
**FORMAL METHODS
IN THE STUDY OF LANGUAGE**

PART 2

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THE SEMANTICS OF TOPIC-FOCUS ARTICULATION

by

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ABSTRACT

This paper proposes a purely grammatical approach to topic-focus articulation. Section 1 indicates why this approach seems preferable to communicative ones. Section 2 gives an outline of the syntax of word order and intonation in Hungarian and suggests how these phenomena can be treated within Montague Grammar. Section 3 is concerned with term phrases in Focus position. Section 4 examines scope phenomena related to Focus. Section 5 adds a few informal comments about the behaviour of the finite verb.

1. METHODOLOGICAL SUGGESTIONS

It is commonly agreed that for communication to be effective, one's intended message needs to be adapted to the situation in which it is to be conveyed. There are two large areas of linguistic research particularly involved in the implementation of this idea, namely, the theories of speech acts and the theories of communicative articulation, the latter being concerned with the more specific claim that our sentences fulfill both an 'anchoring' and a 'furthering' function in the flow of communication.

I am using the ad hoc cover terms 'anchoring function' and 'furthering function' for the following reason: there exist a vast number of notions (topic-comment, theme-rheme, background-focus etc.), which seem to stem from some common intuitive basis but whose actual contents tend to vary almost from author to author although each appears to be useful in explaining some interesting facts of syntax, or semantics, or pragmatics. This proliferation of notions is both promising and frightening. It is promising because it seems to indicate the heuristic value of recognizing some articulation of sentences beyond that of, say, subject and predicate; and it is frightening because one might expect that if the essence of the phenomenon were captured,

we would not need this many of them.

Without wishing to give a critical review of the field, let me briefly point out why it is so difficult to compare rival claims about this kind of sentential articulation. We seem to have the following (overlapping) possibilities for divergence:

(Ai) some authors set up their definitions of the two functions and from those definitions they try to deduce which segments of sentences will fulfill them;

(Aii) some others pick out some grammatical phenomenon and identify its properties, so to say by definition, with the properties of one of those functions;

(B) since those functions (or, associated notions) tend to come in pairs, the one an author gives conceptual prominence will also create a complement with some rather uninspiring definition;

(C) authors vary as to whether they attribute only a pragmatic or also a semantic significance to their notions.

These treatments seem to rest on the (sometimes tacit) postulation of a rather direct correlation between the alleged communicative principles and certain grammatical processes. Given however that the existence of such a direct correlation is dubious and the notions in current use are fairly vague (so vague in fact that even authors giving radically different analyses for the same sentences might well agree in them), a conceivable way out from this diversity would be to forget about the adaptation idea for a while and look for some independent grammatical evidence.

It may sound absurd to seek independent grammatical evidence for something I refuse to clearly identify in advance but it is actually not that absurd. There is the indisputable fact that the 'same' sentence may have various word order and/or intonation variants, with possibly different use conditions. Now, by virtue of their mere existence, any grammar can be expected to generate those variants and given that not all permutations are grammatical, by first restricting our attention to this side of the matter we can arrive at a set of distinctions (rules, categories etc.) with self-contained formal motivation. The next step is to interpret sentences in observance of those distinctions - that is, to proceed in the very same fashion as we do in the case of any other grammatical phenomenon. It may turn out that certain 'word order rules' affect the truth conditions of the sentences (i.e. that some of the differences in use conditions are simply due to differences in meanings proper) while the operation of other becomes relevant only at a

text, or discourse, level indeed.

Apart from being justified on its own, this grammar-minded approach seems useful for the following reason as well. Our intuitive concept and mutual understanding of the anchoring versus furthering division is presumably based on the above mentioned distinctions, whose unbiased and thorough examination has been hindered, however, by giving a too ready rationale to their existence. The examination I propose is very likely to verify many of the usual claims about this kind of sentential articulation but will hopefully also give more substance to them and will save us from premature generalizations.

2. SYNTACTIC MOTIVATION AND OUTSET

2.1. In this paper I will attempt to account for the semantic significance of some Hungarian word order rules. Besides being my mother tongue, Hungarian has the following advantages: it is a 'free word order' language (but, as opposed to Russian and Czech, for instance, the definite-indefinite distinction is marked with articles and not with linear position) and a syntactic treatment of its word order has been proposed by É. KISS (1980). Since this work provides the fundamentals of those *self-contained formal distinctions* that I required in the previous section, I begin with a semi-formal summary of it.

E. Kiss proposes the following base rules:

- (I) a. $S'' + X^{n*} S'$
 b. $S' + X^n S^0$
 c. $S^0 + V X^{n*}$.

The set of maximal major categories X^{n*} immediately dominated by S'' and the single maximal major category X^n immediately dominated by S' are called T and F respectively. These mnemonic names are reminiscent of 'topic' and 'focus' but the introduction of the corresponding positions is motivated on purely formal grounds. Their nodes are generated empty and can be filled by the optional transformation *move a* from S^0 , leaving a trace behind.¹

Now, empirically speaking, what is the motivation for the introduction of the T and F positions?

- (II) (i) The MAIN STRESS of the sentence falls on the first major category in F or on the finite verb in case F is left empty;
 (ii) The X^n 's within T and the X^n 's behind the verb (i.e. sister nodes)

are interchangeable preserving grammaticality. E.g. taking a sentence with a finite verb *v* and any two 'mobile constituents' *a* and *b* with no specific restrictions:

V a b	* v A b	* v a B
V b a	* v B a	* v b A
A v b	a V b	* a v B
B v a	b V a	* b v A
* A b v	a B v	a b V
* B a v	b A v	b a V

(iii) In certain cases F must be filled in a specific way:

- an X^n modified by a negative (interrogative, optative etc.) operator must occupy the F position:

- (1) a. [_Te] [_F Nem PÉTER] sétál Máriával
not Peter walks Mary-with
b. * [_T Nem Péter] [_F MÁRIÁVAL] sétál
c. * [_T Máriával] [_Fe] SÉTÁL nem Péter

- in the presence of a so-called reduced complement (e.g. the *converb*) the F position may only be left empty if the verb is modified by an operator of the above mentioned kind:

- (2) a. [_T Péter] [_F BE] szaladt
Peter in ran
b. [_Te] [_F PÉTER] szaladt be
c. [_T Péter] [_Fe] nem SZALADT be
Peter not ran in
d. * [_T Be Péter] [_Fe] SZALADT
e. * [_T Péter] [_Fe] SZALADT be

(iv) If the X^n in F position consists of a head plus an embedded sentence, the embedded sentence must be moved to the end or the beginning of the matrix sentence (the same is possible, but not obligatory, in other positions):

- (3) a. * [_S₁ [_F AZT [_S₂ hogy [_F PÉTER] győzött]] hallottam
it+acc that Peter won-he heard-I
b. [_S₂ Hogy [_F PÉTER] győzött] [_S₁ [_F AZT] hallottam
c. [_S₁ [_F AZT] hallottam] [_S₂ hogy [_F PÉTER] győzött]

(v) Through certain bridge verbs the F of the *that*-clause may be raised

to the F position of the matrix sentence (and similarly for Ts):

(4) = (3) [_S₁ [_F PÉTER_i] hallottam [_S₂ hogy [_F t_i] GYŐZÖTT]]
Peter+acc heard-I that won-he

Although this proposal does not give a full account of all subtleties of Hungarian word order and intonation, it is both comprehensive and reliable enough to motivate that whatever interpretation and *raison d'être* should be attributed to these variants, the positions T and F must be distinguished in any grammar of the language for purely formal reasons. Moreover, I believe that Hungarian speakers' intuition about 'communicative articulation' must be based on these very distinctions and therefore any reasonable interpretive notion must be definable in these terms or must be possible to give a similarly strong formal motivation. Note by the way that É. Kiss's findings do not support the assumption that Hungarian sentences are best characterized by an inherently bipartite structure as neither T nor F has a syntactically significant 'complement'.

