# On the Syntax-Discourse Interface in Hungarian

Anna Gazdik Université Paris Diderot-Paris 7, LLF annagazdik@gmail.com

# 1 Introduction

In configurational languages, like English, syntactic structure and the linear order of constituents are determined by syntactic functions, like *subject* or *object*, which constitute functions between constituents and the whole sentence (*"the subject/object of the sentence"*). In discourse-configurational languages (É. Kiss, 1995), syntactic structure and the positions of the elements reflect discourse structure, *i.e.* the role that the sentence plays in the discourse. Discourse functions (*topic, focus,* etc.) are thus not functions between a constituent and the sentence, but between a constituent and the discourse structure.

Many syntactic analyses, especially in derivational frameworks, account for the discourse-relatedness of syntactic structures by positing special functional projections (TopP, FocP) that host a particular discourse function (see for instance Rizzi (1997), É. Kiss (2002)). However, such analyses run into some serious problems. Firstly, positing separate functional projections for every discourse function has little explanatory adequacy. Secondly, as opposed to lexical projections (NP, PP, AP, etc.), discourse functional projections do not encode categories, but discourse-semantic information integrated into the syntax, without a clear formal account of the discourse/syntax interface. Thirdly, as will be shown here, discourse functions cannot exclusively be assigned to designated syntactic positions, and *vice versa*, a particular syntactic position can host more than one discourse function, even in discourse-configurational languages.

The aim of this paper is to propose an analysis of the syntax/discourse interface in Hungarian, a discourseconfigurational language, in the framework of Lexical-Functional Grammar (LFG). I concentrate on the preverbal domain, and demonstrate that the exact position of constituents bearing a particular discourse function depends on the information structure of the sentence, and discourse functions can by no means be exclusively assigned to a designated syntactic position.

## 2 The Data

Schematically, the Hungarian sentence can be divided into two fields: the *topic* and the *comment*, and the comment can be further divided into four subfields: the *pre-comment*, the *prominent preverbal position* (PPP), the *finite verb*, and the *postverbal part*. This is illustrated in Figure (1):<sup>1</sup>



Figure 1: The structure of the Hungarian sentence

<sup>&</sup>lt;sup>1</sup>Note that (1) is a schematic, topological representation, and not a syntactic structure proposed in a particular framework.

Although the names (topic, comment, prominent preverbal position, etc.) are of semantic/pragmatic in nature, there are also syntactic (distributional) and prosodic arguments for this division of the Hungarian sentence into these fields and subfields.

The topic field hosts elements relating the sentence to the current discourse topic. These can be *thematic shifters* that introduce a subtopic of the discourse topic, and *contrastive topics* that reshape the discourse topic by decomposing some part of it into subsets. The latter cannot occur in *out of the blue* sentences and always co-occur with a focus.<sup>2</sup>

The precomment contains distributive quantifiers that follow a given order. Kálmán (2001) classifies them based on their order into the IS (also)-group, the MINDEN (all)-field and the SOK (a lot)-position.

It is well-known that the PPP is often referred to as *Focus position* after one of the elements appearing there. However, this is a misnomer, since not only foci can occupy this position, and foci can appear in other positions of the Hungarian sentence as well. However, only one single focused constituent is permitted in the preverbal domain in Hungarian. Note that question words are not considered here as a subtype of focus. The distribution in the PPP depends on the information structure of the sentence, and on the role of the sentence in the discourse. My main concern here is the analysis of the syntax-discourse interface in Hungarian, and in this paper I concentrate on the topic field and the PPP. Let us now examine the distribution of elements in the PPP.

#### 2.1 Distribution in the Prominent Preverbal Position

The PPP is occupied by different elements in neutral and non-neutral sentences. The former do not contain a focus or a question word and can contain a topic (thematic shifter). The latter contain a focus or a question word. In neutral sentences, the PPP can be filled by verbal particles, bare nominal arguments, secondary predicates, negative adverbs and quantifiers and the hocus. The last two are illustrated below ((') refers to a main stress, indicating that these sentences exhibit level prosody):

- The Hocus
  - (1) 'Ma a '**feleségem** vitte 'óvodába a 'gyerekeket. today the wife.POSS.1SG take.PST kindergarten.ILL the children.ACC Today it was my wife who took the children to the kindergarten.

The hocus is an argument or adjunct having an identificational interpretation, sometimes expressing that its referent is surprising or unusual with respect to the predicate and without the pitch accent of focused constituents. Negative adverbs and quantifiers can also qualify as hocus in this sense:

- Negative adverbs/quantifiers
  - (2) János "**ritkán** olvassa fel a Hamletet. János rarely read.PRS PRT the Hamlet.ACC John rarely reads out Hamlet.

