

# Scope Marking, p. 1

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## Sample sentence

(Hungarian, from Louise Mycock (2006) *A Typology of Constituent Questions: A Lexical-Functional Grammar Analysis of 'Wh'-Questions*. Ph. D. dissertation, University of Manchester)

István mi- t gondol, hogy János ki- nek mutat- t- a be Mari- t?  
 István what- ACC think.PRES.3SG that János who- DAT show- PST- 3SG in Mary- ACC  
 'Who does István think János introduced Mary to?'

## Possible analyses

(based on Mycock 2004; 2006)

In all of the following:

$f = [\text{"who"}]$

### Direct Dependency analysis

This is the most obvious analysis. From a movement perspective, the *wh* element does not move all the way to the matrix clause, but stops on the way. In languages like Hungarian which have an element in the main clause (where the *wh* should have moved to), it is taken to be an overt marker of the scope of the *wh*.

SUBJ	["István"]											
OPER	$f$											
PRED	'think'⟨(↑ SUBJ)(↑ COMP)⟩'											
TENSE	PRES											
COMP	<table style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">SUBJ</td> <td style="padding-left: 10px;">["János"]</td> </tr> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">PRED</td> <td style="padding-left: 10px;">'introduce'⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ<sub>Indirect</sub>)⟩'</td> </tr> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">TENSE</td> <td style="padding-left: 10px;">PAST</td> </tr> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">OBJ</td> <td style="padding-left: 10px;">["Mari"]</td> </tr> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">OBJ<sub>Indirect</sub></td> <td style="padding-left: 10px;"><math>f</math></td> </tr> </table>		SUBJ	["János"]	PRED	'introduce'⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ <sub>Indirect</sub> )⟩'	TENSE	PAST	OBJ	["Mari"]	OBJ <sub>Indirect</sub>	$f$
SUBJ	["János"]											
PRED	'introduce'⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ <sub>Indirect</sub> )⟩'											
TENSE	PAST											
OBJ	["Mari"]											
OBJ <sub>Indirect</sub>	$f$											

But the *wh* in the main clause does not have the right Case: it is accusative instead of dative. This suggests an indirect relation between the two *wh*'s, not one in which they represent the same structural entity.

### Indirect Dependency analysis

In the indirect dependency analysis, the *wh* in the matrix clause is the actual argument of the verb; the sentence has a structure something like 'What does István think: who did János introduce to Mari?' The Case on the matrix *wh* is consistent with such an analysis. There are further examples in the Mycock paper.

## Scope Marking, p. 2

If the indirect dependency analysis is correct, “partial movement” is not a very good name for the construction, since the *wh* lands right where it belongs.

SUBJ	[“István”]													
OPER	<i>g</i>													
PRED	‘think⟨(↑ SUBJ)(↑ OBJ)⟩’													
TENSE	PRES													
OBJ	<i>g</i>													
	<table style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">SUBJ</td> <td style="padding-left: 10px;">[“János”]</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">FOCUS</td> <td style="padding-left: 10px;"><i>f</i></td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">PRED</td> <td style="padding-left: 10px;">‘introduce⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ<sub>Indirect</sub>)⟩’</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">TENSE</td> <td style="padding-left: 10px;">PAST</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">OBJ</td> <td style="padding-left: 10px;">[“Mari”]</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">OBJ<sub>Indirect</sub></td> <td style="padding-left: 10px;"><i>f</i></td> </tr> </table>		SUBJ	[“János”]	FOCUS	<i>f</i>	PRED	‘introduce⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ <sub>Indirect</sub> )⟩’	TENSE	PAST	OBJ	[“Mari”]	OBJ <sub>Indirect</sub>	<i>f</i>
SUBJ	[“János”]													
FOCUS	<i>f</i>													
PRED	‘introduce⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ <sub>Indirect</sub> )⟩’													
TENSE	PAST													
OBJ	[“Mari”]													
OBJ <sub>Indirect</sub>	<i>f</i>													
ADJ ?														

$g$  = [“what”]

The weakness of this analysis is that it claims that the *wh* in the matrix clause is a meaningful element, but it actually appears to be an expletive. Among the dummy-like properties are the fact that it cannot be stressed (or at least not stressed independently of the “real” *wh* element), cannot be passivized, and looks like the *wh* version of the expletive *it*.

### Mixed Dependency approach

SUBJ	[“István”]	
OPER	<i>h</i>	
PRED	‘think⟨(↑ SUBJ)(↑ COMP)⟩’	
TENSE	PRES	
COMP	<i>h</i>	

  

$h =$	<table style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">SUBJ</td> <td style="padding-left: 10px;">[“János”]</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">OPER</td> <td style="padding-left: 10px;"><i>f</i></td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">PRED</td> <td style="padding-left: 10px;">‘introduce⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ<sub>Indirect</sub>)⟩’</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">TENSE</td> <td style="padding-left: 10px;">PAST</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">OBJ</td> <td style="padding-left: 10px;">[“Mari”]</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">OBJ<sub>Indirect</sub></td> <td style="padding-left: 10px;"><i>f</i></td> </tr> </table>	SUBJ	[“János”]	OPER	<i>f</i>	PRED	‘introduce⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ <sub>Indirect</sub> )⟩’	TENSE	PAST	OBJ	[“Mari”]	OBJ <sub>Indirect</sub>	<i>f</i>
SUBJ	[“János”]												
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PRED	‘introduce⟨(↑ SUBJ)(↑ OBJ)(↑ OBJ <sub>Indirect</sub> )⟩’												
TENSE	PAST												
OBJ	[“Mari”]												
OBJ <sub>Indirect</sub>	<i>f</i>												

Here the subordinate clause is itself the “*wh*” element; since a clause cannot be a *wh* the expletive *mi* ‘what’ is used, as in the extraposition structure with *it* in English and *az* ‘it, that’ in Hungarian. The expletive occupies the normal position for OPER with the information structure function FOCUS in the language (in Hungarian, this is the pre-verb position).