2.2. I have already noted that É. Kiss's rules are set up without keeping an eye on interpretation (which I do not regard as a virtue in general but in this particular case it has its advantages). Nevertheless, the version of Extended Standard Theory she uses does not even have a sophisticated interpretive component as yet. For this reason I will take her claims as empirical facts and try to formulate my results in terms of *Montague Grammar*.

Note first that if we want to produce all these variants we can no longer expect function and argument expressions to combine in a uniform surface order. A first approximation may be to assume that the relevant rules of functional application have *three versions*: one for inserting the 'nominal expression' in front of the finite verb (=F position), a second for inserting it 'somewhere' to the left of the verb but not to the right of F (=T position), and a third for inserting it 'somewhere' to the right of the verb (=neutral position).

Provided that the truth/use conditions of the sentence are indeed dependent on which versions of the rules are applied in its derivation, we can be prepared for the following three main possibilities:

(a) It may turn out that whatever fills the F (or T, or neutral) position, the sentence will gain the same kind of interpretational surplus compared to what is predicted in PTQ.

(b) It may turn out that the effects of the same kind of rule version vary with the nature of the inputs.

If (a) or (b) obtains we will have to provide each rule version with a specific translation, in addition to what it carries over from PTQ.

(c) It may turn out that no interpretational surplus arises in fact and only the distribution of PTQ-predicted readings is constrained by the way we filled those positions.

I will argue that - at least as far as Hungarian is concerned - it is a combination of (b) and (c) that obtains. That is, 'word order rules' may add to the literal meaning of the sentence, although not in a uniform fashion and, further, interpretation options are sometimes also constrained (e.g. in connection with quantifier scopes). It is in fact not very surprising that (a) does not obtain; among others, this may be a reason why many attempts to treat this kind of sentential articulation on the assumption of a direct correlation between communication and grammar turn out to be inconsistent or impossible to check against new examples.

I am far from claiming that I can give an exhaustive treatment of the issue. Here my attention will be restricted primarily to *the behaviour of term phrases in F position and related problems, supplemented with a few remarks on the verb and the converb*. Nevertheless, I hope that even within these limitations I can motivate the claims I made in the paragraph above and that my considerations will illustrate the advantages of a syntax-based approach.

Note that my approach also implies that the results may be more or less language specific, i.e. the significant syntactic distinctions and their respective interpretations may vary from language to language. Apart from the theoretical consequences of this fact, let me warn the reader of the practical consequence that the English 'equivalents' I can give for my examples may happen to be only near-equivalents.

In connection with interpretation, I will refer to the constituent in F position as Focus and to a constituent in T position as Topic.

3. TERMS IN FOCUS

3.0. In rather informal terms we can say that the common feature distinguishing T and F from neutral constituents is that only the former may be contrastive. This statement of course needs to be made more precise in various respects. First, although both are put under the same label, Topic-contrast and Focus-contrast are two different matters, in force as well as in content. The characteristic difference is that by using a

sentence with a contrastive Topic, one suggests (or, implicates²) that the claim he is making need not be true of something else, whereas by using a contrastive Focus one asserts that the claim he is making is in fact not true of anything else³. An additional difference is that whether the Topic of a sentence is contrastive or not usually depends on whether it receives an extra intonation contour while most Foci (i.e. most expressions in F position) are necessarily contrastive in the above sense. On the other hand, the assumption that this kind of general interpretational surplus may only be attributed to T and F is corroborated by the fact that maximally elliptical (one-xⁿ) sentences must follow either the T-pattern or the F-pattern and can only be conjoined with non-elliptical sentences if those have the same kind of xⁿs in their respective positions.

3.1. Exhaustive listing

It will have become clear that I regard exhaustive listing as the predominant semantic characteristic of Focus, as opposed, for instance, to those who argue that a sentence like (6)

(6) [_F Mária] látta Pétert 'MARY saw Peter'
 Mary saw Peter+acc

presupposes (in one of the many senses of this term) that the set of those who saw Peter is not empty and asserts that Mary is contained in that set. Needless to say, the postulation of such a presupposition is in itself not incompatible with exhaustive listing and therefore I will return to it in 3.3. As for the other parts of the claims, the choice between them may seem like a matter of simple intuition as long as we only consider one individual denoting expressions in F. Note however that while the proposal I am arguing against predicts that from (7) we can infer (6), this is not the case: from (7) we are only entitled to infer (8):

(7) [_F Mária és Éva] látta Pétert 'MARY AND EVE saw Peter'⁴
 (8) [_Fe] Látta Pétert Mária 'Mary saw Peter'

This suggests that co-ordinate NPs in F position may not be derived via conjunction reduction (whether it be a syntactic or a logical application of the idea). For illustrative purposes we might say that Focus has something like an invariably collective reading but, of course, in view of (8) being a logical consequence of (7), this may only be metaphorical. The same situation obtains with plural quantifiers: (10) is not a logical consequence

of (9):

- (9) [_F Három lány] látta Pétert 'THREE GIRLS saw Peter'
 (10) [_F Két lány] látta Pétert 'TWO GIRLS saw Peter'

It might be argued that the reason why this letter inference is unjustified is that natural numbers are to be interpreted as numerically definite quantifiers. Apart from missing a generalization, this would not be a good argument, however, since on the one hand, these quantifiers get a *probably* numerically definite interpretation in F position only and, on the other hand, in other positions we cannot even get on without the 'at least' meaning. E.g., on one reading (11) undoubtedly means that at most two girls may have seen Peter, which would be impossible if *three* meant exactly three:

- (11) [_T Három lány] nem látta Pétert 'Three girls, didn't see Peter'

And finally, for those who may not trust the juggling with inferences in such communicatively delicate cases: without exhaustive listing we cannot explain why the biconditional is normally expressed in Hungarian by mere Focusing (for the syntax of (12), see (II.iv) above):

- (12) [_F Akkor] megyek veled ha cilindert veszel
 then go-I you-with if tophat+acc take-you
 'I'll go with you only if you put on a tophat'

These observations seem to motivate the taking of exhaustive listing to be a property of the F position that must be directly reflected in truth conditions.

