Quantifiers, negation, and focus on the left periphery in Hungarian

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Abstract

This paper is concerned with a construction in which multiple foci are found in front of the inflected verb, contrary to the accepted view on focussing in Hungarian, which allows for only one constituent there. Since earlier proposals for multiple wh-question constructions or multiple (postverbal) foci cannot be extended to cover the new cases, a new analysis is put forward based upon the assumption that Neg does not attract Tense and that wh-phrases must be licensed by Comp. The phenomenon of negative concord is invoked to provide independent evidence for the analyses presented. The interaction of negated universal quantifiers with negative concord quantifiers and focus is also examined in order to argue for the checking mechanisms at work in this language.

Keywords: Focus, head movement, negative concord, quantifiers, questions, whphrases,

1. Introduction¹

The left periphery of the Hungarian sentence is usually understood as the area between the complementizer and the inflected verb. It includes any number of topicalized items, universal and negative quantifiers, wh-phrases, negative words and a single constituent in the preverbal focus position, in addition to various particles equivalent to English only, even, and too/also. Some of these are optional in these positions, since they can also occur postverbally, others do not have a choice: a focus, a wh-phrase, and a negative word must occur preverbally (Horvath 1986; É. Kiss 1987, 2002; Brody 1990). It is the interaction of these three items in three interrelated problems that the present paper will be primarily addressed to. First of all, contrary to the widely held belief that there cannot be more than one focussed constituent preceding the inflected verb (Puskás 1996, Kenesei 1998, É. Kiss 2002), we will present and analyze a curious construction in which a preverbal wh-phrase co-occurs with a negated preverbal focus and will try to determine what makes this order possible and, in general, what role focus and negation play in the left periphery. One of the other two problems is a case of focus cooccurring with negative universal or existential quantifiers that require negative concord (of the type of Nobody didn't come, henceforth called "negative concord quantifiers"). We will examine why the quantifier cannot be licensed if focus intervenes between the negative word (the licenser) and the negative concord quantifier. In the third problematic construction type a negative word in front of a universal quantifier cannot license

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a negative concord quantifier in its domain (as in *Not everyone saw nothing*), contrary to apparent c-command relations.

We will argue that some of these cases fall under our proposal that considers focus to have a well-defined logico-semantic function, that of exclusion by identification, and constitute an independent phase or proposition, while others, such as negated universal quantifiers (of the type of *Not everyone came*), are best treated as instances of constituent negation. We will suggest that Hungarian makes use of two types of negation. In addition to syntactic negation represented by the functional category Neg merged to (projections of) Tense, and 'lexical negation' observed in word formation processes (and neglected throughout), there are two subtypes of constituent negation: in one the negative formative has no negative force in the clause that it is ultimately a constituent of. In the other subtype the negative formative is always conjoined to a quantifier, as in the English *not many* (*books*), and both the quantificational features of the head word and the negative force of the 'modifier' are retained.

One of our goals is to show that each focussed phrase constitutes a phase of its own corresponding to an identifying proposition and that the seemingly offending case of the preverbal wh-phrase co-occurring with focus arises through a simple application of the Head Movement Constraint, blocking verb movement to Neg. This, incidentally, accords well with the general tendency, though not necessarily the details, of É. Kiss's (2006) recent independent proposal, in which she argues that focus is one form of predication. We will also point out that along with syntactic negation based on the functional category Neg, constituent negation has an important role in phrases containing quantifiers, whose movement to the left periphery is in effect obligatory, due to licensing constraints.

We will first review the general properties of focussing, which rule against multiple foci in preverbal positions, in 2.1. Legitimate arrangements of multiple foci arise, descriptively speaking, by moving one constituent in front of the inflected verb and ordering the rest of the foci behind it. In 2.2 a well-known exception to the prohibition of preverbal multiple foci is presented: that of multiple questions. Next in 3.1 we introduce the problematic case of multiple preverbal foci, in which a wh-phrase is placed in front of a (negated) preverbal focus. The first approach (in 3.2) to the problematic construction containing a whphrase and a negated focus is based on the well-known proposal for multiple (affirmative) foci: verb-raising to the topmost Focus node. At the end of this section the only question that remains is why negation blocks verb movement. Then in 3.3 the relationship of focus and negative concord quantifiers is discussed with special attention to the case of the lack of licensing effects whenever focus intervenes between the negative word and negative concord quantifiers in this otherwise well-behaved negative concord language. It is on the basis of the theoretical apparatus developed in this section that our final proposal for the preverbal multiple focus construction is made in 3.4. Finally, the problems relating to universal quantifiers, negation, and negative concord quantifiers are discussed and resolved by making use of constituent negation in 3.5, before our conclusions are drawn in section 4.

2. Focussing in Hungarian: general properties

2.1. The preverbal focus position

It has been common knowledge in Hungarian linguistics since Fogarasi (1838) that question-words and focussed constituents are placed in front of the plain inflected verb, i.e., the verb not preceded by its (movable) preverbal particle. After the end of the 19th century the issue had been laid to rest until Katalin É. Kiss revived it in the late 1970's and early 1980's in a number of papers and monographs (É. Kiss 1978, 1981, 1987, 2002), with others presenting

alternative analyses (Horvath 1986, Brody 1990, Kenesei 1998). They have established what can be summarized in the generalizations in (1a-c), illustrated in (2)-(5).²

- (1) a. If a single constituent (other than the verb and including wh-phrases) is focussed, then (the constituent containing) it is placed directly in front of the finite verb and receives primary stress, cf. (2a-c), (3a-b).
 - b. If more than one constituent is focussed (none of which is the verb), then one of them is placed directly in front of the finite verb with all the others lining up behind the verb, each receiving primary stress, cf. (4a-c).
 - c. If the VP is focussed, then either some constituent of the VP is assigned primary stress and is placed directly in front of the unaccented finite verb, or the verb is VP-initial with a concomitant primary stress, and in both cases all the other constituents of the VP lining up behind the verb receive primary stress, cf. (5a-b).

In (2a) the wh-phrase *melyik fiút* is moved into the preverbal focus position. In (2b) the object DP *Marit* is moved into the same position, preceded by the topicalized subject *Anna*. (2c) and (2d) show other possible choices of focussing and topicalization, with the optional negative word *nem* in (2c), all observing (1a).³

- (2) a. Anna [F "MELYIK FIÚT] dicsérte tegnap?

 Anna which boy-ACC praised yesterday?'

 Which boy did Anna praise yesterday?'
 - b Anna [F "MARIT] dicsérte tegnap (nem "PÉTERT). Anna Mari-ACC praised yesterday not Péter-ACC 'It's Mary (and not Peter) that Anna praised yesterday.'
 - c. Marit (nem) [F "ANNA] dicsérte tegnap.

 Mari-ACC not Anna praised yesterday

 'It's (not) Anna that praised Mary yesterday.'
 - d. Nem [F "TEGNAP] dicsérte Anna Marit (hanem "MA). Not yesterday praised Anna Mari-ACC but today 'It's not yesterday (but today) that Anna praised Mary.'

The examples in (3) show that there is only one preverbal focus slot available, whether negated or not.

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² The picture emerging from (1a-c) is somewhat simplified, since it does not take preverbal particles into account. The so-called verb-focus is also disregarded here, partly because it plays no role in our analyses, and partly because it is a misleading notion, as I argued elsewhere, cf. Kenesei (1998, 2006): verb-focus is in fact a special instance of VP-focus. VP-focus extends to the verb and its internal arguments as well as all referential adjuncts, but it excludes the subject and all nonreferential adjuncts.

³ Focus position = brackets labelled 'F' or 'FP'; the domain of focus interpretation = SMALL CAPS, primary stress = double inverted commas; PV = preverb; TopP = Topic Phrase; OP = Quantifier Phrase.

In the context of this paper 'focus' stands for identificational or contrastive focus in the sense of É. Kiss (1998b, 2002) and Kenesei (1986, 2006). Thus contrastive/identificational focus represents a proper subset of the set of contextually or situationally given referents for which the predicate phrase can potentially hold and which has real, though often undetermined membership; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds.

- (3) a. *[F "ANNA] (nem) [F "TEGNAP] dicsérte Marit.

 Anna not yesterday praised Mari-ACC
 - b. *[F "MARIT] [F "ANNA] dicsérte tegnap.
 - c. *Nem [F "ANNA] [F "MARIT] dicsérte tegnap.

If more than one constituent is focussed, (1b) takes over, as illustrated in (4). In (4a) *Anna* and *tegnap* are focussed (and contrasted with *Pétert* and *tegnapelőtt*, respectively), but only *Anna* is moved into the preverbal focus slot. (4b) shows an alternative option of multiple foci, while (4c) illustrates the case of negated multiple foci.

- (4) a. Anna [F "MARIT] dicsérte [F "TEGNAP] (és "PÉTERT "TEGNAPELŐTT).

 Anna M-ACC praised yesterday and P-ACC the-day-before-yesterday 'Anna praised MARY YESTERDAY (and PETER THE DAY BEFORE).'
 - b. Tegnap [F "ANNA] dicsérte [F "MARIT] (nem pedig "PÉTER "FERIT). yesterday Anna praised Mari-ACC not and Peter Feri-ACC 'It's ANNA that praised MARY yesterday (rather than PETER FRANK).'
 - c. Tegnap nem [F "ANNA] dicsérte [F "MARIT] (hanem "PÉTER "FERIT). yesterday not Anna praised Mari-ACC but Peter Feri-ACC 'It's not ANNA that praised MARY yesterday, (but rather PETER that praised FRANK).'

