

THE CLAUSE STRUCTURE AND WORD ORDER OF MODERN GREEK¹

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1 Introduction

The purpose of this paper is to investigate the structural properties of the clause in Modern Greek (MG) in the light of recent developments in the Principles and Parameters framework. Generally, it is argued that a more fleshed out structure of the clause of the type suggested in Pollock (1989), Chomsky (1988) and Ouhalla (1988) accounts better for some word order facts of MG which otherwise remain obscure. More precisely, it is argued that the Tense, AGR, Mood and Neg elements should be assigned a full categorial status in the sense of X-bar theory on a par with lexical categories. It is also argued, following Brody (1989), that we should allow for an additional projection, namely, Focus Phrase (FP), which hosts moved focussed phrases. The existence of this projection is shown to be motivated by a number of properties exhibited by the phenomenon of Focus-movement. On the basis of some similarities and interactions between the latter and the process of wh-movement it is argued that FP and CP overlap considerably in their functional properties. The process of Focus-movement is contrasted with the process of Topicalisation which is argued not to involve syntactic movement. Topicalised phrases are base-generated in their surface position, while Focus-phrases are moved from an argument position inside the sentence.

2 The facts

2.1 Declaratives

2.1.1 The subject. In MG the subject can appear in one of three possible positions; preverbally as in (1a&b), postverbally as in (2a&b), and sentence-finally as in (3a&b):

- (1) a. O Yanis efage ta mila.
the-NOM Yanis ate-3s the-ACC apples
'Yanis ate the apples.'
- b. I Maria edhose to vivlio sto Yani.
the Maria gave-3s the-ACC book to-the Yani
'Maria gave the book to Yani.'

¹ I am grateful to Misi Brody, Rita Manzini, Jamal Ouhalla and Neil Smith for their help in preparing this paper. I am also grateful to the audience at University College London for their comments during a talk where part of the material included in this paper was presented. Special thanks to Neil Smith for his encouragement. Needless to say that all mistakes are mine.

- (2) a. Eface o Yanis ta mila.
ate-3s the-NOM Yanis the-ACC apples
'Yanis ate the apples.'
- b. Edhose i Maria to vivlio sto Yani.
gave-3s the Maria the-ACC book to-the Yani
'Maria gave the book to Yani.'
- (3) a. Eface ta mila o Yanis.
ate-3s the-ACC apples the-NOM Yanis
'Yanis ate the apples.'
- b. Edhose to vivlio sto Yani i Maria.
gave-3s the-ACC book to-the-ACC Yani Maria
'Maria gave the book to Yani.'

In this respect MG resembles a number of pro-drop languages (e.g. Spanish). Therefore, one might argue with respect to the VOS order displayed by (3a&b) that it is derived via a process of subject-postposing which moves the subject from the preverbal position and adjoins it to VP, leaving behind a pro trace as suggested in Rizzi (1982) and Chomsky (1986a) in relation to Italian. Similarly, one might argue with respect to the SVO pattern displayed by (1a&b) that it represents the unmarked order, in the sense that the subject occupies the canonical position.²

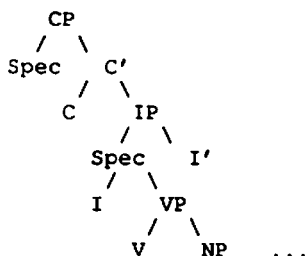
The difficulty arises when the VSO order exhibited by sentences like (2a&b) is considered. Obviously, the subject-postposing process mentioned above would not help in this case because given the process of adjunction to VP the subject would always appear in the peripheral position, as in VOS sentences, instead of the position intervening between the verb and its objects. A possible way of deriving the VSO order is by assuming, instead, that the verb moves to a higher position in the clause which precedes the subject. Assuming a clause structure such as the one suggested in Chomsky (1986b), the position in question can only be C³:

² MG also exhibits the other two properties typically associated with pro-drop languages, namely the ability to license null subjects (i) and the ability to violate the That-trace Filter (ii):

- (i) Efige.
left-3s
'He/she left.'
- (ii) Pjos ipes oti efige?
who-nom said-2s that left-3s
'Who did you say (*that) left?'

³ V-movement to C is the process argued by Sproat (1985) to be involved in the derivation of the VSO order in the Celtic languages.

(4)



However, this possibility is excluded by the fact that VSO sentences can appear embedded under a complementiser as illustrated by the following examples:

- (5) a. I Maria ipe oti efage o Yanis ta mila.
 Maria said-3s that ate Yanis the apples
 'Maria said that Yanis ate the apples.'
- b. O Petros ipe oti edhose i Maria to vivlio sto Yani.
 Petros said-3s that gave Maria the-ACC book to-the-ACC Yani
 'Petros said Maria gave the book to Yani.'

On the plausible assumption that the verb can only move to C if the latter is empty, one can conclude with relative confidence that in VSO sentences the verb does not move to C but to a position intervening between C and I. Later in this paper I will identify this position and provide a principled account for the derivation of the VSO order.

Generally, I will argue that although the facts of MG relating to the distributional properties of the subject look similar to those in other pro-drop languages like Spanish, MG differs in a number of important respects. With respect to the SVO order I will argue that the subject does not occupy the canonical subject position but a topic position which precedes the verb. I will also argue that the subject in VOS clauses is not derived via a process of subject-postposing but is also base-generated in its surface position as a topic phrase situated at the end of the clause. As to the VSO order I will argue as stated above that it is derived via a movement process of the verb across the subject. Only in VSO clauses does the subject occupy the canonical subject position. Implicit in this conclusion is the assumption that VSO is the unmarked order in MG (cf. Philippaki (1985) for a similar conclusion.).

2.1.2 The objects. In addition to their canonical position following the verb (MG is a head first language) the direct and indirect objects can also appear in the preverbal position. In this respect two patterns can be identified. In one pattern a resumptive pronominal clitic coreferential with the preposed object appears, while in the other it does not appear. Furthermore, while in the latter pattern the preposed object is heavily stressed in the former it is not. Both patterns are illustrated by examples (6a&b) and (7a&b), respectively:

- (6) a. To vivlio to-edhose i Maria sto Yani.
 the-ACC book it-gave-3s Maria to-the-ACC Yani
 'Maria gave the book to Yani.'

- b. Tu Yani tu-edhose i Maria to vivlio.
the-GEN Yani him-gave-3s Maria the-ACC book
'Maria gave the book to Yani.'
- (7) a. To vivlio edhose i Maria sto Yani.
the-ACC book gave-3s Maria to-the-ACC Yani
'Maria gave the book to Yani.'
- b. Sto Yani edhose i Maria to vivlio.
to-the-ACC Yani gave-3s Maria the-ACC book
'Maria gave the book to Yani.'

(6a) differs from (7a) in that it contains a resumptive accusative clitic coreferential with the preposed direct object, while (6b) differs from (7b) in that it contains a resumptive genitive clitic coindexed with the preposed indirect object.

By way of additional information it is important to know that both patterns mentioned above can appear embedded under a complementiser:

- (8) a. O Petros ipe oti to vivlio to-edhose
Petros said-3s that the-ACC book it-gave-
i Maria sto Yani.
the-NOM Maria to-the-ACC Yani

'Petros said that Maria gave the book to Yani.'
- b. O Petros ipe oti sto Yani edhose
Petros said-3s that to-the-ACC Yani gave-3s

i Maria to vivlio.
the-NOM Maria the-ACC book

'Petros said that Maria gave the book to Yani.'

The importance of these examples lies in the fact that they demonstrate that the position occupied by the preposed objects in both patterns, whatever its nature, is internal to CP. Part of our task below is to try to identify this position.

2.2 Interrogatives. Interrogative clauses differ crucially from declaratives in that they do not allow the SVO order, that is they do not allow the subject in the preverbal position. Thus, while (9a) is grammatical (9b) is not:

- (9) a. Ti efage o Yanis?
what ate-3s the-NOM Yanis
'what did Yanis eat?'
- b. *Ti o Yanis efage?
what the-NOM Yanis ate-3s
'*What Yanis ate?'

In this respect MG is similar to English as illustrated by the gloss. Given this fact one could assume that whatever reason is responsible for the ungrammaticality of the English example in (9b) is also responsible for the ungrammaticality of its counterpart in MG. For the moment, I will assume along with Chomsky (1986b), (1988) that matrix interrogative clauses in English, as well as in MG, undergo obligatory V-movement to C, (Subject/Aux-Inversion), hence the order displayed by (9a). Later, I will discuss in detail the motivation and formalism underlying this movement⁴.

