999; Baltazani 2002; Arvaniti & Baltazani 2005; Kainada 2014; Lohfink et al. 2019; Stavropoulou & Baltazani 2021), which together will be mentioned as L-L% edge tones henceforth. Words within the ip preceding the nucleus typically carry an L*+H pre-nuclear accent (e.g., Arvaniti et al. 1998; Baltazani 2002; Arvaniti & Baltazani 2005). When more than one ips occur within the IP, sentence-medial phrases are reported to have a different structure from the sentence-final ip, with the latter having an L* nuclear accent and an H- phrase accent at their boundary (Baltazani & Jun 1999; Baltazani 2006; Baltazani & Nicolaidis 2022).

In the structures examined here, phrase-final nouns of an utterance-internal ip (e.g., N_1 in $N_1+[N_2+N_3]$) and phrase-medial nouns (N_2) are expected to be realised with the same sequence of tones, an L followed by an H, but the *alignment* pattern of these tones (i.e., their temporal synchronisation with segmental landmarks such as stressed syllables or phrase edges) and their phonological category, according to the description above, is expected to be different in each case. N_1 is expected to carry an L* nuclear accent, phonetically a low plateau in the stressed

syllable, followed by an H- phrase accent at the ip boundary (Arvaniti et al. 1998; Baltazani & Jun 1999; Arvaniti & Baltazani 2005; Baltazani 2006). On the other hand, N_2 is expected to carry a bitonal prenuclear L*+H accent aligned with the stressed syllable of the word (Arvaniti & Ladd 1995; Arvaniti et al. 1998; Arvaniti & Baltazani 2005), phonetically realised with the L at the very beginning or slightly before the accented syllable consonant, and the H early in the first postaccentual vowel (Figure 1).

This paper is part of a larger study examining the realisation of tones in all three proper nouns as a function of phrasing and speech rate. Following the analysis of the data, we observed variability in the realisation of tones including the presence of some not well-documented melodic patterns. This study reports these less well-known patterns and quantifies selected aspects of the tones across the different phrasing conditions and rates of production (normal vs. fast). The influence of speech rate on these tones is included to study differences in their control under different temporal conditions.

2. METHODS

2.1. Participants and materials

Eight native speakers of Greek (4F, 4M; 28-57 y.) produced three triads of proper names linked with [ce] 'and' differing in the number of syllables and stress position (Table 1), to control for (i) inter-stress distance, and (ii) the distance of stress from the word boundary. In this paper we only address results concerning (ii).

Triad	Number of syllables	Stress
[ˈmina ceˈnina ceˈlina]	2	penultimate
[maˈrina ce meˈlina ce maˈnina]	3	penultimate
[ˈelena ce ˈartemi ceˈlaura]	3	antepenultimate

Table 1. Experimental sentences

Each triad was produced in three phrasing conditions: A. [N_1+N_2+N_3], where N_1 and N_2 are in phrase-medial position; B. N_1+[N_2+N_3], where N_1 is in phrase-final and N_2 in phrase-medial position; C. [N_1+N_2]+N_3, where N_1 is in phrase-medial and N_2 in phrase-final position. Note that in this paper we examine the effects of phrasing on the intonational realisation of N_1 and N_2 only, not of N_3. As mentioned above, in Greek, phrase medial nouns in the prenuclear stretch of an utterance (i.e., N_1 and N_2 in phrasing A, N_2 in phrasing B and N_1 in phrasing C) are expected to carry an L*+H pre-nuclear pitch accent (Arvaniti & Baltazani 2005), while ip

phrase-final nouns (i.e., N_1 in B and N_2 in C) are expected to carry an L* nuclear pitch accent (NPA) followed by an H- phrase accent to mark the right boundary of an ip. The differences between these tonal events are expected to be revealed through differences in scaling and alignment.

A total of 432 experimental sentences were produced in three repetitions and two speech rates (normal vs. fast). The phrases were presented to the speakers in written form with brackets indicating the three different phrasings (A, B, C) in random order.

Recordings were carried out in a sound-treated studio with a Røde NT1-A cardioid condenser microphone. We segmented and annotated all material in Praat (Boersma & Weenink 2018, Figure 1). The f_0 peak (H) and trough (L) in N_1 and N_2 were annotated (p1, p2 and l1, l2) and the f_0 alignment of p1 and p2 were expressed as the distance of p1 and p2 from the word end: p1D, p2D[3]. As discussed above, peak alignment in N_1 and N_2 was expected to be different in the phrase-medial and phrase-final conditions. To ensure comparability across disyllabic and trisyllabic words with varying stress positions, we used the word's end as the reference for both tonal categories, to accommodate the H wherever it occurred. The L tone alignment was measured as the distance of l1 and l2 from the stressed syllable's consonant. Additionally, for clarity, we report the association results for the L and H tones with the segmental material separately by stress condition in Figures 9, 10 and Table 2.

