

# Contrastive topics between syntax and pragmatics in Hungarian: an experimental analysis

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## 1 Introduction

The aim of this contribution<sup>1</sup> is to present the results of a pioneering experimental study focussing on the prosodic properties of constituents that appear in the so-called *topic position* ([Spec,TopP]) of the Hungarian sentence. According to É. Kiss (2002), constituents occupying the latter position must be pronounced with one of two well-defined intonation patterns. The first, ‘neutral’, one characterizes referential noun phrases interpretable as classical aboutness topics, whereas the second, marked one, assumed by É. Kiss (2002) to consist of a (fall-)rise, characterizes both contrastive aboutness topics and non-referential expressions, such as quantificational noun phrases, bare nouns, adjectives, adverbs, and infinitive verb forms. Thus, whatever its exact acoustic properties, the same ‘marked’ intonation appears to be assigned two entirely different functions in this account, a pragmatic one (the indication of contrast) and a syntactic one (enabling certain constituents to appear in a particular position that otherwise would not be available for them). In this paper, we will show the results of putting the above assumption to the test of a systematic acoustic analysis of data gathered with the help of experimental methods, in addition to characterizing the acoustic properties of the types of constituents that occupy the topic position.

The next section will present some well-known generalizations regarding the topic position in Hungarian, Section 3 summarizes the results of previous related phonetic analyses of the prosody of topics and contrastive topics in various languages. Section 4 presents the experiments conducted for Hungarian and their results, and Section 5 summarizes the conclusions of the study and their possible theoretical consequences.

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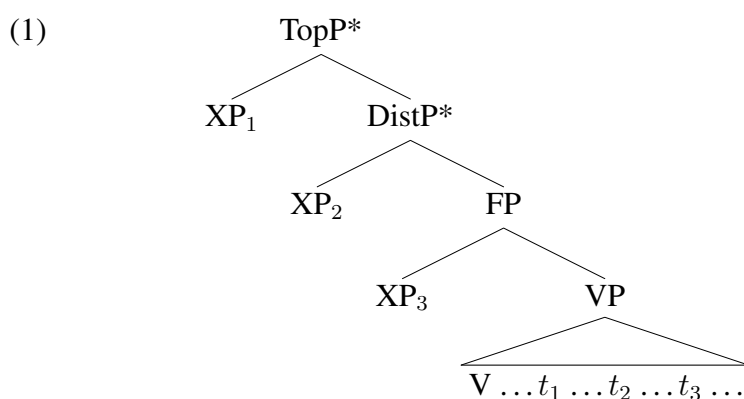
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## 2 The topic position in Hungarian and its occupants

In this section, we present some facts about the syntax of Hungarian that have been assumed to be uncontroversial in the last 25-30 years in the literature, and that originate primarily from the work of K. É. Kiss and A. Szabolcsi (cf. É. Kiss 1981, Szabolcsi 1981a, Szabolcsi 1981b). When it is not supposed to lead to any misunderstandings, we will introduce these facts with reference to the comprehensive discussion in É. Kiss (2002).

### 2.1 The topic position

It is proposed by É. Kiss (2002) that the syntactic structure of the Hungarian sentence is as shown in (1) (irrelevant details aside), where the Kleene-star marks projections of which more than one can appear in the sentence on top of each other:



According to É. Kiss (2002), the constituents in the preverbal operator positions (the specifier positions of TopP, DistP and FP) occupy their place as a result of movement from postverbal position. (The FP projection is dominated by and also dominates NegP projections whose head positions host the negative particle.) É. Kiss (2002) argues that there is a basic division of the Hungarian sentence into a *topic part* and a *predicate part*, the former consisting of the range of constituents situated in the [Spec,TopP] positions, and the latter of all the material that follows the former.<sup>2</sup> There are two criteria on the basis of which it can be determined which part a particular constituent is situated within. First, since sentence adverbials like *sajnos* ‘unfortunately’ can only appear within the topic part of the sentence or on the boundary between the topic and the predicate parts, a constituent that can be followed by a sentence adverbial must be situated within the former, like *János* in (2):

- (2) *Sajnos* ***János*** *sajnos* [<sub>FP</sub> *MArit* (\**sajnos*) *sértette* *meg.* ]  
 unfortunately John unfort. Mary-ACC unfort. offended VM  
 ‘Unfortunately (whom) John offended (was) Mary.’

<sup>2</sup>The idea of such a basic division originates from S. Brassai, discussed in publications in the second half of the 19th century, cf. É. Kiss (2008) for a recent overview.