3 The clause structure

3.1 Declaratives

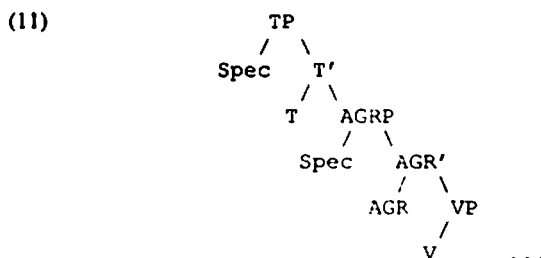
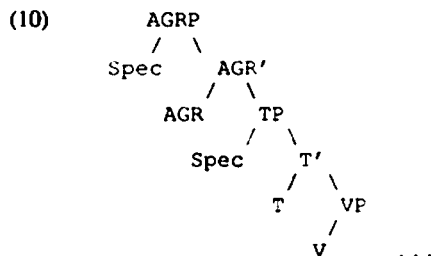
3.1.1 Indicative clauses. Following Pollock (1989) Chomsky (1988), and Ouhalla (1988), the structure I would like to suggest for MG assumes AGR and T to be categories in their own right, that is in the sense of X-bar theory. What we need to determine in this respect is how these two categories are ordered with respect to each other. Ouhalla has pointed out, in this respect, that the order of these categories differs from one language to another, possibly along typological lines. In some languages AGR precedes, or is higher than, T while in others AGR follows, or is lower than, T. Thus, (10) and (11) are both possible structures made available by UG:⁵

⁴ MG differs from English in that it also displays obligatory Subject-AUX-Inversion in embedded clauses. Thus, while (i) is grammatical (ii) is not:

- (i) I Maria anarotjete ti efage o Yanis.
Maria wonder-3s what ate-3s the-NOM Yanis
'Maria is wondering what Yanis ate.'
- (ii) *I Maria anarotjete ti o Yanis efage.
Maria wonder-3s what the-NOM Yanis ate-3s

In view of this fact it is only natural to assume that whatever principle rules out matrix sentences which do not display Subject-AUX-Inversion also rules out their embedded counterparts. The principle in question will be discussed in detail later.

⁵ In this respect Ouhalla differs from Pollock and Chomsky who argue for a single D-structure common to all languages. On the other hand, Pollock and Chomsky differ as to the order of subject AGR and TNS. Pollock argues for a structure where subject AGR immediately dominates VP and is dominated by TNS, while Chomsky argues for the reverse order. The AGR category which immediately dominates VP, Chomsky argues further, is an object AGR element (AGR-O) which is distinct from the subject AGR (AGR-S) element.



In (10) AGR is higher than T while in (11) it is lower than T. Ouhalla argues further that whether a language has structure (10) or (11) depends on the derived (i.e. surface) order of T and AGR in the verbal complex. Thus, a language in which the verbal complex has the form [AGR+[T+V]] has (10) as the D-structure, while a language in which the verbal complex has the form [T+[AGR+V]] has (11) as the underlying structure. The verbal complex is then derived via a process of successive cyclic movement of the verb to T and AGR (or AGR and T), without having to resort to some language-specific stipulations.

With this in mind let us now turn to the verbal complex in MG. The problem that we immediately encounter has to do with the fact illustrated by the examples in (1a&b), along with others, that T and AGR appear on opposite sides of the verb root; that is the verbal complex in MG has the form [T+V+AGR]. This fact makes it impossible to determine, simply on the basis of their order, whether AGR is higher than T or vice versa. We therefore have to resort to some other facts of the language which would help us determine the hierarchical relation between the two categories in question.

The facts that I have in mind have to do with the distribution of object clitics in future tense clauses. As illustrated by the examples in (12a&b) the object clitics appear attached to the verbal complex which consists of the verb and AGR:

- (12) a. O Yanis tha ta-dhiavasi.
 the-NOM Yanis will them-read-3s
 'Yanis will read them.'

- b. O Yanis tha su-ta-dhosi.
the-NOM Yanis will you-them-give-3s
'Yanis will give them to you.'

In both examples the object clitics clearly intervene between the future tense marker and the inflected verb. This fact can be understood as an indication that the verb and AGR form a complex which excludes T. This, in turn, would be possible only if AGR is, structurally, closer to the verb than T. In other words, this fact seems to imply that T is higher than AGR. If this conclusion is correct then the structure underlying clauses in MG must be the one in (11), rather than the one in (10) (cf. Philippaki (1989) for a similar conclusion).

I will assume with respect to (11) that the Spec position of AGRP is the canonical subject position where the subject receives nominative Case under coindexation with AGR. I will assume, furthermore, following some recent suggestions in the literature (Kuroda (1986), Kitagawa (1987), Fukui (1988), Koopman & Sportiche (1988)), that the subject is base-generated in the Spec of VP and then raised to the Spec of AGRP for reasons that have to do with Case. In its D-structure position in Spec of VP the subject receives its theta-role from the verb but cannot receive Case. Therefore, it has to move to a position where it can get Case. This position is assumed to be the Spec of AGRP. This is precisely the sense in which the Spec of AGRP is understood to be the canonical subject position.⁶

Given these assumptions V-movement to AGR and then to T in (11) leaves the subject behind, that is intervening between the verb and its objects. In other words, the surface order derived by movement of the verb to T is VSO(PP). This way we can account for the word order facts exhibited by (2a&b) in a principled way.⁷ Furthermore, we account in an equally principled way for the fact illustrated by (5a&b), namely that VSO clauses can appear embedded under a complementiser. The T position to which the verb moves is distinct from the C position which immediately dominates TP. V-movement to AGR and T is motivated by a general principle which requires affixal categories like AGR and

⁶ Another motivation for movement of the thematic subject to the Spec of AGRP (the structural subject position) concerns predication. In order for the VP predicate to be licensed under predication it has to be coindexed with a c-commanding subject (cf. Rothstein (1983) and Chomsky (1986a)). For the thematic subject to be able to license the VP predicate it has to move to a c-commanding position which we identified above as the Spec of AGRP.

⁷ Cyclic V-movement to T also derives the correct structure of the verbal complex where AGR is inside TNS. The cyclic nature of the movement in question is dictated by the Head Movement Constraint (HMC) (cf. Travis (1984), Baker (1988) and Chomsky (1986b)). The following is an informal definition of the HMC adapted from Ouhalla (forthcoming):

The Head Movement Constraint

A head category can only move to the head position immediately preceding it.

The HMC is understood here as the part of the Empty Category Principle (ECP) which constrains the movement of head categories.

T to attach to a suitable lexical category prior to or at the S-structure level. This principle appears under different names in the literature, e.g. The Stray Affix Filter in Baker (1988), Lasnik's Filter in Pesetsky (1989). Following Pesetsky I will refer to this principle as Lasnik's Filter, and I will define it as in (13) below:

(13) Lasnik's Filter (adapted from Lasnik (1981))

An affix must be lexically supported at or prior to the S-structure level.

Lasnik's Filter is essentially a well-formedness condition on affixal categories which applies at the S-structure level.

3.1.2 Subjunctive clauses. The subjunctive mood in MG is realised in terms of the particle *na* as illustrated in examples (14a&b):

- (14) a. I Maria ithele na figi.
 the-NOM Maria wanted-3s subj. go-3s
 'Maria wanted to go.'
- b. I Maria amithike na ipokipsi.
 the-NOM Maria refused-3s subj. succumb-3s
 'Maria refused to succumb.'

It is important to note with respect to the (embedded) subjunctive clauses in (14a&b) that the verb does not display any tense morphology. In other words, the verb appears unmarked for tense. In fact the appearance of a tense element on the verb gives rise to ungrammaticality:

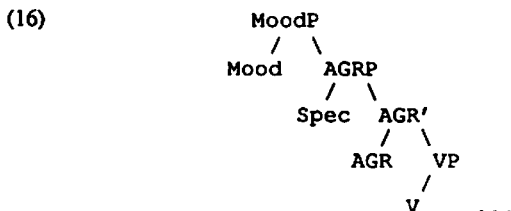
- (15) a. *I Maria ithele na tha figi.
 the-NOM Maria wanted-3s subj. will go-3s
- b. *I Maria amithike na ipekipse.
 the-NOM Maria refused subj. succumbed-3s

It is clear from these examples that subjunctives in MG are not marked for tense, or more technically do not instantiate a T category. This is not surprising in view of the fact that subjunctives in MG have approximately the same distribution as infinitives in languages like English. For example, control clauses as well as purposives in MG are usually subjunctive clauses.⁹

⁹ The following examples contain a control and a purpose clause, respectively:

- (i) O ehmalotos propathise na figi.
 the-NOM prisoner tried-3s SUB go-3s
 'The prisoner tried to escape.'
- (ii) Pigan sto scholio na spudhasun
 went-3p to-the-ACC school SUBJ study-3p

Note that it would be desirable to make the fact that subjunctives lack a T category follow from some general reasons rather than account for it in terms of a stipulation. To this effect I will assume that the subjunctive marker na, just like T and AGR, is a category in its own right which can be referred to as Mood. The fact that subjunctives lack T can then be accounted for in terms of the selectional properties of Mood, in the sense that Mood selects AGRP and not TP. If this analysis is correct the implication that it has with respect to the structure of subjunctives is that Mood, like T in indicatives, is higher than AGR as illustrated in (16) below:⁹



The verbal complex is derived by movement of the verb to Mood via AGR. That the verb indeed moves to Mood is indicated by the fact that a lexical subject cannot intervene between na and the verbal complex:

- (17) a. *I Maria ithele na o Petros figi.
 Maria wanted-3s subj. the-NOM Petros go-3s
 'Maria wanted Petros to go.'
- b. I Maria ithele na figi o Petros.
 Maria wanted-3s subj. go-3s the-NOM Petros
 'Maria wanted Petros to go.'

