When Syntax and Semantics clash - Hungarian *is* and Prosodic Focus Marking

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Hungarian is a language with fixed positions for (narrow, exhaustive) focus (immediately pre-verbal) and topic (sentence-initial). This so-called 'discourse-configurationality' (É. Kiss 1995) leads to a strict word order in the pre-verbal field while the post-verbal field allows free variation. In Hungarian, if the syntactic focus position is filled, a verbal particle appears after its verb. This inverted order of particle and verb is a strong syntactic cue for a filled focus position. However, there are cases where the typical syntactic focus marking cannot be used. In this study, we present preliminary results of a production experiment on the focus-sensitive additive particle *is* ('also, too').

The additive particle *is* challenges the syntactic focus marking in two regards. On the one hand its additivity clashes with the exhaustive interpretation of the syntactic focus position and thus, it cannot move to it. (1) shows that it can appear pre- or post-verbally but not in the focus position: the inverted order of verb and particle is not grammatical (1a). On the other hand, *is* is claimed to be focus sensitive (see, e.g. Krifka 2006, Beaver & Clark 2008, Balogh 2021, Balogh & Langer 2022), i.e. its scope depends on differences in focus marking. Syntax alone cannot disambiguate between multiple possible scopes of the particle.

(1) a. *János Vili-t=is mutatta be Zsuzsi-nak.
John Bill-ACC=also introduced PRT Sue-DAT

b. János Vili-t=is be-mutatta Zsuzsi-nak .
John Bill-ACC=also PRT-introduced Sue-DAT

c. János be-mutatta Vili-t=is Zsuzsi-nak .
John PRT-introduced Bill-ACC=also Sue-DAT

'John also introduced Bill to Sue.'

In a corpus study, Balogh & Langer (2022) found that prosodic focus marking is used to express different focus domains. In a sentence with a filled focus position, the focused element receives the main prominence of the sentence and post-focal elements are typically deaccented (see, e.g. E. Kiss 1995; Kenesei 1998; Varga 2002). In Balogh & Langer (2022)'s data on the additive particle, the main accent falls on the *is*-phrase in front of the verb (outside the syntactic focus position), while the prosodic pattern after the *is*-phrase delimits the scope: every element inside the focus domain keeps its accent while the rest is deaccented. However, they did not have enough data for a statistical analysis and found only few post-verbal occurences.

Based on Balogh & Langer (2022)'s results, we conducted a controlled production study to test if and how prosodic focus marking is used in pre- and post-verbal occurences of *is*. We used ten target sentences that each appeared in two linearizations. They were embedded into contexts ending in a question that elicited one of three possible focus domains: Narrow focus on the object (isF), VP-focus (VPF) or sentence focus (SF). (2) shows an example for a target sentence and (3) its possible questions under discussion.

(2) a. Az anya **az ing-et=is** meg-varr-ta a hétvégé-n. [Pre-verbal]
det mother det shirt-ACC=also VPRT-sew-PAST det weekend-on

b. Az anya meg-varr-ta **az ing-et=is** a hétvégé-n. [Post-verbal]
det mother VPRT-sew-PAST det shirt-ACC=also det weekend-on

'The mother also sewed the shirt on the weekend.'

(3) a. isF: 'What else did the mother sew on the weekend?'

b. VPF: 'What else did the mother do on the weekend?'

c. SF: 'What else happened?'

In the experiment, the contexts and questions were presented auditorily and visually. The participants (12 Hungarian native speakers, 9f) then answered the question with the target sentence (visually presented on screen). This lead to 720 data points in total (10 sentences x 2 linearizations x 3 focus domains x 12 participants), of which 144 are already analysed. The sentences were labeled for word, syllable, and vowel with Praat (Boersma & Weenink 2017). We then measured the duration of syllables and f0-minima and maxima per word. These points were checked manually and at the same time creakiness was annotated. We also measured the overall pitch-contour at ten points per syllable. From these points, we calculated contours on each content word, their slopes, i.e. steepness of falls/rises, and generalized additive mixed models (GAMM; Wood 2017) for the mean trajectories using R (R Core Team 2017).

While many effects in the preliminary data do not yet reach significance, the GAMMs (see Figure 1) do show significant differences between the three focus domains in both pre- and post-verbal data. While in the pre-verbal case, the main accent falls on the *is*-phrase, it falls on the verb in the post-verbal case. The prosodic patterns after the main accent differ depending on the focus domain. In the pre-verbal data, the difference lies in the presence or absence of accents and a possible partial pitch-reset on the adjunct in VPF. The differences in the post-verbal data lie in the slope of falling contours on the *is*-phrase and the adjunct.

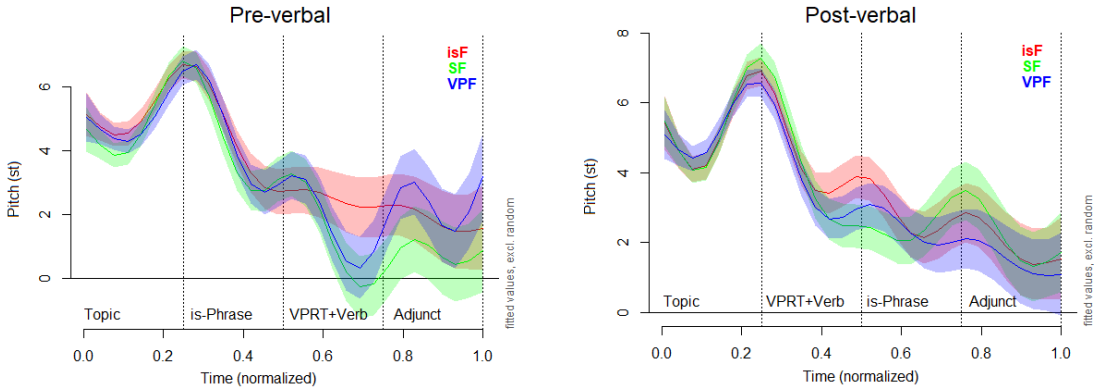

Figure 1: GAMMs of the pitch trajectories in pre- and post-verbal occurences of *is*

To conclude, our data show that Hungarian native speakers use prosodic cues to mark focus in cases where syntactic focus marking (alone) does not suffice. This is in line with, e.g., Langer & Kügler (2022; submitted) who found similar patterns in complex noun phrases. Whether these different pattern also play a role in perception is a question for further research.

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