Second, É. Kiss (2002) assumes that “the first obligatory stress, which also represents the heaviest grammatical stress in the sentence, falls on the first major constituent of the predicate” (p. 11), therefore, according to her, a constituent is situated within the topic part if it is followed by the constituent having the prosodic properties above. In example (2), the predicate-initial constituent is in [Spec,FP]. Although most specialists on Hungarian prosody call the assumption into question that the stress on the predicate-initial constituent is necessarily heavier than that of constituents in [Spec,TopP] (cf. Kálmán and Nádasdy 1994, Varga 2002 and Varga 2008), it is commonly agreed on that the stress of the predicate-initial constituent, as opposed to the stresses of all other preverbal or postverbal constituents, is non-reducible. These views could be incorporated into the following modification of É. Kiss (2002)’s above criterion: a constituent is situated within the topic part of the sentence if it is followed by the constituent whose stress is non-reducible.

## 2.2 Two classes of constituents in the Hungarian topic position

According to É. Kiss (2002), there are two different classes of constituents that can occupy the [Spec,TopP] position in Hungarian, with partly different requirements on their prosodic realization. The first group consists of arguments of the verb having the features [+referential] and [+specific], realized with an even or falling contour (É. Kiss 1994:80). The function of the latter, referred to as *Type 1* constituents in what follows, is described as that of “. . . foreground[ing] an individual (a person, an object, or a group of them) from among those present in the universe of discourse as the subject of the subsequent predication” (É. Kiss 2002:9), which corresponds to the traditional characterization of *topic*, a category of information structuring (cf. Krifka and Musan to appear). (3) illustrates a typical question-answer sequence where a declarative sentence with a constituent in the topic position (boldfaced) naturally appears. (Pitch-accented syllables are capitalized.)

- (3) Q: *MIT evett Móni?* A: [<sub>TopP</sub> **Móni** [<sub>FP</sub> *MANgót evett.*]]  
 what-ACC ate Moni Moni mango-ACC ate  
 Q: ‘What did Moni eat?’ A: ‘Moni ate mango.’

As first noted by Szabolcsi (1981a) and Szabolcsi (1981b), the referential expressions occupying the [Spec,TopP] position can also indicate alternative aboutness topics, which is assumed to be the function of *contrastive topics* in the literature (cf. Krifka and Musan to appear<sup>3</sup>), provided they are pronounced with a special, marked intonation. This marked intonation is described by Szabolcsi (1981a) as a “rising intonation followed by a marked pause” (p. 144), and by É. Kiss (2002) as “a particular, contrastive intonation comprised of a brief fall and a long rise” (p. 22). The special function of the marked intonation is taken by Szabolcsi (1981b)

<sup>3</sup>According to Krifka and Musan (to appear), *contrastive topics* “consist of an aboutness topic that contains a focus, which is doing what focus always does, namely indicating an alternative.”

to convey the following implicature: “the claim he [the speaker] is making need not be true of something else” (p. 519). There are two types of question-answer sequences whose second members prototypically contain a contrastive aboutness topic cross-linguistically (cf. Büring 1997, 2003). In the first one, illustrated in (4), the question asks about a set containing the extension of the contrastive topic of the answer. In the second one, shown in (5), the question asks about an alternative of the extension of the latter:

- (4) Q: *MIT ettek a gyerekek?* A: [<sub>TopP</sub> **MÓni** [<sub>FP</sub> *MANgót evett.*]]  
 what-ACC ate the children Moni mango-ACC ate  
 Q: ‘What did the children eat?’ A: ‘Moni ate mango.’
- (5) Q: *MIT evett Marianna?* A: [<sub>TopP</sub> **MÓni** [<sub>FP</sub> *MANgót evett.*]]  
 what-ACC ate Marianna Moni mango-ACC ate  
 Q: ‘What did Marianna eat?’ A: ‘Moni ate mango.’

The second group of constituents that can legitimately appear in the [Spec,TopP] position includes non-referential expressions, such as bare nouns, adjectives, adverbs, quantificational noun phrases, and infinite verb forms, to be referred to jointly as *Type 2* constituents in what follows. As noted by Szabolcsi (1981a), these constituents are only acceptable in the latter position if pronounced with the ‘marked’ intonation pattern characterizing the contrastive aboutness topics described above. Two relevant examples for *Type 2* constituents in [Spec,TopP] are shown in (6), where the latter position is occupied by a bare noun, and in (7), where it is occupied by a quantificational noun phrase. The latter example also illustrates the fact, first observed by Szabolcsi (1981b), that scope-taking expressions in [Spec,TopP] obligatorily take narrow scope with respect to other preverbal operators:

- (6) [<sub>TopP</sub> **MANgó** [<sub>FP</sub> *MÓninál volt.*]]  
 mango Moni-AT was  
 ‘As for mangos, Moni had one/some.’
- (7) [<sub>TopP</sub> **MINDen manó** [<sub>NegP</sub> *NEM* [<sub>FP</sub> *mangót vett ki.*]]]  
 every goblin not mango-ACC took VM  
 ‘All goblins did not take mango.’ (= ‘It is not the case that all goblins took mango.’)