Unlike its counterpart in (17a), the subject in (17b) does not intervene between the subjunctive marker and the verbal complex. On the assumption that na is an affixal category the ungrammaticality of (17a) can be attributed to a violation of Lasnik's Filter by the subjunctive marker. Note that the appearance of the subject in (17a) between the subjunctive marker and the verbal complex implies that the latter has failed to move to Mood, leaving the subjunctive marker stranded.

'They went to school to study.'

Notice that both the control and the purpose clauses contain the subjunctive element na, and lack a TNS element.

⁹ The Spec position of MoodP is not specified in this structure, the assumption being that, unlike AGR, Mood and other functional categories (eg. TNS and NEG) do not license elements in their Spec position. AGR licenses elements in its Spec position through Case-assignment. We will see later that C and the F(ocus) category also license elements in their Spec position, but this time through feature sharing.

Evidence for the assumption that Mood is higher in the structure than AGR comes from the fact that, as in future indicatives (cf.(12a&b)), object clitics appear between the subjunctive marker and the [V+AGR] complex:

- (18) a. I Maria ithele na ta-fai.
the-NOM Maria wanted-3s subj. them-eat-3s
'Maria wanted to eat them.'
- b. I Maria arnithike na to-plirosi.
the-NOM Maria refused-3s subj. it-pay-3s
'Maria refused to pay for it.'

Recall that we made use earlier of this fact to determine the position of T in relation to AGR. The conclusion reached there with respect to T applies to Mood without any necessary modification.

Before I leave the discussion of subjunctives I would like to make two important points with respect to the analysis suggested above. First, the MoodP category is assumed to project only in clauses where its head is lexically realised, i.e. subjunctive clauses. In other words, indicative clauses, which generally do not display a Mood category, are assumed to lack a MoodP projection. The second point is the fact that the analysis suggested above for subjunctives, if correct, lends significant support for (11) as being the structure underlying MG clauses in general (in subjunctives T is simply replaced with Mood). Assuming that under normal conditions heads always govern the complements they select, structure (10) would make it impossible for us to account for the absence of T in subjunctives in terms of the selectional properties of Mood. Given the position of AGR in (10), the presence of a Mood category, which recall is higher than AGR, would make Mood unable to exert any selectional restrictions on TP.

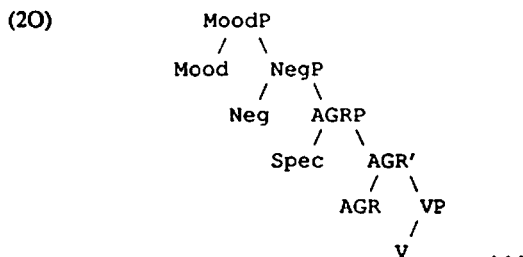
3.1.3 Negative clauses. Sentential negation in MG is expressed in terms of the particle *dhen* in indicative clauses and *mi* in subjunctives. The first instance is illustrated by (19a) and the second by (19b):

- (19) a. O Yanis dhen efage kreas.
the-NOM Yanis not eat-3s meat-ACC
'Yanis didn't eat meat.'
- b. I Maria theli na mi figi.
the-NOM Maria want-3s subj. not go-3s
'Maria wants not to go.'

There are two important facts about these examples which need to be explained. The first relates to the position of the Neg element in relation to the other categories, and the second is the fact that indicatives and subjunctives require different types of Neg element.

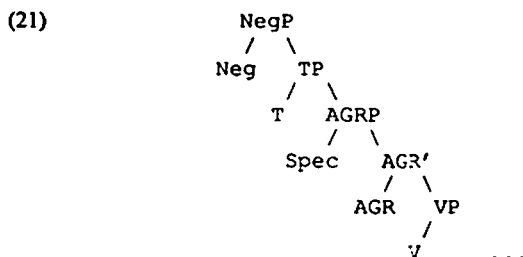
Starting with the first fact, notice with respect to (19b) that the Neg element clearly follows the Mood category. Assuming that the Neg element, like T, AGR and Mood, is a category in the sense of X-bar theory (cf. Pollock (1989), Kayne (1989), Chomsky (1988), and Ouhalla (1988)), the observed order implies that Neg is lower than Mood in the clause structure. Assuming the

discussion above about subjunctives to be on the right track, the structure of a negative subjunctive clause would look as in (20):



The surface form of the verbal complex is derived via a process of successive cyclic V-movement to Mood, that is via AGR and NEG.

Turning now to indicative clauses we notice with respect to (19a) that the Neg element precedes the past T element *e-* prefixed to the verb. This order implies, given the discussion above, that Neg is higher than TP, that is Neg dominates TP. Accordingly, the structure of negative indicative clauses is as in (21):



As in the previous cases the surface form of the verbal complex is derived via V-movement to Neg through AGR and T.¹⁰

Let us now turn to the second fact, namely that subjunctives and indicatives require different types of Neg elements. In this respect note first that the use of *dhen* in subjunctive clauses or *mi* in indicatives gives rise to ungrammaticality:

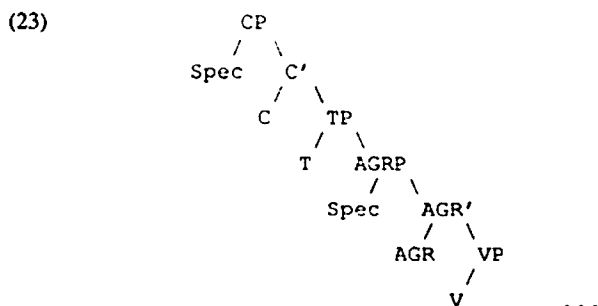
- (22) a. *O Petros apofasise na dhen figi.
 the-NOM Petros decided-3s subj. not go-3s
 'Petros decided not to go.'

¹⁰ Note that if this analysis is correct it turns out that not all clauses have an identical underlying structure, thus supporting the view suggested in Ouhalla (1988) and (forthcoming) (see fn.4 above). Clauses, even in the same language, may differ as to the order of functional categories. Thus, while in subjunctives Neg immediately dominates AGRP, in indicatives it immediately dominates TP.

- b. *O Petros ipe oti min efige i Maria.
 Petros said that not left-3s the-NOM Maria
 'Petros said that Maria did not leave.'

On the basis of the conclusion reached above with respect to the position of Mood in relation to Neg one can account for this discrepancy in terms of the selectional properties of Mood. I will assume that, when Mood selects a NegP it requires that its head be mi and not dhen. In other words, Mood selects a specific type of Neg element and not any. The other Neg element (dhen) however, is not selected by any category, a property which is reflected in (21) by the fact that it is the highest category in the clause. Note that this explanation makes the prediction that mi can only appear if it is preceded by a Mood category (that is only in subjunctive clauses), while dhen can appear only if it is not preceded by a Mood category (that is only in indicative clauses). That the prediction is correct is clear from the data above. In addition, the fact that Mood selects a specific Neg element implies that the two categories head independent maximal projections. If Neg, Mood, Agr, and T were all base-generated under a single Infl node, there would be no possible way, short of stipulations, to account for the difference in the nature of Neg elements found in subjunctive and indicative clauses.

3.2 Interrogatives. It was mentioned earlier that MG interrogatives resemble their English counterparts in that they do not allow a subject in the preverbal position, i.e. intervening between the wh-phrase and the verb. To account for this fact I will adopt the analysis suggested in Chomsky (1988). Chomsky argues that interrogatives have an (abstract) Q morpheme which occupies the C position and which has the effect of attracting the verb to C obligatorily, under Lasnik's Filter. Movement of the verb to C in turn has the effect of leaving the subject behind whether it is in Spec of AGRP or Spec of TP. Accordingly, the derivation of examples such as (9a) proceeds as in (23) below:



V-movement to C proceeds through AGR and T as required by the HMC. The obligatory nature of V-movement to C follows from the assumption that the Q morpheme is affixal and consequently is required to attach to a lexical category, more specifically a verb, prior to or at the S-structure level. Should the verb fail

to move to C a violation of Lasnik's Filter arises, hence the ungrammaticality of (9b).¹¹

To summarise, I have argued in this section that indicative declarative clauses in MG have a structure where AGR and T are separate categories each of which heads its own maximal projection. Furthermore, I have argued, on the basis of the distribution of clitics, that T is higher than AGR. In VSO clauses the subject occupies the Spec of AGRP considered to be the canonical subject position. The VSO order is then derived via movement of the verb to AGR and subsequently to T, leaving the subject behind. I will argue below that in SVO and VOS clauses the subject occupies a topic position.

