Vocative intonation in Bulgarian

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The present study investigates the intonation of Bulgarian vocative contours. The materials were ten Bulgarian names 2 to 4 syllables long with stress on the final or the penultimate syllable. The names included mostly sonorants, e.g. Marinela. Data were elicited from 10 female native speakers of Standard Bulgarian.

Following the methodology used for other languages [1, 2], calling contours were elicited using four different contexts within a larger Discourse Completion Task: (1) addressing a person and asking a question (Маринела, къде отиваш? – ‘Marinela, where are you going?’), (2) scolding a person (Маринела, прекаливаш! – ‘Marinela, you are going too far!’), (3) threatening a person (Маринела, внимавай! – ‘Marinela, behave!’), and (4) calling a person’s name to attract their attention (Маринела! – ‘Marinela!’). The speakers produced three tokens of each name in each context.

From a pragmatic and a functional point of view we found four different vocative intonation tunes roughly corresponding to the four contexts above which we distinguish as follows: (1) neutral vocative, (2) insistent vocative, (3) challenging chant, and (4) vocative chant. We analysed the four tunes following the ToBI conventions for Bulgarian which comprise an inventory of pitch accents (L*, L*+H, L+H*, H*, H+!H*), phrase accents (L-, H- and !H-) and boundary tones (%H, L%, H%, !H%).

The pitch accent for the neutral vocative tune is L+H* followed by a low phrase accent at the end of the intermediate phrase boundary (see Figure 1).

The same pitch accent L+H* (with delayed peak) is used in the insistent vocative (see Figure 2), but the nuclear syllable [ˈnɛ] and the final syllable [ir] of the name Marinela in this example are lengthened, and the name is given a separate intonation phrase ending in L%-%. The lengthening which causes the peak delay distinguishes the insistent from the neutral vocative. The phonology of the Bulgarian insistent call thus shares many similarities to the urgent call described for languages like Polish [1], Romanian [3], and German [2].

In the challenging and vocative chants, the final syllable is lengthened, and has increased intensity. The tune of the challenging chant is analyzed as consisting of L* on the lexically stressed syllable [ˈnɛ] and the edge tones H-L%- – a gradual rise whose peak is reached on the last syllable, followed by a fall (see Figure 3).

The tune of the vocative chant is a rising pitch movement followed by a sustained high to mid plateau (see Figure 4). Similar tunes have been attested in many languages [1], and are often characterized by additional prosodic modulations: stress shift, vowel lengthening, vowel insertion, promotion of reduced vowels to full (for an overview see [4]). In Bulgarian, the high target of the pitch accent L+H* is associated with the lexically stressed syllable [ˈnɛ] of Marinela. The final syllable is lengthened, has higher intensity, and an F0 change, and also its vowel does not undergo complete reduction, which contradicts the phonological vowel reduction pattern in Bulgarian [5]. These characteristics of the final syllable make it perceptually prominent. This is why we analyse it as being marked by an additional pitch accent. The high target of the additionally inserted pitch accent on the final syllable is scaled (!H*). The tune ends in a mid plateau (H-%).

If the lexically stressed syllable is the last one in the proper name, then the tune of the vocative chant has to be realized on it. Therefore, the metrical structure is adjusted through the insertion of another syllable and a metrical beat on this additional syllable in the intonation phrase, which enables the realization of the communicatively relevant tune (see Figure 5).
Details of intra- and inter-speaker variation are discussed. This research contributes to the study of Bulgarian vocative intonation, thereby situating it within the intonation system of Contemporary Standard Bulgarian. It also adds to our expanding understanding of vocative intonation gained through analyses conducted in recent years within the Autosegmental-Metrical model of intonational phonology.

Figure 1: Waveform, spectrogram, and F0 contour of the utterance 'Маринела, накъде отиваш?' ('Marinela, which way are you going?'); neutral vocative.

Figure 2: Waveform, spectrogram, and F0 contour of the utterance 'Маринела, прекаливаш!' ('Marinela, you are going too far!'); insistent vocative.

Figure 3: Waveform, spectrogram, and F0 contour of the utterance 'Маринела, внимаай!' ('Marinela, behave!'); challenging chant.

Figure 4: Waveform, spectrogram, and F0 contour of the utterance 'Маринела!' ('Marinela!' - proper name); vocative chant.

Figure 5: Waveform, spectrogram, and F0 contour of the utterance 'Никол!' ('Nikol!' - proper name); vocative chant.

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References: