

ON THE PROJECTION OF MAXIMAL CATEGORIES: THE CASE OF CP AND FP IN MODERN GREEK¹

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Abstract

This paper investigates the position of interrogative *wh*-phrases and syntactically focussed constituents in Modern Greek and argues for distinct maximal projections accommodating interrogative *wh*-phrases and foci, respectively. The MG data provide evidence for a theory of focus along the lines of that in Brody (1989b). The analysis presented will be shown to account for a wide range of data. Finally, the question of how this language specific analysis can contribute towards a theory of Universal Grammar will be addressed.

1. Introduction

Recent studies on focus have included an examination of interrogative *wh*-phrases and made various claims concerning the relation between foci and interrogative *wh*-phrases. M. Brody (p.c.) maintains in this respect that claims about the relation between foci and interrogative *wh*-phrases can be distinguished in semantic and syntactic ones. The semantic claim states that foci and *wh*-phrases² share the same interpretation, namely focus interpretation. Regarding syntactic claims, there are two of them. One is that both foci and *wh*-phrases require the assignment of the same syntactic feature in order to be licenced. The other syntactic claim is that both fill the same position. Culicover and Rochemont (1983) and Rochemont (1986), on the one hand, and Horvath (1985) and Brody (1989b), on the other, make the semantic claim for English and Hungarian, respectively. What we would like to argue for in this paper is that in Modern Greek (MG) neither the semantic claim nor any of the two syntactic claims holds, but *wh*-phrases and foci are intersecting sets. It is not the case that a *wh*-phrase is always a focussed phrase no more than it is the case that a focussed phrase is always a *wh*-phrase. Distinct specifier positions host *wh*-phrases and foci. A focussed *wh*-phrase moves to the specifier position accommodating foci usually at LF, but sometimes as early as S-structure. We hope to be able to show that the above claims are borne out in MG, but ultimately we would like to claim that Universal Grammar (UG) actually contains a specification to the effect that *wh*-phrases are not necessarily interpreted as foci.

MG exhibits both phonological and syntactic focus-marking. Any XP but also V's can be focussed. In our paper, instead of emphasizing the similarities between *wh*-phrases and foci, approach that would lead to the lumping together of the two, we are going to centre on their differences.

The theoretical model, on the basis of which we are going to analyse the MG data, is Brody (1989b). Before proceeding to the main task of this paper, we will present the rudiments of the potentially universal theory of focus developed in

¹ I am greatly indebted to Michael Brody for the continuous challenge and also to Rita Manzini and Neil Smith, whose detailed comments helped me test and develop my ideas. Thanks also go to Ianthi Tsimpli for discussing the paper with me, as well as to many Greek friends, whose intuitions on particular sentences are most appreciated. I am grateful to the Onassis Foundation for making this research possible.

² From now on interrogative *wh*-phrases will be referred to simply as *wh*-phrases.

Brody (1989b). According to this theoretical model, F(ocus) is a formative without a phonetic realization, that has the ability to create its own maximal projection. A category in the Spec of FP must have a +f feature, which is a syntactic feature. The +f feature is assigned by the verb. This presupposes obligatory verb raising to F in syntactic focus-marking. In phonological focus-marking the focussed phrase moves to Spec of FP at LF. The defining characteristic of foci is identificational meaning, i.e. the interpretation assigned to clefts in English, an interpretation that does not necessarily involve contrast.

2. Apparent similarities between foci and wh-phrases

This argument concerns the supposed identical positions of wh-phrases and foci. Let us first examine which positions wh-phrases and foci occupy in main clauses. We take the English sentence:

- (1) The child will eat the APPLES.

and see in how many ways we can render it in MG³.

- (2) a. tha fáí ta MILA to pedhí.
 will eat-he the APPLES the child
- b. ta MILA tha fáí to pedhí.
 the APPLES will eat-he the child

Compare with the translation of the sentence:

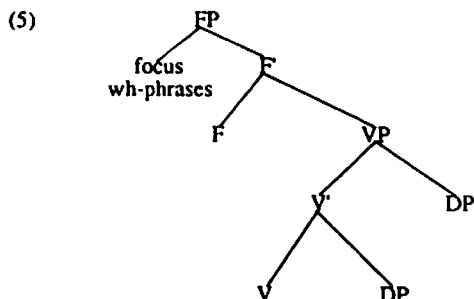
- (3) What will the child eat ?
- (4) a. ti tha fáí to pedhí
 what will eat-he the child
- b. tha fáí ti to pedhí
 will eat-he what the child

We should specify that we take MG to be a VOS language, the subject being a right sister of V'. This is not the standard assumption about the clause structure in MG. The structure advocated here is not a stipulation but is argued for in work in preparation. Another point we would like to make is that there are more variants under (2) and (4) than (2)a,b and (4)a,b, respectively, but they have to do with whether the subject is topicalized and do not bear on the issue examined.

(2)a is an example of phonological focus-marking, while (2)b is an example of syntactic focus-marking. In both phonological and syntactic focus-marking, the focussed phrase has primary stress. (4) shows that the wh-phrase can occupy either of the two positions that a focussed phrase can occupy, namely immediately preverbal or in situ occurrence. In both (4)a and (4)b the wh-phrase has primary stress.

³ Concerning the glosses under the Greek sentences we note that they are not complete. In particular, the Cases of the various DP's are not marked. The reader should take every subject DP to be marked Nominative and every object DP to be marked Accusative. Whenever there is an exception, the different Case will be marked.

(2) and (4) suggest that MG has one syntactic position for both foci and wh-phrases. This would give MG a structure identical to that posited for Hungarian in Brody (1989b), namely (5).



Verb-raising to F is necessary for the assignment of the +f feature to the constituent in Spec of FP.

One could argue, though, that what (2) and (4) show is not that foci and wh-phrases fill the same operator position, but rather that they both fill preverbal operator positions. One remains to be convinced that only one and the same operator position is involved for both wh-phrases and foci.

A useful test may be to check the co-occurrence possibilities between wh-phrases and complementizers, on the one hand, and between foci and complementizers, on the other. Consider the following sentences, in this respect:

- (6) i María ípe pja tha féri o Yórgchos
 the Maria said-she whom-fem will bring-he the Yorghos
 'Maria said which girl Yorghos will bring.'