Following the initial examination of the utterances, two further annotations were added to investigate intonational variability. (A): While in most tokens f_0 was high at the end of N_1 and N_2, in some tokens it dropped or remained flat. In such tokens, the end of each noun was marked v1e and v2e respectively, to compare in scaling to the preceding H, characterise the f_0 movement as a fall or a plateau, and investigate under what conditions these patterns occurred. In this paper, a qualitative presentation of these patterns will be provided. (B): An L elbow was observed between the L* and H- tones in utterance-internal phrase-final nouns and marked l1e for N_1 and l2e for N_2 (Figures 2, 3, shown as "Elb" in the figures for clarity). The alignment and distance from the end of the word of these l1e and l2e elbows were examined.

Mixed model ANOVAs were carried out with p1D, p2D as dependent variables. Independent variables were phrasing (A, B, C), speech rate (normal, fast) as fixed factors, and speaker (1-8) as random factor.

[3] We agree with the suggestion of an anonymous reviewer that an alternative curve modelling analysis (e.g., Lohfink et al. 2019; Gryllia et al. 2022) could be applied to the data. As explained in 2.1, the aim of this paper is to give a first, qualitative presentation of unexpected melodic patterns discovered in our data that are not well-documented.

3. RESULTS

In 3.1. we present examples of the patterns described in the literature for N_1 and N_2, and in 3.2. the variability we uncovered in the f_0 patterns of the ips.

3.1. f_0 patterns as described in the literature

Figures 1-3 present sample utterances with typical f_0 patterns in the three bracketing conditions. In Figure 1, the utterance [maˈrina ce meˈlina ce maˈnina] comprises one intermediate phrase within the IP [N_1+N_2+N_3], where N_1 and N_2 carry an L*+H prenuclear accent each.

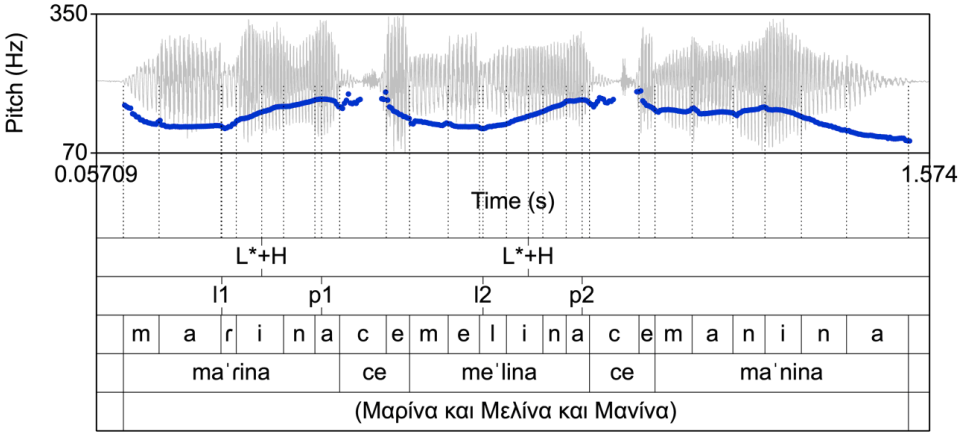

Figure 1. Example of typical prenuclear L*+H f_0 patterns in the [N_1+N_2+N_3] phrasing condition for N_1 and N_2, speaker TG (henceforth: p1, p2 = f_0 peak (H) and l1, l2 = f_0 trough (L) for each noun).

Figure 2 shows the same utterance in the phrasing condition N_1+[N_2+N_3] where the first noun forms a separate, utterance-medial ip with an L* nuclear accent and an H- phrase accent, as expected, and where N_2 is in prenuclear position in the second ip carrying an L*+H prenuclear accent.

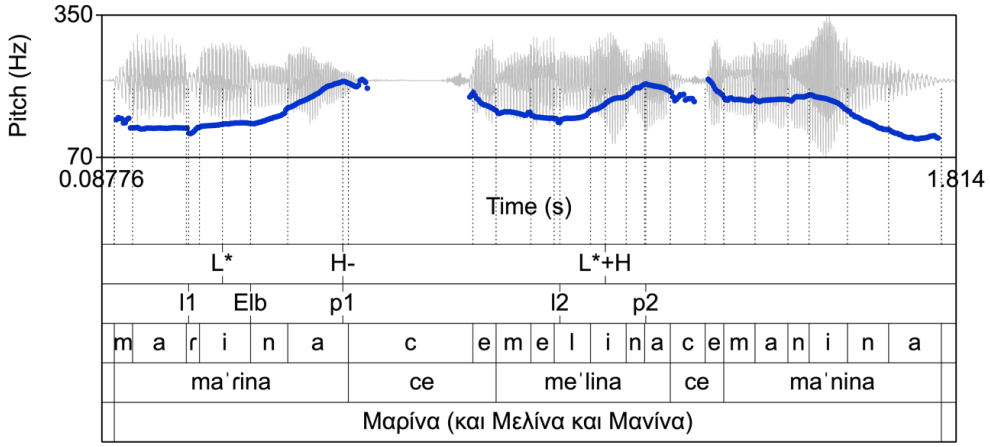

Figure 2. Example of typical f_0 patterns in the N_1+[N_2+N_3] phrasing condition; speaker TG (Elb = L elbow; see 3.2. for details[4]).