### 2.3 The problem

As the previous discussion indicates, É. Kiss (2002) and Szabolcsi (1981a) attribute two different functions to what appear to be the same, marked intonation pattern when characterizing constituents in [Spec,TopP] positions: in the case of *Type 1* constituents, it has a purely pragmatic meaning, whereas in the case of *Type 2* constituents, the intonation appears to be part of the syntactic licensing conditions.

Given these differences, the question arises whether the intonation pattern of *Type 2* constituents and contrasted *Type 1* constituents in [Spec,TopP] position only appears similar to the analyst relying on retrospection, or it also passes the test of a systematic prosodic analysis. To be able to provide an answer to the question, we designed an experiment to collect relevant data to be subjected to an acoustic analysis, which will be presented in Section 4. In addition to comparing the prosody of *Type 2* constituents to that of *Type 1* constituents with a contrastive interpretation in topic position, we were also interested in the acoustic differences between *Type 1* constituents interpreted as contrastive vs. non-contrastive topics, and potential differences between the prosody of *Type 2* constituents depending on whether they contribute to given vs. new information within the sentence.

To the best of our knowledge, the prosodic properties of constituents not denoting aboutness topics although situated in syntactic positions prototypically hosting topics have not been compared systematically to those of contrastive aboutness topics in any language.<sup>4</sup> There are, however, several studies in the literature that report findings on the prosodic properties of referential noun phrases interpreted as ordinary aboutness topics versus contrastive aboutness topics, based on data collected with the help of experimental methods. In what follows, we will summarize the results of two groups of studies, concentrating on a Germanic language (German) and a Romance one (Neapolitan Italian), respectively.

### 3 Previous related studies on Germanic and Romance languages

In Mehlhorn (2001)'s production experiment on German, subjects were asked to read out question-answer pairs where the constituent in [Spec,CP] position within the answer had to be interpreted as a contrastive vs. non-contrastive aboutness topic in the context of the question. The accented syllables of contrastive topics turned out to display greater excursion, steeper F0 rise, as well as longer syllable duration than those of non-contrasted topics.

Braun (2006) analyzed recordings of subjects reading sentences containing a topical constituent in [Spec,CP] (which she refers to as the "rheme", following the terminology of Steedman 2000), embedded in short paragraphs consisting of 5-6 sentences. In one kind of context, the topics of the target sentences counted as given information, in another kind they denoted an alternative of the denotation of an expression that previously occurred in the text, thus they were assumed to be contrasted. Prosodic annotation did not reveal any difference between the accent types

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<sup>4</sup>Krifka (1998) makes an observation suggesting that they are not analogous in German, though. He argues that "[r]egular topics in [Spec,CP] have a *simple rise accent* if they contain a focus" (p. 99) (that is, when they satisfy the definition of contrastive aboutness topics), but quantificational expressions situated in [Spec,CP] are pronounced with a fall-rise accent. Mehlhorn (2001), who made recordings of realizations of the two kinds of structures in German, argues, however, that both are realized with a so-called 'hat contour', although she does not present a systematic description of the data her statement is based on.

with which the (contrastive) topic and the focus (in her terminology, “rheme”) constituents of the same sentences were realized in the two kinds of contexts.<sup>5</sup> Their acoustic comparison, however, pointed to significant prosodic differences. Contrastive topics were found to exhibit a higher and later peak, larger f<sub>0</sub> excursions and longer rise durations. The duration of the stressed syllable, of the stressed vowel, and of the topic constituent were all significantly longer for sentences in contrastive contexts than for their counterparts in non-contrastive ones. For different speakers, the relevance of peak height and peak alignment was different, which suggests that speakers make use of different strategies in marking contrastive topics.

Turning now to studies on Neapolitan Italian, D’Imperio and Cangemi (to appear) studied the prosody of ordinary aboutness topic and partial (contrastive) topic subjects in sentence-initial position by analysing realizations of the same sentences when read by subjects with the intention of answering *wh*-questions that either ask about the denotation of the subject or about a set containing the latter. The authors claim that in the latter construction, contrastive (partial) topics are set off in their own prosodic phrase (whose right edge is marked by a mid level phrase accent, !H-), while non-contrastive topics are not. These conclusions are supported by boundary-related phenomena (preboundary lengthening and initial strengthening), as well as by global pitch lowering of the intermediate phrase associated to the post-topic phrase. Brunetti *et al.* (2010) extended the investigation to object noun phrases in ‘Clitic Left Dislocation’ constructions, on the basis of data elicited from subjects in the form of spontaneous answers to questions asked by the experimenter, and found evidence for their constituting separate intonational phrases when interpreted as partial (contrastive) topics. D’Imperio *et al.* (2008) found the H peak on and the L tone following the accented of contrastive (partial) topics in sentence-initial position significantly higher than the respective values for neutral ones.