- (7) pja ípe i María óti tha féri o Yórgchos
 whom-fem said-she the Maria that will bring-he the Yorghos
 'Which girl did Maria say that Yorghos will bring ?'

- (8) * i María ípe pja óti tha féri o Yórgchos⁴
 the Maria said-she whom-fem that will bring-he the Yorghos

On the basis of the above examples we could conclude that wh-phrases cannot co-occur with complementizers in MG. It seems that both wh-phrases and complementizers appear under the same maximal projection and that the Doubly-filled-Comp filter disallows their co-occurrence. For a schema such as (5) this would mean that we put wh-phrases under Spec of FP and complementizers under F. Now, if schema (5) is a correct description of what happens, we should be right in predicting that foci behave accordingly with respect to complementizers. This is not the case, however. Consider :

- (9) * i María ípe ti NINA tha féri o Yórgchos
 the Maria said-she the NINA will bring-he the Yorghos
 'Maria said that Yorghos will bring NINA.'

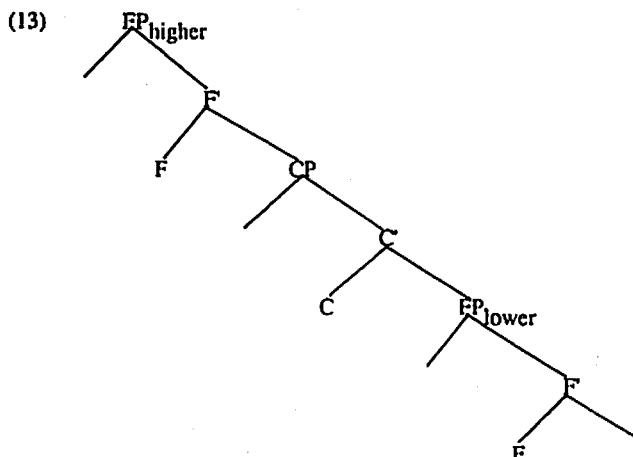
⁴ Note that (8) is out under the normal interpretation of wh-phrases, which we take to be the non-echo interpretation, which is the interpretation in (6) and (7).

(10) *i* *María* *spe* *ti* *NINA* *óti* *tha* *féri* *o* *Yórgchos*
 the Maria said-she the NINA that will bring-he the Yorghos
 'Maria said that Yorghos will bring NINA.'

(11) *i* *María* *spe* *óti* *ti* *NINA* *tha* *féri* *o* *Yórgchos*
 the Maria said-she that the NINA will bring-he the Yorghos
 'Maria said that Yorghos will bring NINA.'

(12) *ti* *NINA* *i* *María* *spe* *óti* *tha* *féri* *o* *Yórgchos*
 the NINA i Maria said-she that will bring-he the Yorghos
 'Maria said that Yorghos will bring NINA.'

We note that not only is it the case that foci happily co-occur with complementizers but also that the complementizer always has to be present in embedded clauses because MG does not allow 'that' deletion. Moreover, syntactic focus can surface on either side of the complementizer. Consequently, schema (5) needs revision. The revised schema should not look anything like (13), and that because, although (13) is descriptively adequate, we have no means of indicating formally that FP_{higher} and FP_{lower} cannot both occur in any single sentence; it is an either or case. As it stands, schema (13) is a complicated one.



In fact a better formula to accommodate the data would be to say that each clause has an FP and a CP which can occur in either order, provided that the constituents in their specifier positions are properly licenced.

For the moment, though, we would like to go back to the discussion of the relation between wh-phrases and complementizers and reconsider the premises of the argument presented with respect to (6), (7), and (8). The verb *spe* subcategorizes for either +WH or -WH. Thus in (6) *spe* subcategorizes for +WH, while in (7) it subcategorizes for -WH. (8), on the other hand, exhibits a clash of subcategorization frames. This means that (6) and (7) should not be juxtaposed because they involve different subcategorization frames. Let us take then a verb which subcategorizes for +WH and test its behaviour with respect to complementizers.

- (14) a. *rótises pjos tha érthi*
 asked-you who will come-he
 'Did you ask who will come?'
- b. *pjos rótises an tha érthi*
 who asked-you if will come-he
- c.* *pjos rótises óti tha érthi*
 who asked-you that will come-he
- d.* *rótises pjos an tha érthi*
 asked-you who if will come-he
- e.* *rótises pjos óti tha érthi*
 asked-you who that will come-he

(c) is ungrammatical because *rótises* subcategorizes for +WH, while its complement in (c) is -WH. (e) is out because it is as if the verb subcategorizes for +WH and -WH simultaneously. (d) is out because it constitutes a violation of the Doubly-filled-Comp filter.

Focussed phrases, on the other hand, cooccur with complementizers in embedded clauses because clearly foci and complementizers occur within different maximal projections. Foci do not interfere with the subcategorization frame of verbs. A sub-class of wh-phrases does, though. Their presence versus absence can affect the well-formedness of the clause.

3. The relative order argument

Consider the following sentences :

- (15) a. *i María ípe pja tha féri o* YORGHOS
 the Maria said-she whom-fem will bring-he the YORGHOS
 'Maria said which girl YORGHOS will bring.'
- b. *i María ípe o YORGHOS pja tha féri*
 the Maria said-she the YORGHOS whom-fem will bring-he
 'Maria said which girl YORGHOS will bring.'
- c.* *i María ípe pja o YORGHOS tha féri*
 the Maria said-she whom-fem the YORGHOS will bring-he

Identical facts hold for Hungarian. If the position for both foci and wh-phrases is under the Spec of FP, how can we explain the difference in grammaticality between (b) and (c)? It is possible to find ways out of this problem. Brody (1989b) accounts for the same difference in Hungarian by saying that wh-phrases are able to licence an adjacent focussed phrase that precedes them. By licencing we should understand assignment of the +f feature. Independent evidence in favour of this explanation comes from the fact that Hungarian allows for multiple wh-phrases in clause initial position but not for multiple syntactic focus-marking. This solution cannot work for MG, though, because MG does not allow for multiple wh-phrases in clause initial position. Consider:

- (16)* *pjos pjon ídhe*
 who whom saw-he

The corresponding grammatical sentence is:

- (17) pjos fdhe pjon
 who saw-he whom
 'Who saw whom?'

