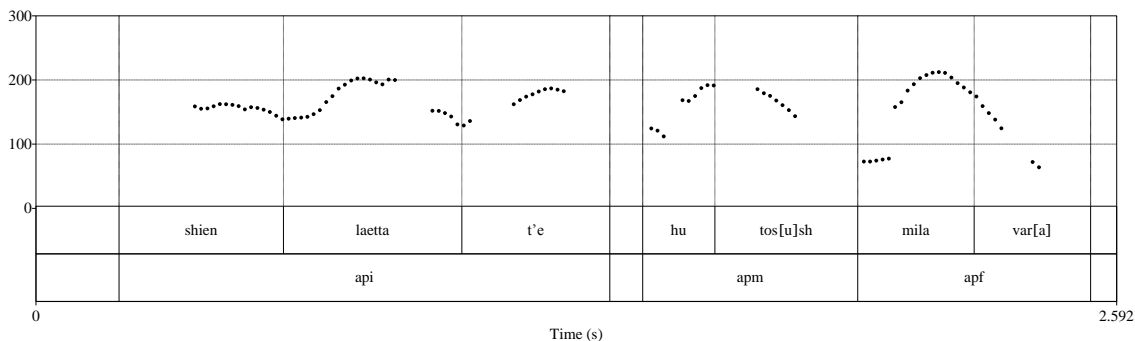# Chechen intonation:

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The meaning of what we say is not only determined by the words we utter and the syntactic construction in which they occur, but also by the intonation we use. This paper reports on the intonation grammar of Chechen, a language belonging to the North-East Caucasian family.

There are a few studies touching upon Chechen tone and intonation. Research on the language's focus system, though mainly concentrating on word-order issues, observed that the demarcation of focused constituents is sometimes accompanied by an intonation pattern (Komen, 2007a). Two phonologically oriented studies have argued for the existence of lexical tone (Komen, 2007b, Nichols, 1997). These studies have not, however, led to a coherent grammar of Chechen tone and intonation, nor have they revealed what—if any—relationship exists between the language's intonation and (pragmatic) meaning. One further caveat is the question whether observed pitch variations are related to lexical tone, to intonation, or to a combination of the two.

The aim of the research described in this paper is to concentrate on one Chechen dialect, derive a grammar of its intonation, show how lexical tone and intonation interact with one another, and find out what role intonation plays in conveying (pragmatic) meaning. In order to reach this goal, the research has focused on Shali-Chechen, one of the main lowland dialects. A database of 236 sentences hosts data from a male speaker of this dialect, recorded during fieldwork from 1993 until 2009. These data, together with those of a female speaker, have been analyzed using the "Praat" program (Boersma and Weenink, 2005).

Example (1) illustrates how a sentence divides into APs. The first AP *shien laetta t'e* 'on his land' illustrates the left L_a boundary tone on *shien*, the H*L pitch accent on *laetta*, and the OCP driven right boundary H_a tone on *t'e*. The second AP combines the left boundary and a H* pitch accent on *hu* 'seed', while *tosush*, where the *u* is elided, receives a right L_a boundary tone. The last AP *mila vara* starts with the left L_a boundary tone and continues to the H* lexical pitch accent of the question word *mila*. The whole sentence is an *ip* ending with the right L_i boundary tone.

(1)   a.   (Shien   laetta   t'e) (hu   tos[u]sh)   (mila   var[a]?)
               L_a H*   L H_a L_aH* L_a L_aH* L_i
           his   land   on   seed   throwing   who   was
           "Who was sowing his land?"

Evaluation of sentences with increasing complexity leads to a grammar describing Chechen pitch variations. The main characteristics of Chechen tone and intonation are as follows.

- Sentences divide into intonation phrases (*ip*) and these divide into accent phrases (AP).

- The *ip* is characterized by an L (low) right boundary tone.

- The AP has the following features: (a) it adheres internally to the Obligatory Contour Principle (Goldsmith, 1979), (b) it has an L left boundary tone, (c) if it contains a word with lexical tone, this has one H* pitch accent—otherwise a default pitch accent (H* or H*L) is assigned to the leftmost accentable syllable in the AP[2], (d) it varies in size from 1-6 syllables.

- Due to the preference for APs to realize boundary tones, there are accent-less APs.

- Lexical tone occurs on certain function words and affixes, such as: question words, the polar question suffix, some of the imperative suffixes, an intensifier clitic, the negative imperative marker and the conjunction clitic.

Differences in mood, such as declarative versus interrogative and imperative, are not due to a difference in intonation patterning, but derive from the presence of lexical tone on the words or suffixes associated with these different moods. Interrogative mood, for instance, always has an AP containing a question word or particle.

Focused constituents distinguish themselves only by their desire to have the focused constituent and the finite verb in one AP. But this AP itself, as well as preceding and following APs, do not differ from the APs found in sentences lacking focus.

To sum up: Chechen intonation does not directly differentiate mood or pragmatics. These only derive through lexical tone and constituent alignment. More research is needed in different Chechen dialects to see whether the same picture holds for the language as a whole. It would also be interesting to see whether other North-East Caucasian languages have similar tone and intonation systems.

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[2] Accentable syllables are from words not belonging to functional categories such as weak pronouns, demonstratives, conjunctions etc (such words are not normally accented in languages like Dutch and English too).