3.2. A first extension of PTQ

Although exhaustive listing appears to be a logically very unsophisticated notion, the appropriate formulation of the translation rule corresponding to F-filling turns out to be rather complicated, due to the fact that logic lacks the comfortable and *none/nothing else* idiom that can be suffixed to just everything. To make discussion simpler, I begin by sketching a few tentative extensions of the PTQ grammar for Hungarian.

I will retain English lexical items for derivations to be easier to decipher. Also, I will state syntactic rules almost as loosely as I did in 2.2; to develop the full marking technique would be a routine job but its explication would make the rules overcomplicated here. I will ignore problems of pronominalization throughout the rules.)

$B_T = \{Mary, Peter, \dots, he_1, he_2, \dots\}$
 where he_{2k} translates as $\lambda P^{\forall P}(x_{2k})$,
 he_{2k+1} translates as $\forall P_{2k+1}$.

$B_{TV} = \{[]find, []lose, []seek, \dots\}$

$B_{IV} = \{[]run, []sing, \dots\}$

- S4a. (Focus) If $\alpha \in P_T$ and has the form he_n and $\delta \in P_{IV}$ and its main verb is prefixed with [, then $F_{4a}(\alpha, \delta) \in P_t$ and is obtained by replacing [in δ with / α
- S4b. (Topic) If $\alpha \in P_T$ and does not have the form he_{2k+1} and $\delta \in P_{IV}$ then $F_{4b}(\alpha, \delta) \in P_t$ and is obtained by inserting α somewhere to the left of [or / in δ .
- S4c. (Neutr) If $\alpha \in P_T$ and does not have the form he_{2k+1} and $\delta \in P_{IV}$ then $F_{4c}(\alpha, \delta) \in P_t$ and is obtained by inserting α somewhere to the right of the main verb in δ .
- T4. If $\alpha \in P_T$ and $\delta \in P_{IV}$ and α, δ translate as α', δ' respectively, then $F_{4a}(\alpha, \delta), F_{4b}(\alpha, \delta), F_{4c}(\alpha, \delta)$ translate as $\alpha'(\wedge \delta')$.

And similarly for S5.

- S14'. The same as the PTQ quantification rule, with the difference that only he_{2k} pronouns may be replaced and if $\alpha = he_{2k+1}$ it may only replace a focused pronoun.
- S17'. The same as in PTQ, with the difference that its operations also have three versions and, in particular, in $F_{11}(\alpha, \delta)$ not replaces] in δ .
- S21. If $\phi \in P_t$ and ϕ contains an occurrence of he_{2k+1} or him_{2k+1} then $F_{21}(\phi) \in P_{t/T}$ and the pronoun in ϕ is 'capitalized' (= marked to receive sentence stress).
- T21. If $\phi \in P_t$ and ϕ translates as ϕ' , then $F_{21}(\phi)$ translates as $\lambda P_{2k+1} \phi'$.
- S22. If $\alpha \in P_T$ but $\alpha \neq he_n$ and $\beta \in P_{t/T}$ then $F_{22}(\alpha, \beta) \in P_t$ and is obtained by replacing HE_{2k+1} or HIM_{2k+1} in β by α .⁵
- T22. If $\alpha \in P_T$ and $\beta \in P_{t/T}$ and α, β translate as α', β' respectively, then $F_{22}(\alpha, \beta)$ translates as $\beta' = \lambda P \forall R[\alpha'(\wedge \lambda x[\beta'(\wedge \lambda P^{\forall P}(x)) \wedge \forall R(x)]) \rightarrow \forall P(R)]$.
 For instance