Finally, (5) shows two varieties of VP-focus as described in (1c). In (5a) the object DP *Marit* is moved to the preverbal focus slot, while the rest of the VP follows it. In (5b) the VP has verbinitial order.

- (5) a. Anna tegnap délután [F "MARIT] DICSÉRTE "PÉTERNEK (nem pedig tévét nézett).

 Anna yesterday afternoon M-ACC praised to-Peter not rather tv-ACC watched 'What Anna did yesterday afternoon was PRAISE MARY TO PETER (rather than watch tv).'
 - b. Anna tegnap délután "DICSÉRTE "MARIT " PÉTERNEK (nem pedig tévét nézett). 'Idem.'

The examples in (2)-(5) demonstrate the accuracy of the generalizations expressed in (1a-c): there is at most one preverbal landing site available for movement triggered by focus, without respect to the number and kind of constituents marked for focus.

It is this common wisdom that we wish to challenge in the present paper by showing that the occurrence of multiple preverbal foci can be accommodated in a principled approach to the grammar of Hungarian.

2.2. Multiple preverbal foci: multiple questions

Before we turn to the crucial piece of evidence for multiple preverbal foci in the next section, let us review a familiar case that seems to contradict the generalization in (1b). The only systematic exception to the prohibition on multiple preverbal foci analyzed in the literature is multiple questions, analyzed in Hungarian by É. Kiss (1998a, 2002). They have two subtypes: those requiring single-pair answers, as in (6), are irrelevant from our point of view, since they follow the pattern of multiple foci as introduced in (1b) and illustrated in (4a-c), that is, only one wh-

phrase is moved into the preverbal focus slot, and the others stay in their original positions behind the verb.

(6) A regény végén [Fki] vesz el kit? (Reply: Péter Annát.) the novel end-POSS-SUP who marries PV whom Peter Anna-ACC 'At the end of the novel who marries whom?' 'Peter marries Anna.'

The other group of multiple questions contains questions that request pair-list answers, or, more generally, answers that list n-tuples of items, depending on the number of wh-phrases in the question, e.g.:

(7) a. Ki [F melyik ajándékot] választotta?
who which present-ACC chose

(Reply: Anna a könyvet, Péter a tortát és a bort, ...)

Anna the book-ACC Peter the cake-ACC and the wine-ACC

'Who chose which present? – Anna (chose) the book, Peter the cake and the wine,...'

b. Ki mikor [F melyik ajándékot] választotta?
who when which present-ACC chose
(Reply: Anna hétfőn a könyvet, Péter szerdán a tortát és a bort, ...)
Anna on-Monday the book-ACC on-Wednesday the cake-ACC and the wine-ACC

'Who chose which present when?

- Anna (chose) the book on Monday, Peter – the cake and wine on Wednesday, ...'

In such instances several persons, presents, and points of time have to be correlated for a satisfactory reply. É. Kiss argues that the wh-phrase that carries the 'focus feature' ends up in the designated preverbal focus position, and if there is more than one item to be focussed in the clause, they follow the pattern of (1b), (4a-b) and (6): only one of them surfaces preverbally.

She observes, further, that whereas distributive universal quantifiers can scope over foci, they cannot take scope over wh-phrases, cf. (8a-b)

(8) a. Mindenki [Fegy könyvet] választott.
everyone a book-ACC chose
'Everyone chose A BOOK. (- For every person x, it is a book that x chose.)'

b. *Mindenki [F melyik ajándékot] választotta? everyone which present-ACC chose 'For every person *x*, which present did *x* choose?'

According to É. Kiss's proposal, the generalization in (1b) can be retained by supposing that the pre-focal wh-phrases in (7) are not marked for focus, and therefore are placed in the positions generally available for distributive quantifiers and are interpreted as such. That is, the question in (7a) would have the reading assigned to (8b). Multiple wh-questions requesting pair-list answers then would contain universal quantifiers in these pre-focus positions in the guise of wh-phrases and are not an exception to the prohibition on multiple preverbal foci.⁴

We will now turn to the problematic cases.

⁴ Other alternatives in the literature are reviewed by Higginbotham (1996) or Hagstrom (2003). For more discussion of these questions, see Lipták (2001) and Surányi (2005).

3. The interaction of quantifiers, focus and negation

3.1. Wh-phrase and focus in preverbal positions

It is now clear that no multiple foci can occur in front of the inflected verb. Yet, as has been reported in the literature, there is at least one curious construction that defies this prohibition for reasons not very well understood so far. Horvath (1995: 60f) and Koopman and Szabolcsi (2000: 200) note that preverbal negation can license a second focus in front of it.⁵ The example in (9) is cited from Koopman and Szabolcsi (2000).

(9) Ki nem TEGNAP ment haza? who not yesterday went home 'For which person *x* was it not yesterday that *x* went home.' (ca. 'Who went home on a day other than yesterday?')

Similar examples are easy to produce, cf. (10) and (11). If the police have discovered a number of corpses and determined that some of the victims were killed by Smith, but can exclude him as being the murderer of some others, they can ask a question in which the wh-phrase precedes the preverbal focus, as in (10).

(10) [F Kit] nem [F Smith] ölt meg?
whom not Smith killed PV
'For which person x was it not Smith that killed x?'
('Who was killed by someone other than Smith?')

Or, in a different situation, in which the students are supposed to have read a play by Shakespeare, the teacher can ask the following question in class.

(11) [F Ki] nem [F a Hamletet] olvasta?
who not the Hamlet-ACC read
'For which person x was it not Hamlet that x read?'
('Who has read something other than Hamlet?')

We will argue that these questions contain true multiple preverbal foci contradicting the generalization in (1b) and that their analysis must be based on the assumption that each independently focussed item constitutes a phase of its own.⁶

But let us first try to rescue (1b) and suppose that (9), (10), and (11) represent the same type of multiple question as illustrated in (7a-b), in which the wh-phrase in front of the focus was claimed to behave as a universal quantifier. Then on the analogy of the translation in (8b), which, on É. Kiss's theory, would correspond to the meaning of the multiple question in (7a), we could suggest that the wh-phrases in (9)-(11) are rendered as universal quantifiers, followed this time not by an(other) wh-phrase, but by a focussed item. Thus the translations in this pattern should be those in (12a-c), respectively.

- (12) a. For every person x, it was not yesterday that x went home.
 - b. For every person x, it was not Smith that killed x.
 - b. For every person x, it was not Hamlet that x has read.

⁵ My attention was called to these examples, reported but not analyzed in the sources referred to, by an anonymous reviewer. See also fn. 13.

⁶ As follows from the definition of focus in fn. 3, (9), (10) and (11) carry the strong presuppositions, respectively, that someone went home yesterday, that someone was killed by Smith, and that something other than Hamlet was read. For more, see the references cited there.

But whereas (9), (10), and (11) are genuine questions, the propositions in (12) have no interrogative force. Whether focus is considered as some form of identification (cf. É. Kiss 1998b, 2002, Kenesei 2006), exhaustive listing (Szabolcsi 1981), or exhaustive identification (Horvath 2005), it cannot be directly rendered as an interrogative operator. Since in multiple questions it is the immediately preverbal, i.e., focussed, wh-phrase that serves as the only interrogative operator, none of the prefocal wh-phrases, which, under É. Kiss's theory, which we have followed here, are interpreted as universal quantifiers, can change the sentence into a question. But since (9)-(11) are questions, the prefocal wh-phrases in them are not of the same kind as the pre-focal wh-phrases in the multiple questions in (7).

Then the wh-phrases in (9)-(11) must be interpreted as interrogative operators, that is, they must be similar to those wh-phrases that are in the preverbal focus positions in simple and multiple questions and the translations in (9)-(11) are adequate.⁷

Having now clarified the status of the wh-phrase in the construction under investigation, let us examine another type of question in which a wh-phrase cooccurs with a focus-stressed constituent, as was first noted by Varga (1982). The wh-phrase occupies the focus position immediately in front of the finite verb, while there is a distinct focus or pitch accent falling on some constituent (shown in italics below) behind the verb, cf. (13a), or in front of the wh-phrase, cf. (13b).

- (13) a. Anna "MIKOR olvasta *a "Hamletet?*"

 Anna when read the Hamlet-ACC
 - b. Anna *a "Hamletet* MIKOR olvasta? 'When did Anna read HAMLET?'
 - c. 'For which time t is it the case that the x is Hamlet such that Anna read x at t.'
 - d. *'The *x* is Hamlet (rather than some other play) such that for which time *t* Anna read *x* at *t*.'

These types of constructions do not induce focus interpretation of the italicized DPs, which take scope over the wh-phrase, as shown in (13d), but are genuine questions containing, at best, a focussed item in scope of the wh-phrase, as shown in (13c). They are in fact answered as wh-questions, e.g., by a single adverb of time, such as *Tegnap* 'Yesterday' in the examples at hand. Unlike the case of multiple foci, cf. (4a-c), where the highlighted constituents are contrasted pairwise, no similar kind of contrastability is possible here, since the wh-phrase cannot occur in the scope of negation. These are not propositions each containing a constituent focus, but questions, namely, 'corrective' questions, possible in the context of another question, such as (14a), or invoking contexts, given (only in English) in (14b), which both show that the type of

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⁷ One important property of these wh-phrases that they are D-linked; the range of individuals satisfying the answer must be sought in some domain of discourse determined beforehand. Non-D-linked questions are unacceptable, cf.: *Hány könyvet/Mi a fenét nem Anna választott? 'How many books/What the hell was it not Anna that chose them/it?' This follows a general pattern of preverbal operators, which rules out nonspecific, i.e., non-D-linked items, cf., e.g., É. Kiss (2002).