With respect to subjunctive clauses, I have argued that the subjunctive marker is projected as a category in its own right, heading a maximal projection which was referred to as MoodP. Subjunctive clauses have been shown to lack a T category as a reflection of the fact that they are not specified for tense. The verbal complex in these clauses is derived via movement of the verb to Mood through AGR.

Likewise, I have argued with respect to negative clauses that the Neg element is also a category in the sense of X-bar theory which heads its own NegP projection. Like AGR, T and Mood, Neg is also a bound morpheme, and as such forces the verb to move to Neg. The fact that subjunctive clauses require a specific type of Neg element has been accounted for in terms of the selectional properties of Mood.

Finally, I have argued that interrogative clauses in MG, like their counterparts in English, undergo an obligatory process of V-movement to C, thus accounting for the fact that interrogative clauses do not admit a subject in the position intervening between the *wh*-phrase and the verb. V-movement to C is motivated by the presence of an abstract Q morpheme which is affixal and which, consequently, forces V-movement to C.

4 Focus and topic

4.1 Basic properties. Recall that we identified above two patterns with respect to clauses with preposed objects. In one pattern the preposed object receives heavy stress, typical of focussed phrases, and is not related to a resumptive pronoun, while in the other the preposed object is not heavily stressed and is

¹¹ This account extends to embedded interrogative clauses which we saw in fn.3 above also display obligatory V-movement to C. The difference between MG and English in this respect (recall that V-movement to C in English is a root phenomenon) can be accounted for if we assume that in English the Q morpheme can only be instantiated in the matrix C, while in MG it can be instantiated in both matrix and embedded clauses. The interrogative nature of the embedded clauses in English can be assumed to be marked with a [*wh*] feature. The general assumption underlying this suggestion is that the Q morpheme and the [*wh*] feature are distinct constructs of the grammar and therefore can occur independently of each other. Thus, in *yes/no*-questions only the Q morpheme is instantiated, while in embedded *wh*-questions only the [*wh*] feature is instantiated, thus accounting for the lack of V-movement to C. In matrix *wh*-interrogatives both the Q morpheme and the [*wh*] feature are instantiated.

related to a resumptive pronoun. Both patterns are illustrated by (7a&b) and (6a&b) respectively. (7a) and (6a) are repeated here as (24a&b), respectively:

- (24) a. To vivlio edhose i Maria sto Yani.
 the-ACC book gave-3s Maria to-the-ACC Yani
 'Maria gave the book to Yani.'
- b. To vivlio to-edhose i Maria sto Yani.
 the-ACC book it-gave-3s Maria to-the-ACC Yani
 'Maria gave the book to Yani.'

Recall also that the presence vs absence of focal stress and the presence vs absence of a resumptive pronoun were assumed to be indications of a difference in grammatical status between the two types of preposed objects. Below I will refer to the preposed object in (24a) as Focus, while the preposed object in (24b) will be referred to as Topic. The latter may also be considered as a Left-Dislocated element. However, example (24b), unlike others which will be mentioned later, does not necessarily involve a pause after the preposed element. Now, if the hallmark of Left Dislocation is the presence of a pause, as is standardly assumed, then one might raise doubts as to whether the process in question is Left-Dislocation. In view of these facts I will use the term 'Topicalisation' simply as a terminological device to distinguish between the process of preposing illustrated by (24a) and the one illustrated by (24b). Focussed phrases will be written in capital letters, following an old convention in the literature.

On the basis of the differences mentioned above, namely the presence versus absence of focal stress and the presence versus absence of a resumptive pronoun, we can already draw some preliminary and tentative conclusions as to the differences between the two processes of preposing. The presence versus absence of a resumptive pronoun can be taken as an indication of a presence versus absence of movement. This is in keeping with the standard assumption that the use of the resumptive pronoun strategy implies lack of movement. Thus, we can tentatively conclude that topicalised elements are not preposed via movement but are base-generated in their surface position, and are linked, via coindexation, to a resumptive clitic pronoun which acts as the argument of the verb. Conversely, the absence of such a resumptive pronoun in (24a) implies that focussed phrases are preposed via a process of syntactic movement, which, presumably, leaves a trace in the canonical argument position of the verb as is generally the case with syntactic movement processes.

With respect to the second fact, namely the presence versus absence of focal stress, we can tentatively conclude that the process of preposing involved in (24a) is an instance of focussing via movement found in languages like Hungarian (Horvath (198) and Brody (1989)). The lack of similar focal stress on the preposed element in (24b), in contrast, implies that the process of preposing involved in the sentence is not an instance of focussing via movement, but rather an instance of topicalisation.

As pointed out above these are simply preliminary conclusions which suggest themselves given the superficial differences displayed by the two constructions. My next task is to provide evidence showing that preposing of focussed phrase is indeed a process of syntactic movement, while topicalisation is not. The conclusions I will reach will then lead me to formulate a theoretical

distinction between the two processes. Then I will concentrate my attention on the process of focussing. The analysis I will suggest draws heavily on ideas developed by Brody in a recent paper. I will, however, suggest some modifications which I hope to demonstrate are motivated by theoretical as well as empirical motivations.

4.2 Focussing versus topicalisation

4.2.1. Evidence. The first piece of evidence for the tentative conclusion reached above concerns island phenomena. More concretely, Topicalisation out of Complex Noun Phrases and adjunct clauses is possible while Focussing is not. Examples (25a&b) and (26a&b) involve a Complex Noun Phrase, while examples (27a&b) and (28a&b) involve an adjunct island:

- (25) a. Afto to vivlio, gnorisa to sigrafea pu to egrapse.
 this-acc the book met-1s the author who it-wrote-3s
 'This book, I met the author who wrote it.'
- b. Afto ton pinaka, ksero to zografo pu ton-zografise.
 this-acc the painting know-1s the-acc painter who it-painted-3s
 'This painting, I know the painter who painted it.'
- (26) a. *AFTO TO VIVLIO gnorisa to sigrafea pu egrapse.
 this-acc the book met-1s the-acc author who wrote-3s
 'I met the author who wrote THIS BOOK.'
- b. *AFTO TO PINAKA ksero ton zografo pu ton-zografise.
 this-acc the painting know-1s the-acc painter who it-painted-3s
 'I know the painter who painted THIS PAINTING.'
- (27) a. To Yani, i Maria efige molis ton-idhe.
 the-acc Yani the-nom Maria left as soon as him-saw-3s
 'Yanis, Maria left as soon as she saw him.'
- b. To Petro, thimose i Maria otan ton-prosevalan.
 the-acc Petro got-angry-3s the-nom Maria when him-insulted-3p
 'Petros, Maria got angry when they insulted him.'
- (28) a. *TO YANI i Maria efige molis idhe.
 the-acc Yani the-nom Maria left-3s as soon as saw-3s
 'Maria left-3s as soon as she saw YANI.'
- b. *TO PETRO thimose i Maria otan prosevalan.
 the-acc Petro got-angry-3s the-nom Maria when insulted-3p
 'Maria got-angry when they insulted PETRO.'

(25a&b) and (27a&b), which are instances of Topicalisation, are grammatical, while (26a&b) and (28a&b), which are instances of Focussing, are ungrammatical. This contrast in grammaticality can be immediately explained if we assume that Topicalisation does not involve movement, while Focussing does. The ungrammaticality of (26a&b) and (28a&b) is due to whatever principle of UG (Subjacency or the ECP) accounts generally for the

impossibility of extraction out of islands. This, I believe, is a legitimate conclusion to draw given that the test I have used is standardly used in the literature to diagnose the presence or absence of movement.

The second piece of evidence draws on standard assumptions about movement chains. Basically, movement chains are assumed to have a unique Case position. This assumption is formalised in Chomsky (1986a) in terms of the following (adapted) condition:

(29) Chain Condition

A chain is Case-marked if it contains exactly one Case-position.

Essentially, (29) is a well-formedness condition on chain formation which establishes a one-to-one correspondance relation between chains and Case.¹²

With this in mind let us consider the following examples. (30a&b) involve Topicalisation, whereas (31a&b) involve Focussing:

- (30) a. I Galli/tus Gallus, tus-ematha kala menontas sto Parisi.
the-nom/the-acc French them-understood-1s well staying in-the-acc Paris

'The French, I understood them well when I was in Paris.'