- (6) [_F Mária] látja Pétert
- ```

 /MARY]sees Peter+acc, 22
 /
 Mary /HE1]sees Peter+acc, 21
 /he1]sees Peter+acc, 4a
 /
 he1 []see Peter+acc, 5c
 []see Peter

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$$(6') \quad \lambda P_1 [\overset{\vee}{P}_1 (\wedge \text{see} (\wedge \lambda P \overset{\vee}{P} (\wedge P)))] = \lambda P \forall R [\lambda P \overset{\vee}{P} (\wedge m) (\wedge \lambda x [\lambda P_1 [\overset{\vee}{P}_1 (\wedge \text{see} (\wedge \lambda P \overset{\vee}{P} (\wedge P))]]) (\wedge \lambda P \overset{\vee}{P} (x)) \wedge \overset{\vee}{R} (x))] + \overset{\vee}{P} (R)]$$

Now, considering that this monstrous formula says the same as (6''):

$$(6'') \quad \forall v [\text{see}_*(p)(v) \leftrightarrow v = m]$$

one may ask why it is needed. Notice that the intention behind the whole procedure is to retain the original translations of the term phrases (since it would be somewhat strange to claim that *Mary*, for instance, means something different in one position than in another). Consequently, T22. must be applicable to term phrases with all kinds of internal structures. What happens now if the term to be focused is somewhat more complicated than a proper name? First, consider a conjunction like *Mary and Eve*. Assuming that it translates as  $\lambda P [\overset{\vee}{P} (\wedge m) \wedge \overset{\vee}{P} (\wedge e)]$  and realizing that (7) above means that someone saw Peter iff he/she is identical to either Mary or Eve, a uniform translation rule to this effect must require that someone saw Peter iff he/she is contained in every set that contains the person(s) listed in F. Nevertheless, the situation is even worse with, say, two girls  $(\lambda P \exists x \exists y [\neg (x=y) \wedge \text{girl}(x) \wedge \text{girl}(y) \wedge \overset{\vee}{P}(x) \wedge \overset{\vee}{P}(y)])$  in F position, since it would be far too much to require that for someone to have seen Peter, he/she must be contained in every set that contains at least two girls - we are only interested in those sets that contain at least two girls who saw Peter. (And that is also sufficient, for (a) if there are indeed at least two girls, say, Mary and Eve, who saw Peter, then by letting R be  $\wedge \lambda x [\overset{\vee}{x=m} \vee \overset{\vee}{x=e}]$  we exclude the possibility that any third person, too saw Peter, and (b) if there are not at least two girls who saw Peter - that is, when the value of the function on the right hand side will be 1 for every P, then by letting P<sub>1</sub> be, say,  $\wedge \lambda P [\neg (a=a)]$  we have at least one argument for which the value of the left hand side function is 0 and therefore, just as we expect, the sentence will be false.)

This much does not explain everything about T22. or the other rules I introduced, it only serves to show that at least in intuitively simple cases this translation does give the correct results. The remaining problems will be discussed step by step.

### 3.3. Existential presupposition

Let us now turn to the problem whether there is an existential presupposition associated with Focus. This will also bring us to the treatment

of so-called constituent negation and *wh*-questions.

It goes without saying that by claiming that a sentence like (13) presupposes that Peter is beating someone,

- (13) [<sub>F</sub> Máriát] veri Péter                    'Peter is beating MARY'  
Mary+acc beats Peter

we are committed to the view that there is something wrong with the negation of (13) if Peter is not beating anyone. (14) and (15) are synonymous in Hungarian:

- (14) [<sub>F</sub> Nem Máriát] veri Péter                    'Peter is not beating MARY'  
not Mary+acc beats Peter
- (15) Nem igaz az, hogy [<sub>F</sub> Máriát] veri Péter  
'It is not the case that Peter is beating MARY'

Nevertheless - and in this respect Hungarian may be different from English - it seems that neither semantic nor pragmatic conventions are violated if (14) is continued in either of the following ways:

- (14) a. ... hanem [<sub>F</sub> Évát].  
but Eve+acc
- b. ... hanem [<sub>F</sub> a gyerekkal] játszik.  
but the kid-with plays
- c. ... hanem [<sub>F</sub> az ajtó] csapódott be.  
but the door banged.

On the contrary, such conjunctions sound perfectly natural and are not infrequent to occur. In view of these facts it would seem unwarranted to assume that (13) and (14) presuppose that Peter is beating someone. (The correspondence between such sentences and *wh*-questions (see 3.5) will support this conclusion, too.)

Shall we say, however, that (14) is ambiguous with respect to the scope of negation? That is, (14) might be said to assert either (a) that Peter is beating someone but not Mary, or (b) that Peter is involved in some activity but not in beating Mary, or (c) that something happened but not that Peter is beating Mary.

Note first the difficulties arising in connection with such a proposal. On the one hand, the variation of the scope of negation in the above fashion would not be too easy to build into our grammar, in particular if we consider that subjects, too may fill the F position. On the other hand, notice that in the paragraph above I neglected exhaustive listing on the whole.

Taking that into account as well, we ought to vary, not only the scope of negation but also the 'scope of Focus'. Nevertheless, aside from formal difficulties again, that would be equivalent to the abandoning of all the significant syntactic generalizations the whole approach is based on.

I suggest that (14) is in fact *unambiguous* and being the negation of (13), it simply asserts that it is not the case that Peter is beating someone if and only if that person is Mary. From a logical (semantic) point of view this is just a very unspecific claim and thus it is compatible with all the continuations required. From a communicative point of view, this unspecificity may be regarded as *vagueness* (cf. KEMPSON (1975)). In view of the Gricean principles of conversation, we can predict that in case the speaker of (14) is relevant and does not add anything to this vague negation, he probably means that Peter is beating someone else than Mary. This is, however, only a special case of the working of those principles and is to be accounted for by a unified theory of language and its use, quite independently of the fact that it arises in connection with 'word order rules'.

In virtue of these considerations I propose to add the following rule to those in 3.2:

S22neg. If  $\alpha \in P_T$  but  $\alpha \neq he_n$  and  $\beta \in P_{t/T}$  then  $F_{22neg}(\alpha, \beta) \in P_t$  and is obtained by replacing  $HE_{2k+1}$  or  $HIM_{2k+1}$  in  $\beta$  by *not*  $\alpha$ .

T22neg. If  $\alpha \in P_T$  and  $\beta \in P_{t/T}$  and  $\alpha, \beta$  translate as  $\alpha', \beta'$  respectively, then  $F_{22neg}(\alpha, \beta)$  translates as  $\neg(\beta' = \lambda PVR[\alpha'(\lambda x[\beta'(\lambda PVP(x)) \wedge VR(x)]) \rightarrow VP(R)])$ .

$F_{22neg}$  bears the very same relation to  $F_{22}$  as Montague's  $F_{11}$  to  $F_4$ . This is in keeping with the intuition that a Hungarian sentence can be 'negative' in just two cases: (i) if  $F_{11}$  applied in its derivation and it has no Focus, or (ii) if  $F_{22neg}$  applied, regardless of whether  $F_{11}$  applied or not. These observations can be utilized in the treatment of yes-no questions and scope restrictions.

Notice that the above formulation also makes it unnecessary to introduce some quasi-filter (cf. É. KISS (1980) and (II.iii) above) for ensuring that the negated  $x^n$  occupies the F position since *not* and the term in question are not regarded as forming a single mobile constituent.<sup>6</sup> (Incidentally, a closer examination of syntactic data also shows that the same treatment would be necessary in the case of the other 'focusing operators' as well. Its demonstration would go beyond the scope of the present paper, however.)

### 3.4. Qualitative contrast in F

Before turning to *wh*-questions, let us consider another interesting aspect of Focus-negation. I will use English examples since they seem to work as well as the corresponding Hungarian ones.