We note here that the only question type that allows a non-negated preverbal focus to its right is that of 'why-questions', since they may inquire about the reason(s) for the identification expressed by focus, as noted and analyzed by Varga (1982), É. Kiss (1987) and others.

⁽i) Anna miért [Fa könyvet] választotta? Anna why the book-ACC chose 'Why was it the book that Anna chose?'

question illustrated in (13a-b) is placed against and contrasted with another question as a whole, as was observed by Varga (1982).

- (14) a. Anna mikor olvasta a Macbethet?

 Anna when read the Macbeth-ACC

 'When did Anna read Macbeth?"
 - b. My question was not/What I asked was not [WHEN Anna read MACBETH], but [WHEN she read HAMLET].

Questions like (13a-b) then follow the pattern of sentential or VP contrast in that all major constituents that differ are accented, while the identical or presupposed constituents (and the verb) are deaccented or omitted, cf. Kenesei (1998, 2006).

- (15) a. Nem ["Anna olvasta a "Hamletet], hanem ["Péter dúdolt egy "dalt] not Anna read the Hamlet-ACC but Peter hummed a song-ACC 'It wasn't the case that Anna was reading Hamlet, but that Peter was humming a song.'
 - b. Anna nem ["dúdolt], hanem [a "Hamletet olvasta] Anna not hummed but the Hamlet-ACC read 'Anna wasn't humming, she was reading Hamlet.'

(15a) shows sentential contrast with full clauses in focus, while (15b) illustrates VP-focus, as introduced in (1c). The sentences in (15) are adequate responses to questions like "What was this noise in the dining room? Was Anna reading Hamlet/humming?". And the stress patterns in (13a) correspond to those in (15) in that only the 'new' items, that is, those in contrast are accented. Note, however, the differences: for one, questions cannot be negated, so they need more elaborate contexts, as in (14). Also, (13b) shows a pattern not found in sentential or VP contrast: a deaccented wh-phrase in the designated focus position is preceded by a constituent bearing focus accent. If, as was claimed above, this is a case of sentential, rather than constituent focus, and if, as follows from the context given in (14), everything behind the item bearing focus accent is 'old' or presupposed information, we may speculate that the type of structure in (13b) arises through the interaction of two requirements: obligatory focus accent on the 'new' item necessary for sentential contrast and the obligatory placement of the wh-phrase into the designated focus position. Note crucially that the item bearing focus accent in front of the whphrase does not take scope over it, since it does not allow focus interpretation, as was shown by the starred sense translation in (13d). This is yet another piece of evidence for the phenomenon often encountered in Hungarian in which focus accent falls on an item that is a constituent of some larger item in semantic focus, whose other constituents are unaccented.

With this last piece of apparent counterevidence out of the way, we will proceed to compare multiple foci in affirmative sentences with multiple foci in questions containing negated foci.

3.2. An analysis based on the pattern of multiple foci

What then is the difference between multiple foci in affirmative sentences and multiple foci in negative sentences? In this section we will review \acute{E} . Kiss's proposal for multiple foci in affirmative sentences and then give a descriptive overview of the order and scope relations of operators in the left periphery.

É. Kiss (1998a) puts forward an influential proposal for the analysis of multiple foci in affirmative clauses based on the assumption that focus is one type of operator. Recall that

only one focussed item can precede the inflected verb in these sentences, cf. (1b) and (4a-c). She argues that since the canonical position of operators is in the left periphery, multiple foci are also all moved into these nonargument specifier positions determined by the (multiple) functional category Focus, abbreviated as F below. Next the (inflected) verb, i.e., Tense, moves by head-movement ultimately to the topmost Focus head. Illustrated schematically on one version of (4a) as given in (16a), (16d) is derived from (16b) by multiple focus movement of the constituents marked for [+focus], or some equivalent thereof, into the Spec,FP positions arranged hierarchically in the left periphery, cf. (16c). Then, as shown in (16d), the verb moves across the F heads into the topmost F.

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(16) a. (Csak) "Anna dicsérte (csak) "MARIT (csak) "TEGNAP. only Anna praised only Mari-ACC only yesterday '(Only) Anna praised (only) Mary (only) yesterday.'
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- b. ... [TP dicsérte Anna Marit tegnap]
- c. $[FP Anna_i F FP Marit_i F FP tegnap_k F TP dicsérte t_i t_i t_k]]]$
- d. [FP Anna; [F dicsérte_m [FP Marit; t_m -F [FP tegnap_k t_m -F [TP t_m t_i t_i t_k]]]]]

Although É. Kiss's proposal is not without problems, it handles a number of issues reasonably well, including the regular placement of focus stresses and the realization of the operator status of focussed items by A-bar movement to the left periphery, so we will rely on this proposal in our first approach to solving the problem of multiple preverbal foci.⁸

Turning now to our central problem of sentences containing a wh-phrase and a negated focus in the left periphery, suppose that some focus-marked constituent moves into the preverbal Spec,FP position, which is then merged with the negative word *nem* 'not'. Then F is merged to the NegP, and the wh-phrase moves into the next Spec,FP, as illustrated in (17a-b), which replicates the movement of DPs in (16).

(17) a. [FP Kitj F F [NegP nem FP Smithi F TP ölt meg
$$t_i t_j \dots$$
]]]]] who-ACC not Smith killed PV

b. [FP Kii F F [NegP nem FP a Hamletetj F TP olvasta $t_i t_j \dots$]]]]] who not the Hamlet-ACC read

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⁸ Some of the problems are due to the positioning of the preverb immediately behind the inflected verb, others to the possible interpolation of unfocussed constituents between items carrying focus. They can be taken care of to some extent by TopicP recursion in É. Kiss (1998a). Although the importance of these largely unresolved issues is undeniable, we have tried to steer clear of them in the context of the present paper, especially since our proposal will rely on blocking the movement of the verb (and whatever may accompany it).

Note that we have followed É. Kiss's (1998a) original, pre-minimalist presentation of focus and verb movement, which can be easily made to comply with current advances, as will be seen below, by repeated merger of F to TP or FP and cyclic movement of the verb and the focussed DPs. One important aspect of her analysis, originally due to Brody (1990), is, however, retained throughout this paper: the movement of the verb (+ Tense) into F, the head of FocusP. While we are aware of recent arguments for and against alternatives, see, e.g., Koopman and Szabolcsi (2000), É. Kiss (2002), Horvath (2005, 2006), we have chosen this relatively simple analysis for reasons of space and convenience, especially since we regard our proposal to be compatible with at least some of the alternative analyses.

In (17a) first the functional category F is merged to TP, then the DP *Smith* is attracted by F and moves to Spec,FP. Next Neg is merged to FP, then F is merged to NegP, and finally the wh-phrase is attracted and moved to Spec,FP.

The question to address now is why multiple foci cannot have the same order of constituents in a negative sentence as in the affirmative sentence (16a)? In other words, since the versions of (10) and (11) given in (18a-b) in which the verb intervenes between the whphrase and the negated focus are clearly ungrammatical, why is verb movement impossible in case of a wh-phrase followed by a negated focus?

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(18) a. *[_{FP} Kit [_{F} ölt (meg) [_{NegP} nem [_{FP} Smith (meg) ... ]]]] who-ACC killed PV not Smith PV

b. *[_{FP} Ki [_{F} olvasta [_{NegP} nem [_{FP} a Hamletet ... ]]]] who read not the Hamlet-ACC
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The difference undoubtedly has to do with the negative word, so let us review its possible positions. A negative word can in principle be inserted from the Lexicon at three points of structure: (a) it can be lexically compounded to a zero-level category, i.e., a word, as the equivalent of English non-, e.g., a nem levezethető megoldások 'the non-derivable solutions', a nem-zenészek 'the non-musicians', cf. a megoldások [[[nem levezethető]-ség]-e] 'the solution's non-derivability', [nem-zenész]-i 'non-musician-like'. (b) The negative word can be merged with some constituent in its original ('base') position and move with it into the left periphery, or (c) it can be merged with some projection of the verb in the left periphery as the head or Spec of NegP.

Option (a) of 'lexical negation' is restricted to some adjectives and nouns, which surface in nonnegative phrases, as shown by the fact that they can easily occur in postverbal positions. Option (b), often called 'constituent negation', was supported in É. Kiss (1987) and related work, and it is rife with problems relating to scope, in particular, whether or not the negative word can c-command the rest of the clause. Option (c) called 'syntactic negation' here, which takes negation to be a functional category merged in the left periphery, raises no such doubts, since Neg clearly c-commands the rest of the clause. It is also the choice widely accepted in current literature (Pollock 1989, Ouhalla 1990, Haegeman 1995, Puskás 1996, Surányi 2002b). It is for this reason that no further arguments will be invoked in favor of option (c), which we will follow here, but note that while É. Kiss abandoned option (b) early on, one of its applications, retained also in É. Kiss (2002), will be exploited further below in 3.5.

It is an undisputed fact of the grammar of Hungarian that, excepting lexical negation, no negative word can occur behind the verb in the Hungarian (surface) clause, cf., (18a-b). In Hungarian, which maps logical relations fairly consistently onto surface constituent order, as was first observed by Szabolcsi (1981), some of the logical operators must occur overtly in the left periphery, that is, in front of the inflected verb, while others are not required to do so. Those that must be in overt peripheral positons whenever they are part of the numeration are as follows: at least one wh-phrase, at most one focussed item, and at most two negative words. These three operators seem to have to take overt scope over the proposition represented by (the verb moved into) Tense, i.e., the functional category projecting the clause.

