

## Multiple questions and apparent *wh*-in situ: evidence from Greek

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The aim of this paper is to examine the syntactic position of *wh*-in situ in Greek multiple questions. It is argued that non-fronted *wh*-elements in matrix multiple questions do not reside in situ, but move to a higher structural position. On the basis of the similarities between focus and *wh*-constructions, it is proposed that in situ *wh*-elements move to a low focus position at the left periphery of vP (cf. Belletti 2004). Hence, multiple questions are treated on a par with clause-internal focus constructions.

### *1. Introduction: the typology of multiple questions cross-linguistically*

It is widely recognized that languages can be divided into five groups according to the way they form multiple questions (see Cheng 1991; Tsai 1994; Richards 2001; Rudin 1988; Pesetsky 2000, among many others).

(i) In English-type languages (such as English, German, Spanish etc.) one *wh*-element fronts and the other(s) stay(s) in situ. An example is given in (1):

(1) Who has bought what?

(ii) In Bulgarian-type languages (also called multiple *wh*-fronting languages) (such as Bulgarian, Serbo-Croatian, Romanian, Polish, Russian) all *wh*-elements front (see Rudin 1988; Bošković 2002; Boeckx & Grohmann 2003, among others). The multiple question in (2) is an example from Bulgarian:

(2) Koj kakvo kupuva?  
who what buys  
'Who buys what?'

(iii) In Chinese-type languages (such as Chinese, Japanese, Korean) all *wh*-elements stay in situ (see Huang 1982; Watanabe 1992; Hagstrom 1998), as is shown in (3) from Japanese:

(3) Taroo-ga dare-ni nani-o ageta no?  
Taroo.NOM who.DAT what.ACC gave Q  
'Who did Taroo give what?'

(iv) French displays properties of both English-type and Chinese-type languages (see Bošković 1998; Boeckx 1999; Mathieu 2004, among others). A multiple question in French can be formed as in (4a), where only one *wh*-element is fronted, or as in (4b), where all *wh*-elements are left in situ:

- (4) a. Qu' a-t-il donné à qui?  
       what has he given to who  
       b. Il a donné quoi à qui?  
       he has given what to who  
       'What did he give to who?'

(v) Finally, Italian and Irish do not form multiple questions (for Italian, see Rizzi 1982; Calabrese 1984, 1992; for Irish, see McCloskey 1979). This is shown by the ungrammatical (5) from Italian:

- (5) \*Chi ha scritto che cosa?  
       who has written what  
       'Who wrote what?'

Turning to Greek, the data in (6) demonstrate that Greek is an English-type language:

- (6) a. Pjos agorase ti?  
       who.NOM bought.3RD.SG what.ACC  
       b. \*Pjos ti agorase?  
       who.NOM what.ACC bought.3RD.SG  
       c. \*Agorase pjos ti?  
       bought.3RD.SG who.NOM what.ACC  
       'Who bought what?'

In the grammatical (6a), one question word is fronted and the other is left in situ, i.e., in the position where a non-*wh*-DP would appear. Compare the multiple *wh*-question in (6a) to the single *wh*-question in (7):

- (7) Pjos agorase to vivlio?  
       who.NOM bought.3RD.SG the book.ACC  
       'Who bought the book?'

On the other hand, neither multiple *wh*-fronting nor multiple *wh*-in situ are grammatical in Greek, as shown by (6b) and (6c), respectively.

However, the classification of Greek as an English-type language seems problematic in light of the analysis that will follow. The proposed movement of *wh*-in situ to a low focus position clearly differentiates Greek from English and the other languages for which a true *wh*-in situ analysis is standardly assumed. Likewise, Greek cannot be taken to be a Bulgarian-type language, as the in situ *wh*-element is not fronted. This suggests that the multiple *wh*-questions typology should be reconsidered. An alternative typology could be based on the features that trigger the movements of *wh*-elements in multiple questions. Of course, this is an effort that exceeds the goals of the present paper.

This paper is organized as follows. In section 2, I present a number of puzzling Greek data, which seem to require a new analysis. In section 3, I review the argumentation for the analysis of *wh*-movement as focus-movement in Greek. In section 4, I present the focus constructions of Greek and argue that clause-internal focus constructions involve a low focus position, as Belletti (2004) proposes for Italian. As for multiple questions, I propose in section 5 that *wh*-in situ is a focal element that moves to the low focus position that is already established for focus constructions. Section 6 elaborates on this proposal, providing the details of the analysis. Finally, in section 7, I show that alternative analyses cannot readily account for the Greek multiple questions data.

## 2. The Greek data

It has been repeatedly argued that Greek is a VSO language. In the basic VSO order, the postverbal subject is vP-internal. In the SVO order, which is also grammatical, the subject is a topic occupying an  $\bar{A}$ -position in the left periphery of the sentence (see Philippaki-Warbuton 1985, 1987; Tsimpli 1990; Alexiadou & Anagnostopoulou 1998, among others).<sup>1</sup> As for *wh*-questions, I assume that they do not exhibit T-to-C movement, following Anagnostopoulou (1994) and Kotzoglou (2005). According to this view, the verb adjoins to the T-head via head-movement and post-verbal material remains in a lower position.

Taking these properties of Greek into consideration, let us consider the word order exhibited in multiple questions.<sup>2</sup> Given that Greek is a single *wh*-fronting language (see section 1 above), we expect one *wh*-element to front and the other to remain in situ, that is, in its base position. In this respect, the word orders exhibited by the multiple questions in (8)–(12) are unexpected:

(8) Pote agorase ti o Janis?  
 when bought.3RD.SG what.ACC the Janis.NOM  
 ‘When did John buy what?’

(9) Tinos edose ti o Janis?  
 who.GEN gave.3RD.SG what.ACC the Janis.NOM  
 ‘Who did John give what?’

(10) Pote douleψε pou i Anna?  
 when worked.3RD.SG where the Anna.NOM  
 ‘When did Anna work where?’

(11) Pjos ide pou tin tenia?  
 who.NOM watched.3RD.SG where the movie.ACC  
 ‘Where did who watch the movie?’

<sup>1</sup> But see Roussou & Tsimpli (2006), Spyropoulos & Revithiadou (2007) for the view that preverbal subjects in Greek are not necessarily dislocated elements.