## 4 Experiment

### 4.1 Recordings and materials

To obtain the relevant data for analysis, we designed a stimulus material consisting of question–answer sequences in Hungarian, where the answers each contained a *Type 1* or a *Type 2* constituent situated in [Spec,TopP]. All answers were presented in two context types: in one of them, to be referred to as the *identical* condition, the constituent in the topic position also appeared in the question, that is, it counted as *given* information (for *Type 1* constituents this property characterizes ordinary aboutness topics), cf. (3), whereas in the other one, to be referred to as the *different*

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<sup>5</sup>These findings reflect those of Hedberg and Sosa (2007) and Hedberg (2003), who show that in spontaneous speech, information structure categories like (contrastive) topic and focus are not correlated in English with specific types of contours, contrary to what is assumed in Büring (2003), Gundel and Fretheim (2005), Kadmon (2001), and Steedman (2000).

condition, the question contained a constituent denoting an alternative to the denotation of the constituent in the topic position of the answer, cf. (5). In addition to the givenness/newness of the [Spec,TopP] constituents, the answer sentences also differed from each other in the syntactic category of the latter, which included that of proper names (8 question-answer pairs), bare nouns (8 question-answer pairs), and quantificational DPs (24 question-answer pairs). Answer sentences were varied, in addition, with regard to the predicate-initial constituent, also referred to below as the (semantic) focus for brevity, which was either a preverbal negative particle or a constituent in [Spec,FP]. The proper names and bare nouns in topic position, as well as the predicate-initial constituents contained only voiced sounds, which was mostly also true for the quantificational DPs.

Five subjects (three females) between 20 and 30 years of age participated in the experiment. The recordings were carried out in a sound-treated room. The recording device included two head-mounted microphones connected to a laptop via an external sound card (sample rate of recordings: 44.1 kHz). The software SpeechRecorder (Draxler and Jänsch 2004) was used for the control, presentation, randomization, and recording of the stimulus dialogues (question in red, answer in black on the same screen). The subjects read the dialogues in pairs, in a randomized order, with two repetitions (resulting in a total of 400 mini-dialogues). They were instructed to pay attention to the meaning of the question and read the answers as naturally and fluently as possible.

## 4.2 Methods of analysis

Only the answer parts of the mini-dialogues were analysed. If more than one pitch accent was found on the [Spec,TopP] constituent, the sentence was excluded from further analysis – this was frequently the case with the syntactically complex quantificational DPs. Thus, 80 sentences containing a proper name and a bare noun, respectively, were analysed, plus 72 sentences with quantificational DPs (a total of 232 sentences).

The analysis was performed in three steps. First, the pitch accents of the topic and the predicate parts were categorized. Since lexical stress is fixed to the first syllable in Hungarian, the pitch-accented syllable was the initial syllable in both the topic and the predicate parts in all sentences. The fundamental frequency of the first CVC sequence of the word was inspected, which contained a nasal + vowel + nasal sequence in all target words (independently of whether the second consonant belonged to the first or to the second syllable of the word). Pitch accents were categorised as containing an *early*, a *mid*, or a *late* peak: early peaks show an f<sub>0</sub> rise throughout the CV sequence, late peaks indicate an f<sub>0</sub> fall towards the vowel, whereas in mid peaks, a local f<sub>0</sub> maximum is reached within the vocalic segment (see Kohler 1987 for details). Additionally, the contour of the unstressed syllables of the [Spec,TopP] constituent (i.e. the syllables between the first and the second pitch accents of the sentence), the so-called *tail*, was categorized as *rising*, *falling*,

or *flat*. Labels were cross-checked by both authors.

In the next step, several methods of parametrising the contours were tested that had been found relevant in the literature for other languages, such as the f0 minimum and maximum, the range of f0 between its local minimum and maximum (f0 excursion), the steepness of the rise or fall (f0 slope), and the position of the f0 maximum within the topic. Finally, the durations of both accented syllables as well as of the topic-final syllables were compared. F0 was calculated using Praat's cross-correlation pitch calculation method, with a frame shift by 5 ms.

## 4.3 Results

### 4.3.1 Peak types and tail contours

**Peaks on [Spec,TopP].** The vast majority (86%) of pitch accents on the stressed syllable of the [Spec,TopP] constituent were late peaks, i.e. f0 increased throughout the stressed syllable and reached its maximum in the topic tail.

Proper names (*Type 1* constituents) and bare nouns (*Type 2* constituents) show a very similar distribution over peak types, whereas quantificational DPs are somewhat more frequently realized as mid peaks (Fig. 1). The latter, however, are not completely comparable to the first two constituent types, since they consist of more than one word, as opposed to the proper names and bare nouns in our material.