MG allows for multiple wh-phrases; but only one of them can be in the Spec of CP at S-structure.

Another possible solution to our problem is what we call the scope solution, namely claiming that foci always have wider scope than wh-phrases. In May's (1985) system maximally broad scope is the general property of focussed NP's, which is accounted for on the assumption that they are adjoined to S'. From this position they have scope broader than COMP, which is the landing site for wh-phrases. We are now going to show that it is equally possible for a wh-phrase to have scope over a focussed phrase. We know that plural noun phrases often act as quantified phrases, interacting in terms of scope with other quantified phrases. In order to check relative scope between a focussed phrase and a wh-phrase we will construct examples where the focussed phrase is a plural noun phrase. Consider:

- (18) thélo na kséro i KRITIKI pja tenfa psífisan
 want-I to know-I the CRITICS which film voted-they for
 'I want to know which film the CRITICS voted for.'

The above sentence is construed as a question asking for the members of a contextually fixed group, namely the critics, which film the group as a whole voted for. Thus a possible answer to (18) is (19).

- (19) to topfo stin omíkhli tu Angelópulu
 the landscape in the mist of the Angelopoulos
 'Angelopoulos' Landscape in the Mist.'

So wh- and focussed phrases are allowed to vary freely in relative scope. We should also mention that there is no subject-object asymmetry turning on whether the focussed phrase is a subject or an object. Consider (20) and (22), as well as possible pairs of answers to them, (21)a,b and (23)a,b, respectively.

- (20) thélo na kséro AFTI ti aghórasan stis ektósis
 want-I to know-I THEY what bought-they in the sales
 'I want to know what THEY bought in the sales.'

- (21)a. o Mihális aghórase éna sakáki ke i María éna fórema
 the Mihalis bought-he a jacket and the Maria a dress
 'Mihalis bought a jacket and Mary a dress.'

- b. aghórasan aftokínito
 bought-they car
 'They bought a car.'

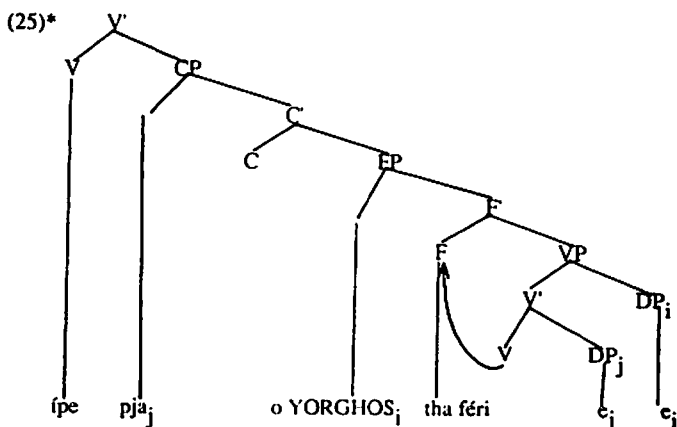
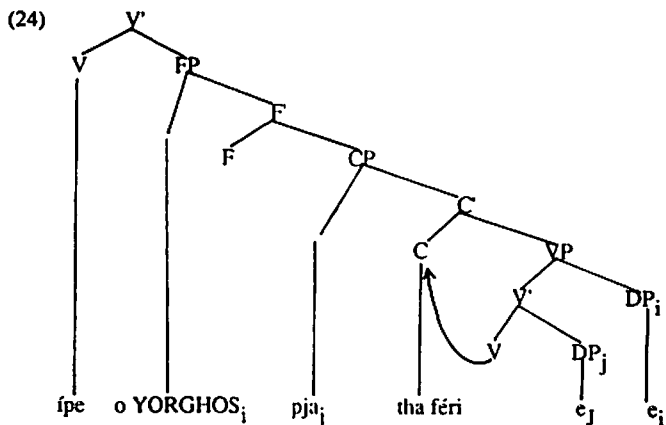
- (22) thélo na kséro tis EKTHESIS pjos su éghrapse
 want-I to know-I the COMPOSITIONS who for you wrote-he
 'I want to know who wrote the COMPOSITIONS for you.'

- (23)a. o babás mu éghrapse tin próti ke i mamá tis ipólipes

the daddy for me wrote-he the first and the mummy the rest
 'Daddy wrote the first one for me and mummy the rest.'

- b. i mamá mu
 the mummy my
 'My mummy did.'

So far we have seen that if we maintain that both foci and wh-phrases fill the Spec of FP in MG, possibly in an adjunction structure, we cannot account for the difference in grammaticality between (15)b. and c. Neither the licencing solution, according to which in an embedded interrogative only a wh-phrase can licence a preceding focus but not vice versa, nor the scope solution, according to which foci have always scope over wh-phrases, seems to work. What if we drop the unified treatment of foci and wh-phrases and claim that foci go under the Spec of FP while wh-phrases go under the Spec of CP. The relevant parts of the structures for (15)b. and c. would be (24) and (25), respectively:



As we will prove later on, the problem is not posed by the order of the maximal projections FP and CP, in the sense that only the order where FP dominates CP, and not vice versa, is grammatical. We will see that in principle either order is possible. What we note in the above schemata is that in (15)b. *tha féri* licences *pja* and somehow *o YORGHOS* manages also to be licenced; in (15)c., on the other hand, *tha féri* licences *o YORGHOS* but *pja* fails to be licenced. For reasons that will become clear when we offer a concrete analysis about the landing sites of wh-phrases and of foci we use the general term licencing, which should not be interpreted as +f assignment. We believe that wh-phrases and foci are not always licenced in the same way but this is not the point to discuss the issue more extensively.

Returning to our problem case now, we may start having an idea about what is going on, if, while keeping in mind the diagrams (24) and (25), we juxtapose (15)b. and c., repeated here, with examples (26) and (27).

