1. SOV languages and clause-internal question movement

This paper concerns some languages which do not move their question words into COMP, but which nevertheless move them into a certain fixed position. The languages I have in mind are all OV languages, and they move their question words into a position immediately to the left of V. It appears to be now generally acknowledged that in OV languages, the position to the immediate left of V is a Focus position. (E.g., it has been so characterized in German (Fanselow 2001:409).) What these languages do (then) can be seen as moving their question words into a clause-internal Focus position, instead of into COMP.

It has (of course) been suggested that movement into COMP also is Focus movement: thus, Rizzi (1997) claims that the COMP system has a number of phrases, one of which is an optional Focus Phrase; and his claim is that English wh-movement in fact moves a phrase into the Spec of this Focus Phrase. Echoing the Rizzi claims, Chomsky (1995, 1998, 1999) has suggested that when C\text{0} gets an EPP feature, it automatically also gets a P feature, by which he means a Force, Topic, or Focus feature. Accepting the Focus feature as relevant here, what the Chomskyan devices mean is that when C\text{0} attracts a wh-phrase, it does so by virtue of being (or having become) a Focus position. Now, from this perspective, the comparison of English and the languages we have in mind is straightforward and simple: English moves its question word into a clause-peripheral Focus position, these languages move their question words into a clause-internal Focus position.¹

Perhaps I should (at this point) illustrate this clause-internal Focus position. My illustrative data will come from Malayalam. In Malayalam, a question word must occur to the immediate left of V. Thus, of the following sentence pairs, the (b) sentences are unacceptable:
(1)  a. nin-ne aarə talli ? 
   you-acc. who beat(Past) 
   ‘Who beat you?’ 
   b. * aarə nin-ne talli ? 
   who you-acc. beat(Past) 

(2)  a. awan ewiDe pooyi ? 
   he where went 
   ‘Where did he go?’ 
   b. * ewiDe awan pooyi ? 
   where he went 

(3)  a. nin-akkə ii pustakam aarə tannu ? 
   you-dat. this book who gave 
   ‘Who gave you this book?’ 
   b. * aarə nin-akkə ii pustakam tannu ? 
   who you-dat. this book gave 

(The ‘canonical’ order of the verb and its arguments in Malayalam is: ‘Subject - Indirect Object - Direct Object - V’, i.e. the order in (3b).)

This requirement of the Malayalam question word had long gone unnoticed, because Malayalam normally prefers to cleft a constituent question, placing the question word in the cleft focus. Thus (1a) will normally be expressed as (4):

(4)  aarə aaNə [nin-ne talli-(y)atə] ? 
   who copula you-acc. beat(Past)-Nominalizer 
   ‘Who was it that beat you?’

(In (4), the cleft focus is shown in boldface; the cleft clause is within brackets.) In the Malayalam cleft (moreover), the focus-plus-copula can “float” into the cleft clause, as shown below ((5a)=(4)):

(5)  a. aarə aaNə [nin-ne talli-(y)atə] ? 
   who copula you-acc. beat(Past)-Nominalizer

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1 Of course, not everyone agrees that wh-movement into COMP is Focus movement. See Rudin (1988), Bošković (1999) for a claim about a distinction between them.
b. nin-ne aarrow aarrow talli-(y)atö ?
   you-acc. who copula beat(Past)-Nominalizer

c. nin-ne talli-(y)atö aarrow aarrow ?
   you-acc. beat(Past)-Nominalizer who copula

A casual inspection of the sentences of (5) gives the impression that the question word can be “anywhere” in the sentence; i.e., that it can be freely scrambled. But recall that in the cleft construction, the matrix V is the copula; and note that, in all the sentences of (5), the question word is immediately to the left of the copula. So clefting itself can be seen as a strategy for placing the question word in the position contiguous to V.

