

# On the Syntax-Discourse Interface in Hungarian

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Information Structure and Formal Grammar Workshop  
HPSG 11 Conference, Seattle  
August 23, 2011

## Discourse-configurational languages

Discourse-configurational language (?): the syntactic structure is determined by the discourse functions (relation between the sentence and the discourse), and not by grammatical functions

Hungarian: preverbal part of the sentence is determined by the information structure adjusting the sentence to different discourse constellations (and not by the fixed position of grammatical functions, such as *subject* or *object*)

Schematic syntactic structure:

Topic field

Comment

Quantifiers    PPP    V    Postverbal part

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# Aims

- modeling the syntax-discourse interface (in Lexical-Functional Grammar)
- considering often ignored data
- proposing a discourse-neutral syntactic structure
- proposing an alternative information structure architecture

# 1 Introduction

## 2 The Data

## 3 IS in LFG

## 4 Analysis

## 5 Examples

# The Topic Field I

## Topic:

- old-new/given-new distinction (?); aboutness; entity ? or question (layered discourse topic, ??)
- **Def:** the constituent that links the sentence to the preceding discourse.
- **Thematic shifter:** a subtype of topic, present mostly but not exclusively in narrative contexts when the sentence does not continue the previous subtopic of the discourse topic, but introduces a new subtopic

(1) A 'VONATON 'TEGNAP sok 'gyerek 'utazott.  
 the train.SUPERESS yestaday a lot of child travel.PST  
 Yesterday, there were a lot of children travelling on the train.



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## The Topic Field II

- **Contrastive topic**: a subtype of topic, always co-occurring with a focus (its correlate), introducing a complex discourse strategy (?)

### (2) Question-Answer Pair

a. **KI** mit hozott a bulira? (question word)  
 who what bring.PST the party.SUBL

Who brought what to the party?

b. -/**MARI** csokitortát hozott. (contrastive topic)  
 Mari chocolate cake bring.PST

As for Mary, she brought a chocolate cake.

→ implies that there is at least one other person who did not bring a chocolate cake, but something else

→ thematic shifters and contrastive topics cannot always appear in the same type of sentence

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# The Prominent Preverbal Position

- often referred to as "Focus position", or FocP above the VP (???)
- great variety of elements, not an exclusive focus position
- some of the elements can be accented and interpreted as focus *in situ* (verbal modifiers, etc.), but they must follow the verb in the presence of other elements (focus, question words) → OT analysis (?)
- common semantic interpretation? *specificational predicates* (?) (main predicate, semantically distinguished position...)

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## Elements in the PPP I

- verbal modifiers (particles, bare nominal complements)
  - (3) János **KI**olvasta a könyvet. (verbal particle)  
 János VM.read.PST the book.ACC  
 John finished the book.
  - (4) 'János 'FÁT vág az 'erdőben. (bare nom compl)  
 János wood chop the forest.INESS  
 John is chopping wood in the forest.
  
- infinitives
  - (5) 'János 'KIRÁNDULNI akar.  
 János hiking want  
 John wants to go hiking.

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- negative words

- (6) 'János 'NEM akar 'kirándulni. (negative word)  
János not want hiking  
John doesn't want to go hiking.

- secondary predicates

- (7) János PIROSRA festette a kerítést.  
János red.SUBL paint.PST the fence.ACC  
John has painted the fence red.

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- refers to some participant or circumstance in the event denoted by the predicate
- the event denoted by the verb is not particularly newsworthy, or it is a regular event
- the circumstance or participant denoted by the hocus appears as something unusual or unexpected
- the main proposition of the sentence is the identification of this participant or circumstance
- ≠ focus (no pitch accent)

(8) János tegnap **VONATTAL** utazott haza. (NP)  
 János yesterday by train travel.PST home  
 Yesterday John took the train to go home.

(9) **KEVESEN** jöttek el a bulira.  
 few come.PST VM the party.SUBL  
 Only few people came to the party.