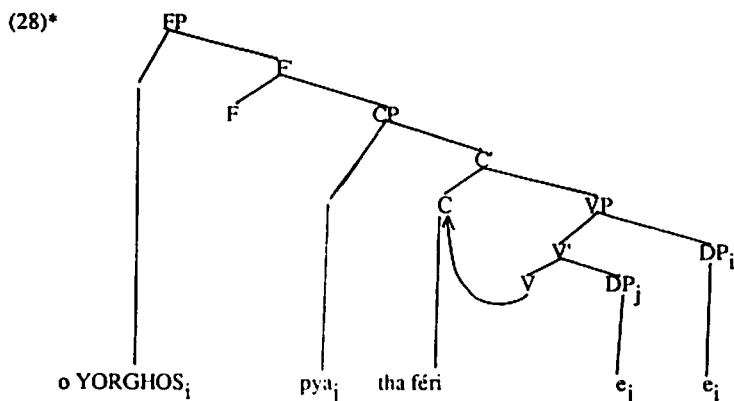
(15)b. i María ípe o YORGHOS pja tha féri
 the Maria said-she the YORGHOS whom-fem will bring-he
 'Maria said which girl YORGHOS will bring.'

(26) * o YORGHOS pja tha féri
 the YORGHOS whom-fem will bring-he
 'Which girl will YORGHOS bring?'

(15)c.* i María ípe pja o YORGHOS tha féri
 the Maria said-she whom-fem the YORGHOS will bring-he

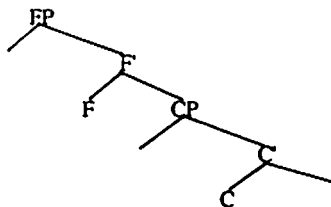
(27) * pja o YORGHOS tha féri
 whom-fem the YORGHOS will bring-he

We observe a further difference in grammaticality between (15)b. and (26), even though the embedded sentence in (15)b. is exactly the same as (26); and yet (15)b. is O.K. while (26) is out. So the explanation must have something to do with the property of being an embedded clause. The relevant dichotomy must be main versus embedded clauses. The structure of (26) is:



Both (26) and the embedded clause in (15)b. exhibit structure (29).

(29)

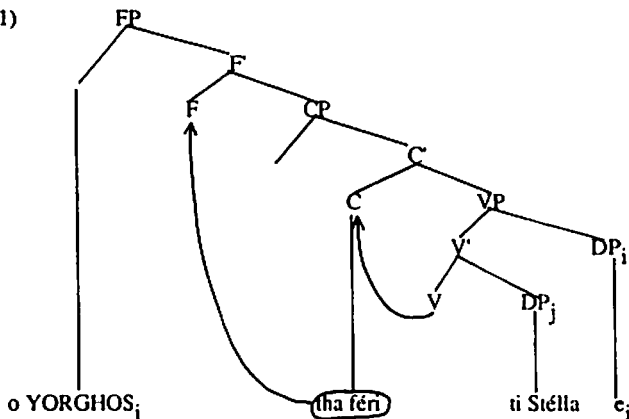


We should not get the wrong impression that structure (29) is licenced only in embedded sentences. Cf.

- (30) o YORGHOS tha féri ti Stélla
 the YORGHOS will bring-he the Stella
 'Will YORGHOS bring Stella?'

its structure being:

(31)



Thus, it seems that the dichotomy main versus embedded clauses does not hold. The explanation we tentatively offer is along the following lines. In (15)b. *tha féri* licences *pja* somehow. We void the issue whether it is by +f assignment or in some other way. Whether *tha féri* had a second +f feature to assign, supposing that licensing of *pja* was via +f assignment, or *tha féri* has kept its unique +f feature, *tha féri* could not assign +f to *oYORGHOS* over *pja* because CP is a barrier. In (31), on the contrary, *tha féri* can move up to F and thus assign +f to *oYORGHOS* in Spec of FP. What goes on in (15)b., on the other hand, is vaguely similar to ECM. Let's call it EFM, meaning Exceptional Focus Marking. In (15)b. the structure is saved because *oYORGHOS* is assigned +f by *lpe*. One could ask: why cannot *lpe* licence *pja* in (15)c. in the same way? It cannot because *pja* is in Spec of CP and CP is a barrier. When FP is on top of CP, the barrier is bypassed and EFM can take place.

It should not be concluded that a higher verb can never assign +f to a wh-phrase. Let us take an example with a verb that subcategorizes for -WH. Cf.

- (32) su ípan pjon óti tha dhúne
 you told-they whom that will see-they
 'They told you that they will see who?'

The interpretation of the *wh*-phrase is an echo one. *pjon* cannot be in Spec of the embedded CP because this would clash with the subcategorization frame of *ípan* in this example. The only other possibility is for it to be in Spec of FP in a structure where FP dominates CP. *pjon* is assigned +f by *ípan*. Of course claiming that *pjon* in (32) is in Spec of FP comes blatantly in contrast with what we have argued for so far, namely distinct maximal projections hosting foci and *wh*-phrases. This apparent incompatibility between the two views we have advanced so far will clear away when we show later on that not all *wh*-phrases are the same.

We can draw the following parallel between ECM and EFM. In ECM +Case while in EFM +f is assigned. ECM is obligatory because the structural position it acts on, namely the Spec of IP, is one of the canonical argument positions of the sentence. EFM is optional because the structural position it affects, namely the Spec of FP, is an operator position. And while EFM works in MG for any verb that takes a clausal complement or clausal subject, ECM in English is restricted to a small class of verbs and more specifically to their clausal complements. In both ECM and EFM, CP is neutralized somehow. It has to, being a barrier. Thus in ECM the maximal projection of the clause is IP, so that the higher verb can look into it. In EFM the constituent to be syntactically focussed is in a peripheral position outside CP, namely the Spec of an FP dominating CP, and can thus be assigned +f by the higher verb, namely *ípe* in the case of (15)b. It has to be stressed that in EFM we deal with an operator position and that the higher verb does not affect in any way the Case or the theta role of the focussed item. We should add that EFM does not differentiate between subjects and objects. More specifically, the constituent assigned +f can be either in the complement clause of the verb or in its subject clause. This was to be expected given the position of the subject in MG as right sister of V'. Cf.

- (33) i ARTEMIS pjon tha dhi paraméni ághnosto
 the ARTEMIS whom will see-she remains unknown
 'It remains unknown who ARTEMIS will see.'