Now, the claim that some languages move their question words into a Focus position and not into COMP, is in itself not new. The theoretical challenge here is the particular placement of the Focus position vis-à-vis the other elements of the clause. We said that there is a Focus position to the immediate left of V to which question words move (in the languages we are talking about). We are now faced with the question: how do we generate this position, in a framework that makes such standard assumptions as binary branching. The problem is as follows: Suppose we go along with traditional analyses of SOV languages and assume an underlying OV order in the VP. How do we generate a COMP-like position “within VP”? Especially, consider a sentence like (1a) (repeated below), in which the subject is a question word. No matter whether we generate the subject in Spec,IP (as per older assumptions) or VP-internally, the subject NP will have to be lowered into the position contiguous to V. This is shown in (6):

(1) a. nin-ne aarrow talli ?
   you-acc. who beat(Past)
   ‘Who beat you?’

(6)  
    VP
    / 
   SUB V’
   /   
  OBJ V’
    /  
   ? V
If we were assuming a Ken Hale-type “flat” clause structure (Hale 1983), and arguments generated in any order whatever, we could think of the placement of the question word as prosodically motivated. But if we adopt binary branching, it is difficult to see how the problem illustrated in (6) can be avoided.

In Jayaseelan (1996, 1999, 2001a) I have argued that these problems can be given a very natural solution, if we assume an underlying Spec-Head-Complement order universally. Given this assumption, the superficial OV order of some languages must be seen as a derived order: V’s internal arguments must have all moved out of the VP, into the Specs of higher functional projections. Now if we postulate a Focus Phrase (FocP) immediately above vP/VP -- such a FocP above vP/VP has been found necessary in many languages, e.g. Hungarian (Brody 1990), Basque (Laka & Uriagereka 1987), Chadic (Tuller 1992), Kirundi (Ndayiragije 1999) --, the “VP-vacating” movements of V’s internal arguments will move elements “across” this FocP, leaving a question word which has moved into Spec,FocP closest to V:

(7) . . .  .  
    \[ \text{FocP} \quad \text{Q-word} \quad \text{Foc}^0 \quad [vP \ V \ . . . . ] \]

To illustrate: in (1a), the subject NP, which is a question word, will move into Spec,FocP; and the object NP will move “past” it on its way to its surface ‘canonical’ position:

(8)  

Chomsky (2001) suggests that Spec-Head may be a universal order, but that Head-Complement or Complement-Head may be a parametric option. Suppose we accept this suggestion. We still need to generate the question word’s position next to V in an SOV language like Malayalam. And unless we can countenance the type of
downward movement shown in (6), there seems to be no escape from postulating a FocP above vP/VP and moving all the elements of vP that do not move into this FocP, “past” it.

(9)  FocP
     Spec               Foc'
     vP                 Foc
     SUB        v'
     VP        v

In other words, it is immaterial whether the underlying order is Head-Complement or Complement-Head; in either case, we need the “VP-vacating” movements. (Therefore, there is no “saving” of any movements as a result of allowing an underlying Complement-Head order.)

The “VP-vacating” movements can indeed be avoided if we postulate a FocP which has its Spec position to the right of the Head (which would in fact be contra Chomsky’s above-cited suggestion). Assuming a head-final structure in all other phrases, we can now obtain the desired word order by moving the question word -- in (1a), the subject -- to Spec,FocP, and raising V to T (possibly adjoining to Foc0 on its way up):

(10)                     TP
     Spec         T'
     FocP              T
     Foc'        Spec   V
     VP        Foc    SUB

A rightward Spec position is in fact Ndayiragije’s solution for Kirundi (Ndayiragije 1999). In Kirundi (an SVO language), a focused subject comes after the verb and the object. Ndayiragije proposes the following structure to explain this:
Note that the FocP -- and only the FocP -- has a rightward Spec position here. In Jayaseelan (2001a) I pointed out that we can keep the regular Spec-Head order for the FocP (too), and still generate the focused subject’s position vis-à-vis the verb and the object, if we assume a VP-preposing operation such as has been attested in many SVO languages (Kayne 1998):