<sup>2</sup> Throughout this paper, I will restrict myself to multiple questions with only two *wh*-elements, for the sake of simplicity.

- (12) Pjos estile ti tis Marias?  
 who-NOM sent-3RD.SG what-ACC the Mary-GEN  
 ‘Who sent Mary what?’

First, in both (8) and (9) the in situ *wh*-object (*ti*) precedes the DP-subject (*o Janis*), thus reversing the expected neutral word order VSO. The fact that a syntactically different *wh*-element fronts in each sentence (namely the *wh*-adverbial *pote* in (8) and the indirect object DP *tinis* in (9)) does not affect the word order of postverbal material.

Second, in multiple questions with an in situ *wh*-adverbial, such as (10) and (11), the *wh*-adverbial (*pou*) immediately follows the verb and precedes the DP-subject (*i Anna*) and the DP-object (*tin tenia*), respectively. In both constructions, the expected order would be V S/O *wh*-adverbial.

Finally, a third word order puzzle is posed by double object constructions such as (12). Following Anagnostopoulou (2003), Georgiagitis & Laskaratou (2003), I understand V-IO<sub>[GEN]</sub>-DO<sub>[ACC]</sub> to be the basic word order in Greek double object constructions. The multiple question in (12) exhibits the reverse order: The in situ *wh*-DO (*ti*) precedes the IO-DP (*tis Marias*), contrary to what is expected.

The above facts lead to the formulation of the descriptive generalization in (13):

- (13) The in situ *wh*-phrases in Greek multiple questions precede all vP-internal constituents.<sup>3</sup>

Below, an account for this generalization will be provided. As has already been mentioned, I will argue that *wh*-in situ moves to a low focus position in the constructions under discussion. The argumentation will be based on the striking symmetries that focus and *wh*-constructions exhibit. Some of these are presented in the following section.

### 3. *Wh*-constructions as focus constructions

It is repeatedly noted in the literature that focus and *wh*-constructions seem to be parallel in many respects. This observation is usually based on syntactic, distributional similarities between interrogative *wh*-phrases and focus constituents in various languages, such as Hungarian (see Horvath 1986; Rochemont 1986; Brody 1990), Basque (see Ortiz de Urbina 1989), Bahasa Indonesia/Malay and Kikuyu (an African language spoken in Kenya) (see Sabel 2000), to name but a few of them. Specifically, it has been proposed that *wh*-phrases move to a focus position in these languages.

<sup>3</sup> A note is in order here concerning multiple questions exhibiting the expected word order, such as the following:

- (i) Pote agorase o Janis ti?  
 when bought-3RD.SG the Janis-NOM what-ACC  
 ‘When did John buy what?’

These constructions are not ungrammatical, though some speakers find multiple questions like (8) preferable. This fact does not constitute a problem for the analysis proposed in this paper. On the contrary, based on the view that *wh*-constructions are essentially focus constructions, the grammaticality of (i) is inferred. Specifically, constructions like (i) are parallel to clause-final focus constructions, where the focused constituent occupies the final, most embedded position of the clause (see section 4.1). That is, these are true *wh*-in situ constructions. Still, the main goal of this study is to provide an account for the word order properties displayed by the multiple questions of the main text.

With Greek, it has been convincingly argued by Tsimpli (1990, 1995, 1998) that *wh*-elements introducing matrix *wh*-questions move to a focus position in the left periphery of the clause. Tsimpli's argumentation is based on a number of properties displayed by both *wh*- and focus constructions. The most important ones are listed below:

(i) Both constructions exhibit island effects, as shown by the ungrammatical (14a) and (14b):<sup>4</sup>

- (14) a. \* $T_i$  ides ton andra pou diavaze  $t_i$ ?  
 what.ACC saw.2ND.SG the man.ACC that was reading.3RD.SG  
 'What<sub>i</sub> did you see the man that was reading  $t_i$ ?'  
 b. \*Tin efimerida ida ton andra pou diavaze  $t_i$ .  
 the newspaper.ACC saw.1ST.SG the man.ACC that was reading.3RD.SG  
 'I saw the man that was reading the newspaper.'

(ii) Both constructions induce WCO effects.<sup>5</sup> This is illustrated by (15a) and (15b):

- (15) a. ?\* $P_{joi}$  voithise i mitera tou?  
 who.ACC helped.3RD.SG the mother.NOM cl.GEN  
 'Who<sub>i</sub> did his<sub>i</sub> mother help?'  
 b. ?\*Ton Jani<sub>i</sub> voithise i mitera tou.  
 the Janis.ACC helped.3RD.SG the mother.NOM cl.GEN  
 'His<sub>i</sub> mother helped John<sub>i</sub>.'

(iii) In both structures subject-auxiliary/verb inversion is triggered, as shown by the contrasts in (16) and (17):

- (16) a. ?? $P_{jon}$  i Maria agapai?  
 who.ACC the Maria.NOM loves.3RD.SG  
 b.  $P_{jon}$  agapai i Maria?  
 who.ACC loves.3RD.SG the Maria.NOM  
 'Who does Mary love?'  
 (17) a. ??Ton Petro i Maria agapai.  
 the Petros.ACC the Maria.NOM loves.3RD.SG  
 b. Ton Petro agapai i Maria.  
 the Petros.ACC loves.3RD.SG the Maria.NOM  
 'Mary loves Peter.'

(iv) There are co-occurrence restrictions between focus phrases and *wh*-phrases, as shown by (18) and (19) (data from Tsimpli 1995:193).<sup>6</sup> A focused and a *wh*-constituent cannot coexist

<sup>4</sup> Throughout the paper, non-*wh* focused phrases will be underlined. No notational distinction between information and contrastive focus will be made, as I do not think that this distinction is valid (see the discussion in section 4.1 below).

<sup>5</sup> It should be noted here that the existence of WCO effects in *wh*-questions has been questioned in the literature regarding Greek (see Catsimali 1990:75-76, Horrocks 1994, among others). There appears to be a dialect split on WCO judgments. Most important for present purposes, speakers who get WCO effects in single *wh*-questions such as (15a) (myself included) also get similar effects in focus constructions like (15b).

<sup>6</sup> A *wh*-phrase and a focus phrase can co-occur in the same sentence only when the *wh*-phrase introduces an embedded *wh*-question, as in (ii) below:

in the same sentence, irrespective of whether either of them is preposed or in situ. This poses a strong argument for the view that there is only one focus position per sentence, which can be occupied either by a focused or by a *wh*-element.