The frequency of the three peak types for constituents that were identical to vs. different from the corresponding constituent in the question was compared for all three groups by means of a  $\chi^2$  test. The difference did not prove to be significant on the  $p \leq 0.05$  level. The prevalence of sentence-initial late peaks is in line with previous findings (Mády and Kleber 2010).

**Peaks on the predicate-initial constituent (focus).** Again, little variation among peak types is found in this position (Fig. 2). The tendency to realize the second pitch accent that is at the same time the final one in the sentence with an early peak has also been observed by Mády and Kleber (2010).

Though the number of mid and late peaks for predicate-initial constituents following quantificational DPs is somewhat higher than the number of those following constituents in the other two groups in the *different* condition, the  $\chi^2$  test reveals no significant differences for any of the three constituent types in topic position between the peak types the following focus is realized with in the two conditions.

**Tail contours on [Spec,TopP].** The f0 contours show a far less uniform pattern than the pitch accents on constituents occupying the topic or predicate-initial positions do. Based on previous descriptions in the literature cited above, one expects a higher number of rising contours for *Type 1* constituents in the *different* condition, whereas this difference is not expected to appear in the case of *Type 2* constituents. For the latter, similar distributions are expected in both the *identical* and the *different* conditions. As Fig. 3 shows, our results do not contradict these expectations. Whereas rising contours for *Type 1* constituents are observed almost exclusively when they



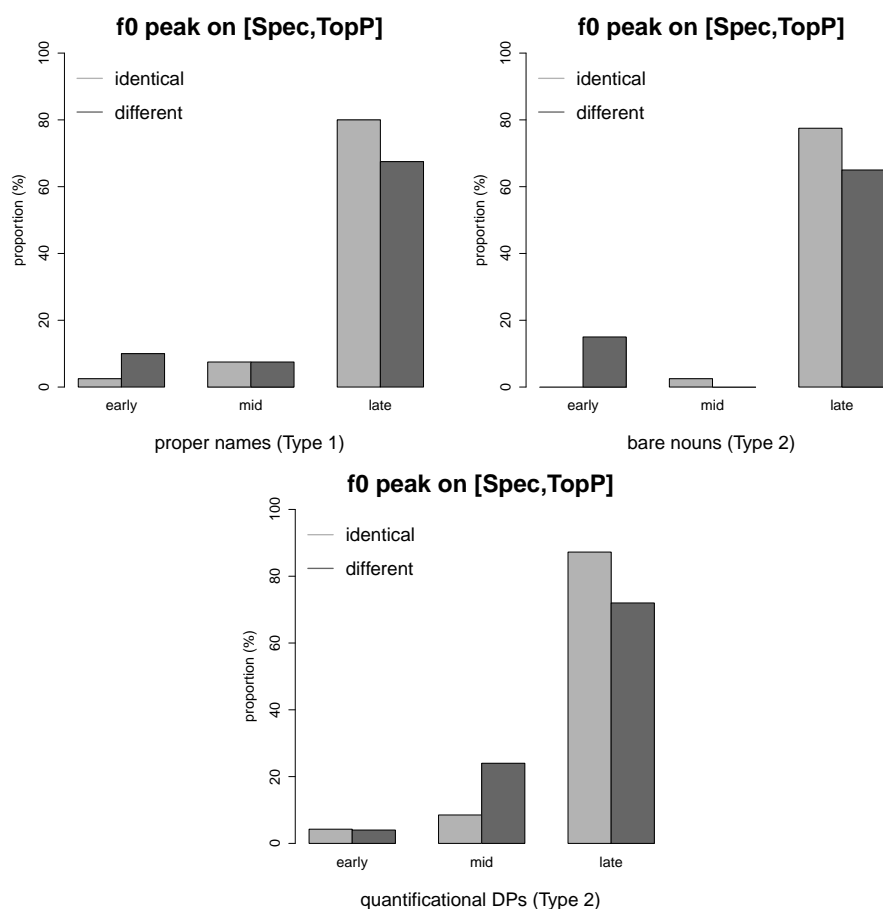


Figure 1: Distribution of early, mid, and late peaks on the accented syllable of [Spec,TopP].

represent new information, and falling contours are almost always connected to given constituents, the largest group of contours is flat (non-rising and non-falling) in both cases. According to the  $\chi^2$  test, the differences between the contour types for *Type 1* constituents in the two conditions are significant ( $p = 0.01$ ). They are, however, not significant for *Type 2* constituents ( $p = 0.21$  for bare nouns,  $p = 0.14$  for quantificational DPs). Thus, in the latter case, rising contours are not connected to contrastivity.