- b. I fiutes/tus fiutes, oli i kathigites
the-nom/the-acc students all the-nom lecturers

tus-ipostirizun stin apergia.
them-support-3p in-the-acc strike

'All lecturers support the students during the strike.'

- (31) a. TUS GALLUS/*I GALLI ematha kala menontas sto Parisi.
the-acc/the-nom French understood-1s well staying in-the-acc Paris

'I understood THE FRENCH well when I was in Paris.'

¹² What I am referring to here as a Chain Condition is formulated in Chomsky (1986a) as part of a definition of chain. Its content, however, can be understood as a condition on the well-formedness of chains. The definition as suggested by Chomsky is relevant to A-chains only. However, we will see later that Focus-movement is, like wh-movement, an instance of Operator-movement which is essentially movement to an A'-position. The chain thus derived is therefore an A'-chain. If, instead, we assume a more general notion of chain which includes A'-chains too, as suggested in Brody (1985), then Chomsky's definition would be relevant to A'-chains as well as A-chains. A-chains and A'-chains share the property of having a unique Case position.

- b. TUS FITITES/*I FITITES oli i kathigites
the-acc/the-nom students all the-nom lecturers

ipostirizun stin apergia.
support-3p in-the-acc strike

'All the lecturers support THE STUDENTS during the strike.'

The important thing to notice about these examples is that a Topicalised object phrase can bear either a nominative or an accusative Case, whereas a Focussed object phrase can only bear the accusative; nominative Case leads to ungrammaticality. The contrast between Topicalised and Focussed phrases in this respect can easily be accounted for in terms of (29) if we assume that Topicalisation does not involve movement while Focussing does. Given that the preposed element is an object of the verb the appearance of the Focussed phrase in the nominative would imply that the movement chain has two (conflicting) Cases (accusative and nominative), in violation of the Chain Condition. On the other hand, on the assumption that the Topicalised phrase does not form a movement chain with the resumptive accusative clitic pronoun the fact that it can bear nominative, while the clitic is in the accusative, does not give rise to a violation of the Chain Condition 12.

4.2.2 Topicalisation. In view of the evidence discussed above it seems to be clear that Topicalised elements are base-generated in their surface position, and are coindexed with a clitic which acts as the virtual argument of the verb. The question that arises then is: what is the nature of this position? Before answering this question there is an additional and important point about Topicalisation which needs to be mentioned. The point in question is the fact that Topicalisation can involve more than one argument of the verb. In this respect Topicalisation contrasts sharply with Focussing via movement which we will see later can only involve a unique argument. On its face value this contrast implies that there is more than one position available for Topicalised phrases, while only a unique position is available for movement Focussed phrases. Accordingly, any analysis which attempts to differentiate between the two types of phenomena in structural terms would have to reflect this property.

The fact that Topicalisation can involve more than one argument of the verb is illustrated by the following examples (examples involving Focussing will be presented in the next subsection):

- (32) a. Tis Marias ta vivlia tis-ta-edhose o Yanis.
the-gen Maria the-acc books her-them-gave-3s the-nom Yanis

'Yanis gave the books to Maria.'

- b. Afto to grama tis Marias tis-to-estile o Yanis.
this-acc the letter the-gen Maria her-it-sent-3s the-nom Yanis
'Yanis sent this letter to Maria.'

In these examples both the direct and indirect objects of the verb are Topicalised. Notice that both objects are linked to an accusative and genitive clitic, respectively.

There are at least two possible ways Topics can be represented structurally. One possibility is to assume, along with Chomsky (1977), that Topics are base-generated under a TOP node preceding CP as in (33a). The other possibility is to assume that Topics are base-generated adjoined to CP as in (33b):

- (33) a.
$$\begin{array}{c} \text{TOPP} \\ / \quad \backslash \\ \text{TOP} \quad \text{CP} \end{array}$$
 b.
$$\begin{array}{c} \text{CP} \\ / \quad \backslash \\ \text{TOPP} \quad \text{CP} \end{array}$$

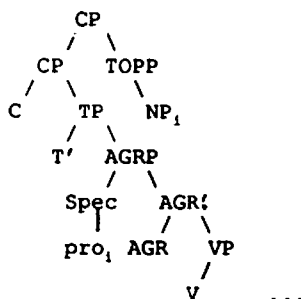
The fact that more than one argument can be Topicalised can be accommodated under (33a) on the assumption that more than one TOP position can be generated preceding CP. Alternatively, one can assume that one of the Topicalised arguments occupies the TOP position, while the others are adjoined to it. As far as (33b) is concerned the fact that there is in principle no limit on the number of adjunctions one can have, the fact that more than one argument can be Topicalised follows.¹³

It was mentioned earlier in this paper that preverbal subjects (i.e. subject in SVO clauses) and post-VP subjects (i.e. subjects in VOS clauses) in MG are Topics base-generated in their surface position, instead of being derived via movement. If this is indeed the case then we would expect them to have structural properties which are identical to those of Topicalised objects as explained above. In particular, we would expect them to be linked to a resumptive pronoun in the canonical subject position (Spec of AGRP). Given that MG is a pro-drop language the resumptive pronoun in question can be assumed to be a pro argument licensed by the rich AGR element which assigns it Case as well as identifies it, assuming a theory of pro such as the one presented in Rizzi (1986). Accordingly, the structure of clauses which contain a preverbal subject is as in (34a), while the structure of clauses which contain a post-VP subject are as in (34b), irrelevant details omitted:

- (34) a.
$$\begin{array}{c} \text{CP} \\ / \quad \backslash \\ \text{TOPP} \quad \text{CP} \\ | \quad | \quad | \\ \text{NP}_i \quad \text{C} \quad \text{TP} \\ \quad \quad \quad / \quad \backslash \\ \quad \quad \quad \text{T} \quad \text{AGRP} \\ \quad \quad \quad \quad \quad / \quad \backslash \\ \quad \quad \quad \quad \quad \text{Spec} \quad \text{AGR}' \\ \quad \quad \quad \quad \quad | \quad \quad \quad / \quad \backslash \\ \quad \quad \quad \quad \quad \text{pro}_i \quad \text{AGR} \quad \text{VP} \\ \quad \quad \quad \quad \quad \quad \quad \quad / \\ \quad \quad \quad \quad \quad \quad \quad \quad \text{V} \quad \dots \end{array}$$

¹³ Notice that whichever of the two structures in (33a&b) is assumed we would have to allow for the possibility of base-generating adjunctions given the conclusion that Topics are base-generated in their surface position. A number of linguists have in the recent years argued for the possibility of base-generating adjunction structures (eg. Koopman and Sportiche (1987) and Manzini (1989), among many others).

b.



These structures are based on the assumption that Topics are base-generated adjoined to CP, that is they are based on the possibility represented in (33b) above. The linear order of the subject is accounted for in terms of left-adjunction with respect to preverbal subjects and right-adjunction with respect to post-VP subjects.

Notice that the analysis outlined above for post-VP, as well as preverbal, subjects maintains the insight in Rizzi (1982) and Chomsky (1986a) that this possibility is crucially dependent on the possibility of licensing a *pro* subject. Given that Topics in general must be linked to a resumptive pronoun, only in languages where AGR is capable of licensing a *pro*, i.e. *pro-drop* languages, would it be possible to Topicalise the subject without having to have an overt resumptive pronoun. The only significant difference between the analysis suggested above and that of Rizzi and Chomsky is that in the latter the subject ends up in the postverbal position via a syntactic movement process, while in the former it is base-generated in its surface position as a right-adjoined Topic (cf. (34b)). Both analyses agree crucially on the assumption that at the S-structure level the canonical subject position is occupied by a *pro* argument licensed by rich AGR.

4.2.3 Focussing. We concluded earlier, based on the evidence presented, that Focussed phrases are moved from the argument position of the verb to the initial position of the clause. Before attempting to identify this position and provide a structural representation for preposed Focussed phrases recall that Focus-movement contrasts with Topcialisation in that only one focussed phrase can be preposed. This fact is illustrated by the following examples:

- (35) a. *TIS MARIAS TA VIVLIA edhose o Yanis.
 the-gen Maria the-acc books gave-3s the-nom Yanis
 'Yanis gave the BOOKS to MARIA.'

- b. *AFTO TO GRAMA TIS MARIAS estile o Yanis.
 this-acc the letter the-gen Maria sent the-nom Yanis
 'Yanis sent THIS LETTER to MARIA.'