Thus there is no real motivation for a FocP with a rightward Spec position.2

So then, the prediction of antisymmetry, namely that all the verb’s internal arguments are outside VP in the canonical order of SOV languages, receives strong support from the question word’s position next to V in Malayalam. The only way around this conclusion seems to be to deny that the position of the question word has anything to do with narrow syntax at all. That is, someone could perhaps claim that the position of the question word is due to some kind of a scrambling operation that takes place purely in the phonological component. (Phonological operations presumably are not affected by strictures like binary branching, or by the illicitness of a lowering rule.) If we adopt this position, this particular instance of scrambling -- namely the “rightward scrambling” of a question word -- could even be justified in terms of prosodic

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2 The VP-preposing operation itself could be a “p-movement” (prosodically-motivated movement) in the sense of Zubizaretta (1998).
requirements. But I shall now contest this suggestion by trying to show that the Malayalam question word’s position is in fact dictated by the requirement of accessibility to the question operator; and therefore it cannot be outside narrow syntax.

Given the phase theory of cyclicity (Chomsky 1998, 1999, 2001), a ‘phase impenetrability condition’ (PIC) ensures that once a phase is passed, the domain of the head of the phase is opaque; i.e., an element in the domain is no longer accessible to $C_{HL}$.

Only the ‘edge’ of the phase -- the head of the phase and its Spec position(s) -- remains accessible in the next phase. A consequence of this is that, for extraction of an element from a phase, or for interpretation of an element by an operator in the higher phase, the element must first move to the ‘edge’.

The question operator (we can assume) is universally generated in COMP (Baker 1970, Jayaseelan 2001b). Given the phase theory, it can access a *wh*-phrase only if it is in the ‘edge’ of the highest vP in its domain, or higher. In English, a *wh*-phrase moves all the way to COMP. (Chomsky (2001) solves the problem of *wh*-in-situ by opting for covert movement.) In Malayalam the question word does not move to COMP, for reasons that we need not go into here. But it moves *overtly* to the nearest position where it becomes accessible to the question operator, namely the ‘edge’ of the vP phase. (Of course, the ‘edge’ position of the question word is disguised by the “VP-vacating” movements of the other elements of the vP, in the manner we described above.) In a multiple question, all the question words must be “stacked” in this position, cf.

(13) nin-ge aarø eppooL entinæ talli ?

you-acc. who when why beat(Past)

‘Who beat you why when?’

Chomsky (1995, 1998, 1999) implements *wh*-movement by assigning an optional EPP feature to $C^0$ and $v^0$. This EPP feature (as I said earlier) is “twinned” with a P feature, which in this case we take to be a Focus feature. Given PIC (‘Phase Impenetrability Condition’), a *wh*-phrase contained in vP first moves to the ‘edge’ of vP,

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1 It must be noted (however) that Zubizaretta (1998) postulates prosodically-motivated movements (“p-movements”) which take place in the syntax (p.141).

4 Actually the domain of $v$ is closed off only when the derivation has reached the end of the CP phase, i.e. when $C$ has been merged. This is done to ensure that an in-situ nominative object (as occurs in a “quirky” subject construction in some languages) is still accessible to $T$ for Case-agreement. But we shall ignore this detail, since we are concerned only with *wh*-movement.
and then to the ‘edge’ of CP. The P feature on $C^0$ and $v^0$ possibly expresses (or at least accommodates) the claim that both steps of $wh$-movement are Focus movements. In English the first step of $wh$-movement is ‘invisible’. What we see in Malayalam is this ‘invisible’ step made ‘visible’. Thus question word movement in Malayalam provides evidence for the two-step $wh$-movement analysis, and for the phase theory which entails it.

Of course there is a difference of detail in the execution, between the Chomskyan picture of the vP phase and what I have proposed. I have been assuming a separate Focus Phrase above vP, whereas for Chomsky Focus is only a feature on v, and the Focus position is an outer Spec of vP. Chomsky makes a similar move about Rizzi’s proposed Focus Phrase in the COMP system: he reduces it to an optional Focus feature on $C^0$, and this feature makes the Spec of CP a Focus position. The advantage of the Chomskyan analysis is that it makes it easier to define the edge of a phase: the edge consists of the highest head of the phrase, and its Spec position(s). However there is some evidence which suggests that we may have to sacrifice this advantage and postulate a separate Focus Phrase in both vP and CP.