- (18) a. \*Ti agorase i Maria?  
 what.ACC bought.3RD.SG the Maria.NOM  
 b. \*I Maria agorase ti?  
 the Maria.NOM bought.3RD.SG what.ACC  
 c. \*Ti i Maria agorase?  
 what.ACC the Maria.NOM bought.3RD.SG  
 ‘What did Mary buy?’

- (19) \*Pjos ipe oti tin Maria sinandise?  
 who.NOM said.3RD.SG that the Maria.ACC met.3RD.SG  
 ‘Who said that met Mary?’

(v) In matrix *wh*-questions, *wh*-elements bear focal stress, exactly like their non-*wh* focalized counterparts. Consider the well formed question-answer pair in (20), where the *wh*-phrase (*pjos*) of the question is replaced by a focused phrase (*o Petros*) in the answer.

- (20) A: Pjos diavase to arthro?  
 who.NOM read.3RD.SG the paper.ACC  
 ‘Who read the paper?’  
 B: O Petros diavase to arthro.  
 the Petros.NOM read.3RD.SG the paper.ACC  
 ‘Peter read the paper.’

(vi) Neither *wh*- nor focused elements can be topicalized, i.e. doubled by a clitic in Clitic Left Dislocation constructions.<sup>7</sup> This is shown by the ungrammaticality of (21a) and (21b).

- (21) a. \*Ti to theli i Anna?  
 what.ACC cl.ACC want.3RD.SG the Anna.NOM  
 ‘What does Anna want?’  
 b. \*To CD to theli i Anna.  
 the CD.ACC cl.ACC want.3RD.SG the Anna.NOM  
 ‘Anna wants the CD.’

(vii) Both focused and *wh*-phrases can also remain in situ. This is the case in (22a)<sup>8</sup> and (22b).

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- (ii) O Janis me rotise pote tha figoume.  
 the Janis.NOM cl.ACC asked.3RD.SG when will leave.1ST.PL  
 ‘John asked me when we will leave.’

This is evidence for the view that *wh*-elements introducing embedded interrogatives are not focused, thus allowing another constituent to bear focal stress in this construction (see Tsimpli 1995:193).

<sup>7</sup> D-linked *wh*-phrases can coexist with a resumptive clitic. For these constructions, see Anagnostopoulou (1994).

<sup>8</sup> It should be noted that (22a) is not an echo question, but a standard question asking for new information.

- (22) a. Ke o Janis tha feri ti?  
and the Janis.NOM will bring.3RD.SG what.ACC  
'And what will John bring?'
- b. O Janis tha feri to kراسي.  
the Janis.NOM will bring.3RD.SG the wine.ACC  
'John will bring the wine.'

The argumentation for the movement of *wh*-elements to a focus position primarily concerns left-peripheral, *ex situ wh*- and focus constructions, like the ones presented in (14)-(21). However, both focused and *wh*-constituents also appear in other postverbal positions (see (22)). In the following sections, I will direct my attention to postverbal focus constructions, in an attempt to demonstrate that the well-established parallelism between *wh*- and focus *ex situ* should be extended to postverbal *wh*- and focus constructions. If this proposal is sustainable, it provides evidence for a wider symmetry between the two constructions under discussion.

#### 4. Clause-internal focus constructions in Greek

##### 4.1. Overview of focus constructions

As has already been noted, focused constituents can occupy a number of different positions in Greek focus constructions. Given this criterion, the following focus constructions are distinguished:

(i) Clause-external focus construction, where the focused constituent precedes the verb, occupying the SpecFocP position in the left periphery of the clause. Examples of this construction are given in (23a-d), where the subject DP, the direct object DP, the indirect object DP/PP and an adverbial adjunct are focused, respectively:

- (23) a. I Maria tha plini ta pjata.  
the Maria.NOM will wash.3RD.SG the dishes.ACC  
'Mary will wash the dishes.'
- b. Ton Jani filise i Maria.  
the Janis.ACC kissed.3RD.SG the Maria.NOM  
'Mary kissed John.'
- c. Tou Petrou /ston Petro edose o Janis to vivlio.  
the Petros.GEN/to-the Petros.ACC gave the Janis.NOM the book.ACC  
'John gave Peter the book/the book to Peter.'
- d. Avrio fevgi i Maria.  
tomorrow is leaving.3RD.SG the Maria.NOM  
'Mary is leaving tomorrow.'

(ii) Clause-internal focus construction, where the focused constituent immediately follows the verb, as shown by the following data:

- (24) a. Tha plini i Maria ta pjata.  
will wash.3RD.SG the Maria.NOM the dishes.ACC  
'Mary will wash the dishes.'

- b. Filise ton Jani i Maria.  
kissed.3RD.SG the Janis.ACC the Maria.NOM  
'Mary kissed John.'
- c. O Janis edose tou Petrou /ston Petro to vivlio.  
the Janis.NOM gave.3RD.SG the Petros.GEN/to-the Petros.ACC the book.ACC  
'John gave Peter the book/the book to Peter.'
- d. Fevgi avrio i Maria.  
is leaving.3RD.SG tomorrow the Maria.NOM  
'Mary is leaving tomorrow.'

(iii) Clause-final focus construction, where the focused constituent occupies the final, most deeply embedded syntactic position of the clause. In this construction, the basic word order (VSO or SVO) is preserved. The relevant examples are given in (25):

- (25) a. (I Maria) filise (i Maria) ton Jani.  
the Maria.NOM kissed.3RD.SG the Maria.NOM the Janis.ACC  
'Mary kissed John.'
- b. (O Janis) edose (o Janis) to vivlio ston Petro.  
the Janis.NOM gave.3RD.SG the Janis.NOM the book.ACC to-the Petros.ACC  
'John gave the book to Peter.'
- c. (I Maria) fevgi (i Maria) avrio.  
the Maria.NOM is leaving.3RD.SG the Maria.NOM tomorrow  
'Mary is leaving tomorrow.'