Finally, in the phrasing [N_1+N_2]+N_3 (Figure 3), N_1 and N_2 form a separate utterance-internal ip. N_1 is in prenuclear position, carrying an L*+H prenuclear accent, and N_2 is in nuclear position, with an L* nuclear accent followed by an H- phrase accent.

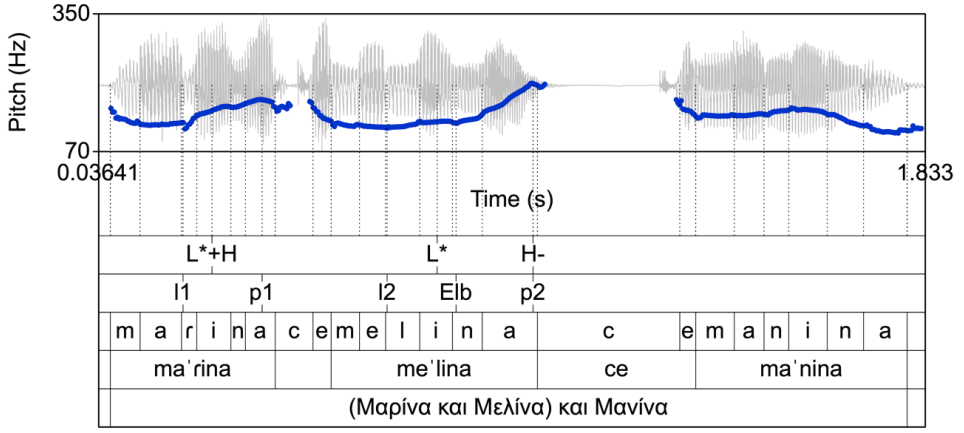

Figure 3. Example of typical f_0 patterns in the [N_1+N_2]+N_3 phrasing condition; speaker TG (Elb = L elbow; see 3.2 for details).

[4] Note on segmentation: the [c] interval may contain the segment [c] and a pause in phrasings with an utterance-medial ip, see e.g. Figures 2 and 3.

While these patterns were present in most tokens in the three phrasing conditions, there were also some systematically different melodic patterns observed, discussed below.

3.2. Variability in f_0 patterns

There were four further patterns relating to the L and H tones in these utterances, which although not as frequent as the canonical ones, were nonetheless recurrent. The first one concerns H alignment; the second the interpolation between an L*+H accent and a following L*+H or L* accent; the third the realisation of the nucleus in utterance-internal ips, and the fourth the elbow we observed in utterance-internal phrase-final nouns.

Figure 4 illustrates the first two patterns. Starting with H alignment, we exemplify the different realisation in the [N_1+N_2+N_3] phrasing condition. In this pattern, the H peak of the L*+H accent in N_1 (indicated in the figure with a blue arrow) is phonetically realized not within the postaccentual vowel (as in Figure 1) but earlier. In this example it occurs within the stressed vowel, but in other tokens it ranged between the stressed and the final vowel (cf. Lohfink *et al*. 2019 for variability and overlap between categories of nuclear accents in Greek). This pattern was found in all three triads, regardless of word length or stress position, with greater variability in the docking site of the H peak in the triad with antepenultimate stress (see Baltazani & Nicolaidis (forthcoming) for details on all three triads).

Pattern 2, the interpolation between a prenuclear L*+H accent and a following L*+H or L* accent, is illustrated in Figures 4 and 5. In Figure 4, the interpolation between the early H peak in N_1 and the following accent results in a falling contour (shown with a red arrow). In Figure 5, there is canonical alignment of the L*+H peak on the postaccentual vowel in both nouns in the utterance [ˈelena ce ˈartemi ce ˈlaura], but the interpolation between the peak and the following accent forms a slightly falling plateau (indicated by red arrows). Quantitative results of this pattern are not presented here for lack of space but will be presented in a future paper.