Consider Ndayiragije’s Kirundi facts which we discussed above. (See figures (11) and (12) and accompanying text.) If we discountenance a rightward Spec position, the most natural way to generate the subject’s surface position appears to be the solution I suggested, namely the subject’s movement to Spec,FocP followed by VP preposing. But adopting Chomsky’s system, if we were to move the focused subject into the outer Spec of vP, the preposing operation will be impossible, since this would constitute the movement of a non-maximal projection (an intermediate projection):

(14)  

This suggests that the Focus position is in fact a separate phrase above vP.
Again, in the case of CP, suppose we assume that the question operator is not something extracted from the *wh*-phrase but is generated in the COMP (as originally proposed by Baker (1970), and as argued in Jayaseelan (2001b)). Call the head in which the Q-operator is generated Force₀ (Rizzi 1997). The *wh*-phrase must now move into a position c-commanded by the Q-operator, e.g. into a Focus Phrase which is below ForceP; for, if it moves into the Spec of ForceP, it cannot be interpreted, given that there is no Head-Spec relation (Chomsky 2001).

![Diagram](15)

Crucially, I am proposing that we should do away with the “WH-Criterion” configuration (Rizzi 1991), which requires a *wh*-phrase to be in the Spec of a C₀ with the feature [+WH].

(16) “WH-Criterion” configuration

![Diagram](16)

In this configuration we were assuming that the Q-operator was part of the meaning of the *wh*-phrase, something to be ‘extracted’ from the *wh*-phrase by an interpretation which separates out the operator from other pied-piped material (Chomsky 1992). We were using the [+WH] feature on C₀ only as a device to attract the Q-operator into COMP. The point is that C₀ itself is not the operator. But if we assume that the Q-

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5 We also have the view of Rizzi (1991), that a *wh*-phrase becomes an operator when (and only when) it moves into COMP.
operator is independently generated in the COMP as the head of a phrase, the WH-Criterion configuration must be reconsidered. As I said, the giving up of the Spec-Head relation in fact forces this move.

Actually, all we need to say about English is that the English Q-operator, generated as the head of ForceP, obligatorily selects a Focus Phrase as its complement. This selectional feature is a lexical property, and so is the right locus for parametric variation; as is well-known, other languages do not require obligatory wh-movement into COMP. In fact, there is a parallelism with other English operators, like *only* and *even*: These optionally select a Focus Phrase as their complement; the surface manifestation of this is that the focused element associated with the operator can optionally move up close to the operator, to a position immediately to its right, cf. the movements described in Kayne (1998). In Jayaseelan (2001b), I showed that question interpretation involves “association with focus”, the same operation that is involved in the interpretation of the adverbial particles *only* and *even* (Rooth 1985). The selection of a Focus Phrase by all the English operators that employ “association with focus” -- obligatorily in one case (the question operator), optionally in the other case (*only/even*) - - therefore falls together in an intuitive way.

2. Multiple *wh*-fronting and the ordering constraints

The simplest assumption to make is that a Topic or Focus Phrase is always generated optionally. (Although of course, it may appear to be obligatory when it is obligatorily selected by a higher head.) Instead of saying that the EPP feature is associated with a P feature, the right thing to say (it seems to me) is that a Topic or Focus head has an EPP feature, or EPP is a property of Topic or Focus on a functional head; which expresses the requirement that the Spec of a Topic/Focus Phrase must be filled. Suppose we revive a traditional idea that the subject position is a “grammaticalized” Topic position; the EPP feature of \( T^0 \) can now be seen as properly belonging to the Topic feature of \( T^0 \). We now