Compare the following sentences:

- (16) a. My friend, I invited, the minister, I didn't.  
 b. I invited MY FRIEND and not THE MINISTER.  
 c. I invited my friend. I didn't invite the minister.

It is clear that for (16)a. and (16)c. to be true, my friend and the minister must be two different persons. This is not so with (16)b. however: it has a reading on which the two descriptions may well apply to the same person and therefore the F position provides for qualitative contrast. To make it more explicit: the sentence *I didn't invite THE MINISTER* does not necessarily license the inference that I did not invite the person who happens to be the minister; rather, it says that the person invited must be intensionally different from the minister.

In order to avoid the temptation to attribute this peculiarity of (16)b. to the highly sophisticated social nature of inviting, let us consider the following examples as well:

- (17) I married a NICE GIRL, not a RICH GIRL  
 (18) I am living in AN ANCIENT MANOR and not in A RAMSHACKLE COTTAGE  
 (19) This game was not won by PETER, it was lost by MARY

In (17), the girl may be rich, too and in that case the sentence suggests that I did not marry her for her fortune. (18) can be a fine expression of snobbery. The intention behind (19) may be spelled out by pointing out that, say, the winner was necessarily identical to whoever played against Mary.

- (19<sub>1</sub>) This game was not won by PETER  
 (19<sub>1</sub>')  $\neg(\lambda P_1[VP_1(\wedge \text{won this game})] = \lambda P[P = \wedge \lambda PVP(\wedge P)])$

Where should we get from, however, the rules for producing these meanings? Notice that T22. has a serious limitation: due to the quantification on the right hand side, it cannot be sensibly applied when  $HIM_{2k+1}$  is an intensional object. Inelegant as it is, it seems that a separate rule is needed for such cases. Let us assume that  $F_{5a}$  marks its second argument with, say, +i if it is not of the form  $he_{2k}$  and the verb is intensional. Then:

- S23. If  $\alpha \in P_T$  and  $\alpha \neq he_n$  and  $\beta \in P_{t/T}$  and contains an occurrence of

$HIM_{2k+1}^{+i}$  then  $F_{23}(a,b) \in P_t$  and is obtained by replacing  $HIM_{2k+1}^{+i}$  in  $\beta$  by  $a$ .

T23. If  $a \in P_T$  and  $\beta \in P_{t/T}$  and  $a, \beta$  translate as  $a', \beta'$  respectively then  $F_{23}(a, \beta)$  translates as  $\beta' = \lambda P[P = \hat{a}']$ .

This gives us a chance to formulate the negative version of this rule without the  $+i$  restriction, i.e. so that it may apply to cases like (16)-(19) as well:

S23neg. If  $a \in P_T$  and  $a \neq he_n$  and  $\beta \in P_{t/T}$  then  $F_{23neg}(a, \beta) \in P_t$  and is obtained by replacing  $HE_{2k+1}$  or  $HIM_{2k+1}$  in  $\beta$  by *not*  $a$ .

T23neg. If  $a \in P_T$  and  $\beta \in P_{t/T}$  and  $a, \beta$  translate as  $a', \beta'$  respectively, then  $F_{23neg}$  translates as  $\neg(\beta' = \lambda P[P = \hat{a}'])$ .

### 3.5. Wh-questions

For determining the focus of a sentence, many authors in topic-comment literature use the *wh*-question test, e.g., claim that (21), but not (22) being an appropriate answer to (20), *John* is the focus of (21) but not of (22):

(20) Who kissed Mary?

(21) JOHN kissed Mary.

(22) John kissed MARY.

Now, apart from the problem whether focus is to be determined in that way or not (I believe it will have become clear that in my opinion, not), how does the present proposal account for the intuitively correct results of this test?

HAUSSER (1978) put forth a very convincing proposal for the treatment of question-answer pairs in Montague Grammar. In his formulation, an interrogative denotes a function from points of reference into sets of corresponding non-redundant answer constituent denotations. E.g.:

(20) Who kissed Mary?

(23) John.

(20')  $\lambda P_1[\lambda P_1(\hat{kiss}(\hat{\lambda P}^V P(\hat{m})))]$

(23')  $\Gamma(\hat{\lambda P}^V P(\hat{j}))$

where  $\Gamma$  is a context-variable ranging over translations of *t/T* interrogatives provided by the context and thus by lambda-conversion, *John* as an answer to (20) will be equivalent to  $kiss_*(m)(j)$ .

Notice however that (23) is in fact equivalent to (21), that is, such an answer may only be meant to assert that [among the people relevant to be

considered] John and only John kissed Mary - otherwise one should have said something like *John, did..* This should be recognized in the translation of the question-answer pair.

Fortunately enough, (20) is only grammatical in Hungarian if the question word (*ki*) occupies the F position:

(20H)a. [<sub>F</sub> Kí] csókolta meg Máriát?

b. [<sub>T</sub> Máriát] [<sub>F</sub> kí] csókolta meg?

and given that the rules for Focus were possible to formulate in such a way that (20') happens to be a subexpression in the translation of (21H), it is easy to imagine that the intended correspondence must be possible to capture in this framework. The only open question is whether the interrogative or the elliptic answer should be made responsible for exhaustive listing.

I suggest that it is the translation of *John* that should bring exhaustive listing into the picture. That is, I would retain Hausser's treatment of the interrogative and propose to translate (23) in analogy to T22 for Focus:

(23'')  $\Gamma = \lambda P^V R[\hat{\lambda P}^V P(\hat{j})] (\hat{\lambda x}[\Gamma(\hat{\lambda P}^V P(x)) \wedge \forall R(x)] \rightarrow \forall P(R))$

This choice can be given the following motivation:

(i) As I mentioned above, (20) in itself does not compel the hearer to give an exhaustive answer - he may use a more redundant answer in which *John* occupies the T position.

(ii) As I will point out in 4.1, there are terms that may not occupy the F position (e.g. *mindenki* 'everybody') and thus may not be associated with exhaustive listing but can nevertheless be given as non-redundant answers. For those I want to retain the  $\Gamma(\hat{a}')$  type translation originally offered by Hausser. (And similarly for any kind of expression which may fill F but turns out not to express exhaustive listing.)

(iii) Note that elliptical sentences like *John*. (or, *Not John*.) do not only function as non-redundant answers but can also be conjoined with appropriate non-elliptical sentences, e.g.:

(24) [<sub>T</sub> Máriát] [<sub>F</sub> Péter] csókolta meg és nem [<sub>F</sub> János]  
Mary+acc Peter kissed and not John

I assume that the derivation and translation of the second conjunct in (24) must be in all the relevant respects similar to that of (23) - with the



difference that a co-text variable  $\Delta$  might be used and the syntactic rules would be somewhat more complicated - which is again a reason for attributing the property of exhaustive listing to the answer (i.e. the elliptic sentence consisting of an F) rather than to the interrogative.

#### 4. SCOPE PHENOMENA

Given that scope phenomena are often claimed to be dependent on linear order and/or dominance relations, it is natural to ask if the operation of 'word order rules' has any particular constraining effect on interpretation options in Hungarian. It seems it has indeed, as I will point out below. Nevertheless, heretic as it may sound, I will not try to draw final conclusions and will restrict my attention to a few quantifiers only. Apart from my work being far from a final stage, I have the following reason for making this reservation. Although one is often tempted to be sure that word order or intonation disambiguates sentences in a particular way, there has hardly ever been any everyday speaker to conform to one's expectations consistently. Whether deviations should simply refute the claims or are due to dialectal variations or performance factors is very difficult to decide. On the other hand, if the plain ungrammaticality of certain sentences can be traced back to the joint effects of independently stipulated restrictions, this may indicate that those restrictions are justified on their own. I will therefore try to avoid making claims about cases in which I do not (as yet) have this kind of justification.