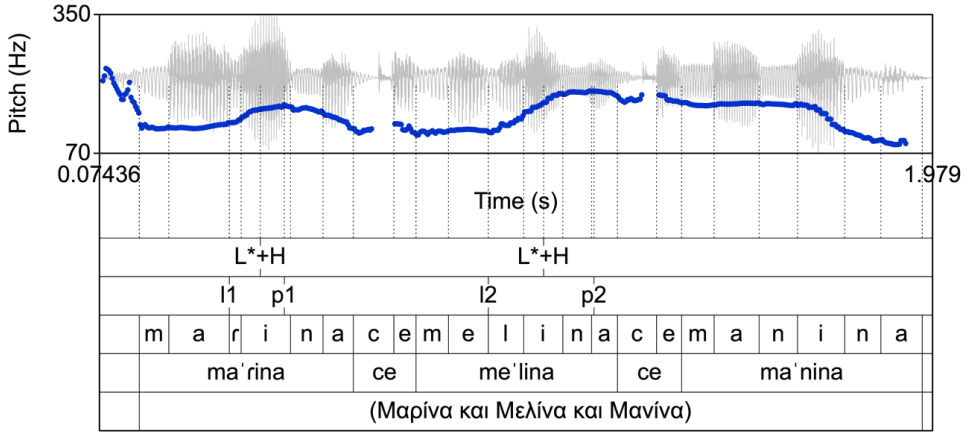

Figure 4. Example of a non-typical f_0 H alignment in L*+H (blue arrow) and of falling interpolation (red arrow) for N_1 in the [N_1+N_2+N_3] phrasing condition (speaker AT).

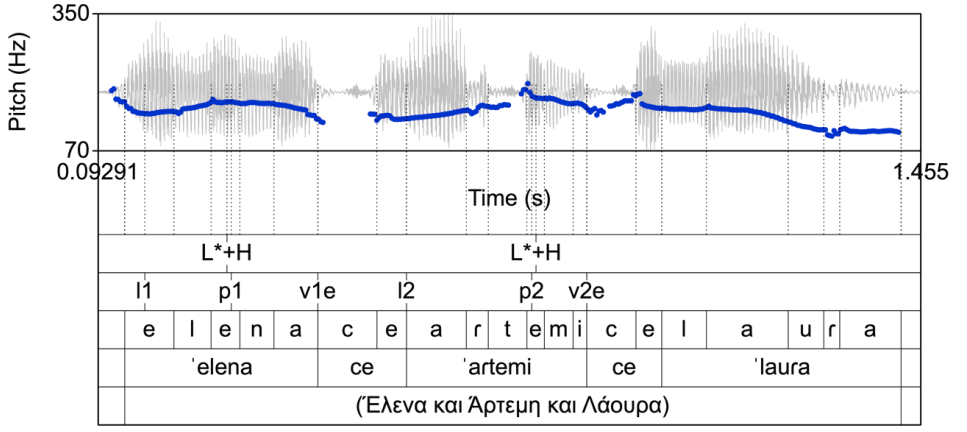

Figure 5. Example of non-typical f_0 pattern of falling interpolation (red arrows) for N_1 and N_2 in the [N_1+N_2+N_3] phrasing condition (speaker TG).

The third pattern occurred in phrase-final nouns in utterance-medial ips, which end in a continuation rise marked by an H-. However, contrary to reports in the literature of an L* nuclear accent, we found variability in the nuclear accent in phrase-final nouns between L*, as previously reported, (N_1 in Figure 2, N_2 in Figure 3) and L*+H (N_1 in figure 6a (top) and N_2 in Figure 6b (bottom)). The L*+H in nuclear position has been reported in wh-questions, calls, imperatives and negative declaratives (Arvaniti & Baltazani 2005 and references therein). In our

data, about a quarter of the phrase-final nouns (either N_1 or N_2) carry an L*+H nuclear accent aligned in the stressed syllable, followed by an H- phrase accent at the phrase edge. As can be seen for these nouns with an L*+H nuclear accent, the rise in f_0 starts from the consonant of the stressed syllable, i.e. /r/ in /maˈrina/ and /l/ in /meˈlina/.

