

Low phrase-initial boundary tone in Hungarian exclamatives

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Introduction. The exclamative sentence type is traditionally considered to be one of the five major sentence types in Hungarian. Whereas all traditional descriptions (cf. [6]) agree that the formal feature distinguishing exclamatives from representatives of other sentence types is intonation, no systematic investigation into the phonetic and phonological properties of this (allegedly) formal defining feature has taken place so far. Curiously, exclamatives are also missing from [3]’s systematic description of the prosody of the various sentence types in Hungarian. [5] and [7], investigating the syntactic properties *wh*-exclamatives describe their prosody as consisting of a “high tone followed by a slow descent” and a “stress on the E[xclamative]-phrase and falling intonation following it”, respectively. [8] argues when comparing what he refers to as string-identical *exclamations* and *statements* that the former may be distinguished from the latter on the basis of a widened pitch range.

The prosodic properties of German exclamative sentences were investigated in a series of experiments by Batliner [1, 2]. The perception experiments reported in [1] show that although the rise of the height of the f₀-peak and the movement of the peak out of its neutral position contributes to the relevant sentence being classified an exclamative rather than as a declarative, there is no single prosodic factor that unambiguously marks a sentence as an exclamative that can be assigned to both sentence types on the basis of its constituent structure. [2], comparing verb-initial sentences equally classifiable as interrogatives and exclamatives finds that the probability of the classification of a sentence as an exclamative decreases with the increase of the height of the final rise, and increases with the increase of the range of the initial fall.

In a still ongoing study, we investigate the prosodic properties of *wh*-exclamatives, which [7] considers a genuine subtype of the exclamative sentence type, and whose representatives are string identical to or display a systematic word order difference with respect to their interrogative counterparts. This abstract contains some preliminary results.

Experiment. In the first part of the experiment, segmentally identical forms of *wh*-questions and exclamatives were used. *Wh*-questions have a falling intonation contour in Hungarian, and the nuclear accent is located on the question pronoun which is usually the first accented word of the sentence. One form of exclamatives is segmentally identical with *wh*-questions. E.g. the syntactic form “How slowly was he driving?” can be used as a real question or as an exclamative “How slowly he was driving!” without a change in word order in Hungarian.

Ten sentences were analysed, each representing a construction that has been claimed to be characterisable both as an interrogative and an exclamative. Each target sentence was presented in two contexts consisting of up to three sentences that were only compatible with the former interpreted either as a question or as an exclamation. Results are based on 4 speakers whose realisations were extremely homogenous. Questions were always realised with an H*+L pitch accent followed by deaccented words on which pitch remained low throughout the sentence. On the other hand, exclamatives were always realised with L*+H accents after which pitch was gradually falling towards the end of the sentence but remained higher than in questions. The f₀ maximum in exclamations was higher than in questions (see Fig. 1). In terms of prosody, exclamatives differed from questions in three respects: (1) they were realised with rising rather than falling pitch accents, (2) f₀ maxima were higher, and (3) also utterance-final f₀ was higher than for questions. It seems that while questions end with a low boundary tone, exclamations are unspecified for their phrase-final boundary tone (the existence of 0% boundary tones was suggested by [9] for the calling contour in Hungarian). However, it is not clear how the different pitch accents can be explained.

A second set of data was collected in which target sentences were preceded by typically deaccented interjections such as ‘so’ or ‘gee’. In this data set, f₀ peaks and also phrase-initial f₀ were lower for exclamatives than for questions (Fig. 2). The seemingly contradictory results from the two data sets can be explained if the presence of a sentence-initial %L boundary tone is hypothesised for Hungarian exclamatives, and a %H tone for questions. In this interpretation, not the f₀ of the accent peak by itself, but the difference between the sentence-initial f₀ and that of the peak is relevant.

A phrase-initial boundary tone that is also proposed for Dutch [4] could also explain why utterance-initial pitch accents with a rising pattern (L*+H or L+H*) that are often used for prefocal units in Hungarian usually start from a higher f₀ than is observed for other L*+H accents later in the sentence. The relevance of the phrase-initial boundary tone for sentence mode will be tested in perception experiments in the close future.