M. Brody (p.c.) notes that the parallelism between EFM and ECM is not perfect given that EFM applies both to subjects and objects while ECM affects only objects. This subject-object asymmetry with respect to ECM is to be expected if we take into account the fact that ECM is a lexically marked process, as well as the clause structure of English. It is not verbs nor the specific ECM verbs, for that matter but I, a functional category forming its own projection, that assigns nominative Case to the constituent occupying the Spec of IP position.

For the story of EFM to be convincing, we still have to check a few things. Our model would make the following predictions:

- (a) that the main clause cannot focus any of its own constituents because the main verb has already assigned its +f feature.
 and
 (b) that the embedded verb cannot assign its +f feature to some constituent of the embedded CP because syntactic focus-marking by the embedded verb would mean that the embedded CP has two FP's, one dominating CP and one dominated by it and this is ruled out by our system and focus-marking in situ would be barred at LF because at that level the FP would have an adjunction structure which is also forbidden in our system. The unique specifier position at all levels may be due to some principle stating that

positions occupied by constituents that are licenced by the assignment of some feature $_$ be it Case, $+f$ and so on $_$ can only be uniquely filled. Both predictions are borne out. Consider the following sentences:

(34)* i MARIA ípe o YORGHOS pja tha féri
the MARIA said-she the YORGHOS whom-fem will bring-he
'MARIA said which girl YORGHOS will bring.'

(35)* i María IPE o YORGHOS pja tha féri
the Maria SAID-she the YORGHOS whom-fem will bring-he
'Maria SAID which girl YORGHOS will bring.'

(36)* i María ípe o YORGHOS pja tha féri sto PARTY
the Maria said-she the YORGHOS whom-fem will bring-he to the PARTY
'Maria said which girl YORGHOS will bring to the PARTY.'

But the embedded verb should be able to assign $+f$ to an element in the Spec of FP of a further embedded sentence, where FP dominates CP. Cf.

(37) i Eli aporí EGHO pos apofásisa KATHIYITI na káno to yo mu
the Eli wonders I how decided-I TEACHER to make-I the son my
'Eli wonders how I decided to make my son a TEACHER.'

4. The focussed verb argument

Further evidence that MG has distinct specifier positions for wh-phrases and foci is adduced by examples like (38).

(38) pjos THELI na pái
who WANTS to go-he
'Who WANTS to go?'

What we have in (38) is a CP dominating an FP. A problem is posed with this sort of examples because on the one hand *THELI* must be in FP, so that it gets focus interpretation, and, on the other hand, it must be explained how come that *THELI* does not move up to the $+Q$ marked C. Is it only linear adjacency that is required between a wh-phrase and a verb? The verb, even in FP, governs the Spec of CP because no barrier intervenes. FP is not a barrier. We leave this problem aside as an open question.

In Hungarian the above sentence is ruled out and the explanation is, in Brody's (1989b) system, that it cannot be that both the Spec of FP and F contain each a focussed element. If the sentence is O.K. in MG, this suggests that the wh-word and the focussed verb are not under the same maximal projection. Contrast now (38) with (39):

(39)* i MARIA THELI na pái
the MARIA WANTS to go-she
'Does MARIA WANT to go?'

The explanation concerning the ungrammaticality of example (38) in Hungarian holds in MG in order to rule out (39), that is sentences where, instead of a wh-phrase, there is a focussed phrase together with a focussed verb.

5. The well-formedness conditions argument

In MG different conditions of well-formedness hold for wh-phrases and foci, namely (40) and (41), respectively :

(40)a. At S-structure and LF the Spec of a +WH CP must contain a wh-phrase.

b. At LF all wh-phrases must be in the Spec of a CP.

(41)a. At LF the Spec of an FP must contain a +f-phrase.

b. At LF the +f-phrase must be in FP.

For any theory that maintains that in a specific language wh-phrases and foci are exemplifications of one and the same thing, the fact that the language in question imposes different well-formedness conditions on wh-phrases and foci should be at least suspicious. It is one thing to say that different languages impose different conditions on wh-phrases, for example, and quite a different thing to claim that a given language, namely MG, has a category called focus but somehow distinguishes two different sub-categories in there, namely wh-phrases and foci, and stipulates that each one of the two obeys different conditions. On the contrary, a language that imposes the same conditions on both wh-phrases and foci (e.g. Hungarian) in principle gives us grounds for examining the validity of either the semantic or a syntactic claim concerning wh-phrases and foci.

We should also look at the licensing of wh-phrases and foci. Brody (1989b), on the basis that in Hungarian both wh-phrases and foci must occur in immediately preverbal position, concludes that both are licensed identically, namely via assignment of the +f feature by the verb, which raises to F for that purpose. In MG, too, syntactically focussed phrases and wh-phrases occupy the immediately preverbal position but we would like to account for this in a different way than saying that both are licensed via +f assignment by the verb. More specifically we want to claim that in MG a +WH CP must contain a wh-phrase in its specifier position and also attracts the verb to Comp. This is why the verb immediately follows the wh-phrase in interrogative complements, as well. While in English it is +Q that attracts the verb, in MG, and possibly in Hungarian, it is +WH that does so. As far as syntactic foci are concerned, we follow Brody (1989b) in his explanation of how they are licensed.

5. The extraction argument

A test by means of which we could check whether foci and wh-phrases occupy the same slot would be to examine their behaviour with respect to island violations. For both wh-phrases and foci we took subjects, objects, argument PP's and adjuncts. We found out that wh-phrases and foci pattern identically regarding subject islands (no island violation), adjunct islands (island violation) and the Complex Noun Phrase Constraint: Relative Clause case and Noun Complement case (island violation). So far no divergence in behaviour.

Things become more interesting, if we look at wh-islands. There is no island violation with respect to long movement of subjects, objects or argument PP's irrespective of whether they are foci or wh-phrases. In our system where subjects are L-marked by the verb (see work in preparation) we expected a pattern where subjects, objects and argument PP's can undergo long movement. The different patterning between foci and wh-phrases is observed when we consider wh-phrases with respect to adjuncts given that adjuncts have to undergo short movement. We note that a wh-adjunct cannot be extracted out of a wh-island while a focussed

adjunct can. The contrast remains the same independently of whether we extract the adjunct out of a CP or out of a DP. Consider the following examples:

- (42) [me PALIES mihanés]_i dhen kséro pósi rávun tóra pia t_i
 with OLD sewing machines not know-I how many sew-they still
 'I do not know how many people still sew with OLD sewing machines.'