#### 4.3.2 Durational parameters

The stimulus material included several target words in [Spec,TopP], such as *Marianna*, *Móni*, (female first names) *mandula* ‘almond’, and *mangó* ‘mango’, plus several quantificational DPs such as *minden manó* ‘all goblins’, *négyenél kevesebb manó* ‘less than four goblins’, etc. This is problematic for a quantitative analysis,

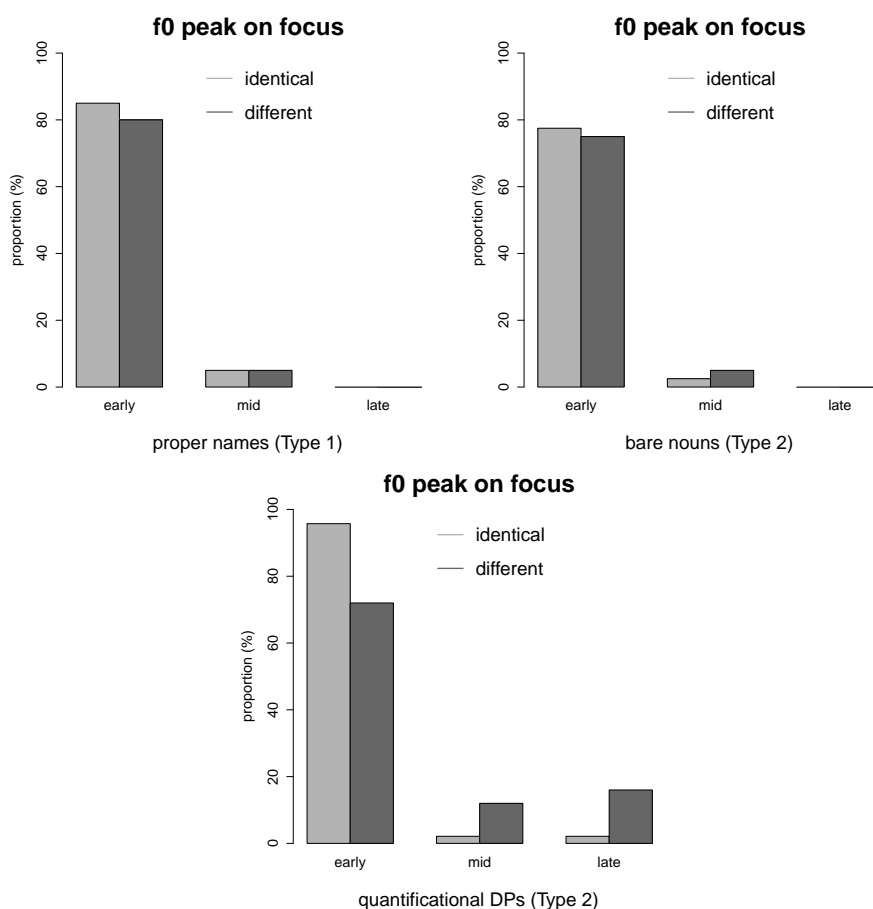


Figure 2: Distribution of early, mid, and late peaks in the accented syllable of [Spec,FP] or the negative particle.

first because of a potential word length effect (different numbers of syllables in the lexical unit) and second, since many utterances with quantificational DPs had to be excluded for having more than one accent. Therefore the following analysis is based on utterances containing the *Type 1* constituent *Marianna* as [Spec,TopP], and on utterances with the *Type 2* constituent *mandula* as [Spec,TopP] (two target sentences with two repetitions per subject, 80 utterances in total).

Since we have no reason to assume sphericity (i.e. that the levels of the independent variable are uncorrelated), a repeated-measures ANOVA is not an appropriate statistical procedure here. Instead, a repeated-measures MANOVA was used, which does not require sphericity. The statistic tests were performed in the software R, using the `car` package. The tests were performed separately for the *Type 1* and *Type 2* constituents, since their durations cannot be compared to each other. The independent variable was givenness/newness of the [Spec,TopP] constituent (that