Clause-external and clause-internal focus constructions (see (i) and (ii) above) are narrow focus constructions. Focus projection does not apply with either of these. On the other hand, clause-final focus construction (see (iii) above) permits focus projection, thus giving rise to a number of possible focus interpretations (narrow or wide), depending on the context.<sup>9</sup> Furthermore, clause-final focus construction can be viewed as syntactically unmarked, given that the focused constituent surfaces in its base position and the basic word order of the clause does not change. Hence, this is a focus in situ construction. Nuclear stress (NS) is assigned to the final, most embedded constituent, according to phrasal metrical rules (see Cinque 1993; Zubizarreta 1998). Moreover, construction (iii) differs from narrow focus constructions (i) and (ii) for prosodic reasons as well. As shown by Baltazani (2002:42-43), Greek makes use of categorically different pitch accents to denote wide and narrow foci. Specifically, clause-final elements carry a H\* or H\*+L nuclear pitch accent (NPA), while fronted narrow foci are realized with a L+H\* NPA.

On these grounds, it seems reasonable to suggest that the two exclusively narrow focus constructions need to be syntactically distinguished from the multiply ambiguous clause-final focus construction. This can be achieved if the former are treated on a par as focus ex situ constructions, and the latter as a focus in situ construction. This is the premise that is examined in this paper.

<sup>9</sup> Focus projection is the phenomenon of extension of focus to larger constituents containing the stressed word (see Selkirk 1984). In clause-final focus constructions, where the nuclear stress falls on the most embedded constituent, as for example the object DP in (25a), focus can extend to the whole VP or TP. It should be noted, though, that VSO and SVO do not fair the same with respect to focus projection. VSO is an exclusively wide focus construction that can be used to answer questions like 'What happened?'. As opposed to this, the SVO order permits focusing of the object DP, the VP or the TP, depending on the context.

Before closing this subsection, a note is in order regarding the distinction between information and contrastive focus (see Kiss 1998b). Most of the syntactic analyses proposed for the focus constructions of Greek have either neglected this distinction or have been based on it (see Tsimpli 1995, Georgiafentis 2004). However, the validity of such a distinction has come into question recently. In particular, Brunetti (2003) strongly argues for a unification of focus in Italian, demonstrating that the two types of focus (i.e. information and contrastive) do not exhibit any syntactic or interface differences. Also, Green & Jagger (2003) question the validity of the syntactic distinction between information and contrastive focus, based on data from Hausa (a Chadic, Afroasiatic language). Brunetti's argumentation has been adopted by Gryllia (2004) and Haidou (2004), (2006), who argue for a unified focus in Greek as well. In light of the discussion above, it seems that a distinction in terms of broad vs. narrow focus might prove to be more theoretically and empirically justified. Therefore, I will accept the idea of unified focus, according to which both kinds of focus can be hosted in both the clause-external and clause-internal focus position.<sup>10</sup>

In the following subsection, I will proceed to examine clause-internal focus constructions, arguing that they involve a low focus position.

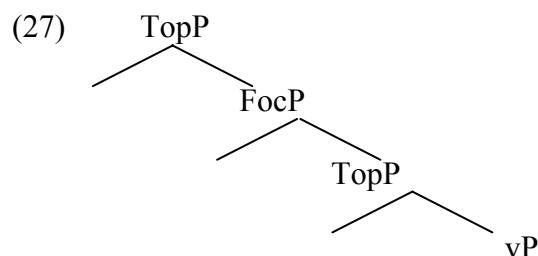
#### 4.2. Low focus position in Greek

The existence of a low position inside TP/IP, where focused and/or *wh*-elements are hosted, has been proposed for a number of languages, like Hungarian (Kiss 1998a), Chadic (Tuller 1992), Hebrew (Belletti & Shlonsky 1995), English (López & Winkler 2003, Drubig 2003), German (Krifka 1998), Italian (Belletti 2004). For the purposes of the present paper, I will concentrate on the analysis that Belletti (2004) offers for Italian.

Assuming Rizzi's (1997) articulated left periphery (illustrated in (26)), Belletti (2004) proposes the existence of a FocP in the low IP area, right above VP, namely in the left periphery of vP.

(26) [ForceP [TopP\* [FocP [TopP\* [FinP [IP...

Moreover, she supports the idea that the vP-periphery is symmetric to the CP-periphery, stating that not only there is a low FocP, but also that two low TopPs surround it. The structure she proposes is depicted in (27):



According to Belletti's analysis, postverbal subjects occupy the low focus position in Italian. An example is given in (28) (data from Belletti 2004:18):

<sup>10</sup> This approach faces the optionality problem. The fact that there are not interpretive differences between clause-external and clause-internal focus constructions entails that focus movement to one or the other focus position is optional. For an interesting discussion of this problem, as well as for a tentative solution, see Brunetti (2003:155-160).

- (28) E' partito Gianni.<sup>11</sup>  
 is left Gianni  
 'John left.'

Below, I will explore whether it is reasonable to extend Belletti's analysis to the Greek data and, in particular, to the clause-internal focus construction that was presented in section 4.1 above.<sup>12</sup> Consider the relevant data, repeated here for convenience:

- (29) a. Tha plini i Maria ta pjata.  
 will wash.3RD.SG the Maria.NOM the dishes.ACC  
 'Mary will wash the dishes.'
- b. Filise ton Jani i Maria.  
 kissed.3RD.SG the Janis.ACC the Maria.NOM  
 'Mary kissed John.'
- c. O Janis edose tou Petrou /ston Petro to vivlio.  
 the Janis.NOM gave.3RD.SG the Petros.GEN /to-the Petros.ACC the book.ACC  
 'John gave Peter the book/the book to Peter.'
- d. Fevgi avrio i Maria.  
 is leaving.3RD.SG tomorrow the Maria.NOM  
 'Mary is leaving tomorrow.'

As has already been observed, this is a narrow focus construction, where the focused constituent appears in a clause-medial, postverbal position. This position can host not only a DP-subject (see 29a), but also any other constituent: a direct object DP (see 29b), an indirect object DP/PP in double object constructions (see 29c), an adverbial adjunct (see 29d).<sup>13</sup>

Regarding the word orders exhibited by the data in (29), it is important to note that the base orders can change, so that the focused constituent appears in the relevant post-verbal focus position. This is the case in (29b), where the focused DP-object (*ton Jani*) precedes the defocalised subject, thus changing the neutral VSO order. The same observation holds true for the double object construction in (29c). Assuming the basic order of the objects is IO<sub>[GEN]</sub> > DO<sub>[ACC]</sub> (see section 2 above), (29c) exhibits the reverse order, namely DO<sub>[ACC]</sub> (*to vivlio*) > IO<sub>[GEN]</sub> (*tou Petrou*). Also, in (29d) a focused adverbial adjunct precedes the DP-subject. On the other hand, when the focused constituent is the postverbal DP-subject (as in 29a), the basic word order is preserved.