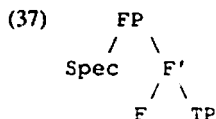
- (36) a. Tis Marias TA VIVLIA tis-edhose o Yanis.
 the-gen Maria the-acc books her-gave the-nom Yanis
 'To Maria, Yanis gave the BOOKS.'

- b. Afto to grama TIS MARIAS to-estile o Yanis.
 this-acc the letter the-gen Maria it-sent the Yanis
 'This letter, Yanis sent to MARIA.'

The ungrammaticality of (35a&b) is due to the fact that two phrases bearing focal stress have been preposed. (36a&b) demonstrate the fact that two phrases can be preposed as long as only one of them bears focal stress. The other preposed argument is a Topic. All in all it seems that there is a severe restriction on the number of focussed phrases which can be preposed.

Taken on its face value this fact implies that Focus-movement is not an adjunction movement given that, in principle, there is no limit as to the number of adjunctions one can have, and consequently the number of arguments which can be preposed. This property of Focus-movement is reminiscent of syntactic wh-movement in general which is essentially movement to a unique position (Spec of CP). On the basis of this similarity, which will be developed further later, we can conclude that Focus-movement is a substitution movement, i.e. movement to a base-generated empty position. In addition, this position must be a non-thematic Spec position, given that movement is only possible to non-thematic (Spec) positions for reasons which have to do with the Theta Criterion. Basically, the Theta Criterion requires chains to have only one theta-position which is the most embedded position. Movement to a theta-position would give rise to a chain with two theta-roles in violation of the Theta Criterion.¹⁴

Following Brody (1989), I will assume that the position in question is the Spec of a Focus Phrase (FP) base-generated immediately preceding TP (IP in Brody's system) as in (37):



I will assume, further, that F is a functional category which projects from the Lexicon; i.e. it has a lexical representation which specifies, among other possible things, its c-selectional properties. In terms of this assumption we can account for the uniqueness of the position to which Focussed phrases move, and consequently for the fact that only one phrase bearing focal stress can be preposed. In this respect F is no different from the other functional categories such as C and I which also have a unique Spec position and therefore can host only a single moved phrase.

An additional assumption that I would like to make about F is that it is a bound morpheme, as most functional categories are (cf. Abney (1986)).

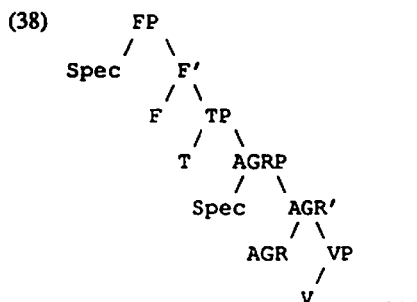
¹⁴ The Theta Criterion is formulated in Chomsky (1986a) in the following (adapted) way:

The Theta Criterion

A chain has at most one theta-position.

The Theta Criterion is basically a well-formedness condition which establishes a one-to-one correspondence between chains and theta roles.

Consequently, it has to attach to a lexical category, more precisely the verb, before or at the S-structure level to satisfy Lasnik's Filter. In this respect F resembles the Q morpheme suggested in Chomsky (1988) to account for obligatory V-movement to C in English interrogatives. Later, I will argue, on the basis of some facts, that the F and Q morphemes are basically one and the same element. On the assumption that lowering movements in general are not allowed the F morpheme attaches to the verb as a result of V-movement to F illustrated in the following diagram:



V-movement to F applies through the intervening head categories as required by the HMC. Failure on the part of the verb to move to F would give rise to a violation of Lasnik's Filter, and consequently ungrammaticality.

Obligatory V-movement to F provides a natural account for the fact that the verb has to be adjacent to the preposed Focussed phrase which I assumed earlier is in the Spec of FP position. The fact that the Focussed phrase and the verb have to be adjacent is illustrated by the example in (24b) as compared with the examples in (39a&b):

- (39) a. *TA MILA o Yanis efage.
 the-acc applies the-nom Yanis ate-3s
 'Yanis ate the APPLES.'
- b. *TIN ISTORIA o Yanis diigithike.
 the-acc story the-nom Yanis narrated-3s
 'Yanis narrated the STORY.'

The ungrammaticality of the examples in (39) is due to the fact that the subject intervenes between the Focus phrase and the verb. On the assumption that the subject is in Spec of AGRP the order displayed in these examples implies that the verb has failed to move to F, leaving the F morpheme stranded in violation of Lasnik's filter, hence the ungrammaticality.

This account of the adjacency between the Focus phrase and the verb is essentially different from the account given by Brody (1989) for the same fact in Hungarian. Brody derives this adjacency restriction by assuming that the verb assigns a [+f] feature to the Focus phrase in Spec of FP under the adjacency condition. In other words, for the verb to be able to assign the [+f] feature to the Focus phrase in Spec of FP it has to move to F. The analysis I proposed and the one suggested by Brody, therefore, yield the same results as

far as the data discussed so far are concerned. In the analysis outlined above the verb moves to F for reasons that are quite independent of the process of the [+f] feature assignment.

It follows from this decision to differ from Brody that I should provide an account for how the Focus phrase is assigned the [+f] feature. Notice crucially in this respect that the existence of the [+f] feature is necessary to identify the phrases in question as being Focussed phrases. One can assume that it is this feature which is realised at PF as focal stress. I will assume that Focus phrases are assigned the [+f] feature in their D-structure position, that is before they move to FP. Moreover, the [+f] feature is not assigned by the verb but by a general process of the grammar similar to the process which assigns the [+wh] feature to wh-phrases. One can assume that the *wh* morphological is the morphological reflex of the [+wh] in the same way that focal stress is the phonetic reflex of the [+f] feature.

The assumption that Focus phrases are assigned the [+f] in their D-structure position is motivated on empirical grounds as well. In addition to the initial position (Spec of FP) Focus phrases in MG can also surface in situ as illustrated in the following examples:

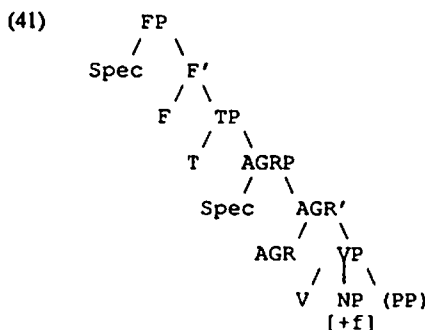
- (40) a. O Yanis edhose TO VIVLIO sti Maria.
 the-nom Yanis gave-3s the-acc book to-the-acc Maria
 'Yanis gave the BOOK to Maria.'
- b. O Yanis edhose to vivlio STI MARIA.'
 the-nom Yanis gave-3s the-acc book to-the-acc Maria
 'Yanis gave the book TO MARIA.'

In both (40a) and (40b) the Focussed object is in its argument position following the verb. If we assume along with Brody that the Focus phrase is assigned the [+f] feature in the Spec of FP, i.e. after it has been moved, then we would fail to account for examples like (40a&b). On the other hand, if we assume that the Focus phrase is assigned the [+f] feature by the verb under adjacency as Brody suggests then we would also fail to account for at least examples like (40b) where the Focus phrase is not adjacent to the verb. If, instead, we assume that Focus phrases are assigned the [+f] feature in their D-structure position by a general process of grammar these problems do not arise.¹⁵

¹⁵ There are additional questions which Brody's suggestion leaves unanswered. For example, if the necessary condition for [+f]-assignment is adjacency then one might wonder why this process should not be able to take place at the D-structure, that is prior to movement, where the verb is adjacent to its direct object. Moreover, the parallelism with Case-assignment which Brody suggests is hard to conceive for many reasons. First, lexical items are specified in the Lexicon as to the number and type of Cases they can assign, or whether they can assign Case at all. There is, however, no parallel situation with respect to [+f] assignment since the arguments of any verb can receive one and the same [+f] feature. Secondly, lexical items, in particular verbs, are forced to assign the Cases they are specified for as a result of a conspiracy between the Projection Principle, the Theta Criterion, and the Visibility Condition. There is however no parallel situation with respect to [+f]-assignment because it is generally an optional process. Thirdly, noun phrase arguments are required by a general principle of the grammar to be assigned Case, while no

Preposed Focus phrases move to Spec of FP subsequent to the assignment of the [+f] feature. One can strengthen this assumption further and say that preposed Focus phrases are moved to Spec of FP as a result of having the [+f] feature. On the assumption that the F morpheme is also specified with the [+f] then the fact that only Focus phrases can move to Spec of FP follows from the general Spec-Head agreement condition suggested in Chomsky (1986b). Focus phrases in situ move to Spec of FP at the LF level for scope reasons, just like *wh*-phrases in situ are standardly assumed to move to CP at LF for scope reasons (cf. Chomsky (1981) & (1986a) and Huang (1982)).