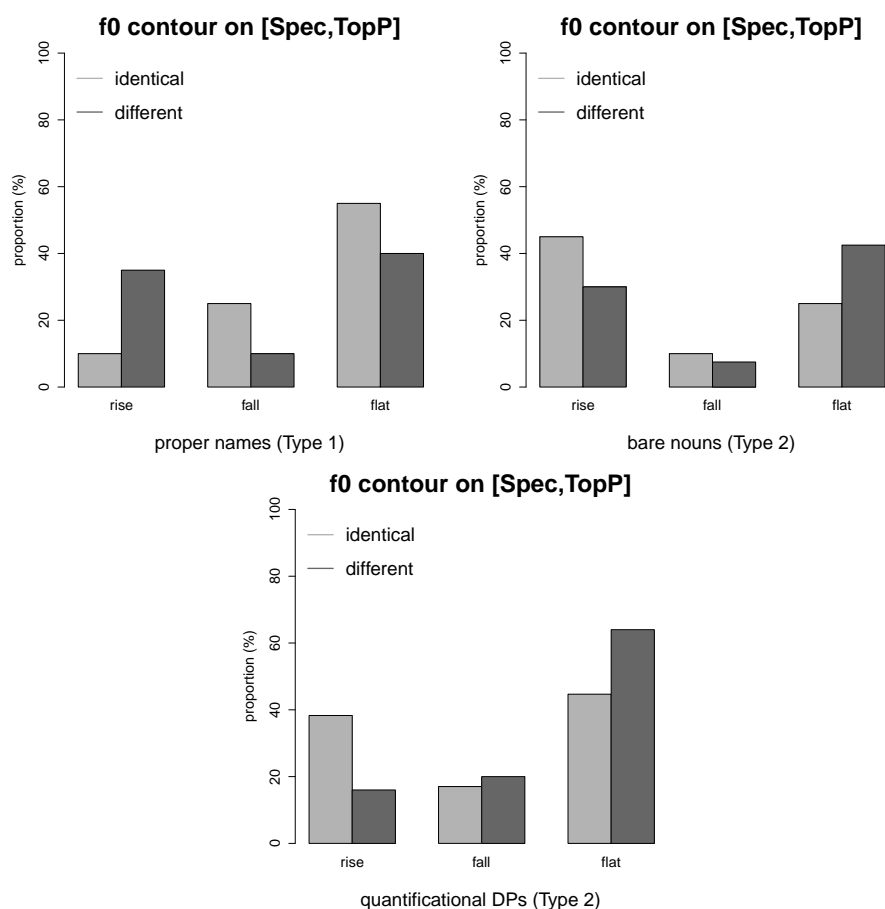


Figure 3: Distribution of f0 contour types on [Spec,TopP].

is, whether it was *identical* to vs. *different* from the corresponding constituent in the preceding question). Significance level was set to  $p \leq 0.05$ .

Differences between durations were tested for the accented syllable within [Spec, TopP], for the one within the predicate-initial constituent, and for the entire tail. Givenness/newness did not have an impact on any of these parameters. However, subjects showed high variation with respect to the durational distinctions they made: for example, the accented syllables of the [Spec,TopP] constituent were longer for *different* proper names for 3 subjects, but shorter for 2 subjects, whereas for bare nouns, the accented syllables in the *different* condition were shorter for two subjects, but did not differ substantially for the three others. A similarly inhomogeneous pattern was observed for the other two parameters, which contradicts the idea that speakers chose one out of a few distinctions for marking contrastive topics.

It is important to note that we observed a relatively high frequency of breaks between the topic and the predicate parts of the sentences (17.5%). Interestingly,

breaks were more frequent for *Type 2* than for *Type 1* constituents (10 vs. 4), and only one of the latter was found in a sentence with an *identical* [Spec,TopP], which seems to be in line with Szabolcsi (1981a)'s claim that contrastive topics are followed by a pause. These results raise the question whether *Type 1* constituents with a contrastive interpretation and *Type 2* constituents regardless of their givenness/newness are realized as independent phrases. This was tested by comparing the durations of the last syllables in the tail for each utterance. However, this parameter again proved to be non-significant, in strong contrast with the claims by D'Imperio and Cangemi (to appear), and Brunetti *et al.* (2010) for Neapolitan Italian.

### 4.3.3 Parameters of fundamental frequency

According to the literature reviewed above (cf. Mehlhorn 2001, Braun 2006), contrastivity is associated with higher f0 peaks, a larger f0 excursion, steeper f0 slopes, and later f0 peaks. These parameters were tested on the same material and with the same procedure as described in Section 4.3.2.

The height of the f0 maximum and the difference between the f0 minimum and maximum for the [Spec,TopP] constituent were not significant either for proper names or for bare nouns. Slope steepness differences did not reach significance level, neither did the position of the f0 maximum. Again, subjects showed inhomogeneous patterns for these parameters. (The f0 minimum and maximum values were calculated automatically over the entire duration of the first constituent in the sentence rather than by manually labelling f0 minima and maxima in the signal.)

## 5 Conclusions and outlook

The findings of the experiments presented above can be summarized as follows. First, as far as *Type 1* expressions in topic position are concerned, no significant differences were found between their realisations as neutral (non-contrastive) vs. contrastive topics regarding durational parameters, parameters of fundamental frequency, the acoustic properties of their accented syllables (peak type) or the acoustic parameters of the accented syllables of the predicate-initial constituents following them. However, significant differences were observed between regarding the type of the f0 contour connecting the two accented syllables above, particularly the proportion of rising vs. falling contours. Although the former were associated almost exclusively with contrastive topics, the largest number of contours in both conditions were flat, therefore the findings only partly confirm the observations found in the literature about the rising contour of the contrastive topic in Hungarian, and definitely do not confirm assumptions about the existence of a fall preceding it.<sup>6</sup> Second, *Type 2* constituents in topic position were not found to differ significantly with respect to any of the acoustic properties listed above with respect to whether