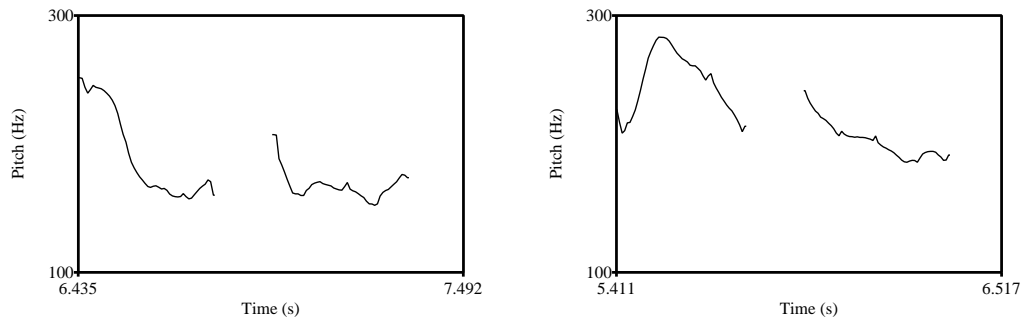


Figure 1: *Wh*-interrogative (left) and *wh*-exclamative (right) with sentence-initial *wh*-expression.

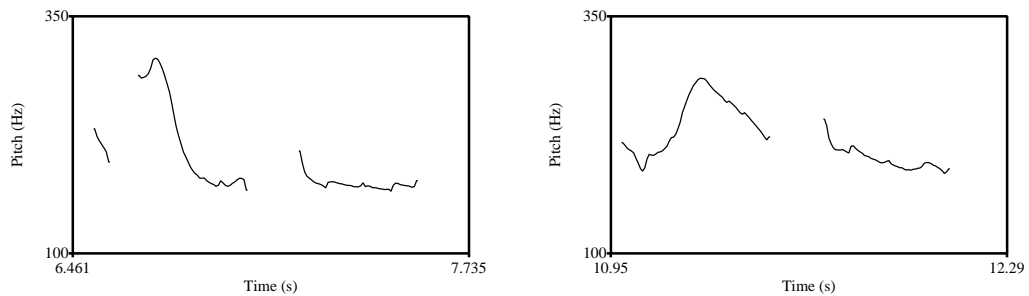


Figure 2: *Wh*-interrogative (left) and *wh*-exclamative (right) with sentence-initial interjection, followed by a *wh*-expression.

References

- [1] Batliner, A. 1988. Der Exklamativ: mehr als Aussage oder doch nur mehr oder weniger Aussage? Experimente zur Rolle von Höhe und Position des F0-Gipfels. In: Altmann, H., (ed), *Intonationsforschungen*. Tübingen: Niemeyer 243–271. [The exclamative: more than declarative or more or less declarative? Experiments on height and position of the f0 peak].
- [2] Batliner, A. 1989. Wieviel Halbtöne braucht die Frage? Merkmale, Dimensionen, Kategorien. In: Altmann, H., Batliner, A., Oppenrieder, W., (eds), *Zur Intonation von Modus und Fokus im Deutschen*. Tübingen: Niemeyer 111–162. [How many semitones does a question need? Features, dimensions, categories].
- [3] Fónagy, I., Magdics, K. 1967. *A magyar beszéd dallama [The melody of Hungarian speech]*. Budapest: Akadémiai Kiadó.
- [4] Gussenhoven, C. 2005. Transcription of Dutch intonation. In: *Prosodic typology*. Oxford: University Press 118–145.
- [5] Kálmán, L. 2001. *Magyar leíró nyelvtan I: mondattan*. Budapest: Tinta. [A descriptive grammar of Hungarian: syntax.].
- [6] Károly, S. 1964. A mondatfajták vizsgálata a funkció és forma szempontjából. *Nyelvtudományi Közlemények* 66, 67–88.
- [7] Lipták, A. 2006. Word order in Hungarian exclamatives. *Acta Linguistica Hungarica* 53, 343–391.
- [8] Varga, L. 2002. *Intonation and stress: evidence from Hungarian*. Basingstoke & New York: Palgrave Macmillan.
- [9] Varga, L. 2008. The calling contour in Hungarian and English. *Phonology* 25, 469–497.