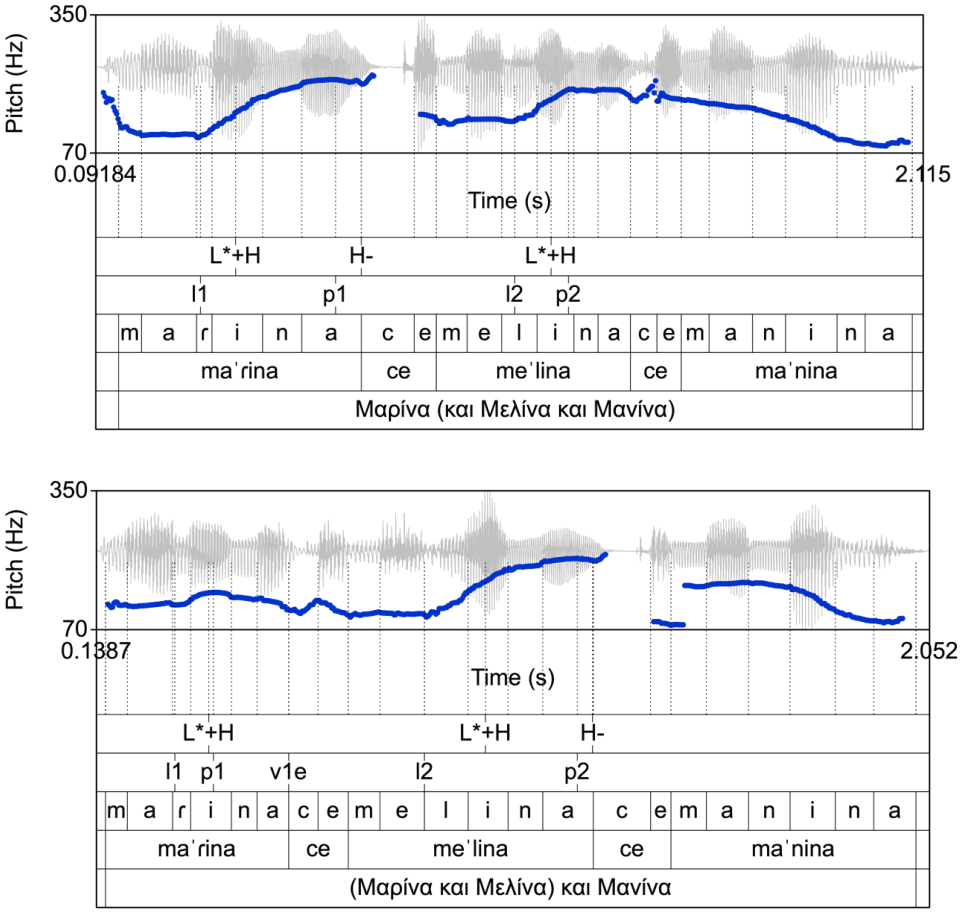

Figure 6a, b. Examples of a non-typical L*+H nuclear accent in N_1 in the N_1[+N_2+N_3] (top) and N_2 in the [N_1+N_2]+N_3 (bottom) phrasing condition (speaker AT).

A fourth pattern was found in three quarters of phrase-final nouns in utterance-medial ips, which were produced with an L* nuclear accent. In these tokens, f_0 forms an L elbow between the L* and the H- (see 3.3. for quantitative details; cf. description of elbows in polar questions in Arvaniti et al. 2006). In Figure

7 below, f_0 forms a trough L during the stressed vowel /a/ in N_2 [ˈartemi], remains low for several segments after that and starts to rise during the consonant /m/ of the final syllable (indicated as “Elb” in Figure 7; see also the point marked “Elb” in Figures 2 (N_1) and 3 (N_2)).

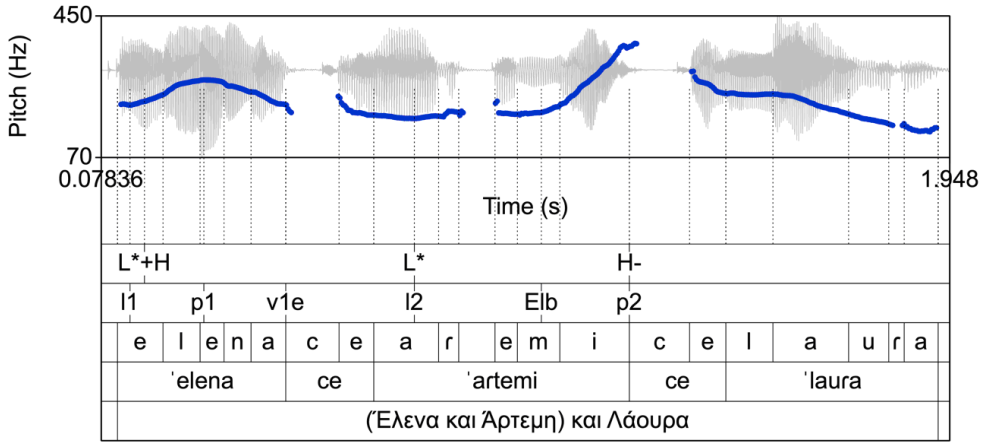

Figure 7. Example of an L elbow in N_2 in the $[N_1+N_2]+N_3$ phrasing condition (speaker AN).

Inter-speaker differences were observed in the realisation of the melodic patterns described above, in terms of individual strategies in production and of the frequency of occurrence of the different patterns. Quantitative details of speaker variation are not provided due to space limitations but quantitative information about the structure of the patterns exemplified here are given in 3.3.

3.3. Quantitative results of variability

Figure 8 displays the alignment of the H tone in N_1 and N_2, measured as the temporal distance of the peak, p1 and p2, from the end of the word (p1D, p2D). For both nouns, this distance is the smallest when they are phrase-final (i.e., N_1 in $N_1+[N_2+N_3]$ and N_2 in $[N_1+N_2]+N_3$, since the H is a phrase accent aligned at the phrase edge. For p1D, alignment differs significantly due to phrasing ($F(2, 415) = 29.32$, $p < 0.001$) and rate of speech ($F(1, 415) = 6.14$, $p = 0.014$). In the fast speech rate of production, the temporal differences are smaller. Post-hoc tests showed a reduction in p1D in the order of $[N_1+N_2]+N_3$ (mean: 0.102) > $[N_1+N_2+N_3]$ (mean: 0.070) > $N_1+[N_2+N_3]$(mean: 0.026) in comfortable rate and $[N_1+N_2]+N_3$ (mean: 0.069) = $[N_1+N_2+N_3]$ (mean: 0.057) > $N_1+[N_2+N_3]$ (mean: 0.023) in fast rate. For p2D, alignment also differs significantly due to phrasing ($F(2, 415) = 15.77$, $p < 0.001$) but no significant differences due to rate were found. Post-hoc tests for the phrasing main effect showed no significant differences between $N_1+[N_2+N_3]$

