On accentuation in Hungarian noun phrases

In this talk, we will present data from an experimental study that investigates the prosodic structure of complex noun phrases in the focus position with different focus domains. We argue that in cases where the syntactic marking of focus does not suffice to disambiguate multiple possible interperations, prosodic marking of the focused word(s) comes into play.

Hungarian is a discourse-configurational language with fixed positions for (narrow, exclusive) focus (immediately pre-verbal) and topic (sentence-initial). If a constituent - for example a noun phrase - is focused, it moves to the focus position and is assigned the main accent of the sentence (see, e.g., É. Kiss 1995; Kenesei 1998; Varga 2002). However, for syntactic reasons, if only one element of a noun phrase is focused, it is still the whole phrase that moves into the focus position. In these cases, an ambiguity arises between an interpretation, where the whole phrase is focused, and interpretations, where only parts are in focus. For example, the sentence in (1) could be the answer to each of the three questions in (1a) to (1c). We argue that these ambiguities that cannot be disambiguated through the syntax have to be solved by other means, i.e. prosody.

- (1) **A híres zenész-t** tüntette ki a polgármester. the famous musician-ACC honored VPRT the mayor.NOM
 - a. Who did the mayor honor?
 - \rightarrow The mayor honored [the famous **musician.**]_{Focus}
 - b. Which musician did the mayor honor?
 - \rightarrow The mayor honored the [**famous**]_{Focus} musician.
 - c. Which famous person did the mayor honor?
 - \rightarrow The mayor honored the famous [**musician**]_{Focus}.

Cross-lingustically, there are multiple prosodic strategies that Hungarian could use to disambiguate sentences like (1). It could, for example, (i) accentuate the focused elements of the noun phrase (see, e.g., Swerts et al. 2010 for Dutch), (ii) accentuate every element of the noun phrase (see, e.g., Swerts et al. 2010 for Italian) or (iii) accentuate one edge of the focus domain, as can be seen for English in (1a). For the last strategy, Hungarian would most likely mark the left edge (contrary to English and other Germanic languages; Féry 2013 for Dutch & German), because it typically aligns accents to the leftmost element of phrases (Szendrői 2003).

In our experiment, we used three different types of modification: simple modification, with one adjective, as in the example in (1), a complex modification with two adjectives (2) and a complex modification with an adjective and its argument (3). For every modification type, five sentences were constructed.

- (2) **A félénk barna eger-et** talált-am meg a kert-ben. the shy brown mouse-ACC found-1sg vprt the garden-in 'I found **the shy brown mouse** in the garden.'
- (3) A beszél-ni képtelen író-t hívta meg az újságíró. the speak-inf unable writer-ACC invited VPRT the journalist.NOM 'The journalist invited the writer, who can't speak.'

The target sentences were embedded into contexts eliciting different kinds of focus domains. The focus was either on one element, on the whole modification (in cases with complex modification) or on the whole noun phrase. Table 1 summarizes the possible focus domains for the three types of modification used in the experiment. Every context ended in a question

that the target sentence was the answer to. There were 65 mini-dialogs in total (5 sentences x 13 combinations of mod-type and focus domain). In the experiment, 20 participants (16 female, 4 male) read the target sentences as a reply to the pre-recorded contexts (= a total of 1300 sentences).

Focus domain Mod-Type	Mod1	Mod2	Mod	N	NP
Simple modification	/	/	Adj	N	NP
Complex modification A	Adj1	Adj2	Adj1+2	N	NP
Complex modification B	Arg	Adj	Arg+Adj	N	NP

Table 1: Tested Focus domains for the different modification types

The results of the f0-analysis show that, independent of the focus domain, the highest accent of the sentence is always on the leftmost element of the noun phrase occupying the focus position. The accentuation of the following elements depends on the position and the domain of the focus: Following accents are either generally downstepped, i.e. lower than preceding accents, and/or deaccentuation takes place. Thus, Hungarian consistently marks the left edge of the (noun) phrase containing the focus with the highest prosodic prominence. If the focus is only on one element of the phrase, the f0 of this element is boosted (see, e.g. Féry & Ishihara 2010 for 'boosting by focus'), being significantly higher and often having a steeper fall than a non-focused downstepped element or - if it is the leftmost element - than a 'normal' phrase initial accent. Post-focal elements inside the noun phrase are often deaccented or at least significantly lower than downstepped elements that are part of a (larger) focus domain. Pre-verbal elements, on the other hand, keep their accents in most cases in the data.

As expected, the main accent of the sentence falls on the leftmost element of the focus position, prosodically marking the edge of the focused NP. This is in line with various analyses of Hungarian prosody, such as for example Szendrői's (2003) approach, in which the focused element moves to the first position of the intonational phrase (IP) - the focus position - to recieve the main accent that is always aligned with the left edge of this IP. However, leftmost accentuation cannot explain the prosodic differences found inside the syntactically focused NP. Since a focused word inside NP is realised with a downstepped accent (though with an f0 boost), we argue in line with Genzel et al. (2015), that despite the inherently prominent syntactic position in Hungarian, prosodic prominence marking plays an important, independent role in focus marking. Prosodically, Hungarian represents a further case of NP accentuation strategies combining consistent left-alignment of prosodic prominence with the phrase (iii) and additional marking of the focused element (i) by a downstepped accent.

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