In non-neutral sentences, the PPP is filled by a focus or a question word, or it is empty in the case of VP or verum focus ((") refers to a sharp falling pitch accent):

• Focus

<sup>&</sup>lt;sup>2</sup>Focus is defined in this paper as the semantically prominent and usually formally highlighted element of sentences that necessarily co-occur with another discourse segment. A typical example is replies, *i.e.* answers to questions, corrections, etc. Formal highlighting means appearing in a salient syntactic position (peripheral, preverbal, etc.) and/or carrying a pitch accent. Semantic prominence is defined in the sense of Jacobs (1984), as being especially affected by the illocutionary operator associated with the sentence.

- (3) A "Hamletet olvasta fel János. the Hamlet.ACC read.PST PRT János John read out (loud) HAMLET.
- Question words
  - (4) "**Mit** olvasott fel János? what read.PST PRT János What did John read out?
- Ø; with pitch accent on the verb, VP or verum focus
  - (5) János "**látta** a balesetet. János see.PST the accident.ACC John DID see the accident.

Note that the focus can appear in other positions of the sentence as well. This is the case of complex foci (Krifka, 1992) in parallel structures, in which one of the foci appear on the right periphery (but carries the same pitch accent as the preverbal one, unlike É. Kiss (1998)'s information focus):

(6) A "lányok nyerték meg tegnap a "kajakversenyt, a "fiúk pedig a "kenuversenyt. the girls won PRT yesterday the kayak contest.ACC, the boys and the canoe contest.ACC It was the girls who won the kayak contest yesterday, and the boys who won the canoe contest.

Focus can also precede a preverbal question word first occurring in a preceding multiple question (the focus is clearly not immediately preverbal)

(7) a. Q1: Ki mit evett? who what eat.PST Who ate what?
b. A: János pizzát evett, István spagettit... János pizza.ACC eat.PST, István spaghetti.ACC John ate pizza, Steve spaghetti...
c. Q2: Jó, de "János mit evett? OK, but János what eat.PST Ok, but what about John, what did he eat?

Note that in multiple questions (7-a), question words can be cumulated in the preverbal domain, which leads to ungrammaticality in the case of foci.

Therefore, focus is not always immediately preverbal as would be predicted under a configurational analysis relying on functional projections and it cannot (always) be linked to the PPP.

## 3 The Architecture of the Information Structure

The main claim in this paper is that the Hungarian sentence structure is neutral with respect to information structure roles (it does not contain a TopP or a FocP), but its preverbal part is determined by the information structure. In non-derivational, modular frameworks (such as LFG), discourse functions are assigned to specific, but discourse-neutral syntactic positions via functional annotations (Butt and King, 1996; King, 1997). Considering Hungarian, proposals in the LFG framework placed the (supposedly) strictly preverbal focused constituent to the Spec, VP (Mycock, 2006) or sister to the verb in an extended verbal projection (Börjars et al., 1999), via the functional annotation ( $\uparrow$ FOC)= $\downarrow$ . These analyses (like the ones assuming a FocP), as we have seen, capture only a small part of the data.

The importance of information structure has been pointed out and formalized to varying degrees in the LFG literature. It is supposed to constitute an autonomous level of representation with its own primitives

(TOPIC, FOCUS, COMPLETIVE and BACKGROUND INFORMATION) (Butt and King, 1996; King, 1997; Mycock, 2006; Dalrymple and Nikolaeva, 2011), corresponding to the combinations of two features (new +/- and prominent +/-, based on Choi (1997).

The set of elements is, however, larger than those that Butt and King (1996)'s i-structure can accommodate without simplifying the definition of its basic sets. These are: thematic shifters, contrastive topics, focus, hocus, D-linked and non-D-linked question words, completive information and background information<sup>3</sup>. An alternative information structure architecture emphasizes the common properties of the different discourse functions, without claiming that the elements belonging to the same i-structure set are semantically or discourse-wise identical (the i-structure contains the precise semantic descriptions (meaning constructors) of the elements (Dalrymple and Nikolaeva, 2011)). Since certain elements are semantically prominent and formally (syntactically or prosodically) highlighted, I posit a first dichotomy: +PROMI-NENT and -PROMINENT (two partitions in the i-structure). Furthermore, in both we find elements that link the sentence to the discourse, and others which do not. In both parts, I distinguish two subparts, a D-linked and a non-D-linked one (both of them forming a set), corresponding to this property (this way, I stay neutral with respect to the "newness" of the focused constituent). The proposed structure is illustrated in the following Figure, showing the above mentioned elements:

$$\begin{bmatrix} + \text{PROM} & \neg \text{ d-linked } \{ [\text{focus, Q, hocus}] \} \\ \text{d-linked } \{ [\text{thematic shifter, contrastive topic, Q}] \} \end{bmatrix} \\ - \text{PROM} & \begin{bmatrix} \neg \text{ d-linked } \{ [\text{completive information}] \} \\ \text{d-linked } \{ [\text{background information}] \} \end{bmatrix}$$

Figure 2: Proposed i-structure

As can be seen from this structure, the above mentioned features (prominent and D-linked) constitute its basic units, whereas the discourse functions they host are considered as derived notions.<sup>4</sup> Their exact interpretation depends on their semantic representation and on the particular discourse constellation in which the sentence occurs. The discourse structure can be conceived as a discourse tree consisting of the i-structures of the individual sentences. However, the exact formalization of this structure is beyond the scope of the present paper.