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## Elements in the PPP II

- Focus:

- the semantically prominent element of sentences that necessarily co-occur with another discourse segment; a typically in replies, *i.e.* answers to questions, corrections, contrast, parallel, etc.
- prosody in Hungarian: sharp falling pitch accent on the PPP "eradicating" the other possible stresses in the rest of the sentence

(10) Answer:

a. Q: -Ki hívta meg Marit a bulira?  
 who invite.PST VM Mari.ACC the party.SUBL  
 Who invited Mary to the party?

b. A: -**ZOLI** hívta meg (Marit a bulira).  
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## (11) Correction:

- a. -Mari tegnap kiolvasta a Háború és  
 Mari yesterday VM.read.PST the War and  
 békét.  
 Peace.ACC  
 Mary finished yesterday *War and Peace*.
- b. -Nem, **A BŰN ÉS BŰNHÖDÉST** olvasta ki.  
 no, the Crime and Punishment.ACC read.PST VM  
 No, she finished *Crime and Punishment*.

- Question words

(12) **Kit** hívott meg János? (question word)  
who.ACC invite.PST VM János  
Who did John invite?

Multiple question:

(13) **Ki mit** hozott a bulira? (two question words)  
who what bring.PST the party.SUBL  
Who brought what to the party?

→ analysis of the non sequence-final question word?



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## Neutral and non-neutral sentences

**Neutral sentences:** sentence type exhibiting level prosody, all-focus or contains a thematic shifter, no contrastive topic, focus or question word

**Non-neutral sentences:** contain a contrastive topic, focus or a question word, prosodically: pitch accent in the PPP no/reduced stress in the rest of the sentence

In the discourse: they are part of different discourse relations  
→ non-neutral sentences are part of discourse relations containing a semantically distinguished element (question-answer pairs, correction, contrast, etc.)  
→ there is no such element in neutral sentences, the PPP is occupied by an element carrying some specific semantic meaning (aspect, identification, etc.) (?)

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# The Framework

## Lexical-Functional Grammar

- non-derivational framework
- parallel levels of representation, mapped onto each other via correspondence functions
  - (constituent)-structure: tree diagram based on flexible X-bar principles (usually no empty categories, no binary branching)
  - (functional)-structure: feature matrix encoding grammatical functions and argument-argument relations
  - (syntactic)-structure (i.e. segment structure, morphological structure)
  - (phonetic)-structure, (orthographic)-structure

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# Syntactic structure (c-structure)




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## Neutral sentence

thematic shifter(s)

universal quantifiers

 verbal modifiers  
 secondary predicates  
 negative words  
 hocus

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## Non-neutral sentence

 thematic shifter(s)  
 contrastive topics

universal quantifiers

 question words  
 focus

→ flat structure (the linear order reflects scope relations)

→ no motivation for a VP

## LFG Preliminaries

- discourse functions encoded in the f-structure, associated with a grammatical function ex. *topic* and *subject* (functional uncertainty)

(14) Bagels, John hates.

- problem: i-structure units do not correspond to syntactic constituents (?)

(15) It was the GREEN tie that John was wearing.

- focusing of the predicate would be impossible without its complements (?)

Russian:

(16) Ona PROČITALA knigu.  
 she read.PST book  
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## A separate level

???

New approach: separate i-structure (a feature matrix) consisting of four sets, based on two features

	Topic	Focus	Background Inf.	Completive Inf.
New	-	+	-	+
Prominent	+	+	-	-

→ analysis of the syntax-discourse interface in Hindi-Urdu (?)



# Semantics and i-structure

?

- the information structure projection is linked to the semantic projection via the mapping function  $\iota$
- the meaning constructors of all the members of a clause are associated with a discourse function (information structure set), represented in the semantic description of their lexical entry
- the information about the particular i-structure role the meaning constructor takes on can come from various sources: ex. syntactic position, prosody

c-structure

|  $\phi$

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## An Alternative Approach

**Problem:** the assumed i-structure is not general enough to account for all the Hungarian data (ex. the hocus? difference between the topic types?), it automatically treats question words as foci

**Alternative approach:** i-structure based on the defining features of the discourse functions and not on the functions themselves

- Prominence
- D-linkedness: denoting a set that the locutor and the interlocutor can partition in the same way (????)