(mean: 0.052) and [N_1+N_2+N_3] (mean: 0.044) but significantly smaller distance for [N_1+N_2]+N_3 (mean: 0.027). For both N_1 and N_2, the means clearly show smaller temporal distances of the H when phrase-final and larger in the other phrasings, suggesting earlier H location. The largest difference is noted for p1 in the [N_1+N_2]+N_3 phrasing, especially so in the normal rate, suggesting considerably earlier H alignment than the phrase-final vowel. Recall that this was evident in patterns 1 and 2 described above where earlier alignment was also accompanied by a falling or plateau melodic pattern (Figure 4). Similarly, for N_2 the temporal distances were larger for p2 in the N_1+[N_2+N_3] phrasing condition (albeit not significantly different from [N_1+N_2+N_3]) suggesting earlier alignment of the H in N_2 in these phrasings compared to [N_1+N_2]+N_3 where N_2 is phrase final.

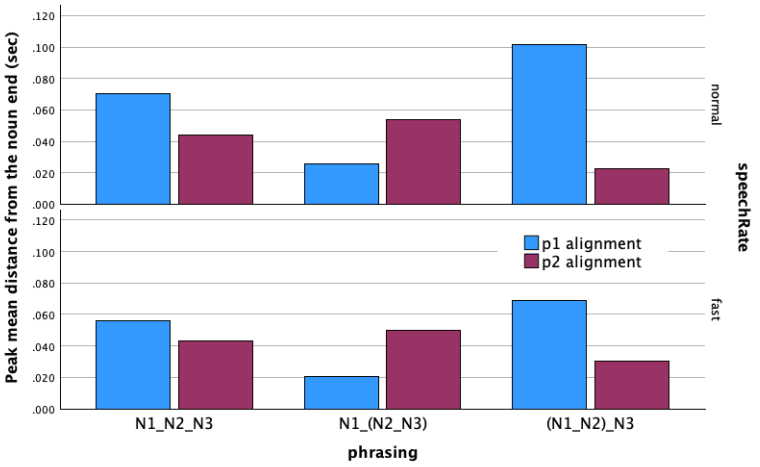

Figure 8. The temporal distance (in sec.) of the peak in N_1 (p1) and N_2 (p2) from the end of the word by phrasing.

Figure 9 presents the distribution of p1 (top) and p2 (bottom) alignment by segment and phrasing condition in the antepenultimate-stress noun triad. The least variability in the peak alignment is found in phrase-final nouns, that is N_1+[N_2+N_3] for p1 (see Figure 2) and [N_1+N_2]+N_3 for p2 (see Figure 3). In this phrase-final position, the H peak represents an H- phrase accent and it aligns with the right edge of the noun, sometimes extending a few ms after the end of the noun. On the other hand, alignment in *phrase-medial* nouns displays the greatest variation: in this position, nouns carry an L*+H prenuclear accent and although the peak is mainly aligned with the C or V of the post-accentual syllable (see Figures 1, 2, 3) its docking site can vary, including occurrence of the peak as early as the initial vowel (Figures 4, 5, 7). We return to this in the discussion. Variability is also evident for the other two noun triads, albeit to a lesser degree (Baltazani & Nicolaidis, forthcoming).

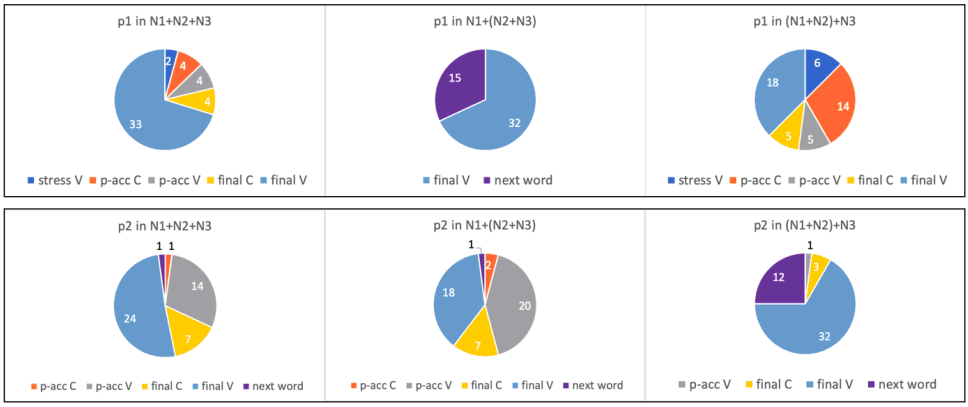

Figure 9. Distribution of the alignment of p1 (top) and p2 (bottom) by segment and phrasing condition for the antepenultimate-stress triad ['elena ce 'artemi ce 'laura].