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6 Actually, Kayne (1998) moves the focused element to the Spec of (the phrase headed by) *only*. To get the right word-order -- e.g. ‘only JOHN’ instead of ‘JOHN only’ --, he must then move *only* to the left by adjoining it to a higher functional head. This ‘flip’ operation can now be saved, if we say that *only* selects a Focus Phrase as its complement, and the focused element moves into the Spec of the Focus Phrase.
appear to be moving towards a maximally simple theory of movement, where all phrasal movement is driven by a Topic or Focus feature on a functional head: e.g., *wh*-movement is driven by a Focus feature, and movement to Spec,T is driven by a Topic feature. In Jayaseelan (2001a, 2001c), I explain clause-internal scrambling as movements to IP-internal Topic/Focus positions, so even scrambling falls into this pattern.

We would like to keep the theory of phrasal movement this simple. In particular, we would like to avoid postulating a strong feature in the phrase which undergoes movement. An obvious problem (however) is multiple *wh*-fronting, like in Bulgarian, Serbo-Croatian, and Malayalam. As I said, in Malayalam, every question word must be “stacked” in the Focus position above vP; cf. (13) (repeated below):

(13) nin-nē aarō eppool entingē talli ?
   you-acc. who when why beat(Past)
   ‘Who beat you why when?’

There are ordering constraints on the stacking, which have parallels in other multiple *wh*-fronting languages:

(17) i. Adjuncts must be closer to the verb than arguments.
   ii. The arguments must obey their *inter se* ‘canonical’ order.

In Malayalam (as was said earlier), the ‘canonical’ order is ‘Sub - IO - DO’. Therefore in (18), only the (a) sentence is fully acceptable:

(18) a. aarō aar-ooDē entē paRañňu ?
   who whom-to what said
   “Who said what to whom?”
   b. ?* aarō entē aar-ooDē paRañňu ?
   who what whom-to said
   c. ?* aar-ooDē entē aarō paRañňu ?
   whom-to what who said

The sentences in (19) show that an adjunct must be closer to the verb than an argument:

(19) a. nīi aar-e eppool kaNDu ?
    you who-acc. when saw
    ‘Whom did you see when?’
The constraint (17i), noted in Japanese, was earlier sought to be explained in terms of an “anti-superiority” condition (Watanabe 1992); but this explanation depended on the ECP, which is not one of the assumptions of Minimalism. (Even in terms of the earlier framework, the “anti-superiority” explanation faced a problem, since there can be more than one adjunct among the stacked question words near the verb, cf. (20) (Malayalam)

\[
\text{nii aar-e eppooL entin} \text{ talli ?}
\]

you who-acc. when why beat

‘Why did you beat whom when?’

In (20)/(21), no matter which adjunct moves into COMP first, the other adjunct’s movement will leave a trace that is not antecedent-governed.) We can explain (17i) straightforwardly if we adopt a proposal of Reinhart (1993), to the effect that wh-adverbials are merged directly in the COMP. For Malayalam, what counts as the COMP is the Focus Phrase above vP. Whereas argument question phrases are moved into this position, adverbial question words (we are now saying) are directly merged in this position. If we now adopt the Chomskyan principle (Chomsky 1995), “Merge is cheaper than Move”, or “Merge takes precedence over Move”, we get the order restriction we want: when a Focus head is merged (in the tree), its Spec position is first filled by Merge, then the movements of the argument question phrases take place to the outer Spec positions. Or if we are assuming iterated Focus Phrases, direct Merge fills the Specs of the first Focus heads in the tree, and Move fills the Specs of the later Focus heads:

7 Thanks to Dr. Masato Kobayashi for the example.
(The arguments are not ‘tucked in’ below the adjuncts a la Richards (1997), either because there is no ‘tuck in’, or for some other reason.)

About (17ii), i.e. the canonical order of the argument question phrases, I have nothing interesting to say. If we are assuming crossing movements (i.e. ‘tuck in’) in this case, then we must suppose that the hierarchical order of the arguments in the vP (before they “vacate” the vP) is Sub - IO - DO; but I can’t think of any independent way of testing this. But since the order generated is the same as the order generated by the “VP-vacating” movements, we can say that both sets of movements must be of the same nature; i.e. either both must be crossing movements, or both must be nested movements.8

3. The “clausal pied-piping” strategy of scope marking

The more important question (for me) is: how do we implement multiple wh-fronting? The device that immediately suggests itself is a strong feature in the phrases which move, but I said that we would like to avoid this option. Moreover, this device will still be inadequate when we take into account the full range of Malayalam facts, as I now go on to show.