The fact that clause-internal focus construction does not exhibit the canonical word order indicates that it is not a focus in situ construction. Rather, it should be treated as a focus ex situ construction, on a par with clause-external focus construction. If this line of reasoning is correct, then Greek has two focus ex situ constructions and a focus in situ construction (that is, the clause-final focus construction presented in section 4.1 above).

<sup>11</sup> (28) can be a felicitous answer to the question in (iii):

(iii) Chi è partito?  
 who is left  
 'Who left?'

<sup>12</sup> For Belletti's theoretical and empirical arguments for the postulation of a low focus position, I refer the reader to her work. Also, in the following analysis I will make reference only to the low focus position, in essence disregarding the proposed low topic positions, as these are not directly relevant to my topic.

<sup>13</sup> In Italian, on the contrary, the low focus position is only occupied by subject DPs. For this reason, Belletti's analysis is limited to constructions with a postverbal focused subject (see (28) in the main text).

In light of this discussion, the postulation of a low focus position seems plausible, as it captures the word order properties of clause-internal focus constructions. Following Belletti (2004), I take the low vP-peripheral focus position to display  $\bar{A}$ -properties, as is also the case with the high CP-peripheral focus position. In terms of the hypothesis that clause-internal focused constituents overtly move to the low focus position, the emergence of WCO and reconstruction effects is expected. Indeed, this is the case with Greek, as exemplified by (30) and (31), respectively:

- (30) ?\*Voithise ton Jani<sub>i</sub> i mitera tou<sub>i</sub>.  
 helped.3RD.SG the Janis.ACC the mother.NOM cl.GEN  
 ‘His<sub>i</sub> mother helped John<sub>i</sub>.’
- (31) a. Pistevi ston eafto tou<sub>i</sub> o Janis<sub>i</sub> ~~ston eafto tou<sub>i</sub>~~.  
 believe.3RD.SG in-the self.ACC cl.GEN the Janis.NOM  
 ‘John believes in himself.’
- b. Sinadise ton filo tou<sub>i</sub> to kathe agori<sub>i</sub> ~~ton filo tou<sub>i</sub>~~.  
 met.3RD.SG the friend.ACC cl.GEN the every boy.NOM  
 ‘Every boy<sub>i</sub> met his<sub>i</sub> friend.’

vP-peripheral foci induce WCO effects, as shown by (30) (cf. the CP-peripheral focus construction in (15b)). In (31a), the moved focused phrase (*ston eafto tou*) reconstructs and the reflexive is successfully bound by the R-expression (*o Janis*). Likewise, a variable binding reconstruction effect is attested in (31b). Once again, the focused constituent reconstructs, so that the clitic pronoun (*ton*) is bound by the quantifier phrase (*to kathe agori*).

The low focus analysis proposed here is further supported by the intonational properties of clause-internal focus constructions. All the relevant data in (29) are pronounced with the main stress on the postverbal focus, but without an intonational break after it. This is evidence for the fact that postfocal material is not right-dislocated but occupies a vP-internal position. Hence, the focused constituent raises to a structurally higher position, such as the Spec of the low FocP.

An alternative way to account for the syntactic and intonational properties of clause-internal focus constructions is to propose that the postverbal focused constituent actually moves to the high CP-peripheral focus position. This movement is followed by remnant TP-movement to a position above the focused constituent, such as SpecTopP. Georgiamentis (2004) has proposed one such analysis to account for constructions with a postverbal (contrastively) focused constituent in Greek. With this analysis, (29a) (repeated here as (32a)) is derived as shown in (32b):

- (32) a. Tha plini i Maria ta pjata.  
 will wash.3RD.SG the Maria.NOM the dishes.ACC  
 ‘Mary will wash the dishes.’
- b. [<sub>TOPP</sub> [<sub>TP</sub> tha plini [<sub>VP</sub> t<sub>i</sub>...t<sub>k</sub>]]] [<sub>FocP</sub> i Maria]<sub>i</sub> [<sub>TOPP</sub> ta pjata]<sub>k</sub> t<sub>TP</sub>

The derivation in (32b) involves (i) topicalization movement of the DP-object (*ta pjata*) to a left peripheral topic position, (ii) overt movement of the focused subject (*i Maria*) to the CP-peripheral focus position, and (iii) remnant TP-movement to a higher topic position.

However, similar accounts face a number of difficulties. The most important is, perhaps, the fact that the trigger for remnant movement is not clear. Even if we understand remnant

movement to signal topicalization of defocalized constituents, it will be difficult to account for constructions where remnant movement does not apply. An example is given in (33), where the focused subject (*i Maria*) moves to the CP-peripheral focus position, exactly like in (32), only this time remnant TP-movement does not apply, despite the defocalized/topicalized status of TP.<sup>14</sup>

- (33) a. I Maria tha plini ta pjata.  
 the Maria.NOM will wash.3RD.SG the dishes.ACC  
 ‘Mary will wash the dishes.’  
 b. [<sub>FocP</sub> i Maria]<sub>i</sub> [<sub>TP</sub> tha plini [<sub>vP</sub> t<sub>i</sub> ta pjata]]

As opposed to the remnant movement analysis, the low focus analysis advocated here does not face similar difficulties, since it does not involve remnant topicalization movements.

In summary, in this section it has been argued that clause-internal focus constructions are in fact low focus constructions. The focused constituents are not in situ, but move to the low vP-peripheral focus position, which has been proposed by Belletti (2004) for Italian. In the following section, I will elaborate on the idea that multiple questions and clause-internal focus constructions can be subsumed under a common analysis, namely the low focus analysis.

### 5. *Wh-in situ* moves to the low focus position

In this section, I return to the issue of multiple questions, in an attempt to offer an explanation for the generalization in (13), repeated here:

- (13) The in situ *wh*-phrases in Greek multiple questions precede all vP-internal constituents.