Finally, Figure 10 shows some details on the presence of the L elbow described in 3.2. Recall that the presence of an L elbow was detected and marked in the first two nouns N_1 and N_2, between the L* and H- tones (see top of Figure 10 for N1 and bottom for N2). As can be seen in the bar charts in Figure 10, the elbow was present mostly in phrase-final nouns, that is, in 108/144 tokens (75%) in the N_1+[N_2+N_3] phrasing for N_1 and in 102/144 tokens (71%) in the [N_1+N_2]+N_3 phrasing for N_2. When present, it aligned mostly in the final syllable, with the most frequent docking site being the consonant of the final syllable (pie charts in Figure 10).

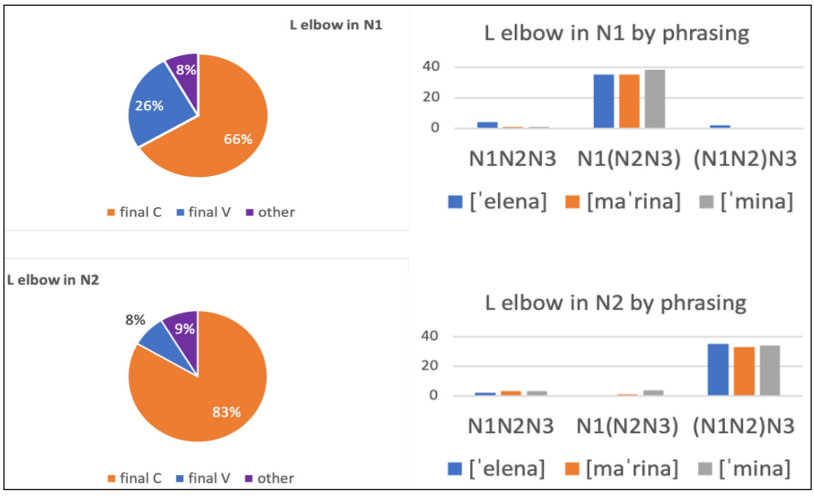

Figure 10. Percentage of occurrence of L elbow on different segments for all noun triads (pie charts); frequency of occurrence of L elbow in N_1 and N_2 in the different phrasing conditions and noun triads (bar charts).

Table 2 shows more details about the docking site of this L elbow in N_1 (top) and N_2 (bottom). In the nouns with penultimate stress (triads 1, 2, middle two columns) an elbow was found most frequently in the consonant of the final syllable, which is also the postaccentual syllable. More interestingly, in the nouns with antepenultimate stress (triad 3 rightmost column) the elbow also occurs most frequently in the consonant of the final syllable rather than the postaccentual syllable. This stability in alignment suggests that this tone is part of the edge tone.

L elbow in N_1	1. [ˈmina ce ˈnina ce ˈlina]	2. [maˈrina ce meˈlina ce maˈnina]	3. [ˈelena ce ˈartemi ce ˈlaura]
stressed C (in 1, 2)	0	1 (2%)	-
stressed V (in 1,2,3)	0	3 (6%)	0
postacc.C (= final C in 1, 2)	**30 (62.5%)**	**18 (38%)**	1 (2%)
postacc.V (= final V in 1, 2)	8 (17%)	13 (27%)	1 (2%)
final C (in 3)	-	-	**25 (52%)**
final V (in 3)	-	-	8 (17%)
no elbow	10 (20.5%)	13 (27%)	13(27%)
Total	48 (100%)	48 (100%)	48 (100%)

L elbow in N_2	1. [ˈmina ce ˈnina ce ˈlina]	2. [maˈrina ce meˈlina ce maˈnina]	3. [ˈelena ce ˈartemi ce ˈlaura]
stressed C (in 1, 2)	0	1 (2%)	-
stressed V (in 1,2,3)	0	2 (4%)	0
postacc. C (= final C in 1, 2)	**31 (64.5%)**	**26 (54%)**	0
postacc.V (= final V in 1, 2)	3 (6.5%)	4 (8.5%)	2 (4%)
final C (in 3)	-	-	**31 (64.5%)**
final V(in 3)	-	-	1 (2%)
no elbow	14(29%)	15(31.5%)	14(29%)
Total	48 (100%)	48 (100%)	48 (100%)[3]

Table 2. Segmental alignment of the L elbow, number of tokens and percentages for N_1 (top) and N_2 (bottom).