In English, if a question word in an embedded clause has matrix scope, it moves successive-cyclically to the matrix COMP. In Malayalam, this way of indicating scope

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8 Bošković (1999) makes a distinction between wh-movement and focus movement of wh-phrases, and claims that only the former shows Superiority effects. He explains by this claim the difference between Bulgarian, which has wh-movement and shows Superiority effects, and Serbo-Croatian, which has only focus movement and shows no Superiority effects. However Malayalam question movement is clearly focus movement; and still, it exhibits a ‘canonical order’ constraint on argument question phrases which looks remarkably like the Superiority effects of Bulgarian.
is unavailable, possibly because the Focus position of the COMP is not available as an "escape hatch". Thus a sentence in which a question word from an embedded clause shows up in the Focus position of the matrix clause is ungrammatical:

(23) a. * nii [nii t kaNDu ennɔ] aar-ei paRaññu ?
you you saw COMP who-acc. said

‘Who did you say that you saw?’

b. * nii aar-ei paRaññu [nii t kaNDu ennɔ] ?
you who-acc. said you saw COMP

Since Malayalam requires scope to be indicated in the overt syntax, it employs two different devices to achieve this. One is a strategy of clefting, illustrated in (24):

(24) aar-ei aaNɔ [nii [nii t kaNDu ennɔ] paRaññ-ata] ?
who-acc. is you you saw COMP said-Nominalizer

‘Who is it that you said that you saw?’

The other strategy of indicating scope is what we may call the "clausal pied-piping" strategy. This is done in the following fashion: the question word first moves into the Focus position of the embedded clause, and then the whole embedded clause moves into the Focus position of the matrix clause. Consider (25):

(25) a. avan ninn-oοDɔ [avan-e aar θallı ennɔ] paRaññu ?
he you-to he-acc. who beat COMP said

‘Who did he say to you beat him?’

b. * avan [avan-e aar θallı ennɔ] ninn-oοDɔ paRaññu ?
he he-acc. who beat COMP you-to said

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9 The embedded clause is "extraposed to the right" in (23b). But as we see, it makes no difference to the grammaticality of the sentence.
10 Clefting appears to involve relativization; and relativization (unlike question movement to Focus) can extract an element from an embedded clause. Cf.
(i) (Relativization)
[ nii [nii t kaNDu ennɔ ] paRaññ-a ] kuTTi
you you saw COMP said-Relativizer child
‘the child that you said that you saw’

(ii) (Clefting)
ii kuTTi-ye aaNɔ [nii [nii t kaNDu ennɔ ] paRaññ-a-ta ]
this child-acc. is you you saw COMP said-Relativizer-Nominalizer
‘It is this child that you said that you saw.’

Note that in a finer analysis of -at, the morphology at the end of the cleft clause (glossed simply as ‘Nominalizer’ in (4), (5) and (24)), the ‘Relativizer’ -a can be seen. (Incidentally, relativization in Malayalam clearly involves movement, since it shows island effects (Mohanan 1984, Jayaseelan 2001b).)
(25a) is a good matrix question. (It can of course also be an indirect question (‘He told you who beat him’), since the embedded clause could very well be in the ‘canonical’ position of the verb’s direct object which is to the left of the Focus position.) (25b) is bad as a matrix question (although fine as an embedded question) because the embedded clause has clearly not moved into the Focus position of the matrix clause, as evidenced by its non-contiguity to the verb. (25c) is bad (as any type of question) because the question word has not moved to the Focus position within the embedded clause.