Building on the low focus analysis supported in the previous section, it will be argued that in situ *wh*-elements in multiple questions are focused elements that move to the low focus position in the periphery of vP. Such an approach requires that the low focus position can be filled by both focused and *wh*-elements, exactly like the high CP-peripheral focus position. If this proposal is correct, the symmetry between clause external focus and *wh*-constructions that was already described (recall the common properties presented in section 3 above) can be extended to clause-internal focus-constructions and multiple questions, which is a welcome result.

To begin with, the following observations are in order, regarding the status of *wh*-in situ as a focal element. First, the presence of a focused constituent in a multiple question gives rise to ungrammaticality in Greek, as shown by (34a):

- (34) a. \*O Janis pote pige pou?  
 the Janis.NOM when went.3RD.SG where  
 ‘When did John go where?’

<sup>14</sup> Of course, one might assume that the TP in (33) is not in situ, but that it has moved to a left-peripheral TopP lower than the FocP. Following this reasoning, one would have to expect remnant movement in all cases of remnant topicalized material, which, in my view, is not a very natural conclusion. For extensive argumentation against the remnant movement analysis, see Brunetti (2003:133-4).

The same observation also holds for the other *wh*-in situ constructions in Greek, namely single *wh*-in situ interrogatives (see fn. 8) and echo questions. The relevant data are provided by (34b) and (34c), respectively.

- (34) b. \*[Ke] o Janis tha kani ti?  
 [and] the Janis.NOM will do.3RD.SG what.ACC  
 ‘[And] what will John do?’  
 c. \*I Anna pandreftike PJON?  
 the Anna.NOM married.3RD.SG who.ACC  
 ‘Anna married WHO?’

The ungrammatical *wh*-in situ constructions under (34) are reminiscent of the single *wh*-question (18a), repeated below, which is also ungrammatical:

- (18) a. \*Ti agorase i Maria?  
 what.ACC bought.3RD.SG the Maria.NOM  
 ‘What did Mary buy?’

Recall from section 3 that the ungrammaticality of (18a) is attributed to the fact that there is a unique focus position in matrix clauses. Given the focal status of *wh*-elements in matrix questions, the presence of a focused constituent is ruled out. Thus, the ungrammaticality of the constructions in (34) is easily accounted for, if *wh*-in situ is focused. This is a plausible suggestion, since these three constructions all have *wh*-in situ elements. As expected, the coexistence of *wh*-in situ with a focused constituent is not tolerated.<sup>15</sup>

Second, Tsimpli (1998:fn. 8) concludes that *wh*-in situ is focused, based on the observation that in situ *wh*-phrases cannot introduce embedded interrogatives. In Greek, *wh*-elements introducing embedded questions are not focused, as exemplified by the fact that they can coexist with a focused constituent. This is the case in (35) (see also fn. 7):

- (35) O Janis anarotjeme ti tha kani.  
 the Janis.NOM wonder.1ST.SG what.ACC will do.3RD.SG  
 ‘I wonder what John will do.’

However, in situ *wh*-elements cannot introduce embedded questions, as shown by (36):

- (36) \*Anarotjeme tha kani ti.  
 wonder.1ST.SG will do.3RD.SG what.ACC  
 ‘I wonder what he/she will do.’

As Tsimpli notices, the ungrammaticality of (36) shows that an in situ *wh*-question “cannot satisfy the *wh*-selectional requirements of verbs like *wonder* (*anarotjeme*), indicating that the

<sup>15</sup> Note that the ungrammaticality of (34a) arises also when the focused constituent (*o Janis*) is postverbal, as in (iv) and (v):

- (iv) \*Pote pige o Janis pou?  
 when went.3RD.SG the Janis.NOM where  
 (v) \*Pote pige pou o Janis?  
 when went.3RD.SG where the Janis.NOM  
 ‘When did John go where?’

in-situ option does not characterize [+wh] elements in Greek but [+wh, +f] phrases only". Hence, *wh*-in situ is necessarily focused.

Third, this conclusion is further supported by the intonational properties of multiple questions. Specifically, it is the in situ *wh*-element that bears focal stress. Fronted *wh*-elements are pronounced with a flat intonation, contrary to their fronted counterparts in single *wh*-interrogatives, which carry the NPA of the sentence (see Baltazani 2002:65-72).

Finally, the information structure of answers to multiple questions points to the conclusion that in situ *wh*-elements are focused. As mentioned in section 3, in well-formed (single) question-answer pairs, the *wh*-element of the question gets replaced by a focused constituent in the answer (see (20)). For multiple questions, consider the well-formed question-answer sequence in (37):

- (37) A: Pjos agorase ti?  
 who.NOM bought.3RD.SG what.ACC  
 'Who bought what?'  
 B: O Janis agorase ena vivlio, o Petros agorase  
 the Janis.NOM bought.3RD.SG a book.ACC the Petros.NOM bought.3RD.SG  
 ena CD...  
 a CD.ACC  
 'John bought a book, Peter bought a CD...'

In the pair-list answer above, the DP-objects (*ena vivlio*, *ena CD*) corresponding to the *wh*-in situ (*ti*) are focused and bear the NS, as expected. On the contrary, the DP-subjects (*o Janis*, *o Petros*) that replace the fronted *wh*-element (*pjos*) are not focused.<sup>16</sup>

On the basis of these observations, it can be safely concluded that *wh*-in situ in Greek multiple questions is focused. Given also that (i) there is a low vP-peripheral focus position filled by clause-internal focused phrases and that (ii) fronted *wh*-elements in direct single questions occupy a focus position, I am led to the reasonable hypothesis that *wh*-in situ moves to the low focus position in the multiple questions under discussion (repeated below from section 2).<sup>17</sup> In the remainder of this section, more arguments will be offered in support of this hypothesis.

- (38) a. Pote agorase ti o Janis?  
 when bought.3RD.SG what.ACC the Janis.NOM  
 'When did John buy what?'  
 b. Tinos edose ti o Janis?  
 who.GEN gave.3RD.SG what.ACC the Janis.NOM  
 'Who did John give what?'  
 c. Pote doulepe pou i Anna?  
 when worked.3RD.SG where the Anna.NOM  
 'When did Anna work where?'

<sup>16</sup> The DP-subjects of the pair-list answer might be better described as contrastive topics, which are distinguished from both topics and foci, on the basis of their semantic/pragmatic and intonational properties (see Büring 2003). For contrastive topics in Greek, though not in these contexts, see Alexopoulou (1996).