- (43)* pos_i dhen kséris pósi rávun tóra pia t_i
 how not know-you how many sew-they still
 'How don't you know how many people still sew?'

- (44) [me STENA maníka]_i dhen kséro an fíjákhnun [DP forémata t_i] tóra pia
 with NARROW sleeves not know-I if make-they dresses still
 'I do not know if they still make dresses with NARROW sleeves.'

A plausible explanation for the above data is obtained if we posit different landing sites, and consequently different escape hatches, for foci and wh-phrases. On the contrary, the pattern exhibited in the above examples cannot be accounted for, if we follow the view that foci and wh-phrases occupy exactly the same position and are extracted via the same escape hatches.

6. The unique-focus argument

Another argument in favour of positing distinct positions for wh-phrases and foci has to do with the possibility of multiple wh-phrases versus the absence of multiple focus-marking. Cf.

- (45)* me ti MARIA dhen mílise o YANNIS (alá ...)
 with the MARIA not talked-he the YANNIS but
 'YANNIS did not talk with MARIA (but ...).'

In our effort to check further our intuition, we tried to create a specific context within which it would be natural to have multiple foci. Our examples were constructed on the basis of those in Jackendoff (1972). We quote from Jackendoff (1972 : 261) : 'We presuppose that there were a number of people and a number of different things to eat and that various people ate various things. Speaker A in the discourse is asking questions of the form *Who ate what?* and Speaker B is answering. First A is asking person by person, then A is asking by foods.'

- (46) A : ki o MANOLIS ? Pez mu AFTOS ti éfaye
 and the MANOLIS Tell-you me HE what ate-he
 'Well, what about MANOLIS ? Tell me what HE ate.'

B : *o MANOLIS éfaye ta FASOLIA
 the MANOLIS ate-he the BEANS
 'MANOLIS ate the BEANS.'

- (47) A : ke ta FASOLIA ? Pez mu ta FASOLIA pjos éfaye
 and the BEANS Tell-you me the BEANS who ate-he
 'Well, what about the BEANS ? Tell me who ate the BEANS.'

B : *o MANOLIS éfaye ta FASOLIA
 the MANOLIS ate-he the BEANS
 'MANOLIS ate the BEANS.'

(48) A : ki o MANOLIS ? Pez mu AFTOS ti tákane ta FASOLIA
and the MANOLIS Tell-you me HE what them-did-he the BEANS
'Well, what about MANOLIS ? Tell me what HE did to the BEANS.'

B : * o MANOLIS TAFAYE ta fasólia
the MANOLIS THEM-ATE-he the beans
'MANOLIS ATE the beans.'

(49) A : kséro pjos MAYIREPSE ta fasólia. pjos TAFAYE ómos
know-I who COOKED-he the beans who THEM-ATE-he though
'I know who COOKED the beans. But then who ATE them ?'

B : * o MANOLIS TAFAYE ta fasólia
the MANOLIS THEM-ATE-he the beans
'MANOLIS ATE the beans.'

(50) A : kséro ti MAYIREPSE o Manólis. ti EFAYE ómos
know-I what COOKED-he the Manolis what ATE-he though
'I know what Manolis COOKED. But then, what did he EAT ?'

B : * o Manólis EFAYE ta FASOLIA
the Manolis ATE-he the BEANS
'Manolis ATE the BEANS.'

(51) A : ke ta FASOLIA ? Pez mu ta FASOLIA ti ékane o Manolis
and the BEANS Tell-you me the BEANS what did-he the Manolis
'Well, what about the BEANS ? What did Manolis do with THEM ?'

B : * o Manólis EFAYE ta FASOLIA
the Manolis ATE-he the BEANS
'Manolis ATE the BEANS'

There is, however, a structure that may be taken as a candidate for multiple focussing. We are referring to a very specific construction, which has a negative verb and the double foci in postverbal position. Cf.

(52) dhe vyíke o Yánnis me ti Voúla alá o Yórgchos me tin Kéti
not went-he-out the Yannis with the Voula but the Yorghos with the Keti
'Not Yannis went out with Voula, but Yorghos with Keti.'

We put the subsumed foci in italics in the above example. The part *alá o Yórgchos me tin Kéti* is an elliptical clause. We believe that what goes on here is not multiple focussing as an exemplification of the focussing mechanism we have referred to so far, but rather a similar effect is obtained via verb deletion in the second clause. In (52) the negation does not have scope over the second clause. Note that the effect of (52) is lost if we move one of each pair of foci to syntactical focus position. Cf.

(53) * o Yánnis dhe vyíke me ti Voúla alá o Yórgchos me tin Kéti
the Yannis not went-he-out with the Voula but the Yorghos with the Keti

This indicates that *o Yánnis me ti Voúla* is taken as a single constituent. For a similar phenomenon in English we refer the reader to Taglicht (1984 : 58-59), where it is claimed that, in English, cleft sentences with multiple focus (Cf. *It was*

three years ago, in London, that I first met him.) 'what we have been considering as a sequence of constituents should rather be regarded as a simple constituent'.

If we look at the distribution of *wh*-phrases and foci, we note distinct patternings. More specifically, there are multiple *wh*-phrases but no multiple foci. In addition, there are no co-occurrence restrictions between *wh*-phrases and foci. In particular a clause can have one or more *wh*-phrases and a focussed phrase. If *wh*-phrases and focussed phrases were one and the same thing, or if the first were a subcase of the latter, we would expect to find no difference in their distribution as long as the +f feature was assigned.

7. The non-focussed *wh*-phrases argument

In this section we are going to look more carefully at the interpretation of *wh*-phrases. We will try to show that in MG not all *wh*-phrases have focus interpretation. If we succeed in showing this, it follows automatically that we need two distinct positions for *wh*-phrases and foci. Only those *wh*-phrases that have focus interpretation will move at some stage (i.e. either at S-structure or at LF) from the Spec of CP or their position in situ to the Spec of FP dominating CP. Non-focussed *wh*-phrases will by LF all have moved to the Spec of CP.