There are cross-linguistic parallelisms for clausal pied-piping, e.g. Basque (Mey & Marácz 1986, Ortiz de Urbina 1990). But instead of pursuing these parallelisms, let us ask the question: how can the current device of feature checking generate Malayalam question movements? Consider (25a) (repeated below):

(25) a. avan ninn-ooDø [avan-e aar talli enna] paRaññu ?

‘Who did he say to you beat him?’

There are two movements here: (i) the movement of the subject noun phrase aar ‘who’ to the pre-verbal Focus position in its own clause; (ii) the movement of the embedded clause to the pre-verbal Focus position of the matrix clause. Suppose we say that aar ‘who’ has a strong feature. This feature will be checked and deleted when the word moves into Spec, FocP in the embedded clause. But now, what will enforce the second movement?

Observe that a “Criterion” approach, which says that (in this language) all question phrases must be in the Spec of a Focus Phrase in the overt syntax, also fails to account for the second movement (i.e. the clausal pied-piping). Another solution which fails (it seems to me) is a proposal of Boćovic (1999), to the effect that there is an “attract-all-F” feature located on the target. This feature was meant to account for multiple wh-fronting without the need to postulate a strong feature in the phrases which move; a functional head with this feature has the property of repeatedly attracting focused elements in its domain until all of them have been moved up. If we were to adopt this device, we could assume that the Malayalam Focus head has this feature,
accounting for the “stacking” of the question phrases in the Focus position above vP. But there is an immediate problem: suppose we decide not to generate a Focus Phrase above vP. (We are continuing to assume that a Topic/Focus Phrase is generated optionally.) The prediction now is that Malayalam question phrases can show up in the ‘canonical’ positions, which is false. Therefore we shall need a device to ensure that whenever a subarray of a numeration contains a question word (or question words), it also contains a Focus head. The problem is compounded in the matrix clause, where something must force the generation of the FocP above the matrix vP, so that it can induce the clausal pied-piping. That is, it must be ensured that when a subarray contains a question word, a later-accessed subarray must contain a Focus head. These problems appear to be insuperable.

What we see (in sum) is that a “Criterion” approach fails; and so does a feature checking approach, irrespective of whether we postulate a strong feature in the phrases which move or an “attract-all-F” feature in the target. I wish to suggest that a solution (however) is possible if we can think in terms of a property of the question operator playing a role here. In Jayaseelan (2001b) I give several arguments to show that the question operator (which can be identified with the disjunction operator) accesses question words by “association with focus”. The latter operation was first postulated in connection with the syntax of focusing particles like only and even. (The term “association with focus” was first employed for this operation in Rooth (1985).)

Syntactically, let us think of “association with focus” as a ‘probe’ (i.e. a search algorithm) which the operator sends “down the tree”, to find a ‘goal’, namely an element with the feature [+Focus]. (The interpretation of this element, when found, will of course depend on the semantics of the operator.) Unlike the Chomskyan ‘probe’ which is a feature-matching device, the operator’s probe does not “stop” when it finds its first focused element, but goes on to search its entire c-command domain for elements with this feature. (Thus one operator can bind several variables, cf. multiple questions and multiple binding of focused elements by a single only/eleven (Rooth 1985).)

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11 In English, and possibly Bulgarian/Serbo-Croatian, one can get around this stipulation by saying that a ForceP headed by a question operator selects a FocP as its complement. But in Malayalam, the FocP above vP is too far away from the COMP, for a question operator in the COMP to select it.

12 It is important to stress that an operator’s probe is not the Chomskyan probe. The ‘probe’ postulated in Chomsky (1998) is a –Interpretable feature of a functional head, which needs to be checked; accordingly, when the checking is done, the probe deletes. Therefore, a Chomskyan probe can relate to only one goal.
A probe can choose to ‘mark’ (in some fashion), or not ‘mark’, a [+Focus] element that it finds; but if it ‘marks’ it, this element is “closed” to other probes. (I.e., a variable cannot be bound by two operators.) Another constraint on this ‘marking’ is that a probe cannot “skip” a potential ‘goal’ which is not “closed off” in the above-mentioned manner, and ‘mark’ a farther-off ‘goal’. (This generates the ‘nested’ pattern of interpretation in sentences with two question operators, noted by Pesetsky (1982).)