<sup>17</sup> However, I will continue to use the term *wh*-in situ, to distinguish the non-fronted *wh*-phrase from the fronted one.

- d. Pjos        ide                    pou    tin tenia?  
 who.NOM watched.3RD.SG where the movie.ACC  
 ‘Where did who watch the movie?’
- e. Pjos        estile            ti            tis Marias?  
 who.NOM sent.3RD.SG what.ACC the Mary.GEN  
 ‘Who sent Mary what?’

(i) Based on the hypothesis above, the word orders exhibited by the multiple questions in (38) are expected. The fact that *wh-in situ* immediately follows the verb can be readily explained as a result of movement to the low focus position. In this respect, compare (38a) to the clause-internal focus construction in (39) below. Both display the same word order of postverbal material. The focused *wh-/DP-object* precede the DP-subject. Likewise, a comparison of (38b-38e) to the focus constructions in (29) confirms that the same word order is attested in both cases.

- (39) Agorase        to vivlio        o Janis.  
 bought.3RD.SG the book.ACC the Janis.NOM  
 ‘John bought the book.’

(ii) The proposed movement of *wh-in situ* to the low focus position gives rise to WCO violations and reconstruction effects, as shown by (40) and (41), respectively:

- (40) ?\*Pote voithise        pjon<sub>i</sub>    i    mitera        tou<sub>i</sub>    t<sub>i</sub>?  
 when helped.3RD.SG who.ACC the mother.NOM cl.GEN  
 ‘When did his<sub>i</sub> mother help whom<sub>i</sub>?’
- (41) a. Pote sas    edikse            pjes    fotografies    tou eaftou    tou<sub>i</sub>    o Janis<sub>i</sub>  
~~pjes fotografies tou eaftou tou<sub>i</sub>?~~  
 when cl.ACC showed.3RD.SG which pictures.ACC the self.GEN cl.GEN the Janis.NOM  
 ‘When did John show you which pictures of himself?’
- b. Pote sinadise    pjon    filo        tou<sub>i</sub>    to kathe    agori<sub>i</sub>    ~~pjon filo tou?~~  
 when met.3RD.SG which friend.ACC his.GEN the every boy.NOM  
 ‘When did every boy meet which friend of his?’

As is the case with clause-internal focus constructions (see (30)), in (40) the movement of *wh-in situ* (*pjon*) over a non-c-commanding coindexed pronoun (*tou*) induces a WCO effect. In (41a) and (41b), the moved *wh-in situ* phrases reconstruct in their base position, indicated by strikethrough typeface (cf. the corresponding focus constructions in (31)).

(iii) There is not an intonational break (a comma intonation) between *wh-in situ* and the constituents to its right. This excludes the right-dislocation analysis of post *wh-in situ* material. The same holds for post-focal material in clause-internal focus constructions, as pointed out in section 4.2 above.

The above observations support the analysis provided here, according to which multiple *wh*-questions are essentially treated on a par with clause-internal focus constructions. The following section elaborates on the proposed analysis in more detail, making special reference to feature checking.





In (46), the *wh*-subject (*pjos*) is focused. As expected, it moves to the low focus position, while the non-focused *wh*-element fronts.<sup>22</sup>

So far, I have limited my attention to short-distance multiple questions. Long-distance multiple questions are also possible in Greek, as shown by the data under (47).

- (47) a. Pjos theli na didaksi ti?  
 who.NOM want.3RD.SG to teach.3RD.SG what.ACC  
 ‘Who wants to teach what?’
- b. Pote pistevis oti tha figi pjos?  
 when believe.2ND.SG that will leave.3RD.SG who.NOM  
 ‘When do you believe that who will leave?’
- c. Pjos efige [AdjP xoris na xeretisi pjon]?  
 who.NOM left.3RD.SG without to greet.3RD.SG who.ACC  
 ‘Who left without greeting whom?’

Extending the analysis developed for short-distance multiple questions to these data, I propose that *wh*-in situ moves overtly to the low focus position of the embedded clause. The long-distance multiple question in (47c) differs from (47a) and (47b) in that it disallows the pair-list reading. Note that *wh*-in situ is inside a strong adjunct island in (47c) but not in (47a) and (47b). This asymmetry indicates that the mechanism responsible for the pair-list reading (see fn. 21) is blocked whenever a strong island intervenes between the matrix interrogative C and *wh*-in situ.<sup>23</sup>

Finally, under the proposed analysis, the ambiguity of (48) finds a natural explanation.

- (48) Pjos kseri pou tha vroume ti?  
 who.NOM know.3RD.SG where will find.1ST.PL what.ACC  
 ‘Who knows where we will find what?’

Example (48) has two readings, depending on the scope of *wh*-in situ: (i) a matrix multiple question reading, which arises when *wh*-in situ takes wide scope, and (ii) a single *wh*-question reading, which arises when *wh*-in situ takes narrow scope. The two readings are reflected by the answers in (49a) and (49b), respectively:

- (49) a. O Janis kseri pou tha vroume kafe,  
 the Janis.NOM know.3RD.SG where will find.1ST.PL coffee.ACC  
 o Petros kseri pou tha vroume krasi...  
 the Petros.NOM know.3RD.SG where will find.1ST.PL wine.ACC...  
 ‘John knows where we will find coffee, Peter knows where we will find wine...’
- b. O Janis kseri pou tha vroume ti.  
 the Janis.NOM know.3RD.SG where will find.1ST.PL what.ACC  
 ‘John knows where we will find what.’

<sup>22</sup> However, the picture is more complicated, as there are restrictions that regulate the order of *wh*-elements, especially when adverbial *wh*-phrases are involved. *Wh*-adverbs like ‘when’ (*pote*), ‘how’ (*pos*) and ‘why’ (*jati*) are not allowed in situ. Similar restrictions have been repeatedly noted to hold for other languages as well. This phenomenon can be due to purely semantic reasons, as suggested by Reinhart (1998), who argues that adverbial *wh*-phrases are not interpretable in situ via choice functions. Superiority and semantic interpretation of Greek multiple questions need to be investigated further in future research.

<sup>23</sup> For similar observations about the readings of long-distance multiple questions in English, see Dayal (2002).