### 4 The Syntax-Discourse Interface

The mapping between the i-structure and the syntactic structure (c-structure) in Hungarian is shown in Figure 3.



Figure 3: C-structure of Hungari an

Contrary to the usual assumptions, the syntactic structure is flat in Hungarian. On the one hand, a hierarchical structure is not motivated, since simple linear precedence can reflect scope relations. On the

 $<sup>^{3}</sup>$ For the exact definition of these latter see in Butt and King (1996)

<sup>&</sup>lt;sup>4</sup>This is different from Choi (1997)'s proposal, in which the *prominent* and *new* features are the defining properties of the i-structure sets, but do not figure in the structure itself.

other hand, since the subject can follow the verb and appear interspersed with all the other complements, a VP is not motivated either.

As can be seen from the tree-diagram, the syntactic position of the elements depend on their informationstructure status (whether they are prominent or not, and D-linked or not). The PPP hosts prominent and non-D-linked elements, as opposed to the first block of constituents (there can be more than one topic, contrastive topic, or D-linked question word in the sentence), which are also prominent, but D-linked. As we have seen in the above examples, postverbal elements can also be prominent (foci can appear on the right periphery) (if there is already another prominent element in the PPP). However, this is not included in the syntax-discourse mapping, since they are not syntactically, but prosodically highlighted. This highlighting is represented in the prosodic structure, and their i-structure prominence is accounted for by the i-structure-prosodic structure mapping (see Mycock (2006)). Let us now see a direct question-answer pair as an example of this interface:

- (8) a. Q: "Mit olvasott fel János? what read.PST PRT János What did John read out?
  - b. A: A "Hamletet olvasta fel. the Hamlet.ACC read.PST PRT He read out (loud) HAMLET.







Figure 5: I-structures: Mit olvasott fel János? - A Hamletet olvasta fel.

### References

- Kersti Börjars, John Payne, and Erika Chisarik. On the justification for functional categories in lfg. In Butt Miriam and Tracy Holloway King, editors, *Proceedings of the LFG99 Conference*, Manchester, 1999. CSLI.
- Miriam Butt and Tracy Holloway King. Structural topic and focus without movement. In Butt Miriam and Tracy Holloway King, editors, *Proceedings of the LFG96 Conference*, Rank Xerox, Grenoble, 1996. CSLI.
- Hye-Won Choi. Information structure, phrase structure, and their interface. In Miriam Butt and Tracy Holloway King, editors, *Proceedings of the LFG97 Conference*. CSLI Publications, 1997.
- Mary Dalrymple and Irina Nikolaeva. *Objects and information structure*. Cambridge University Press, Cambridge UK, 2011.
- Katalin É. Kiss, editor. *Discourse-Configurational Languages*. Oxford University Press, Oxford, New York, 1995.
- Katalin É. Kiss. Identificational focus vs. informational focus. Language, 74:245–273., 1998.
- Katalin É. Kiss. *The Syntax of Hungarian*. Cambridge Syntax Guides. Cambridge University Press, Cambridge, 2002.
- Joachim Jacobs. Funktionale satzperspektive und illokutionssemantik. *Linguistische Berichte*, 91:25–58., 1984.
- László Kálmán, editor. Magyar leíró nyelvtan. Mondattan 1. [Descriptive Grammar of Hungarian. Syntax 1.]. Tinta Könyvkiadó, Budapest, 2001.
- Tracy Holloway King. Focus domains and information structure. In Butt Miriam and Tracy Holloway King, editors, LFG97, University of California, San Diego, 1997. CSLI Publications.
- Manfred Krifka. A compositional semantics for multiple focus constructions. In Joachim Jacobs, editor, *Infor*mationsstruktur und Grammatik. Sonderheft der Linguistischen Berichte. Westdeutscher Verlag, Opladen, 1992.
- Louise Mycock. A New Typology of Wh-Questions. PhD thesis, Manchester University, 2006.
- Luigi Rizzi. The fine structure of the left periphery. In Haegeman Liliane, editor, *Elements of Grammar*, pages 281–337. Kluwer, Dordrecht, 1997.