I will argue that the most perspicuous scope restrictions are associated with F and are of two kinds:

- (i) restrictions on the quantifier in F position,
- (ii) restrictions on the scopes of non-F quantifiers with respect to Focus (i.e. the binding of  $he_{2k+1}$ ).

By (i) and (ii) I also mean to suggest that there seem to be no specific restrictions on non-F quantifiers and on their relative scopes unless they follow from (ii) or from the inherent restrictions of those quantifiers with respect to, say, negation. (The restrictions I will point out might be formalized in a fashion similar to HAUSSER (1976)).

4.1. First, it appears that the quantifier in F position must have wider scope than preverbal (i.e.  $F_{11}$ ) negation. For instance, it may not be a logical consequence of (25) that there are not any two boys who are running (unless, in view of exhaustive listing, we also add that there are not at least four boys in the universe to be considered). Derivations like (25)b. are therefore to be excluded:

(25) [<sub>F</sub> Két fiú] nem fut 'TWO BOYS aren't running'  
two boy not run

(25')  $\lambda P_1 [ \lambda P_1 ( \lambda x_2 [ \neg \text{run}(x_2) ] ) ] = \lambda PVR [ \exists x \exists y [ \neg (x=y) \wedge \text{boy}(x) \wedge \text{boy}(y) \wedge \neg \text{run}(x) \wedge \neg \text{run}(y) \wedge V_R(x) \wedge V_R(y) ] \rightarrow P(R) ]$

(25)a. TWO BOYS not run, 22  
two boys — HE<sub>1</sub> nor run, 21  
                  |  
                  he<sub>1</sub> not run, 14  
                  |  
                  he<sub>1</sub> — he<sub>2</sub> not run, 11a

(25)b.\* TWO BOYS not run, 22  
two boys — HE<sub>1</sub> not run, 21  
                  |  
                  he<sub>1</sub> not run, 11a  
                  |  
                  he<sub>1</sub> — run

Fortunately enough, the validity of this claim can be tested, not only against a set of random examples but also against a rather crucial one. Namely, HAUSSER (1976) observes that presupposing quantifiers have scope restrictions with respect to negation and, in particular, every  $\alpha$  is bound to have more narrow scope than negation. In Hausser's notation:

every<sup>-w</sup> translates as  $\lambda Q \lambda P V x \epsilon [ \lambda V Q(x) ] V P(x)$

Given that its Hungarian equivalent *minden*  $\alpha$  is subject to the same restriction, its behaviour, that is, whether or not it may occur in F position, may quite straightforwardly qualify my claim.

Now, in case we had to rely on vague intuition or loose syntactic observations in determining the 'communicative articulation' of Hungarian sentences, we would probably expect that *minden* will refute the claim. After all, it may occur in front of finite verbs, it may receive a fairly high pitch and why should it be excluded from the role of, say, being the most important piece of new information? The reliance on rigorous syntactic criteria will turn out to be useful here, however. Remember that Hungarian verbs may have converbs (which are mobile but form a single lexical item

together with the verb, e.g. *be-rűg* 'get drunk' lit. 'in kick') and É. Kiss's rules imply that in case F is filled, the converb may not be prefixed to the finite verb (cf. (II.iii) above). In view of these facts the ungrammaticality of (26) - as opposed to (27) - indicates that *minden*  $\alpha$  may not fill the F position,

- (26)\* [<sub>F</sub> Minden fiű] rűgott be 'EVERY BOY got drunk'  
 (27) [<sub>F</sub> Két fiű] rűgott be 'TWO BOYS got drunk!'

which in turn evidences that F is inherently related to having wider scope than preverbal negation and that is why a quantifier with the opposite restriction may not fill it, even in affirmative sentences. (This restriction might be formalized by assigning a +w feature to  $he_{2k+1}$  in the lexicon.)

4.2. Let us now turn to the interaction of Focus and other quantifiers. Given that Focus may express exhaustive listing, it is easy to see that it makes a big difference whether a non-F quantifier is introduced before or after the binding of  $he_{2k+1}$ . For instance, if my intuition about English is correct, (28) says that for everybody individually, he loves Mary and only Mary, whereas (29) makes the weaker claim that Mary is the only person unambiguously loved:

- (28) Everybody loves MARY  
 (28')  $\forall u_2 \in [\text{human}_*(u_2)] \forall v [\text{love}_*(v)(u_2) \leftrightarrow v = m]$   
 (29) MARY is loved by everybody  
 (29')  $\forall v [\forall u_2 \in [\text{human}_*(u_2)] \text{love}_*(v)(u_2) \leftrightarrow v = m]$

In any case, the distribution of these readings in Hungarian is as follows:

- (30)=(28') [<sub>T</sub> Mindenki] [<sub>F</sub> Máriát] szereti  
 Everybody MARY+ACC loves, 14  
 everybody  $he_2$  MARY+ACC loves, 22
- (31)=(29') [<sub>TC</sub> Mindenki] [<sub>F</sub> Máriát] szereti  
 Everybody MARY+ACC loves, 22  
 Mary everybody Him<sub>1</sub> loves, 21
- (32)=(29') [<sub>F</sub> Máriát] szereti mindenki  
 MARY+ACC loves everybody, 22  
 Mary HIM<sub>1</sub> loves everybody, 21

That is, if *mindenki* precedes the Focus but does not receive a contrastive topic intonation (as in (30)), it is bound to have wider scope than Focus.

On the other hand, when it receives a contrastive intonation in T position (as in (31)) or is in neutral position (as in (32)) it must have *more narrow scope than Focus*.<sup>7</sup> (This latter fact suggests that, besides conceivable conventional implicatures associated with Topic-contrast, the intonation of T deserves special attention.)

Once again, the validity of these claims can be tested against negation. Remember that I treated Focus-negation as a special kind of sentential negation, the F-filling rule having both an 'affirmative' and a negative version. It follows then that a -w quantifier may not be introduced after 'negative Focusing', and indeed, (30n) is ungrammatical while (31n) and (32n) are not:

- (30n)\* [<sub>T</sub> Mindenki] nem [<sub>F</sub> Máriát] szereti  
 (30n')  $\forall u_2 \in [\text{human}_*(u_2)] \neg \forall v [\text{love}_*(v)(u_2) \leftrightarrow v = m]$   
 (31n) [<sub>TC</sub> Mindenki] nem [<sub>F</sub> Máriát] szereti  
 (31n')  $\neg \forall v [\forall u_2 \in [\text{human}_*(u_2)] \text{love}_*(v)(u_2) \leftrightarrow v = m]$   
 (32n) Nem [<sub>F</sub> Máriát] szereti mindenki  
 (32n') = (31n')

Nevertheless, (30n') i.e. that nobody loves MARY being a perfectly good meaning to express, one may ask how it is expressed then in Hungarian. With this we have to make a short excursus.

Hungarian has so-called 'multiple negation', e.g.:

- (33) Nem ment senki sehová semmikor  
 not went noone nowhere no time

*Senki* is to be translated as  $\lambda PVx[\text{human}(x) \rightarrow \forall P(x)]$  (and similarly for its brothers). Its behaviour is in many respects similar to that of *anyone*; note however the following qualifications: (i) *se(m)*  $\alpha$  may only occur in negative sentences, and (ii) it is not only bound to have wider scope than negation but must also be introduced immediately after the negation which triggers it (of course, in case there is more than one *se(m)*  $\alpha$  in the sentence, this latter property is inherited). That (ii) is the case can be easily demonstrated on a Focus-free example: (34) is only two, rather than six, ways ambiguous:

- (34) Nem látott két fiűt senki  
 not saw two boy+acc noone
- (34)a.'  $\forall v [\dots \rightarrow \exists_2 u [\dots \wedge \text{saw}_*(u)(v)]]$   
 $\exists_2 u [\dots \wedge \forall v [\dots \rightarrow \neg \text{saw}_*(u)(v)]]$

Coming back to interaction with Focus: it appears that *senki* is subject

to the same restrictions with respect to Focus as *mindenki*<sup>B</sup>, the differences between their behaviour being accountable for by their opposite scope restrictions with respect to negation (and by (ii) for *senki* above). The 'grammatical version' of (30n) is (35):

- (35)
- ```