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<sup>6</sup>The results do, of course, also contradict accounts attributing the observed differences between the two melodies to differences in pitch accent type.

they represented given vs. new information. In both conditions, their tail contour (the relative number of rises and falls) was found to be more similar to that of *Type 1* constituents with a contrastive topic interpretation, although the majority of contours were classified as flat in this case as well. Thus, the data obtained in our experiments do not contradict the assumption made in the literature according to which the intonation pattern of *Type 1* constituents in topic position having a contrastive topic interpretation and that of all *Type 2* expressions there is identical, and fundamentally different from the intonation pattern of *Type 1* constituents having a non-contrastive topic interpretation, although it could not confirm it either.<sup>7</sup>

If the assumption about the similarity of intonation contours for *Type 1* contrastive topics and *Type 2* constituents situated in the topic part of the sentence cannot be contradicted, we are left with the situation described by É. Kiss (2002): there is a position in the Hungarian sentence, [Spec,TopP], that hosts three groups of constituents, namely, *Type 1* constituents with a ‘neutral’ (non-contrastive) intonation, *Type 1* constituents with the ‘marked’ intonation, and *Type 2* constituents, apparently always pronounced with the ‘marked’ intonation as well. The first two share their syntactic category membership and the property of denoting aboutness topics, and the last two their prosodic properties, but there is no formal or interpretational property common to all three.

One possibility to overcome this asymmetry appears to be the following. Let us assume that *Type 1* expressions interpreted as contrastive aboutness topics and all *Type 2* constituents in the topic part of the Hungarian sentence are situated in a position different from [Spec,TopP], in the specifier position of a projection called *Delimitator Phrase*. The notion of *delimitator* is introduced by Krifka and Musan (to appear) as a category of information structuring whose elements “express that, for the communicative needs at the current point of discourse, the current contribution only gives a limited or incomplete answer.”<sup>8</sup>

Krifka and Musan (to appear) explicitly group contrastive aboutness topics to delimitators,<sup>9</sup> but it is not difficult to prove that the contribution of *Type 2* constituents within the topic part to the meaning of the sentence is also captured better by taking them to be delimitators than by assuming that they indicate the fact that the property attributed to their denotation may not apply to their alternatives, as proposed by Szabolcsi (1981a), since the former possibility allows the speaker to be

<sup>7</sup>The lack of confirming evidence could also be attributed to the low number of speakers tested, the inappropriateness of the experimental task for eliciting the data, or the general insufficiency of production experiments for investigating the problem.

<sup>8</sup>The formal definition provided by Krifka and Musan (to appear) is as follows: “A Delimitator  $\alpha$  in an expression  $[\dots\alpha\dots\beta_{Focus}\dots]$  always comes with a focus within  $\alpha$  that generates alternatives  $\alpha'$ . It indicates that the current informational needs of the common ground are not wholly satisfied by  $[\dots\alpha\dots\beta_{Focus}\dots]$ , but would be satisfied by additional expressions of the general form  $[\dots\alpha'\dots\beta'_{Focus}\dots]$ .”

<sup>9</sup>Cf. also Kálmán (1985), who emphasizes that the role of contrastive aboutness topics in the topic position in Hungarian is to indicate that the proposition is only partially relevant.

ignorant about the alternatives (which Kálmán 1985 assumes to be often the case).

For lack of space, we cannot elaborate any further in this contribution on the advantages of the tentative proposal made above, we only mention two of them that seem to be imminent. First, if we assume that there are also DelP projections dominating the predicate part of the sentence in addition to TopPs, the constituents occupying the specifier of the former would be associated with uniform formal and interpretational properties (contrastive intonation and delimitator status, respectively), which was shown not to be the case for [Spec,TopP]’s in É. Kiss (2002)’s framework. Second, in spite of É. Kiss (2002)’s claim that the order of contrastive vs. non-contrastive topics in the topic part of the sentence is free (which she bases on examples containing one neutral and one contrastive aboutness topic), a *Type 1* constituent with an ordinary aboutness topic interpretation cannot be placed between two others with a contrastive reading (marked by a ‘/’), although it can precede or follow them, as (8b)–(8c) illustrate.

- (8) a. What about John? Did he meet Mary at Buda?  
b. *János MARival/ BUDán/ NEM találkozott.*  
John Mary-WITH Buda-IN not met  
‘John did not meet Mary in Buda.’  
c. \**Marival/ János BUDán/ NEM találkozott.*  
Mary-WITH John Buda-IN not met  
*Intended:* ‘John did not meet Mary in Buda.’

By distinguishing between TopPs, whose specifier can only host *Type 1* aboutness topics, and DelPs, whose specifier hosts delimitators, the above data can be given a reasonable explanation if DelPs are assumed to be situated within a block, that is, if the same TopP cannot both dominate and be dominated by DelP projections.

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