The derivation of a sentence containing a Focussed direct object is as outlined in (41) where focus-movement takes place either in the syntax in sentences which contain a preposed focus phrase, or at LF in sentences which contain a focus phrase in situ.



V-movement to F, however, applies regardless of whether the focus phrase moves in the syntax or at LF, the reasons being that F is a bound morpheme and that Lasnik's Filter is an S-structure condition.

Note that obligatory V-movement to F implies that the subject, on the assumption that it occupies the Spec of AGRP position, would be left behind, i.e. the order derived would always be VSO. As we saw above this is a desirable result as far as MG is concerned given the conclusion that only in VSO clauses does the subject occupy the canonical subject position. In other words, this conclusion amounts to the claim that MG is basically a VSO language, a claim which other researchers have made on the basis of quite independent grounds as explained above. Recall that in SVO and VOS clauses the subject is indeed a Topic which is base-generated at the periphery of the clause.

parallel requirement exists with respect to the [+f] feature.

In addition to what has been mentioned given the general nature of the process of [+f]-assignment Brody's suggestion implies that all verbs are specified for the [+f] feature in their lexical entries. [+f]-assignment is not a property of individual lexical items but, rather, a general process of the grammar. The Lexicon is the component where the individual properties of items, that is properties which may differ from one item to another, are specified. What we are dealing with here, however, is a general and uniform process which may apply to any argument of any verb.

5 Focus-movement and wh-movement

In this section I will, first, point out some similarities between the processes of Focus and wh-movement and, secondly, discuss the interaction between them. The discussion will lead me to conclude, first, that Focus and wh- phrases can move to either Spec of FP or Spec of CP, and, secondly, that matrix clauses differ from embedded clauses in that they lack a CP projection. In other words, matrix clauses are FP's rather than CP's as is standardly assumed.

5.1 Similarities. Focus-movement parallels wh-movement in a number of important respects. First, both movement processes give rise to island violations. We saw earlier on the basis of the examples in (26) and (28) that Focus-movement out of islands gives rise to ungrammaticality. (42a&b) and (43a&b) below illustrate the fact that wh-movement out of islands also gives rise to ungrammaticality:

- (42) a. *Pjo vivlio gnorises to sigrafea pu egrapse?
which book met-2s the-acc author who wrote-3s
'*Which book did you meet the author who wrote?'
- b. *Pjon pinaka kseris to zografo pu zografise?
which painting know-2s the-acc painter who painted
'*Which painting do you know the painter who painted?'
- (43) a. *Pjon i Maria efige molis idhe?
whom the-nom Maria left as soon as saw-3s
'*Who did Maria leave as soon as she saw?'
- b. *Pjon thimose i Maria otan prosevalan?
whom got-angry the-nom Maria when insulted-3p
'*Who did Maria get angry when they insulted?'

(42a&b) are instances of Complex Noun Phrase islands, whereas (43a&b) are instances of adjunct islands.

Secondly, both Focus-movement and wh-movement trigger Subj-Aux/V - Inversion. This is the process which we identified above with respect to Focus-movement as obligatory V-movement to F which leaves the subject behind as illustrated in example (24b) and others compared with (39a&b). The fact that wh-movement also triggers obligatory V-movement to C was discussed and illustrated in section 2.2. above. Examples (9a&b) are repeated here along with others:

- (44) a. *Ti o Yanis efage?
what the-nom Yanis ate-3s
'What did Yanis eat?'
- b. *Pjon o Yanis embistevete?
whom the-nom Yanis trust-3s
'Who does Yanis trust?'

- c. **Ti efage o Yanis?**
what ate-3s the-nom Yanis
'What did Yanis eat?'
- d. **Pjon embistevete o Yanis?**
whom trust-3s the-nom Yanis
'Who does Yanis trust?'

The ungrammaticality of (44a&b) where the subject intervenes between the wh-phrase and the verb parallels the ungrammaticality of examples (39a&b) where the subject intervenes between the Focus phrase and the verb. We concluded that the ungrammaticality is due to a violation of Lasnik's Filter by the Q and F morphemes, respectively. Notice that this conclusion captures the parallelism between the two constructions in a natural way. Any analysis which fails to capture this parallelism would, in comparison, be inadequate.

The third respect in which Focus-movement and wh-movement resemble each other has to do with the number of arguments which can be moved. We saw earlier that only one argument bearing focal stress can be moved (cf.(35a&b)). The fact that only one wh-phrase can be moved is illustrated by the examples in (45):

- (45) a. ***Pjos ti efage?**
who-nom what-acc ate-3s
'Who ate what?'
- b. ***Ti pjos efage?**
what-acc who-nom ate-3s
'Who ate what?'
- c. **Pjos efage ta mila?**
who-nom ate-3s the-acc apples
'Who ate the apples?'
- d. **Ti efage o Yanis?**
what-acc ate-3s the-nom Yanis
'What did Yanis eat?'

The ungrammaticality of (45a&b) is due to the fact that they involve multiple wh-movement, just as the ungrammaticality of (35a&b) is due to the fact that they involve multiple Focus-movement.

The fourth respect in which the two phenomena are similar relates to the fact that, like Focus phrases, wh-phrases can also remain in situ:

- (46) a. **I Maria agapai pjon?**
the-nom Maria love-3s who-acc
'Maria loves who?'
- b. **O Petros agorase ti pragma?**
the-nom Petros bought-3s what thing
'Petros bought what?'

Finally, wh-phrases resemble Focus-phrases in that they can also bear focal stress.

It is tempting, in view of these rather striking similarities, to conclude that what we are dealing with are not two different processes but one and the same process, possibly, Focus-movement. However, this is not the conclusion I would like to draw with respect to MG. The conclusion I would like to draw is that Focus-movement and wh-movement are two separate processes which, however, are both instances of a more general process which is Operator-movement. One of the reasons for adopting this opinion is the fact mentioned earlier that although wh-phrases in general can bear focal stress this is not always the case. Further reasons for keeping the two processes, as well as the two features [+f] and [+wh], separate from each other come from their interaction possibilities discussed in the next subsection.

5.2 Interaction. The best way to proceed in discussing the interaction between Focus and wh- movement is by comparing embedded and matrix clauses. The crucial difference between them lies in the number of preposed Focus and wh-phrases they can admit. In matrix clauses either a single Focus or wh- phrase can be preposed, but not both, while in embedded clauses a Focus-phrase and/or a wh-phrase can be preposed. The contrast is illustrated by the examples in (47a&b) and (48a&b):

- (47) a. *TO VIVLIO se pjon edhoses?
 the-acc book to whom gave-2s
 'To whom did you give the BOOK?'
- b. *STI MARIA ti edhoses?
 to-the-acc Maria what-acc gave-2s
 'What did you give to MARIA?'
- (48) a. Mu-ipe TO VIVLIO se pjon edhose.
 me-said-3s the-acc book to whom gave-3s
 'He said to me to whom he gave the BOOK.'
- b. Ti-rotise TA LEFTA pjos pire.
 her-asked-3s the-acc money who-nom took-3s
 'He asked her who took the MONEY.'

Earlier in the discussion of Focus-movement we tried to maintain a correlation between the number of Focus phrases which can be moved and the number of positions which can serve as landing sites for them. Recall that we derived the fact that only one Focus phrase can be preposed from the assumption that there is a unique position available for moved Focus phrases, namely Spec of FP, in precisely the same way that only one wh-phrase can be moved in the syntax is derived from the fact that there is on one position available for moved wh-phrases, namely Spec of CP.

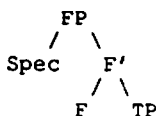
Assuming this approach to be on the right track, given the evidence, the facts illustrated by the examples in (47a&b) and (48a&b) seem to imply two things. First, there seem to be two positions available for Focus and wh- phrases in embedded clauses, but only one in matrix clauses. The second implication is that Focus and wh- phrases, at least in matrix clauses, move to the same position. In other words, the fact that either a Focus or a wh- phrase can be

preposed in matrix clauses, but not both, implies that there is only one position available for both of them. This in turn implies that Focus-phrases and wh-phrases move to the same position.

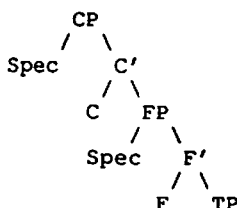
Let us first see what the two positions in the embedded clause are likely to be, and then decide which one of them is missing in the matrix clause. Given that what we are dealing with are Focus and wh- phrases these positions are likely to be Spec of FP and Spec of CP, respectively. Assuming this conjecture to be correct, the question that arises is, Which of the two positions is missing in the matrix clause? I would like to suggest that the position which is lacking in matrix clauses is Spec of CP. More precisely, I am suggesting that matrix clauses are not CP's but FP's. CP is essentially a selected category and therefore appears only in selected clauses, i.e. argument clauses. Matrix clauses are not selected, hence the idea that they lack CP¹⁶.