  [T Senki] nem [F Mariat] szereti
    Noone not MARY+ACC loves, 14
  /      \
noone     he2 not MARY+ACC loves, 22neg
          /      \
        Mary     he2 HIM1 loves, 21
  
```

On the other hand, both (36) and (37) are ungrammatical since *senki* cannot at the same time have more narrow scope than Focus and wider scope than negation:

- (36)* [Tc Senki] nem [F Máriaát] szereti
 (37)* Nem [F Máriaát] szereti senki

Cases with preverbal negation also conform to predictions:

- (38)*
- ```

 [T Senki] [F Máriaát] nem szereti
 Noone MARY+ACC not loves, 14
 / \
noone he2 MARY+ACC not loves, 22

```
- (39)
- ```

  [Tc Senki] [F Máriaát] nem szereti
    Noone MARY+ACC not loves, 22
  /      \
Mary     21
        /      \
      he1 noone him1 not loves, 14
          /      \
        he1 noone him2 not loves, 14
            /      \
          noone he4 him2 not loves, 11b
  
```

- (40)=(39) [F Máriaát] nem szereti senki

4.3. As I mentioned at the beginning of this section, it is easy to demonstrate the validity of positional scope restriction claims in the case of quantifiers with lexically given restrictions. With natural numbers in the place of *minden* or *se(m)* I can only suggest that, at least on the preferred readings, they seem to obey the same principles. More precisely: it appears that (41) is unambiguous indeed, with *two boys* having more narrow scope than Focus:

- (41) [F Máriaát] szereti két fiú 'MARY is loved by two boys'

On the other hand, whether the intonation of T is contrastive does not seem to be so decisive here:

- (42) [T Két fiú] [F Máriaát] szereti } perhaps both ambiguous
 (43) [Tc Két fiú] [F Máriaát] szereti }

These differences between the roles of T or Tc in the case of natural numbers and universal quantifiers may be due to the marked properties of the latter (cf. fn.7).

At the beginning of this section I also suggested that apparently there are no specific restrictions for non-F quantifiers unless they follow from the restrictions on interaction with Focus (or negation). Although the following claims would be difficult to prove in the fashion I adhered to so far, I suggest that while (44) is ambiguous with respect to the relative scopes of \forall and \exists , (45) is not:

- (44) [T Mindenki] [F e] látott egy filmet Máriaával
 everybody saw a film+acc Mary-with
 (45) [T Mindenki] [F Máriaával] látott egy filmet
 everybody Mary-with saw a film+acc

Given that the relative positions of *mindenki* and *egy filmet* are the same in (44) and (45) - regardless of whether it be stated in linear or dominance terms - this can only be explained by the absence of an exhaustive Focus from (44). That is, there is nothing in (44) to 'order' the non-F quantifiers while in (45) F₂₂ does the job.

4.4. To conclude this section, let me discuss two scope problems arising in connection with the translation rule I gave for F-filling:

- T22. If $\alpha \in P_T$ and $\beta \in P_{t/T}$ then F₂₂(α, β) translates as
 $\beta' = \lambda P \forall R [\alpha' (\wedge \lambda x [\beta' (\wedge \lambda P^V P(x)) \wedge \forall R(x)]) \rightarrow \forall P(R)]$

In 3.2 it has already been shown that the right hand side of the equation is not in fact unnecessarily overcomplicated. Nevertheless, there are still two disastrous looking properties of this formula:

(i) It is easy to see that - as it is stated in S22. - we may not allow α to have the form he_{2k} . Imagine, for instance, the following derivation:

- (46) [F Két fiú] fut
- ```