The syntactic machinery realizing this semantic regularity draws on three distinct sources. The regular occurrence of Neg in front of the inflected verb is easily captured by option (c), which determines the location of the negative word(s) in the left periphery. Wh-phrases have to move to the left periphery to check their wh-feature against C, as suggested by Lipták (2001) and will be seen in more detail in 3.4. Finally, items involving constituent negation must be checked by the Neg head in the left periphery, as dicussed in 3.5 below.

Taking all this into account, the descriptive order of items in the left periphery of the Hungarian surface clause are as follows.

(19) Topics –
$$neg$$
 – Quantifiers/wh-XPs – neg – Focus (wh-XP) – neg – Verb+T – ...

a	nem	mindenki		a levest	(nem)	ette meg
b		senki	sem	a levest	(nem)	ette meg
c			nem	a levest	(nem)	ette meg Anna
d		ki		mikor	(nem)	ette meg a levest?
a.	not	everyone		the soup-ACC	not	ate PV
b- c .		noone	not	the soup-ACC	not	ate PV Anna
d.		who		when		the soup-ACC

- a'. 'Not everyone ate/didn't eat THE SOUP.'
- b'. 'It was (not) the soup that noone ate.'
- c'. 'It's not the soup that Anna ate/didn't eat.'
- d'. 'Who ate/didn't eat the soup when?'

The group of quantifiers contains not only universal quantifiers, which can be preceded by negation (see 3.5), but also negative concord quantifiers (see 3.3 and fn. 9) and wh-phrases, as was discussed in 2.2. Multiple (affirmative) foci are not shown in (19), but it is into this arrangement of operators and quantifiers that wh-phrases might fit when combined with negated foci. If the wh-phrase is moved into the immediately preverbal (or Focus) position, then if something else is also marked for focus in the negative clause, it can only be placed either behind the verb or in front of the wh-phrase. The theoretical options in negative clauses are listed in (20).

- (20) a. "Ki nem olvasta a "Hamletet?

 'Who hasn't read HAMLET?' = ca. '(The question is not who hasn't read Macbeth, but)

 who hasn't read HAMLET.')
 - b. A "Hamletet (")ki nem olvasta? 'idem.'
 - c. *Nem "ki olvasta a "Hamletet? not who read the Hamlet-ACC ca. *'It isn't who that has read Hamlet(?)'
 - d. *A "Hamletet nem "ki olvasta? the Hamlet-ACC not who read

The case of (20a-b) has already been discussed in connection with (13): they can be used to realize focus in scope of the wh-phrase or sentential contrast in the approriate contexts. (20c, d) are ungrammatical because they contain wh-phrases in the scope of negation, an impossible scenario since questions cannot be true or false.

If the wh-phrase cannot take up the position between the negative word and the inflected verb, this slot has to be occupied by the constituent marked for focus, and since, as was seen above, the wh-phrase cannot stay behind a tensed verb, it, too, has to move to the left periphery. Finally, since there is no available site to the right of negation, the wh-phrase will end up in front of the negative word, as in (21).

- (21) a. [FP KIT_j [NegP nem [FP SMITH_i [TP ölt meg $t_i t_j$]]]] whom not Smith killed PV 'For which person x was it not Smith that killed x?' ('Who was killed not by Smith?')
 - b. [FP] KI_i [NegP] nem [FP] A HAMLETET_j [TP] olvasta t_i t_j]]]] who not the Hamlet-ACC read 'For which person x was it not Hamlet that x read?' ('Who read something other than Hamlet?')

Note that this kind of repeated focus movement is exactly what happens in case of multiple affirmative foci, cf. (16), except that the verb moves adjacent to the topmost focus there, which is blocked in this type of construction, as (22) illustrates.

```
(22) a. *[_{FP} KIT_j \quad [_{F} \"{o}lt\text{-meg}_k \, [_{NegP} \, nem \, [_{FP} \, SMITH_i \, [_{TP} \, t_k \, t_i \, t_j \, ]]]]] who-ACC killed PV not Smith
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b. *[_{FP} KI_i [_{F} olvasta_k [_{NegP} nem [_{FP} A HAMLETET_j [_{TP} t_k t_i t_j ]]]]]
who read not the Hamlet-ACC
```

The question of why the verb cannot move between the wh-phrase and the negated focus will be addressed again in 3.4. In the next section we will discuss related problems of negation and focus in Hungarian, before we return to a minimalist analysis of negated foci in question clauses.

3.3. Proper double negation: two clauses, two phases?

Hungarian has been classified as a language exhibiting negative concord, in which a negative universal or existential quantifier (henceforth: a negative concord quantifier or NCQ) is licensed in the clause by either one of the (preverbal) negative words ne(m) or se(m), as a result of which the uninterpretable [neg] feature of the NCQ is checked and deleted.

- (23) a. Senki senkinek semmit nem/sem mondott erről.
 noone noone-DAT nothing-ACC not said about-this
 'Noone said anything to anyone about this.'
 - b. $[N_{egP} Senki_i [N_{egP} senkinek_i [N_{egP} semmit_k [N_{eg} nem] [TP mondott t_i t_i t_k erről]]]]$

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⁹ Szabolcsi (1981) was the first to address this issue. Puskás (2000) and Surányi (2002a, 2002b, 2006) call these quantifiers n-words, accepting Giannakidou's (2000) position classifying such items in Greek, Hungarian, and (some) Slavic languages as different from (true) negative quantifiers in Dutch, English, and German. But this term conceals their crucial property of being quantifiers and may lead to confusion with what has been called negative words. NCQs in Hungarian have been analyzed in detail by Puskás (1996, 1998, 2000), Tóth (1999), Surányi (2002a, 2002b, 2006), and Olsvay (2006), who have put forward various proposals ranging from movement and chains to feature valuation and checking. Independent of the number of NCQs in a clause, the clause counts as negative only on account of the obligatory negative word in it, which justifies the uninterpretability of the [neg] feature on the NCQs. For more on negation, see 3.5.

I will follow Surányi's (2002) 'checking and deletion' approach here based on Chomsky (1999, 2001) but will not take sides in the debate on whether NCQs are universal or existential quantifiers, cf. Szabolcsi (1981), É. Kiss (1987), Surányi (2006). Descriptively, an NCQ is licensed either if it is in Spec,NegP, i.e., immediately in front of either the negative word or another NCQ licensed there, or if the NCQ is c-commanded by (a clausemate) negative word. C-command is understood as in Chomsky (1986: 8): α c-commands β if α does not dominate β and every γ that dominates α dominates β . For more on the mechanism, see Brown (2000).

- (24) a. Nem mondott erről senki senkinek semmit (sem). not said about-this noone noone-DAT nothing-ACC not
 - b. [NegP Nem [TP mondott erről senki senkinek semmit sem]]

In (23) the NCQ's are each attracted by the Neg head, in other words, they are moved overtly to the stacked Spec,NegP, i.e., in the maximal projection of Neg, and their uninterpretable [neg] features are checked and deleted by the interpretable [neg] feature of the Neg head. In (24) Neg is merged to TP and the uninterpretable [neg] features on the NCQs are checked and deleted by Neg under Agree. Of course, any one (or any number) of the NCQs in (24) can be placed to the left of Neg without affecting the licensing conditions, and thus grammaticality.

In contrast, the Neg head cannot license the NCQ in the matrix clause from inside the embedded clause in (25a). Notice, however, that although the negative word in the matrix clause in (25b) c-commands the NCQ in the embedded clause, the structure is ungrammatical.

- (25) a. *Senkit_i hiszek, hogy e_i nem volt beteg. noone-ACC I-believe that not was ill
 - b. *Anna nem hiszi, hogy senki-ről beszéltek Anna not believes that noone-about they-talked

The case of (25b) shows that the licensing of NCQ is bounded by (tensed) clauses; in other words, licensing NCQs cannot cross clause boundaries, as was observed by Tóth (1999). Note also that this observation does not apply to nonfinite clauses, which arguably form a clause union and thus a single phase with their matrix predicate, cf. Den Dikken (1999/2004), but also fn. 11 for systematic exceptions.

Focus and NCQs can be distributed in various patterns in a clause.

- (26) a. [FP ANNÁT_i [NegP nem [TP dicsérte senki (sem) t_i]]] Anna-ACC not praised noone not 'It's Anna who wasn't praised by anyone.'
 - b. [NegP Senki_i nem/sem [FP ANNÁT_j [TP dicsérte t_i t_j]]]
 noone not Anna-ACC praised
 'Noone praised ANNA' (= 'For no person x is it Anna that x praised.' → 'Everyone praised someone other than Anna.')
 - c. [$_{NegP}$ Nem [$_{FP}$ ANNÁT $_{i}$ [$_{NegP}$ nem [$_{TP}$ dicsérte senki (sem) t_{i}]]]] 'It isn't Anna that no-one praised.'
 - d. [NegP Senki_i nem/sem [FP ANNÁT_j [NegP nem [TP dicsérte *t*_i *t*_j]]]] ca. 'For no person *x* is it Anna that *x* didn't praise.' (= 'Everyone was such that they didn't praise someone other than Anna.')

In (26a,c) the negative word merged to TP can check the [neg] feature of the NCQ, which is thus licensed. In (26b,d) the head of the NegP in front of the focussed item in FP licenses the NCQ moved into Spec,NegP.