Let us take first *wh*-questions with only one *wh*-phrase. We showed earlier that we cannot at the same time have a syntactic focus; we can, however, have phonetic focus-marking. Consider :

- (54) *jaif éfayes ta SIKA*
 why ate-you the FIGS
 'Why did you eat the FIGS ?'

In the above example *SIKA* bears primary stress and moves at LF to Spec of FP. *jaif* is in Spec of CP. It does not bear primary stress. In a *wh*-question with only one *wh*-phrase and no focussed element within VP, the *wh*-phrase receives focus interpretation and moves to Spec of FP by LF.

Consider, now, some type of sentences that may potentially cause problems to the picture presented in the previous paragraph.

- (55) *JATI na fáí ta SIKA*
 WHY to eat-he the FIGS
 'WHY would he eat the FIGS ?'

The above seems to be an example of multiple focussing given that it exhibits multiple primary stress. But stress is a relative notion and every stress in a sentence is in a hierarchical relationship with every other stress in the sentence. Consequently only one stress will be the primary one. In (55), we believe that only *SIKA* is focussed; *JATI* is not, even though it is emphatically stressed.

We can now look at the interpretation of multiple *wh*-questions. Consider an English example :

- (56) Who saw whom ?

We want to put forward the view that multiple *wh*-phrases does not mean multiple focussing. Instead, we maintain that multiple *wh*-phrases are interpreted as quantifiers. In (56) no-uniqueness is presupposed in the identity of *who* and *whom*. An answer to (56) may contain more than one pair of individuals and each of the two parts of a 'pair' may consist of more than one individual.

It seems to us that *wh*-phrases in initial position of interrogative complements are clearly a case where *wh*-phrases are not associated with focus interpretation.

Note in this respect that wh-phrases in Spec of an interrogative complement are not assigned primary stress, a feature commonly taken to be always associated with focus⁵.

Now that the data we have seem to challenge the idea that all wh-phrases have focus interpretation, logical possibilities as to what happens suggest themselves. The extreme one would be to claim that no wh-phrases have focus interpretation. The other one would be to claim that some wh-phrases but not all are interpreted as foci. If we accept the second possibility, we have to develop a notion of focus that will encompass both focussed wh-phrases and other focussed phrases. It seems to us that the notion of identificational interpretation does not suffice to cover both. Independently of deciding between the two possibilities, however, just proving that some wh-phrases have other than focus interpretation suffices as an argument for positing two distinct maximal projections, namely CP and FP.

We will proceed to give evidence that some wh-phrases are interpreted as quantifiers. This is what comes out if we consider scope phenomena in main clauses and in interrogative complements, containing each a wh-phrase and a quantifier. Cf.

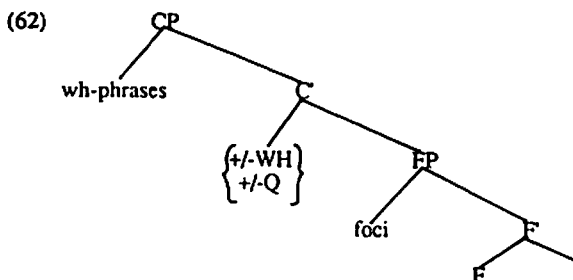
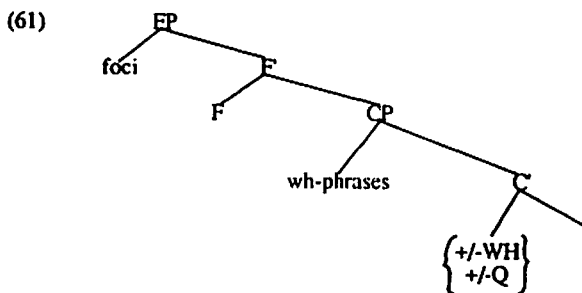
- (57) *pjos théli káthe vivlíο*
 who wants every book
 'Who wants every book ?'
- (58) *mu ípe pjos théli káthe vivlíο*
 me told-he who wants very book
 'He told me who wants every book.'
- (59) *ti théli káthe pedhí*
 what wants every child
 'What does every child want ?'
- (60) *mu ípe ti théli káthe pedhí*
 me told-he what wants every child
 'He told me what every child wants.'

In (57) and (59) *pjos* and *ti*, respectively, are foci and always have wide scope. On the contrary, in (58) and (60) *pjos* and *ti*, respectively, can have either scope; they are interpreted as quantifiers. The different status of wh-phrases in wh-questions and in interrogative complements, when the clause does not contain any focussed phrase, becomes evident.

8. A theory of focus for Modern Greek

We are now going to expand on the picture presented in a fragmentary way earlier on in the paper, according to which CP and FP can occur in either order in MG, in case there is syntactic focus-marking. A focussed constituent appears optionally at S-structure and obligatorily at LF in the specifier position of FP. So, in principle we have two theoretical possibilities :

⁵ Culicover and Rochement (1983) show that even in wh-questions with only one wh-phrase and no other focussed constituent in the clause, the wh-phrase does not always bear primary stress, though it has focus interpretation.

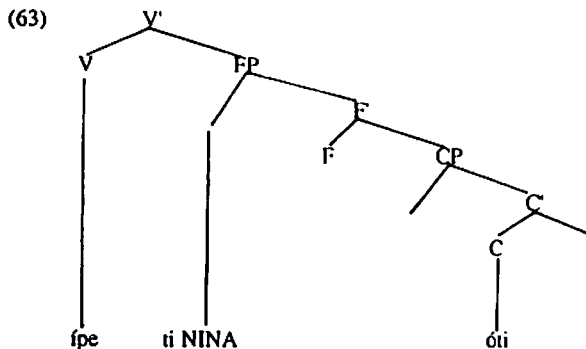


We should explain a few things in the above schemata. Co-occurrence of a wh-word with the interrogative complementizer *an* 'whether' leads to a violation of the Doubly-filled-Comp filter. Co-occurrence of a wh-word with a declarative complementizer is ruled out because it involves a clash of subcategorization frames.