 *TWO BOYS run
 / \
two boys HE2 run
 / \
 he2 HE1 run, 21

```

$$(46') \quad \exists x \exists y [\neg(x=y) \wedge \text{boy}(x) \wedge \text{boy}(y) \wedge \lambda P_1 [\forall P_1 (\wedge \text{run})] = \lambda PVR[\text{run}(x) \\ \wedge \forall R(x) \rightarrow \forall P(R)] \wedge \lambda P_1 [\forall P_1 (\wedge \text{run})] = \lambda PVR[\text{run}(y) \wedge \forall R(y) \rightarrow \forall P(R)]]$$

that is, (46') would say that there are two distinct boys such that only the one of them runs and only the other of them runs.

(ii) It is also easy to see that, regardless of how  $\beta$  is derived,  $\alpha$  will get the widest scope in the  $\phi$  of  $\beta$ , for instance:

let  $\alpha'$  be  $\lambda P \exists y [\text{boy}(y) \wedge \forall P(y)]$  and

let  $\phi'$  be  $\forall z [\text{girl}(z) \text{ love}(P_1)(z)]$ .

Then T22. will yield

$$(47') \quad \lambda P_1 [\forall z [\text{girl}(z) \text{ love}(P_1)(z)]] = \\ \lambda PVR [\exists y [\text{boy}(y) \wedge \forall z [\text{girl}(z) \text{ love}_*(\forall y)(\forall z) \wedge \forall R(y)] \rightarrow \forall P(R)]]$$

and similarly if  $\phi'$  is the value of  $F_{11}$ .

While not wishing to pretend that T22. is intended to have these properties, let me point out that their consequences are in fact not so disastrous as one might imagine.

The negation problem is the easiest to explain away: in 4.1 I argued that the quantifier in F must have wider scope than preverbal negation and therefore  $\phi'$  will never be the value of  $F_{11}$ . This, together with the restriction in S22. ensures that this translation will never lead to contradictions and it is actually possible to show that T22. is in keeping with the algebraic requirements of *Universal Grammar*.

There remains the question of what are the interpretation options that are unfortunately excluded in view of (i) and (ii). For instance, we might want both (48) and (49) to be two ways ambiguous:

(48)  $[_T \text{ Minden lány}] [_F \text{ egy fiút}] \text{ szeret}$   
every girl a boy+acc loves

- a. For every girl, she loves only one person, namely, a boy; but the boys may vary with the girls. Permitted reading.
- b. There is a boy (say, Peter) such that for every girl, she loves him and only him. Excluded in view of (i).

(49)  $[_{TC} \text{ Minden lány}] [_F \text{ egy fiút}] \text{ szeret}$

- a. There is a boy (say, Peter) such that he is the only person unanimously loved by the girls. Permitted reading.
- b. Same as a. but with possibly different boys. Excluded in view of (ii), cf. (47').

It is clear that (48)b. is a very nice meaning; nevertheless, it being a special case of (48)a. it is tolerable if it cannot be expressed directly. As for (49): it seems that its strongly preferred reading is the permitted one. (49)b. is actually terribly vague and although I can imagine situations in which one would use (49) with this meaning, some circumscribed version is a lot more plausible to occur. It is possible that there are cases in which the shortcomings of T22. lead to more counterintuitive consequences; in virtue of those I have discovered so far, however, it seems it can be accepted at least as a preliminary formulation.

## 5. VERBS, CONVERBS, AND CONCLUSION

Although my attention in this paper is centered around terms in F position, the background of my investigations seems to require some indication of what other problems should be taken account of in this framework. Therefore I add a few informal notes about the verb and the converb.

Intuitively, these two constituents may be interesting for the following reasons: (i) It will have become clear from 2.1 that É. Kiss's syntax does not allow the *finite verb* to occupy either of the distinguished positions. One may ask, however, whether it may really not be associated with those kinds of interpretational surplus that Topic and Focus may carry. (ii) The *converb* is a so-called reduced complement of the verb. Its function is somewhat similar to that of verbal prefixes in Russian in that it may make the verb perfective and/or may change its lexical meaning. Nevertheless, the converb is a mobile constituent and, moreover, it 'tends to occupy the F position' (II.iii). Now, what does it mean for a sentence to have a converb in its T or F position?

It seems expedient to begin with (ii). Consider (50)-(54):

(50)  $[_T \text{ Péter}] [_F \text{ be}] \text{ rúgott}$  'Peter got drunk'

Peter in kicked

(51)  $[_T \text{ Péter}] [_F e] \text{ nem rúgott be}$

Peter not kicked in

(52)  $[_T \text{ Péter}] [_F \text{ be}] \text{ nem rúgott}$

Peter in not kicked

(53)  $[_T \text{ Péter}] \text{ nem } [_F \text{ be}] \text{ rúgott}$

Peter not in kicked

(54)  $[_T \text{ Péter be}] [_F e] \text{ nem rúgott}$

Peter in not kicked

(50) can be an entirely neutral sounding sentence. The feeling that its F being filled with the converb may not have much semantic significance is straightforwardly verified by the fact that its plain negation is (51), in which the converb switches to neutral position. This is not so with the other examples, however. (52) is emphatic in the sense 'Peter did not get drunk by any means'. This kind of emphasis does not seem to affect truth conditions. (53) is different:

- (53)a. [<sub>T</sub> Péter] nem [<sub>F</sub> be] rúgott hanem [<sub>F</sub> le] feküdt  
Peter not in kicked but down lay  
b. [<sub>T</sub> Péter] nem [<sub>F</sub> be] rúgott hanem [<sub>F</sub> meg] ittasult  
Peter not in kicked but perf. got intoxicated

That is, we encounter a phenomenon similar to the case of Focus-negation with terms. (53)a. tells what Peter did instead of getting drunk and (53)b. can be true even if, extensionally speaking, getting drunk and getting intoxicated are no different but intensionally, they are. And finally:

- (54) [<sub>T</sub> Péter be] [<sub>F</sub> e] nem rúgott de [<sub>T</sub> énekelni] [<sub>F</sub> e] énekelt  
Peter in not kicked but to sing sang  
'Get drunk he didn't but sing, he did'

There are two interesting points about these examples. On the one hand, notice that although only the converb moves around, it is the content of the verb+converb unit that gets Focused or Topicalized. This is most evident with verbs like *berúg* whose meaning has nothing to do with kicking and therefore a contrast with, say, kicking out would make no sense but it can also be verified with converbs of true directional meaning. This suggests that even if the position of the verb is fixed, it may send a messenger into the marked positions and thus obtain the required interpretational surplus. On the other hand, the 'obligatory' focusing of the converb in (50) may be suspicious. Given that É. Kiss had rather technical reasons for not letting the finite verb fill F, one may wonder whether this solution may not be revised (also considering that contrasts like (53)b. are possible with bare finite verbs as well).

There is a third notable point about the word order role of the converb. Although É. Kiss claims that (2)e. is ungrammatical, this is not the case:

- (2)e. [<sub>T</sub> Péter] [<sub>F</sub> e] szaladt be  
Peter ran in

It is grammatical, only its tense/aspect interpretation is different from that of (2)a. (or (50)). Hungarian has nothing like an overtly marked progressive or perfect. Nevertheless, (2)e. should be translated into English either as 'Peter has run in' or as 'Peter was running in (when...)'. That this distinction is not mere speculation can be verified by pointing out that although the string (55) is usually claimed to be plainly ungrammatical in literature.

- (55) Mindenki szaladt be

it is only ungrammatical if *mindenki* is pronounced as Focus and it is as good as any sentence if the main stress falls on *szaladt* and is interpreted as 'present perfect' or 'past progressive'.

The significance of these last scattered remarks about tense and aspect is as follows. It is a commonplace that word order and intonation may serve to mark such grammatical distinctions in one language that are marked with overt morphemes in others. This is the case with the definite/indefinite distinction in Slavic languages. Nevertheless, since this latter distinction can also be given a 'communicative interpretation' in terms of given and new, one might get the impression that the choice of word order in 'free word order languages' may always be associated with such communicative notions. Given that the above mentioned tense and aspect phenomena do not seem to allow such an interpretation, at least not directly, they may also serve as a warning to approach this kind of sentential articulation first on a purely grammatical basis.

#### FOOTNOTES

- \* I am grateful to my colleague Miklós Sántha for his hard and helpful criticism throughout the writing of this paper.
1. I will not mark the traces of preposed X<sup>n</sup>'s in the examples; given that Hungarian has case markers and verb agreement, this will not give rise to ambiguities.
  2. Formally speaking, the characteristics of 'Topic-suggestion' are the same as those of conventional implicatures (cf. KARTTUNEN & PETERS (1979)). Nevertheless, although conventional implicatures can be handled in an exact fashion their theoretical status is entirely puzzling to me and therefore I will not operate with them in this paper (see also *ibid.* p.15).

'Of anything else', of a so-called relevant universe of discourse. This latter notion might be formalized by using restricted quantification; for the sake of simplicity, however, I will ignore it in my formalism.

That Focus-contrast, as opposed to Topic-contrast, has the force of assertion, rather than that of conventional implicature seems intuitively very clear for Hungarian. This might be demonstrated by showing that it passes the crucial tests, too. It is possible that focus in English, as described in JACKENDOFF (1972), for instance, does not have the same property, which may be due to the fact that it is syntactically much less marked than its Hungarian 'counterpart'.

In the English translations I will always use contrastive stress, rather than clefting, simply in order to maintain the 'simple sentence atmosphere'. It is possible that in certain cases clefts would be more illustrative; for instance, it seems highly improbable to me that from 'It was Mary and Eve who saw Peter' one may infer 'It was Mary who saw Peter'. Note however that by translating my examples I do not mean to make any claims about English.

See also 3.4 and 4.4 below.

For this reason I will also abandon É. Kiss's bracketing strategy and represent sentences like (14) as *Nem* [<sub>F</sub> *Máriát*] *veri Péter*.

Following É. Kiss I labelled *mindenki* in (30) and (31) as T although syntactically this is not unproblematic since, as opposed to well-behaved Ts, *mindenki* may not undergo 'scrambling' here:

|               |               |                    |        |
|---------------|---------------|--------------------|--------|
| A bortól      | mindenki      | [ <sub>F</sub> be] | rügött |
| the wine-from | everybody     | in                 | kicked |
| *Mindenki     | a bortól      | [ <sub>F</sub> be] | rügött |
| everybody     | the wine-from | in                 | kicked |

(The same restriction applies to a number of other  $X^n$ 's, too, e.g. non-F *wh*-words in multiple questions.) Further, *mindenki* may only receive Topic-contrastive intonation if the sentence has a Focus or else if  $F_{11}$  applies in the derivation. These facts may make one wonder if it is to be maintained that everything that precedes F is in T or some other solution should be chosen. Certain considerations that would be far too lengthy to elaborate here suggest, however, that it is preferable to retain T here and constrain the interchangeability claim for a specified subset of  $X^n$ 's. (Note that the / notation I used in 3.2 may also be used for marking where these whimsical Ts must get.)

*Se(m)*  $\alpha$  also resembles *minden*  $\alpha$  in that it may not fill F either. For

proving this the converb-test cannot be used since  $F_{11}$  switches the converb to neutral position; nevertheless, it happens that the relative clause in  $\alpha$  need not be extracted or extraposed (cf. (II.iv)), which substantiates this claim.

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