If we are correct in our reasoning then matrix and embedded clauses have the structures in (49a&b), respectively:

(49) a. Matrix clauses



b. Embedded clauses



The unique position in matrix clauses to which Focus and wh- phrases move is Spec of FP. The two positions in embedded clauses are Spec of CP and Spec of FP. This way we account for the fact that in matrix clauses either a Focus phrase or a wh-phrase can be preposed, while in embedded clauses both a Focus phrase and a wh-phrase can be preposed. Notice that this analysis maintains the insight that the number of arguments which can be moved in the syntax is determined by the number of positions which can serve as landing sites for them. This assumption, in turn, rests on the prior assumption that Focus and wh- movement in the syntax are essentially substitution movements.

Notice that (49a) implies that in matrix wh-questions such as (45c&d) the wh-phrase occupies the Spec of FP position, rather than the Spec of CP. This is the sense in which I meant earlier that the examples in (47) and (48) imply that Focus phrases and wh-phrases move to the same position. In view of this then we can reinterpret Chomsky's Q morpheme as the F morpheme which otherwise has the same properties. The F morpheme is specified for both [f] and [wh] features, thus accounting for the fact that its Spec position can host either a Focus phrase or a wh-phrase. Therefore, the ungrammaticality of the examples in (45a&b) is due to the violation of Lasnik's Filter by the F morpheme on a par with the examples that involve movement of Focus phrases.

Evidence for the conclusion that matrix clauses are FP's rather than CP's comes from the well known fact that matrix clauses cannot be introduced by a complementiser:

- (50) a. *Oti O Yanis efige.
that the-NOM Yanis left-3s
'*That Yanis left.'
- b. *Oti I Maria dhiavase to vivlio.
that the-NOM read-3s the-ACC book
'*That Maria read the book.'

On the assumption that matrix clauses are CP's this fact would have to be explained away in terms of a stipulation. In the present context, however, it follows naturally. F and C are two distinct categories which therefore project different maximal projections.

Notice that if we are correct in drawing this conclusion we are in a position to solve a problem associated with examples (48a&b) where the Focus phrase precedes the wh-phrase in the embedded clause. Given the structure in (49b) this order implies that the Focus phrase is in Spec of CP while the wh-phrase is in Spec of FP. Superficially this may look counterintuitive, because we would expect the wh-phrase to be in the Spec of CP and the Focus phrase in the Spec of FP. However, given the conclusion we reached earlier that wh-phrases in matrix clauses occupy the Spec of FP this fact ceases to be a problem, and, in fact, turns out to be supporting evidence for that conclusion.

What we have not demonstrated so far is the prediction that a Focus phrase can occupy the Spec of CP. Independent evidence for this prediction comes from sentences such as those in (51a&b) below where the Focus phrase cooccurs with the complementiser 'oti' which is the equivalent of 'that' in English, and from sentences such as those in (51c&d) where the focus phrase cooccurs with the complementiser 'an' which is the equivalent of 'if' in English:

- (51) a. Mu-ipe TO VIVLIO oti edhose sti Maria.
me-said the-acc book that gave-3s to-the Maria
'He said to me that he gave the BOOK to Maria.'
- b. Dhilose SINASPISMO oti tha psifisi stis ekloges.
declared-3s coalition that will vote in-the elections
'He declared that he will vote for the COALITION...'
- c. Me-rotise TA VIVLIA an epestrepsa.
me-asked-3s the-acc books if returned-1s
'He asked me if I returned the BOOKS.'
- d. Dhen ksero TI MARIA an sinantise o Petros.
not know-1s the-acc Maria if met-3s the-nom Petros
'I don't know if Petros met MARIA.'

Given that in these examples the Focus phrase precedes the complementiser it can only be in the Spec of CP position of the structure in (49b). We therefore have independent evidence that Focus phrases do move to the Spec of CP position.

In view of this we have to conclude that C, like F, is also specified for the [f] feature in addition to the [wh] feature, thus accounting for its ability to host a Focus phrase. This is precisely the sense in which CP and FP were said

above to overlap in their functional properties. It should be clear, however, that this overlap should not be taken as a reason to collapse the two categories, and conclude, instead, that FP and CP are one and the same category, and consequently, that Focus and wh-movement are one and the same process. This is due to the fact pointed out and illustrated above, among others, that a Focus phrase and a wh-phrase can be both preposed independently of each other. The conclusion that matrix clauses lack a CP projection follows from their status as non-argument clauses. The fact that they do not allow preposing of both a Focus phrase and a wh-phrase is a result of precisely this property which differentiates them from their embedded counterparts.

To summarise, I have argued in this section that topicalised objects are base-generated in their surface position and are linked to a resumptive clitic pronoun which acts as the argument of the verb. Conversely, preposed focussed objects are moved to the initial position of the clause via a process of syntactic movement, more precisely operator-movement. Following Brody, I have also argued that preposed focus-phrases move to the Spec of an FP projection base-generated immediately preceding TP. I have differed from Brody in accounting for the adjacency requirement between the verb and the focussed phrase in terms of the assumption that the F category is a bound morpheme and consequently attracts the verb to F obligatorily under Lasnik's Filter. Also, I have pointed out some similarities between focus-phrases and wh-phrases which suggest an overlap in function between Spec of CP and Spec of FP on the basis of the contrast between matrix and embedded clauses with respect to the number of focus-phrases and wh-phrases they allow in initial position. Finally, I have suggested that matrix clauses lack a CP projection, the assumption being that CP is a selected category and therefore is found only in selected clauses, i.e. argument clauses.

References

- Abney, S. (1986) 'Functional elements and licensing.' Paper presented to GLOW 1986, Girona.
- Baker, M.C. (1988) *Incorporation: A Theory of Grammatical Function Changing*. Chicago University Press, Chicago.
- Brody, M. (1985) 'On the complementary distribution of empty categories.' *LJ* 16.
- Brody, M. (1989) 'Some remarks on the focus field in Hungarian.' This volume.
- Culicover, P. and M. Rochemont (1983) 'Stress and focus in English.' *Language* 59.
- Chomsky, N. (1977) 'On wh-movement' in P. Culicover, T. Wasow and A. Akmajian (eds.) *Formal Syntax*. Academic Press, New York.
- Chomsky, N. (1981) *Lectures on Government and Binding*. Foris, Dordrecht.
- Chomsky, N. (1986a) *Knowledge of Language: Its Nature, Origin and Use*. Praeger, New York.
- Chomsky, N. (1986b) *Barriers*. MIT Press, Cambridge, MA.
- Chomsky, N. (1988) 'Some notes on the economy of derivation and representation.' Ms, MIT.
- Fukui, N. (1986) *A Theory of Category Projection and Its Applications*. PhD dissertation, MIT.

- Horvath, J. (1985) *Focus in the Theory of Grammar and the Syntax of Hungarian*. Foris, Dordrecht.
- Huang, C-T J. (1982) *Logical Relations in Chinese and the Theory of Grammar*. PhD dissertation, MIT.
- Kayne, R. (1989) 'Null subjects and clitic-climbing.' In O. Jaeggli and K. Safir *The Null Subject Parameter*. Foris, Dordrecht.
- Kitagawa, Y. (1986) *Subjects in Japanese and English*. PhD dissertation, MIT.
- Koopman, H. and D. Sportiche (1988) 'Subjects.' Ms, UCLA.
- Kuroda, S-Y. (1985) 'Whether you agree or not: rough ideas about the comparative grammar of English and Japanese.' Ms, University of California, San Diego.
- Manzini, R. (1988) 'Constituent structure and locality.' Ms, UCL.
- May, R. (1985) *Logical Form: Its Structure and Derivation*. MIT Press, Cambridge, MA.
- Ouhalla, J. (1988) *The Syntax of Head Movement*. PhD dissertation, UCL.
- Ouhalla, J. (forthcoming) *Functional Categories and Parametric Variation*. Croom Helm, London.
- Pesetsky, D. (1989) 'Language particular processes and the Earliness Principle.' Ms, MIT.
- Philippaki, I. (1985) 'Word Order in Modern Greek', in *Transactions of the Philological Society* 2.
- Philippaki, I. (1989) '"Subjects" in English and Greek.' Ms, University of Reading.
- Pollock, J-Y. (1989) 'Verb Movement, UG and the structure of IP.' *LJ*.
- Rizzi, L. (1982) *Italian Syntax*. Foris, Dordrecht.
- Rizzi, L. (1986) 'Null objects in Italian and the theory of pro.' *LJ* 17.
- Rothstein, S. (1983) *The Syntactic Forms of Predication*. PhD dissertation, MIT.
- Travis, L. (1984) *Parameters and Effects of Word Order Variation*. PhD dissertation, MIT.