

I-structure, s-structure and multiple questions in French and Hungarian
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In this paper we discuss multiple questions (questions which contain more than one information gap within the same clause *e.g.* *Who said what?*) in two typologically different languages, French and Hungarian.

In both languages, different syntactic structures of multiple questions can be identified, with different interpretations (multiple questions have either a pair-list reading *e.g.* *Who left when? -Mary left in the morning, John in the afternoon...*, or a single-pair reading *Who left and when? Mary left in the morning.*). In Hungarian (and in other languages, for Romanian see Comorovski (1996), and for Czech Skrabalova 2007), it is possible to extract both (all) question words. Such questions license a pair-list answer. This structure is ungrammatical in French:

- (1) *Ki kivel ment moziba?/ *Qui avec quoi est venu à la fête ?*
 who who.with went cinema.to/ who with what is come to the party
 Who went to the cinema with whom?/ (Who brought what to the party?)

In the next type, one *wh*-word is extracted, the other is *in situ*:

- (2) *Kinek mutattál be kit?/ Qui as-tu présenté à qui ?*
 whom.to introduced VM whom/ whom have you introduced to whom
 Whom did you introduce to whom?

This structure exists both in Hungarian and in French. In the former, only a single-pair reading is available and there is a strong preference for cases in which the question words belong to the same lexeme (*ki* (*who*) and its declined forms, or *mi* (*what*) and its declined forms), in other words, they refer to the same set of entities. In French, this question type is ambiguous between the single-pair and the pair-list reading. In informal French, all question words can appear *in situ*, with the same interpretation conditions, which, in turn, is not possible in Hungarian (in which at least one question word is obligatorily extracted):

- (3) *Tu as donné quoi à qui?/ *Te adtál mit kinek?*
 you have given what to whom/ you gave what to whom
 What did you give to whom?

In the last case, the *wh*-words are coordinated in a sentence-initial position:

- (4) *[Mikor és mit] adott János Marinak a múzeumban?/ [Quand et pourquoi] est-il parti ?*
 when and what gave John Mary.to the museum.in/ when and why is
 he left
 What did John give to Mary in the museum and when?/ When and why did he leave?

Although this structure is present in both languages, there are important differences between the two. First, in Hungarian, it licenses only a single-pair reading, whereas in French both interpretations are possible. Second, in Hungarian any two question words can be coordinated, while in French, coordination is more restricted: the conjuncts have to share all their functions, thus (5) is ungrammatical:

- (5) **[Quand et qui] est parti ?*
 when and who is left
 (Who left and when?)

This structure is problematic in that in Hungarian it is possible to coordinate question words that have different grammatical functions. The phenomenon, at first sight, is difficult to handle in a set-based feature-resolution analysis distinguishing between + and - distributive features in coordinated structures (Dalrymple & Kaplan 2000), or in Peterson (2004)'s framework, according to which only grammatical features distribute, lexical features do not (especially if we assume that discourse functions are represented at a separate i-structure and not at f-structure, thus *focus* cannot be the common grammatical function). In the present analysis, we concentrate on 3 types of problems mentioned above and show how the LFG architecture can account for them. We build on [Mycock:2006]'s analysis in that the focus status of *wh*-questions in the information structure can come from different sources (syntax, prosody, context, etc.) and on [Dalrymple:2010]'s proposal based on [DalrympleNikolaeva:toappear], concerning the relationship between information and semantic structure (categorization of meaning constructors (semantic information) according to their information structure role in a complex semantic structure. First of all, it is well-known that in pair-list questions the *wh*-words do not have the same status. One of them has to denote a contextually determined set, all the elements of which are to be paired up, in the answer, with one element of the set denoted by the other question word. [Comorovski:1996] refers to this phenomenon as the *D-linkedness* of question words. In Hungarian (1), this difference is indicated syntactically: D-linked question words precede non-D-linked ones. In French, on the other hand, the syntax is not revelatory in this respect. In a structure like (2), any of the question words can be D-linked depending on the context. We propose, therefore, that D-linkedness in multiple questions is related to information structure phenomena. We assume an information structure architecture based on that of Halliday (1967) and Steedman (2000) (theme/background and rheme partitions, both divided in a focus (prominent, highlighted) and a background (non-prominent) part), which is compatible with Butt & King's (1996) approach as well. Contrary to [Mycock:2006], who places all question words to the *focus* set, we associate D-linked question words with the highlighted part of the *theme*. To support this view, we refer to the following facts: only one preverbal focus is permitted in Hungarian (in declaratives, the second focus is obligatorily sentence-final); in the answer, (contrastive) topics and not foci correspond to D-linked question words (expressed in the prosody as well); D-linked question words, like topics, refer to entities that are salient and (often) that have already been introduced into the discourse; finally, being the *sorting key* (Kuno & Takami 1993), D-linked question words thematize the answer to the question. Secondly, we propose a restriction at the semantic structure to the problem of Hungarian *wh*-questions in (2). According to our approach, when the two question words are in the same clause and they are not coordinated, their feature *animate*+/- must agree, *i.e.* all the elements of the *focus* set must share the same feature, otherwise the structure is ill-formed. This approach is an elegant way of accounting for the fact that the question words can only differ in their cases, but they have to belong to the same lexeme (*who* or *what*). Finally, we account for the differences in coordination between the two languages in f-structure constraints. We propose that, whereas in Hungarian it is enough if the conjuncts share at least one of their grammatical functions, in French they have to share all of them. At f-structure in Hungarian, the shared grammatical function of *wh*-words is that of *extracted* (Q), *i.e.* it is enough if both conjuncts are extracted. This predicts that the same coordination *in situ* would lead to the degradation of the acceptability of the sentence, which prediction is borne out:

- (6) ?? *Ki adott Marinak [mikor és mit] a múzeumban?*
 who gave Mary.to when and what the museum.in
 Who gave what to Mary in the museum?

<p>French</p> <p>XP → (XP)* Conj XP</p> <p style="padding-left: 40px;">↓ ∈ ↑ ↓ ∈ ↑</p> <p style="padding-left: 40px;">↓ ∈ Q ↓ ∈ Q</p> <p style="padding-left: 40px;">↑ GFα ↓ ↑ GFα ↓</p>		<p>Hungarian</p> <p>XP → (XP)* Conj XP</p> <p style="padding-left: 40px;">↓ ∈ ↑ ↓ ∈ ↑</p> <p style="padding-left: 40px;">↓ ∈ Q ↓ ∈ Q</p>
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Selected References

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