It is clear that there is more to licensing NCQs than the simple condition of clause-mate negation.

```
(27) a. *[ Senki<sub>i</sub> [_{FP} ANNÁT<sub>j</sub> [_{NegP} nem [_{TP} dicsérte t_i t_j]]]] noone Anna-ACC not praised
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b. $*[_{NegP} Nem [_{FP} ANNÁT_i [_{TP} dicsérte senki (sem) t_i]]]]$ not Anna-ACC praised noone not

(27a) is a straightforward case of impossible licensing: there is nothing here to attract the NCQ into the initial position, where its [neg] feature cannot be checked. Since it is not in Spec,NegP, the negative word in NegP below the Focus Phrase cannot check the NCQ's [neg] feature due to the intervention of the Focus Phrase, so our predictions are borne out. But the negative word c-commands the NCQ in (27b), yet the sentence is ungrammatical. It is this problem that we will now address. ¹⁰

Suppose first that the negative word cannot be a sister to the TP or the FP containing the NCQ because, in line with É. Kiss's (1987) idea of constituent negation mentioned in the previous section, it is part of the focussed constituent, i.e., it moves together with it into Spec,FP in a construction of the type of (28a).

(28) a. *
$$[_{FP} [_{DP} \text{ Nem ANNAT}]_i [_{TP} \text{ dicserte senki } t_i]]$$
 not Anna-ACC praised noone

b. [Senki_j [FP [DP nem ANNÁT]_i [TP dicsérte t_j t_i]] noone not Anna-ACC praised

The negative word indeed could not c-command the TP or the NCQ behind the verb in (28a), which would easily account for the ungrammaticality. But then the case of (26b) would be left without an explanation: whereas in (26b) the NCQ is licensed by the Neg head, in (28b), which is patterned after (28a), nothing can attract the NCQ into the initial position and its [neg] feature would be left unhecked. This constitutes an additional motive for adopting the NegP analysis, as was argued in Tóth (1999), instead of the account based on constituent negation and movement.

If the interpretation of focus as an identifying operator is correct, cf. 3.1, we may suppose that (27b) contains two propositions: one in the constituent marked as NegP/TP above (and to be considered as CP, see directly below) and another in the negated focus. We will now claim that the case of (27b) parallels that of (25b), and (27b) is blocked because its NCQ is not licensed within the clause/proposition that it is the constituent of. In other words, we will rely on the assumption that in both (25b) and (27b) the negative word is in a phase different from that of the NCQ, and it is the phase boundary that blocks the licensing of NCQ. Whether or not there is a negative word in front of focus, focus forms a separate proposition, i.e., phase, and the next negative word falls into a different phase together with the inflected verb. Or, to put it differently, focus intervenes between the phase that contains the NCQ carrying the uninterpretable, and in both examples ultimately unchecked, feature [neg] on the one hand, and the Neg head marked for the interpetable [neg] feature on the other hand. Incidentally, this move would do away with the remaining notion of double or multiple negation in focussed sentences in Hungarian; henceforth every proposition defines a phase of its own, an idea originally raised by Surányi (2002b), and since negation is a function on propositions,

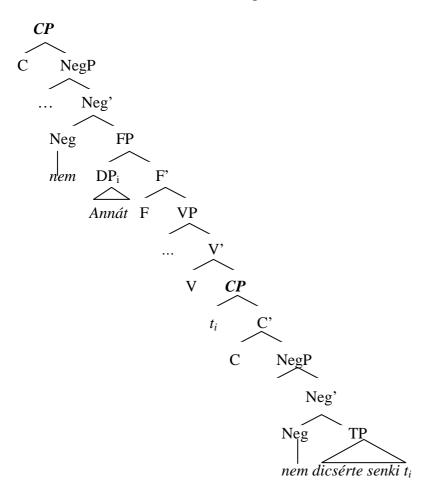
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¹⁰ (27b) can be made acceptable for some speakers if primary stress, and consequently wide scope, is assigned to the NCQ, cf. É. Kiss (2002) and Surányi (2002b), an option interesting in itself, but irrelevant in this context. One reviewer has noted that Szabolcsi's (1981) requirement that NCQs "must scope immediately over negation" takes care of the problems presented in (27). We believe it is the insight underlying this semantic requirement that the works referred to in fn. 9 set out to account for in syntactic terms.

each functional category Neg must occur in a distinct proposition. Note, however, that multiple negation in a single clause will still be possible if syntactic negation is accompanied by constituent negation, cf. 3.5. This can be schematically represented as follows.

The structures of the sentences problematic up to now are given in (30), in which, following, but not necessarily agreeing with, Chomsky's (1999/2001, 2004) position that only v*P and CP are phases, we take focus and its presupposition as distinct CPs on the pattern of cleft sentences in English and a number of other languages, and mark their left brackets, or their labels in the diagrams, in italics.

(30) a. I_{CP} [NegP (Nem) [FP ANNÁT_i F [VP V I_{CP} t_i C [NegP [NegP nem [TP dicsérte senki t_i]]]]]]]] not Anna-ACC not praised noone 'It is (not) Anna that noone praised.'



b. *
$$\int_{CP} [NegP] Nem [FP] ANNÁT_i F [VP] t_i V [CP] t_i [TP] dicsérte senki t_i]]]]]]$$

not Anna-ACC praised noone

In addition to negation and focus, we find a phonetically empty identifying predicate V in the higher phase, but no Infl (or its equivalent). This is a scenario observed in a number of languages where focus is marked by means of a focus particle, which is often identical with, or is a reduced form of, the copula or the verb of existence in the function of identification, as

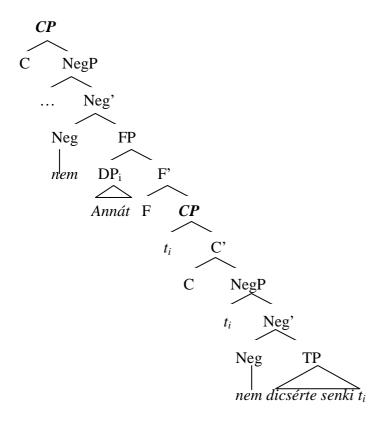
in Wolof (Kihm 1999), Somali (Lecarme 1999), Hausa (Hartmann and Zimmermann, to appear) or Kikuyu (Schwarz 2003). Note that this identity between predication and focus may serve as an argument for considering focus constructions as separate phases, but, as was mentioned above, this is a line not pursued here.

In both examples in (30) the DP *Annát* moves (by A'-movement) ultimately into Spec,FP. In accordance with minimalist requirements (Chomsky 1999/2001), we suppose here and below that the C head of the embedded clause has an edge feature, which attracts the constituent(s) of the clause marked for +F(ocus), and thus makes them accessible at the edge of the phase to further movement. This scenario is parallel with the case of long-distance whmovement in English and other languages, where the embedded (declarative) C must attract the wh-phrase in its domain but cannot check its wh-feature, which remains "active" until the wh-phrase reaches the C marked for +wh (Chomsky 2001).

In (30a) the Neg head in the lower phase can check and delete the [neg] feature on the NCQ by Agree, thus licensing it. In (30b), however, the Neg head is merged to FP in the higher phase, rather than to TP in the lower phase, therefore the NCQ is not licensed in the lower phase.

If the function of focus is identification, as argued, among others, by É. Kiss (1998, 2002), Kenesei (1986, 2006), or Horvath (2006), then it is not necessary to add a further head to the functional category Focus, which could itself be the locus of the identifying predicate. The head of Focus would then serve as a functional category expressing some kind of 'timeless' identification on a par with an identifying verb/copula by stating that (the denotation of) the constituent in Spec,FP is the value of the variable in the proposition in the presupposition following it. The F(ocus) head would then serve as the position of the focus particles in the languages listed above. The final structures proposed for the sentences in (30) are given in (31), without showing (some of) the intermediate traces here and further below.

(31) a. $I_{CP}[N_{egP}] = I_{CP}[N_{egP}] = I_$



b. * $I_{CP}[NegP]$ Nem [I_{CP} ANNÁT I_{i} F I_{CP} I_{i} [I_{CP} I_{i} [I_{CP} T [I_{CP} dicsérte senki I_{i}]]]]] not Anna-ACC praised noone

In these structures the relevant phases are defined at the level of propositions. Since focus structures express identifying statements modulo their presuppositions, there must be (at least) two propositions, consequently two phases, in a focussed sentence.

In sum, an NCQ can be licensed in either of two ways: (a) by external merge, i.e., a c-commanding Neg head in its own phase, which can check and delete the uninterpretable [neg] feature on NCQ by Agree, or (b) by internal merge, i.e., long movement of NCQ onto the next higher phase in which the Neg head checks and deletes its [neg] feature. The structures in (25b) and (27b), repeated below as (32a) and (33a), respectively, can thus be 'rescued' by moving the offending NCQ into the next higher phase by means of overt Quantifier Raising, an operation widely in force in Hungarian, by which quantifiers acquire their surface scopes, cf. Puskás (2000) or É. Kiss (2002). If this operation is carried out, as illustrated in (32b) and (33b), the NCQ's take wide scope, as contrasted with their original positions.

- (32) a. *[CP Anna nem hiszi [CP hogy senki-ről beszéltek]]
 Anna not believes that noone-about they-talked
 - b. I_{CP} Anna senki-ről_i nem hiszi I_{CP} hogy t_i beszéltek]] Anna noone-about not believes that they-talked 'Anna believes noone to have been talked about.'
- (33) a. $*I_{CP}$ [NegP Nem [FP ANNÁT_i I_{CP} dicsérte senki t_i]]]] not Anna-ACC praised noone
 - b. I_{CP} [NegP Senki_j [Neg nem [FP ANNÁT_i I_{CP} dicsérte t_j t_i]]]]] 'For no x, x a person, is it the case that it is Anna that x praised.'

In this section we have presented independent evidence based on the licensing properties of negative concord quantifiers that focus must be in a separate phase from the proposition that forms its presupposition.¹¹ We will now return to preverbal multiple foci and try to account for the problem they present along these lines.

3.4. Wh-phrases and focus negation again: the proposal

If a (negated) focus forms a phase different from that of the (negative or affirmative) proposition or clause following it, we can assume that the NegP merged with the topmost F in (34) signals the boundary of a phase of its own by being part of an independent proposition.

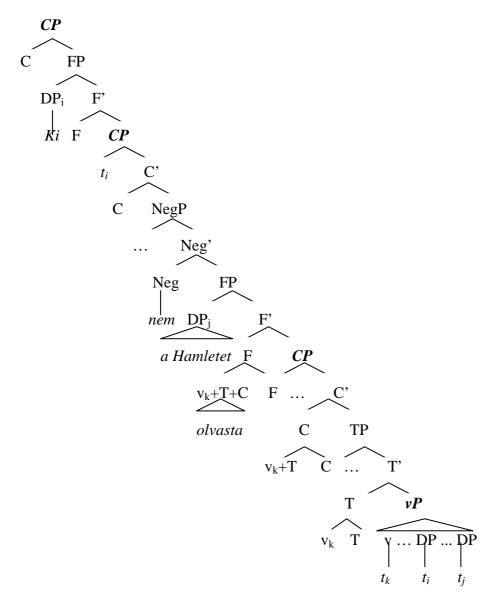
(34) $I_{CP}[_{FP} Ki_i F_{CP} t_i [_{NegP} nem [_{FP} a Hamletet_j olvasta-T-C_k-F_{CP} t_k t_j t_i [_{TP} t_k I_{vP} t_k t_j t_i]]]]]]]$ who not the Hamlet-ACC read 'For which person y is it the case that the x that is not Hamlet such that y has read x?'

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¹¹ As was discussed with reference to (25), an infinitival complement clause is usually in clause union with its matrix clause. When, however, focus intervenes, the clause union breaks up, as was pointed out to me by an anonymous reviewer, and as predicted by our proposal here, cf.