The “association with focus” probe, as a general thing, seeks an element with the feature [+Focus]; this is so, irrespective of whether the operator is a focusing particle like only or even, or a question operator. But let us say that the question operator of some languages has the lexical property of being more narrowly targeted at a Focus position; we can express this property as an additional feature on it [+Focus position]. In effect, the probe -- constrained by the locality imposed by the phase theory -- “sees” only the two Focus positions of a phase, namely the FocP of COMP and the FocP above vP, a fact which could perhaps be understood as a “least effort” strategy of the local search.13 Now, in a sentence like (25a), the probe would seek the above-vP Focus position, which is the only Focus position generated in Malayalam. It finds a pied-piped clause there. We must assume that it seeks the Focus position of this clause in a recursive step.14 Since the probe looks at only Focus positions, the question word must move into the Focus position of the minimal clause (the ‘first’ movement in (25a)), and the embedded clause must move into the Focus position of the matrix clause (the ‘second’ movement in (25a)). If both these movements do not take place, the probe will not “find” the question word, which will remain uninterpreted, leading to a crash at LF.

4. Conclusion

We saw that an implementation of phrasal movement in terms of an EPP feature on functional heads is (by itself) inadequate: it cannot completely describe the movement behavior of question words in at least one language. Some other factor also must be at

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13 As already said, we are assuming that this is a lexical property of the question operator of these languages. Presumably, in a language like Chinese or Tamil, where question words do not move at all (see Huang (1982) for Chinese, Savio (1991) for Tamil), the question operator’s probe seeks only a feature and not also a position.

14 The same recursive step would be necessary in a case of CP pied-piping in English:

(i) Who came, did you say?
play here. I suggested what this factor might be, but the question obviously needs further investigation.

An important consequence of our abandoning the “WH-Criterion” configuration -- i.e. the insistence that all question words must be in the Spec of an interrogative $C^0$ ($C^0 [+WH]$) at LF -- is that Malayalam question words do not have to undergo any LF-movement. Given the phase theory, for a question operator in COMP there are two Focus positions which are simultaneously accessible, namely the Focus position in COMP and the Focus position above vP. Malayalam question words are in the latter Focus position and so can be interpreted by the question operator. The clausal pied-piping strategy of indicating scope can be seen as having the function of making the question word accessible to the question operator in the overt syntax. If all movement is overt movement, Malayalam question movement accords well with that position.

Malayalam question movement also provides some indirect evidence for the ‘two-step wh-movement’ analysis of English-type languages which is entailed by the phase theory. Malayalam (as it were) makes the first step ‘visible’. This can be taken as confirmatory evidence for the phase theory.\(^\text{15}\)

\(^\text{15}\) Anoop Mahajan (p.c.) suggests an alternative to postulating a Focus Phrase above vP. His suggestion is that in SOV languages, V is in C; all other elements in the clause (therefore) are in positions higher than C. Malayalam question words now move, not into a focus position above vP, but into the same position which English wh-phrases move into, namely a Focus position in the “C system” (assuming Rizzi’s (1997) analysis).

This proposal is very attractive in many ways, but it leaves unexplained why German, which (as generally acknowledged) has a Focus position immediately to the left of V (exactly like Malayalam), nevertheless moves its wh-phrases into the left periphery of the clause. This argues that in German, two Focus positions are generated -- one above vP, and one in CP. In clear SVO languages like English (too), a Focus position above vP is utilized by several rules, although this fact is disguised on the surface by “remnant” VP-preposing (Kayne 1998). In Jayaseelan (1999, 2001a), I explain English clefts, heavy NP shift, pseudogapping and some other rules as involving the movement of a focused element to the above-vP Focus position. All this argues that UG sanctions two Focus Phrases, one above vP and one in the “C system”. It cannot be accidental that the picking out of vP and CP for this purpose falls together with the phase theory.
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