We adopt the theory in Brody (1989b) whereby a +f feature is assigned to the focussed phrase by the verb. In syntactic focus-marking in MG, exactly as in Hungarian, the +f feature is assigned under government and adjacency. Brody (1989b) maintains further that in Hungarian there is free +f assignment within VP. In MG assignment of the +f feature is free only in the sense that +f assignment by the verb in phonological focus-marking does not presuppose either adjacency or government (cf. examples of phonological focus-marking where the verb has raised to C). It is not free, however, in the sense of there being more than one focussed phrase per clause. Hungarian, according to Brody (1989b), allows more than one focussed phrase within VP. It seems to us that in MG the verb has only one +f feature to assign, and may assign it either to some XP in the clause or absorb it itself, in which case we have verbal focus. In syntactic focus-marking the verb has to raise to F. From that position it can assign +f to the constituent in Spec of FP given that both government and adjacency have to be satisfied. What about EFM? Does +f assignment in EFM constructions take place under government and adjacency given that the position is one of syntactic focus-marking, or is it free, in the sense explained above? Consider, in this respect, example (10), repeated here:

- (10) i *María ípe ti NINA óti tha féri o Yórgchos*
 the María said-she the NINA that will bring-he the Yorghos
 'Maria said that Yorghos will bring NINA.

The relevant part of the structure is:



Consider also a further example where adjacency does not hold.

- (64) *i María ípe ston Cósta ti NINA óti tha féri o Yórgchos*
 the Maria said-she to the Costa the NINA that will bring-he the Yorghos
 'Maria told Costa that Yorghos will bring NINA.'

Though government holds in both (10) and (64) because FP is not a barrier, we would be inclined to say that EFM involves free +f assignment. Note that (10) and (64) would be ungrammatical if the verb of the embedded clause raised to F. Cf.

- (65)* *i María ípe (ston Cósta) ti NINA tha féri óti o Yórgchos*
 the Maria said-she (to the Costa) the NINA will bring-he that the Yorghos

The ungrammaticality of (65) is due to the limitations on head movement.

Returning back to schemata (61) and (62), we note that main clauses which contain both a wh-phrase and a focussed phrase exhibit only schema (62). This can be accounted for in our system because, if a main clause could have structure (61), the focussed phrase in Spec of FP would have no means of being assigned +f. Embedded clauses freely exhibit either (61) or (62). With respect to structure (62) and embedded clauses, one could argue that embedded clauses seemingly exhibiting (62) are in reality instances of a wh-phrase in Spec of CP and focus in situ. In principle, we cannot check which of the two is the case. Evidence, however, that schema (62) is also attested comes from examples such as (59) where the interrogative complement with a wh-phrase in Spec of CP also has a focussed verb.

The syntactic structure we posited, where CP and FP can occur in either order, is further supported by the scope possibilities between wh-phrases and foci. It should be stressed that the relative position of foci and interrogative wh-phrases at S-structure does not indicate relative scope but is conditioned by the assignment of the +f feature in syntactic focus-marking.

Concerning wh-phrases what we want to claim is that some wh-phrases are interpreted as foci and some are interpreted as quantifiers. (32) is an example of a wh-phrase which as early as S-structure is in Spec of FP. Examples of wh-phrases which move to Spec of FP at LF are provided by wh-questions with only one wh-phrase and no focussed phrase.

9. Implications for Universal Grammar.

At the end of this approach to CP and FP in MG, it would be useful to ask ourselves where the language specific stops and we start dealing with properties of Universal Grammar. We would like to advance two claims of our analysis as possible candidates for UG, namely that there is no multiple focussing and that wh-phrases have two possible interpretations : foci or quantifiers.

The purpose of our paper was to highlight the differences between wh-phrases and foci. It should not be disregarded, though, that CP and FP have a common point, which, after all, is what made people want to treat them in a unified way. This common feature is that they are both operator positions. Filling of their specifier positions is the result of wh-movement. The operator nature of both CP and FP is what makes it possible for them to occur in either order and also what allows either scope between wh-phrases and foci. The operator nature of CP and FP is also the reason why the well-formedness conditions imposed on wh-phrases and those imposed on foci in languages of the world are drawn from exactly the same repository of well-formedness conditions. Consider :

English : At S-structure the Spec of a +WH CP must contain a wh-phrase.

Chinese : At S-structure the Spec of a +WH CP must not contain a wh-phrase.

French : At S-structure the Spec of a +WH CP may contain a wh-phrase.

Hungarian : At S-structure the Spec of an FP must contain a +f-phrase.

English : At S-structure the Spec of an FP must not contain a +f-phrase.

Modern Greek : At S-structure the Spec of an FP may contain a +f-phrase.

It may be that a language has identical conditions for both wh-phrases and foci, e.g. Hungarian, but this on its own cannot judge the issue whether in that language there is only one maximal projection hosting both or there are two distinct maximal projections.

Now, if we assume that all languages have an FP distinct from CP and, furthermore, that, while all of them have LF movement of focussed phrases to Spec of FP, only a few have syntactic movement to Spec of FP, could this be a potential parameter ? This, indeed, can be a way to approach 'free' word order languages, e.g. Hungarian, Modern Greek, or languages with freer word order than English, e.g. Italian, are languages with syntactic FP's. 'Free' word order languages become, then, languages with fixed argument structure but also with more than one operator positions and possibly free relative order of operator positions. Fixed word order languages are then those with only one operator position, namely CP, to whose specifier all operators are adjoined at LF. We do not deal in this paper with Topic Phrases, but we would like to mention, as a passing note, that TP's, a further operator maximal projection, offer corroborating evidence for the picture presented in this paragraph. What seems to us to be the case is that CP, FP and TP in MG can occur in any order as long as we make sure that wh-phrases and foci are each properly licenced.

But even if our view of 'free' word order languages proves to be false and we are right concerning only MG, in that MG has two separate maximal projections, namely CP and FP, and if Brody (1989b) is right concerning at least Hungarian, in that Hungarian has one maximal projection for both wh-phrases and foci, namely FP, this may be a further example of the shrinking or expansion of functional categories across languages, exactly like INFL is split into TNS, AGR and so on in

some languages, each of those heads forming its own maximal projection, while in other languages there is only IP and yet in others INFL is attached to V⁶.

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⁶ The idea presented in this paragraph belongs to Rita Manzini (p.c.). For the status of INFL across languages see Brody (1989a).