⁽i) [Nem szeretnék Marinak adni semmit (sem)] not I-would-like to-Mari to-give nothing-ACC not 'I wouldn't like to give anything to Mary.'

⁽ii) [Nem szeretnék [MARINAK *(nem) adni semmit (sem)]]
'I wouldn't like it to be Mary that I *(don't) give anything to.'



In (34) the DPs marked for [+focus], i.e., *ki* and *a Hamletet*, end up in Spec,FP positions through A'-movement. Each CP defines a phase as marked by the labels (or their left brackets) in italics. Before the position of the verb in (34) is discussed, let us return to multiple foci in affirmative clauses as analyzed by É. Kiss (1998).

The surface form (35e) of a sentence like (16a), repeated in a somewhat simplified version in (35a), is derived from (35b) through the intermediate stages of (35c-d). In (35b) C is merged to TP, and its edge feature attracts all +F marked constituents, including the verb, though it does not check their +F features, consequently it does not render them inactive, as shown in (35c). Then in (35d) F is merged to CP, which again attracts a single +F marked constituent and checks off its +F feature, namely, that of the DP *csak Marit*. Next another C with its edge feature is merged to the FP with the ensuing movement of the DP *csak Anna* and the inflected verb in the embedded C, followed by another F merged to the resulting structure, as in (35e), and the process is repeated with the remaining active items continuing to move: the subject DP is attracted to the topmost Spec,FP together with the verb moving into the topmost head F. A F(ocus) head always checks a single constituent marked +F, while all other +F marked constituents are attracted by the edge feature of higher C's and remain active for higher probes attracting and checking them.

- (35) a. [CP [FP Csak Anna; [F dicsértek [CP C [FP csak Marit; F [CP C [TP t; tk tj]]]]]]] only Anna praised only Mari-ACC

 'Only Anna praised only Mary.' = 'The only x, x a person, is Anna, such that the only y, y a person, is Mary, such that [x praised y].'
 - b. [CP C [TP T [vP dicsérte [DP csak Anna] [DP csak Marit]]]]
 - c. $[CP [DP csak Anna]_i [csak Marit]_i dicsérte_k [TP t_k [vP t_k t_i t_j]]]]]]$
 - d. [FP][DP] csak Anna[i] [csak Marit][i] dicsérte[i] [i] [i]
 - $eI_{CP}[F_{P} Csak Anna_{i}] = dicsérte_{k} I_{CP} t_{i} t_{k} [F_{P} t_{i} csak Marit_{i} t_{k} I_{CP} t_{i} t_{i} t_{k} [F_{P} t_{k} t_{i} t_{i}]]]]]]$

The role of the F(ocus) heads is the same as before: identification. Under the analysis adopted here (see fn. 8), the F head also attracts the inflected verb, so the verb of the proposition in the presupposition of focus, i.e., inside TP, must move ultimately to the highest F head, observing the usual requirements of head-movement as well as checking its inflectional features along the way. ¹²

In the interpretation of the sentence, however, the verb has to be reconstructed to its original position, otherwise it could not form part of the presupposition enclosed in brackets in the approximate LF-representation in (35a). Attraction of the verb to F is a morphological requirement of (overt) syntax as prescribed by the lexical characterization of the Focus head. Reconstruction is achieved by means of the minimalist assumption of the 'copy theory of movement', in which reconstruction applies in the base position (Chomsky 2001). It follows then that the actual derivation of the sentence in (35) is as illustrated in (36), where English glosses are given in place of the Hungarian words (and not all traces are shown) for sake of simplicity.

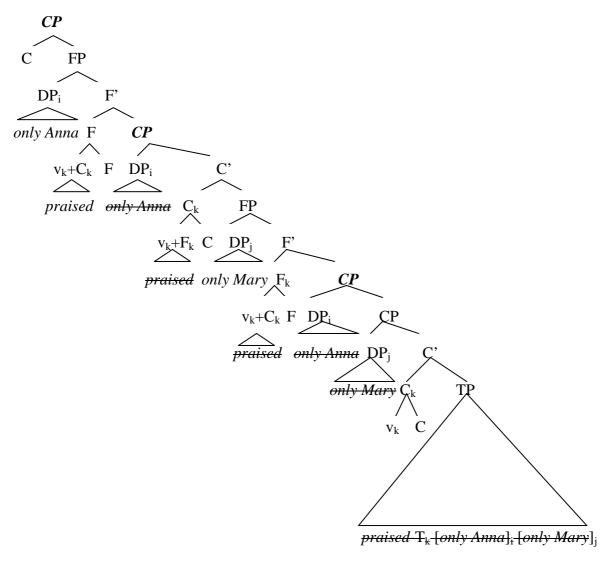
(36) a. $I_{CP}[FP]$ only Anna; $F_{CP}[FP]$ only Anna; $F_{CP}[FP]$ only Mari-ACC; $F_{CP}[FP]$ only Mari-ACC; $F_{CP}[FP]$

[CP only Anna; [CP only Mari-ACC; C [TP praised, T [only Anna]; [only Mari-ACC];]]]]]]]]

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cannot be discussed here, so all representations follow the 'traditional' view of left-adjunction and movement.

The problems of head movement vis-á-vis the requirements of (internal) merge in the Minimalist Program



b. I_{CP} [FP only Anna, [F praised, F] [FP only Mary-ACC, F] [FP only Mary-ACC, F]

c. [CP [FP only Anna; F [CP C [FP only Mary; F

 $[CP C [TP praised_k-T [only Anna-AGENT]_i [only Mary-THEME]_j]]]]$

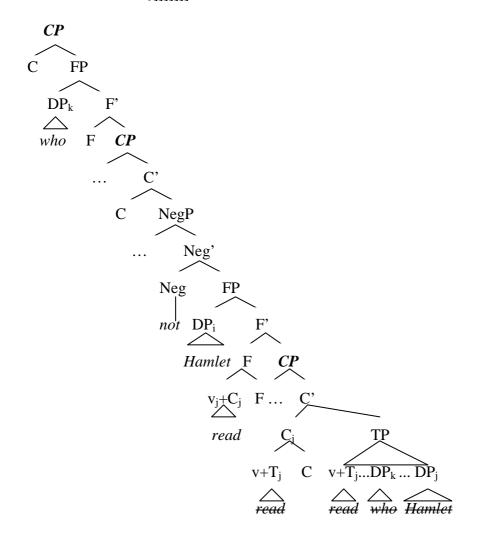
In (36) the v-VP is not fleshed out and the derivation starts with the verb checking its inflectional features in Tense. Then the two DPs, (only) Anna and (only) Mari-ACC move in a cyclic fashion as attracted ultimately by the respective F heads, whose uninterpretable [focus] features attract these DPs, which then check the heads' and their own features in overt syntax. Simultaneously, the topmost F head also serves as a probe for the verbal complex (v-T), which moves up ultimately to adjoin the topmost F (modulo the reservation noted in fn. 12). Spell-Out strips off the items that enter the phonological interface, schematically illustrated in (36b). At the interface with the conceptual-intentional system, or Logical Form for short, intermediate copies are deleted, and the highest moved copies are retained for scopal interpretation, while the copies at the base positions reveal argument structure. That is how the interpretation given for (35a) can be 'read off' the logical form in (36c).

If, in turn, there is negation along the path of verb-raising, it has to block head movement of the verb, as was seen in (18). Recall that negative words must occur in front of the inflected verb in Hungarian, cf. (19). This is such a strong requirement that it can even separate focus from

the verb, which two constituents are otherwise always strictly adjacent, as was seen in (1a) and also in (19). We derive this property by stipulating that Neg does not attract Tense, i.e., the v-T complex in this language. If Neg does not attract T, Neg will in effect prohibit the head-movement of the verb to Neg, and further to any higher Focus head, although Focus heads, as a rule, do attract the inflected verb in this language according to the analysis followed here.

Let us now see how these devices help us account for the structures under discussion. Below (21b) is repeated in (37a). As before, we use English glosses to illustrate the derivation from (37b) onwards with (some of) the intermediate traces shown as t.

- (37) a. I_{CP} [FP KI_k F I_{CP} [NegP nem [FP A HAMLETET_j F I_{CP} [TP olvasta t_i t_k]]]]]] who not the Hamlet-ACC read 'Who hasn't read HAMLET?' = For which person y is it the case that the x that is not Hamlet is such that y has read x?'
 - b. I_{CP} C [TP read who Hamlet]]
 - c. [FP Hamlet_i read_j-F [CP $t_i t_k C$ [TP read- T_j who Hamlet_i]]]
 - d. I_{CP} who_k C I_{NegP} not I_{FP} I_{CP} I_{CP}
 - e. [CP] [FP] who_k F [CP] t_k [NegP] not [FP] Hamlet_i read_j-F [CP] t_i t_k t_j [TP] read- T_j who_k Hamlet_i []]]]]]



f. * $f_{CP}[FP \text{ who}_k \text{ read}_j f_{CP} t_k [NegP \text{ not-}t_j [FP \text{ Hamlet}_i \text{ read}_j f_{CP} t_i t_k t_j]_{TP \text{ read } T_i \text{ who}_k \text{ Hamlet}_i]]]]]]]]]$

We begin to present the derivation in (37b), where the C head is merged to TP, with its edge feature attracting the focus-marked DP Hamlet and the inflected verb. Then F is merged to CP, and its +F feature attracts the focus-marked DP Hamlet (and possibly the verb+T complex), as shown in (37c). Next the Neg head is merged to FP, then C to NegP, and the edge feature of C attracts the wh-phrase, cf. (37d). Finally, another F head is merged to this CP, and its uninterpretable focus feature attracts the only accessible focus-marked DP, the wh-phrase into its Spec,FP, as seen in (37e), where phases are shown as before. Both F heads have their uninterpretable focus features checked by overt movement of the DPs into their respective Specifiers and the structure in (37e) undergoes Spell-Out with the copies in base positions deleted. The same form (37e) is fed into semantic interpretation, which will assign focus status to the two DPs (as well as provide them with the identifying propositions approximately of the form given in the sense translation in (37a)), and compute the scope relations with respect to negation and Tense, representing the internal proposition. If the verb moves on to the highest F head, as in (37f), it will violate the Head Movement Constraint if it does not land in Neg, but since it is not attracted by Neg, it cannot even move there. The offending move is shown in bold type in (37f). Consequently, the inflected verb cannot take scope over negation, a relationship prohibited in Hungarian and blocked in Logical Form. Anna Szabolcsi's familiar quip that "Hungarian wears its LF on its sleeve" (Koopman and Szabolcsi 2000: 195) is thus rendered as a prohibition on V-movement (and probably also head movement) at the level of sensory-motor interface, i.e., Phonetic Form.

Suppose now that the positions of the (negated) focus and the wh-phrase are reversed, that is, starting with (37b), repeated as (38a), first the wh-phrase is moved to check F, as in (38b), then another F is merged and the other DP is moved into the Spec of this F, merged in turn with a Neg head, cf. (38c).

- (38) a. $[_{FP} F /_{CP} [_{TP} \text{ read who Hamlet}]]]$
 - b. $[FP \text{ who}_i \text{ read}_i F \text{ } I_{CP} \text{ } t_i \text{ } t_i \text{ } [TP \text{ read} T_i \text{ who}_i \text{ Hamlet}_k]]]$
 - c. I_{CP} C [NegP not [FP Hamlet_k F I_{CP} t_k [FP who_i read_j-F I_{CP} t_i t_j t_k [TP read-T_j who_i Hamlet_k]]]]]
 - d. *Nem A HAMLETET KI olvasta? who read

Recall first that questions like (38d) are acceptable without the negation, as was seen in (13b), which expresses sentential contrast. But (38d) is ill-formed, which may be due to two reasons. If the DP in front of the wh-phrase is genuinely focussed as follows from (38a-c), it would take scope over the wh-phrase, which is a scenario forbidden in Hungarian even without negation of focus. Another reason can be found in Lipták (2001), which claims that Comp must check its wh-feature by attracting the wh-phrase in FP. If, however, any other quantifier occurs between Comp and the wh-phrase, which in principle is a possible order, cf. (39), an intervention effect prevents feature-checking to take place, as the following example from Lipták (2001) illustrates.