4. DISCUSSION

Variability is ubiquitous in speech production including intonation and provides a challenge in relation to its association to invariant phonological

units. This paper presents a qualitative description of different melodic patterns produced in coordinated structures in Greek with an emphasis on variability. Our point of departure was the examination of the prosodic structure of triads of coordinated nouns in three phrasing conditions, $[N_1+N_2+N_3]$, $N_1+[N_2+N_3]$, $[N_1+N_2]+N_3$, but in the process we uncovered a range of variable patterns related to different aspects of this prosodic structure.

Variability was observed in the alignment of the H tone in the bitonal L*+H prenuclear accent on phrase-medial nouns. Although a systematic peak alignment has been reported for this prenuclear accent, occurring in the first postaccentual vowel, our data showed a range of possible docking sites. This peak mainly aligned with the postaccentual vowel, but it also occurred on other earlier segments including the stressed vowel itself. In the latter position, the distribution of this accent overlaps with L+H*, an accent pragmatically linked with emphasis and contrast. However, in our data the nouns were not contrastively rendered, according to our native speaker intuitions, which led us to include the whole range of H alignment in the possible phonetic realizations of the prenuclear L*+H. Such variability in the fine phonetic details in the f_0 alignment of tones, and category overlap, have also been reported for nuclear accents in Greek (Lohfink et al. 2019; Gryllia et al. 2022).

A feature related to the H peak alignment of the L*+H prenuclear accent is interpolation between consecutive accents. Our data displayed various patterns of interpolation, with f_0 rising, falling or forming a plateau between an L*+H and its following accent. Observation of our data suggest that f_0 fell between accents more frequently when the first accent peak aligned earlier and the noun carried antepenultimate stress, but more research is needed before firm conclusions are drawn.

One of the patterns that diverged from the literature reports was related to the nuclear accent of a continuation rise which varied between L* and L*+H. To our knowledge, the latter accent has not been observed so far for continuation rises in Greek, which is reported to have an L* accent. Connected to that, our data also revealed that when L* was used as the nuclear accent in continuation rises, it was typically followed by an elbow before the final rise to an H- phrase accent at the end of an utterance-medial phrase, suggesting it is the reflex of an L tone. This L elbow systematically aligned with the final syllable, most frequently the onset consonant of this syllable, regardless of the position of the stressed syllable. This stability suggests that this elbow forms part of a complex L+H- phrase accent, a type of phrase accent that has been proposed elsewhere for Greek polar questions (Arvaniti et al. 2006). The structure of polar questions, however, has been reported to be composed invariably by an L* nuclear accent followed by an L+H- phrase accent (and an L% boundary tone), while in our data this L* L+H-

structure alternated with an L*+H H- pattern. More research is needed to gain an understanding of the contexts that regulate this alternation and the variability in use among speakers.

There were two more aspects of variability in our corpus. One was speech rate which influenced peak alignment for N_1 only, with overall smaller temporal differences from the end of the word in the fast rate of production. The other was speaker variability. Although there were overall common patterns in our data, there were also differences in the individual strategies adopted. Further research with more data is needed for a more comprehensive understanding of the patterns described in this paper.

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Η ΕΠΙΔΡΑΣΗ ΤΗΣ ΦΡΑΣΕΟΠΟΙΗΣΗΣ ΚΑΙ ΤΗΣ ΤΑΧΥΤΗΤΑΣ ΟΜΙΛΙΑΣ ΣΤΗΝ ΠΡΟΣΩΔΙΑΚΗ ΠΟΙΚΙΛΙΑ

Περίληψη

Η παρούσα μελέτη εξετάζει την ποικιλία στην επιτονική δομή ενδιάμεσων φράσεων. Αναλύθηκαν φράσεις που βρίσκονται σε μη τελική θέση σε καταφατικά εκφωνήματα στα Ελληνικά. Χρησιμοποιήθηκαν τριάδες συντεταγμένων κυρίων ονομάτων (N_1+N_2+N_3) διαφορετικού μήκους και τονισμού. Τα ονόματα κάθε τριάδας ομαδοποιήθηκαν σε φράσεις με τρεις διαφορετικούς τρόπους. Διερευνήσαμε την ποικιλία στην αγκίστρωση των τόνων L and H που συνθέτουν τη μελωδία αυτών των φράσεων. Τα αποτελέσματα έδειξαν ότι εκτός από τα κανονικά μοτίβα, όπως περιγράφονται στη βιβλιογραφία, εμφανίζονται τέσσερα επιπλέον μοτίβα: ποικιλία (α) στην αγκίστρωση των H τόνων, (β) στο σχήμα της θεμελιώδους συχνότητας μεταξύ των επιτόνων, (γ) στην κατηγορία του πυρηνικού τόνου, και (δ) στην πραγμάτωση του μελωδικού μοτίβου ουσιαστικών δίπλα σε φραστικό όριο.

Λέξεις-κλειδιά: προσωδία, φρασεοποίηση, ταχύτητα ομιλίας, αγκίστρωση, Ελληνικά