	¬D-LINKED	D-LINKED
+PROM	focus, QW, hocus	thematic shifter, contrastive topic, QW
¬PROM	completive information	background information

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# Advantages

- builds on the fundamental properties of i-structure roles, but stays neutral with respect to the “newness” of focus
- groups together the focus, the hocus and non-D-linked question words; the thematic shifter, the contrastive topic and D-linked question words



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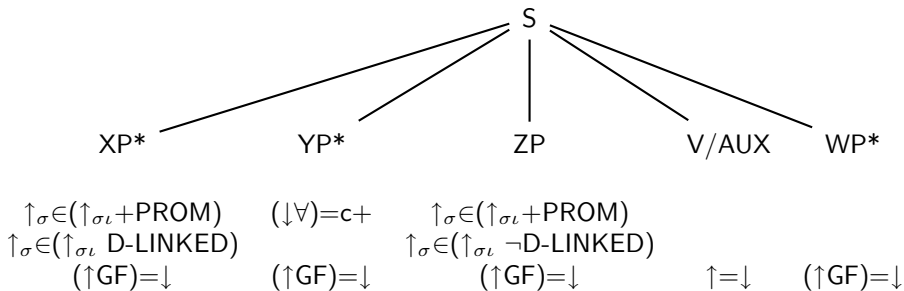
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# Syntax-Discourse Interface



# Discourse structure

- the above presented sentence types differ in the discourse contexts in which they are uttered
- the definitions of IS notions are also based on the discourse

→ formalization of discourse-structure needed:

- discourse-trees: the nodes are the i-structures of the individual sentences (?)
- the discourse-trees represent discourse relations between sentences
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- proposal: a possible formalization integrating the discourse relations of SDRT (?), ??

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## Neutral sentence

- (17) A **'VONATON** **'TEGNAP** sok 'gyerek 'utazott.  
 the train.SUPERESS yesterday a lot of child travel.PST  
 Yesterday, there were a lot of children travelling on the train.

+PROM	<table style="border-collapse: collapse;"> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;">¬ D-LINKED</td> <td style="padding: 5px;">{ }</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;">D-LINKED</td> <td style="padding: 5px;">{ <b>a vonaton, tegnap</b> }</td> </tr> </table>	¬ D-LINKED	{ }	D-LINKED	{ <b>a vonaton, tegnap</b> }
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## Direct Question-Answer Pair

- (18) a. Q: **-Ki** hívta meg Marit a bulira? (Who invited Mary to the party?)  
 b. A: **-ZOLI** hívta meg. (It was ZOLI who invited her).

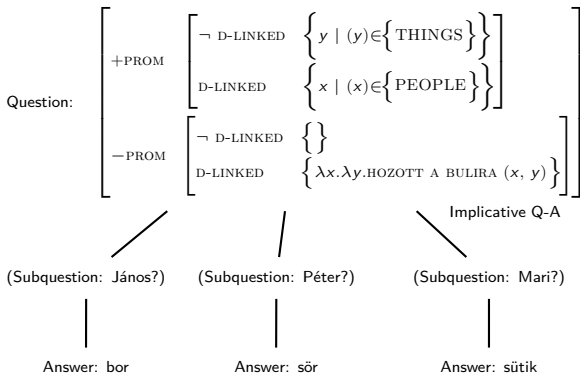
+PROM	¬ D-LINKED	$\left\{ x \mid (x) \in \{ \text{PEOPLE} \} \right\}$
	D-LINKED	$\{ \}$
-PROM	¬ D-LINKED	$\{ \}$
	D-LINKED	$\{ \lambda x. \text{INVITED TO THE PARTY} (x, \text{MARY}) \}$

| Direct Q-A Pair

+PROM	¬ D-LINKED	$\left\{ \text{'ZOLI'} \in \{ \text{PEOPLE} \} \right\}$
	D-LINKED	$\{ \}$
-PROM	¬ D-LINKED	$\{ \}$
	D-LINKED	$\{ \text{INVITED TO THE PARTY} (\text{ZOLI}, \text{MARY}) \}$

## Non-neutral sentence

- (19) a. Q: **Ki mit** hozott a bulira? (Who brought what to the party?)  
 b. A: János bort, Péter sört, Mari pedig sütit hozott. (John brought wine, Peter beer and Mary cookies.)



# Conclusion

- discourse-based distinction between 'neutral' and 'non-neutral' sentences in Hungarian
- discourse-neutral, flat syntactic structure
- information structure based annotations in the preverbal part
- i-structure architecture based on two properties (prominence, d-linkedness), discourse functions represented as derived notions
- further work: discourse structure representation



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