```
(39) a. [ C[wh] [ kit[wh] [ látott mindenki ]]] whom saw everyone 'Who did everyone see?'
```

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b. *[ C[wh] [ Mindenki [ kit[wh] látott ]]]
```

It could be the same intervention effect that prevents the wh-phrase in (38d) from being attracted to the Comp there. We may also assume that the Neg head intervenes if anything other than a wh-phrase is attracted to a higher Focus head, while a wh-phrase is attracted there ultimately by Comp serving as a probe and the closest F that Comp selects inherits the *wh* feature from Comp, as follows from Lipták's argument.¹³

We have seen in this section that the assumption of propositional phases as extended to each focussed constituent and the presupposition, together with minimalist ideas of feature checking and deletion can account for both multiple foci and multiple negation in Hungarian. We will now extend our investigation to a construction type that has so far defied analysis and will examine if it can also be brought under the umbrella of propositional phases.

3.5. Quantifiers, negation, and focus: a related problem

We will now return to negative concord quantifiers (NCQs) to investigate another context in which NCQs are preceded but not licensed by a negative operator and ask the now legitimate question whether they also fall under the multiple phase analysis proposed here.

As is well-known, universal quantifiers (UQs) cannot take scope over negation in Hungarian. Hungarian hung

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<sup>13</sup> The relevant examples are as follows:
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(ii) $*[_{CP} C [_{FP} MELYIK LÁNYT F [_{CP} C [_{FP} ANNA [_{CP} C [_{NegP} nem dicsérte ...]]]]]]$

which girl-ACC Anna not praised

(iii) *[CP C [FP MELYIK LÁNYT F [CP C [FP ANNA F [CP C [NegP nem [FP TEGNAP_i F dicsérte ...]]]]]] which girl-ACC Anna not yesterday praised

In none of these examples can the focussed (wh-)phrase moved across the intervening Neg head, because the C immediately dominating the Neg is much too far from the topmost C marked for the *wh* feature to inherit the *wh* feature from it, and thus it cannot attract the *wh* phrase. This problem was raised by Gisbert Fanselow (personal communication). Curiously, Horvath (1995) judges the type of (i) as acceptable, and it is this example and the observation based on it that Koopman and Szabolcsi (2000) makes reference to, although they make use of the different (and fully grammatical) example, which was cited in (9) above.

(i) *"Mindenki nem dicsérte Annát. everyone not praised PV Anna-ACC

'Everyone (was such that s/he) didn't praise Anna.'

(ii) Mindenki "nem dicsérte Annát.

'Not everyone praised Anna.'

For a more recent analysis, see Szabolcsi (1997).

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¹⁴ This was first noted by Szabolcsi (1981), cf. the following ungrammatical example, in which *mindenki* carries focus accent, i.e., primary stress. Under different accentual conditions and intonational contours (see also fn. 15), it can scope below negation, making the sentence acceptable, cf. (ii).

```
(40) a. *f_{CP} [NegP Nem [QP mindenkit_j [FP TEGNAP_i F f_{CP} C [TP dicsért senki t_j t_i ]]]]]] not everyone-ACC yesterday praised noone
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- b. * $I_{CP}[N_{egP}]$ Nem $I_{QP}[N_{egP}]$ nem $I_{PP}[N_{egP}]$ nem $I_{PP}[N_{egP}]$ TEGNAP; $I_{CP}[N_{egP}]$ dicsért senki $I_{ij}[I_{ij}]$
- c. I_{CP} [QP Mindenkit_j [FP TEGNAP_i F I_{CP} C [NegP nem [TP dicsért senki t_j t_i]]]]]] 'For every person x, it was yesterday that noone praised x.'
- d. $I_{CP}[N_{egP}]$ Nem $[Q_P]$ mindenkit $_j$ $[F_P]$ TEGNAP $_i$ F I_{CP} C $[N_{egP}]$ nem $[F_P]$ dicsért senki f_j f_j $[F_P]$ TEGNAP $_i$ F I_{CP} C $[N_{egP}]$ nem $[F_P]$ dicsért senki f_j f_j $[F_P]$ TEGNAP $_i$ is was yesterday that noone praised f_i f_j f_j $[F_P]$ TEGNAP $_i$ is was yesterday that noone praised f_j f_j noone on some other day).

In (40a) the lower phase contains an NCQ that cannot be licensed by the negation 'one storey up', since focus intervenes. The same holds for (40b): negation of focus cannot, in effect, license the NCQ in the presupposition, whether or not the two negative operators are in a single phase, an issue to be discussed below. (40c, d) violate no constraint: the NCQ is licensed by Agree in the lower phase by a c-commanding Neg head – independently of the focus and the quantifier in the higher phase. Observe also that these latter two examples provide additional support for focus and presuppositon to be regarded as phases, otherwise the UQ–Neg orders seen in these examples would have to be blocked, since they are ungrammatical in Hungarian, cf. fn. 14. This is all in line with the procedures outlined above. But the two examples in (41a,b) are problematic, because the UQs seem to behave the same way as focussed expressions do with respect to NCQs in their scope.

```
(41) a. *[NegP Nem [QP mindenkit<sub>j</sub> [TP dicsért t_i senki t_j ]]]] not everyone-ACC praised noone
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- b. $[N_{egP} Nem [QP mindenkit_i [N_{egP} nem [TP dicsért senki t_i]]]]$ 'Not every person x was such that noone praised x.'
- c. $*[_{QP} \text{ Mindenkit}_i [_{NegP} \text{ nem } [_{TP} \text{ dics\'ert senki } t_i]]]$ everyone-ACC not praised noone

The structure in (41a) consists of a single phase, at least according to the criteria reviewed so far: it does not, apparently, contain focus. The NCQ should be licensed by the Neg head merged to QP, but it isn't. In (41b) the NCQ is licensed by the Neg in the lower NegP. Here the problem is due to the apparent violation of the prohibition against UQ taking scope over negation – whether or not there is more than one phase in it. This is a crucial case, since the non-negated version in (41c) is ungrammatical, as is expected on account of precisely this prohibition.

There are two options available to resolve this issue: the Neg–UQ construction is considered to be either (a) an additional phase, or (b) a single constituent obligatorily fronted, a view supported by É. Kiss (2002). Option (a) cannot be justified by logical or semantic considerations along the line of the argument put forward in case of focus, particularly since it is not clear why only negated UQs should count as independent phases. Note that if affirmative, i.e., non-negated, UQs were also phases, then nothing could prevent structures like (41c), and it would have to fall on the Neg head to create a phase of its own – obviously an impossible requirement. Moreover, if Neg is merged to a QP containing a UQ in the manner of (41a-b), it would be a mystery why (42a) is ungrammatical in the configuration given. In (42a) the NCQ ought to be licensed by the Neg head, the UQ should be possible in the scope of negation, cf.

(40d), and the scope order is perfectly possible in Hungarian, as seen in (42b), in which the NCQ is licensed by the Neg head and the postverbal UQ is in the scope of negation, all in a single proposition or phase.

- (42) a. $*[NegP Senki_j [Neg' sem/nem [QP mindenkit_i [TP dicsért <math>t_j t_i]]]]$ noone not everyone-ACC praised
 - b. $[NegP Senki_j [Neg sem/nem]]_{TP} dicsért t_j mindenkit]]$ 'Noone praised everyone.'

We will therefore adopt option (b), according to which [Neg–UQ] is generated by constituent negation as a single constituent, much like similar negated quantifiers or adjectives, e.g., *nem kevés* 'not few', *nem (nagyon) hasznos* 'not (very) useful', neither of which forms a single lexical item, but exhibits 'constituent-internal negation', as it were.¹⁵

Under our analysis the negative word adjoining the UQ carries the interpretable feature [neg]. We may speculate, along the lines of Roberts and Roussou (2002), that this feature is strong in the sense that a strong feature must be local to the feature it checks. The negated UQ has to move to the left periphery to check its [neg] feature against the (possibly phonetically empty) Neg head merged to TP and marked by italics below. Then the problematic cases can be reanalyzed as in (43b-d).

- (43) a. $[NegP [DP Nem mindenki]_i Neg [TP]$ dicsérte Annát $t_i]]$ not everyone praised Anna-ACC 'Not everyone praised Anna.'
 - b. $*[_{NegP} [_{DP} Nem mindenki]_i Neg [_{TP} dicsért senkit t_i]]$ not everyone praised noone-ACC
 - c. $[NegP [DP Nem mindenki]_i]$ nem $[TP dicsért senkit t_i]]]$ not everyone not praised noone-ACC 'Not everyone praised noone (- some praised some).'
 - d. [$_{NegP}$ [$_{DP}$ Nem mindenki] $_{i}$ nem [$_{TP}$ dicsérte Annát t_{i}]] not everyone not praised Anna-ACC 'Not everyone didn't praise Anna. (– Some did praise her.)'
 - e. *[$_{NegP}$ Senki $_{j}$ [$_{NegP}$ [$_{DP}$ nem mindenkit] $_{i}$ Neg [$_{TP}$ dicsért t_{j} t_{i}]]]] noone not-everyone-ACC praised
 - f. *[NegP Senkij [Neg' nem/sem [QP mindenkiti Q [TP dicsért t_j t_i]]]] noone not everyone-ACC praised

We assume that when Neg is devoid of lexical content, it carries the uninterpretable feature [neg], attracting and checking negated UQs, but not NCQs, which need a phonetically visible negative operator with an interpretable [neg] feature. In (43a) the negated UQ is licensed by the empty Neg head and the sentence is interpreted as negative, due to the interpretable [neg] feature pied-piping on the phrase containing the negated UQ. The negated UQ is licit also in (43b), but

¹⁵ Neither of these latter examples license NCQs, but, unlike Neg-UQ, they can occur without being interpreted as negative in the clause. Their analysis is subject of work in progress as this paper is going to press (cf. Kenesei 2007).

the NCQ is not licensed by the uninterpretable Neg, and the negative operator cannot ccommand the NCQ out of the DP. Consequently, the uninterpretable [neg] feature on the NCQ senki cannot be checked. In (43c) the NCQ is licensed by the lexical, and thus interpretable Neg head merged to TP, independently of the Neg-UQ fronted to check its interpretable [neg] feature against the same Neg head. Note that there is indeed real 'semantic' double negation in (43c), as seen in the sense translation. The negated UQ is licit in (43d) because its interpretable [neg] feature is checked by the Neg head, which contains an overt, and therefore also interpretable, negative operator, resulting again in proper double negative interpretation – without there being double syntactic or propositional negation. In (43e) the NCQ cannot be licensed because the Neg head has no interpretable [neg] feature, and the [neg] feature on the negative operator in the DP cannot check it from out of the DP. In fact, nothing attracts the NCQ into the initial position that it occupies in (43e), so the case simply does not arise. Finally, when an NCQ occurs in front of a UQ, as in (43f), the structure is blocked because the Neg head necessary to license it cannot be merged to Q, that is to the left of the quantifier field. Neg represents a propositional function, and we have entertained the hypothesis here that only Focus and Tense can be heads of propositions, at least in Hungarian. Thus, the leftmost or topmost point of merger for Neg is Focus (Phrase). This mechanism captures the descriptive observation that NCQs require an overt negative operator in their clause, while negated UQs have negative force without there being an(other) overt negative operator in their clause.

4. Conclusion

This paper has addressed and analyzed a number of unresolved issues in the left periphery of the Hungarian sentence with interesting consequences to grammatical theory. We have challenged received wisdom holding that there is a single preverbal focus position by citing examples in which a focussed wh-phrase is followed by another constituent focussed in front of the inflected verb. Having done away with a number of apparently related cases, such as multiple questions, and sentential focus in questions, we concentrated on the problem at hand: why does negation make it possible to have multiple preverbal foci in Hungarian? Along the way we reviewed multiple foci in affirmative clauses and compared them to multiple foci in negative sentences. Multiple affirmative foci are best treated by cyclic quantifier movement triggered and/or accompanied by head movement of the inflected verb to the topmost Focus node. This has helped to reduce our initial problem to one of why in case of multiple negative foci the inflected verb does not move to adjoin the topmost functional head. At that point our tentative answer relied on general properties of the left periphery of Hungarian: first of all, the Neg head does not attract Tense. Consequently, the inflected verb does not move into Neg in Hungarian, and as a result, the Head Movement Constraint blocks the movement of the inflected verb over the Neg head, so it cannot adjoin the topmost Focus head in front of the negative word.

Problems of the scope of negation vis-à-vis focus emerge in relation to negative concord quantifiers (NCQs) as well. NCQs have to be licensed, in effect, by checking and deleting their uninterpretable [neg] feature either by Agree, i.e., by merging Neg to a node dominating them within their local domain or phase, or by moving them in overt syntax to a position in which a Neg head can check and delete their [neg] feature. It turns out, however, that Focus displays an intervention effect when placed between a Neg head and an NCQ. Since NCQ licensing is strictly clause-bound on the one hand, and the function of (contrastive) focus is identification, the hypothesis is formulated that focus constitutes an independent proposition, that is, a distinct phase, expressing identification. While it is in principle open to question whether only CP and v*P are phases, the issue was not pursued in this paper, and the relevant phases were all uniformly identified as CPs.

The behavior of NCQs in tensed clauses shows a close parallel with their behavior in focussed sentences, underlining the importance of the assumption of propositional phases in

general and that of positing focus as a phase in particular. Multiple foci are also seen in a new light: their derivation is straightforward with each focussed expression in its own phase. Another type of intervention effect, suggested by Lipták (2001), prevents a focussed expression from preceding a preverbal wh-phrase: wh-questions have to be licensed by checking a wh-feature in Comp. If focus intervenes, no checking is possible.

Finally, another intriguing problem involving focus, negation and quantifiers can be resolved by drawing on the same method. Negated universal quantifiers, which are, on most counts, unlike foci, behave like foci in one respect: they do not license NCQs in their local domain. They each form a single constituent with the negative word, which is therefore 'invisible' to the NCQ either to its right or to its left. In other words, the negative word inside this constituent is inaccessible to negative concord quantifiers for the purposes of checking procedures.

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