According to the analysis defended here, the wide scope reading arises from a construction where the *in situ wh*-element (*ti*) is focused. The narrow reading arises when the fronted *wh*-element (*pjos*) is focused. The outcome in this case, is a multiple question embedded under a single *wh*-question. Note also that there are two different prosodic contours, corresponding to the two constructions under discussion. In each case, the main stress of the sentence falls on the focused constituent, namely the fronted (*pjos*) or the *in situ* (*ti*) *wh*-element. If this line of reasoning is correct, the ambiguity of (48) finds a straightforward explanation.

In conclusion, the analysis proposed for short-distance multiple questions can be directly extended to long-distance multiple questions. In the following section, I review and dismiss two alternative analyses for multiple questions.

### 7. Alternative analyses

The idea that the *in situ wh*-phrase only apparently resides *in situ* has been previously proposed for a variety of languages. There are two alternative analyses that could be argued as applicable to the Greek data. The first is the multiple *wh*-topics analysis, proposed by Grohmann (2000, 2003, 2006) to account for German multiple questions. The second is the remnant movement analysis, proposed to account for *in situ* questions in a number of Romance languages. In this final section of the paper, I will argue that neither of these analyses can be extended to Greek.

#### 7.1. The multiple *wh*-topics analysis

According to Grohmann's (2000, 2003, 2006) analysis, German is a multiple *wh*-fronting language, much like Bulgarian and the other languages of this category (see section 1). In German multiple questions, all *wh*-elements are *wh*-topics (i.e. d-linked<sup>24</sup>) and move overtly to the left (articulated) periphery of the clause.

More specifically, the use of multiple questions in German is regulated by the "Discourse-Restricted Quantification", which is stated as follows:

(50) *Discourse Restricted Quantification* (Grohmann 2000:269): Questions involving two *wh*-expressions are well-formed if the value of both *wh*-expressions is determined by the context; determination of values is satisfied by providing a set of at least two possible referents in the discourse.

What (50) says is that all *wh*-phrases in a German multiple question must be d(iscourse)-linked. However, this felicity condition is not operative in Greek, as shown by (51):

- (51) A: Sto collegio tha didaksoun o X, o Y ke o Z.  
 at-the college.ACC will teach.3RD.PL the X.NOM, the Y.NOM and the Z.NOM  
 'X, Y and Z will teach at the college.'  
 B: Pjos tha didaksi ti?  
 who.NOM will teach.3RD.SG what.ACC  
 'Who will teach what?'

<sup>24</sup> For the notion of d-linking, see Pesetsky (1987).

- A: O X tha didaksi sidaksi, o Y fonologia ke o  
 the X.NOM will teach.3RD.SG syntax.ACC the Y.NOM phonology.ACC and the  
 Z morfologia.  
 Z.NOM morphology.ACC  
 ‘X will teach syntax, Y (will teach) phonology and Z (will teach) morphology.’

The use of the multiple question ‘Who will teach what?’ is felicitous in this context, even though the in situ *wh*-object (*ti*) is not d-linked. Thus, it is not the case that all *wh*-elements in Greek multiple questions are necessarily *wh*-topics, as proposed by Grohmann for German. For this reason, it would not be plausible to suggest that *wh*-in situ moves to a left-peripheral topic position in Greek.

Furthermore, there are purely syntactic arguments against the multiple *wh*-topics analysis. Given that the verb raises only as far as T in Greek *wh*-interrogatives (see the references cited in section 2), there can be no way for *wh*-in situ to move to any position in the left periphery of the clause. Grohmann’s account thus leads to the false prediction that *wh*-in situ has to surface to the left of the inflected verb. Moreover, in multiple questions with periphrastic verbs, *wh*-in situ follows both the inflected auxiliary and the participle, which is lower than T.<sup>25</sup> Consider the contrast between (52a) and (52b) from German:

- (52) a. Pjos exi kalesi pjon?  
 who.NOM have.3RD.SG invited who.ACC  
 ‘Who has invited whom?’  
 b. Wer hat wen eingeladen?  
 who.NOM have.3RD.SG who.ACC invited  
 ‘Who invited whom?’

Finally, as argued by Lasnik & Stowell (1991), foci and topics differ in that only the first give rise to WCO effects. If this distinction is real, the fact that the Greek *wh*-in situ triggers WCO effects (see (40) above) shows that it cannot be a topic, as Grohmann’s analysis presumes.

To conclude this subsection, the Greek data cannot be accommodated under the multiple *wh*-topics analysis.

## 7.2. The remnant movement analysis

The remnant movement analysis has been proposed for in situ interrogatives in Romance languages (see Uribe-Etxebarria 2002, for Spanish; Ambar & Veloso 2001 for Portuguese, French, Hungarian and Tetum; Munaro et al. 2001; Poletto & Pollock 2004a, 2004b for French, Bellunese and Italian, among others). According to this analysis, *wh*-in situ moves overtly to the left periphery of the clause. This movement is followed by remnant TP-movement over the *wh*-phrase. For example, the in situ question in (53) is derived via the two steps shown in (54) (data from Reglero 2005:335):

- (53) [Y] Juan compró qué?  
 and John bought what?  
 ‘What did John buy?’

<sup>25</sup> For the syntactic position of the auxiliary and the participle, see Alexiadou (1997) and references cited therein.

- (54) a. [CP *qué*<sub>i</sub> [IP Juan compró *t*<sub>i</sub>]]            1st step: movement of *wh*-in situ  
 b. [XP [IP Juan compró *t*<sub>i</sub>]<sub>j</sub> [CP *qué* *t*<sub>j</sub>]]        2nd step: remnant TP-movement

An analysis along these lines can, in principle, be extended to multiple questions. On this approach, the derivation of the multiple question in (44) (repeated below) proceeds as shown in (55) and gives rise to the attested word order.

- (44) *Pjos agorase ti?*  
 who.NOM bought.3RD.SG what.ACC  
 ‘Who bought what?’

- (55) a. [CP *t*<sub>i</sub> [IP *pjos agorase t*<sub>i</sub>]]  
 b. [XP [IP *pjos agorase t*<sub>i</sub>]<sub>j</sub> [CP *t*<sub>i</sub> *t*<sub>j</sub>]]

One problem with this kind of approach is that it predicts that in situ *wh*-elements are not allowed within islands. This is confirmed by the ungrammatical (56) from Spanish (data and glosses from Munaro et al. 2001:157):

- (56) \**Ho-e da telefonarte invece de’ndar andé?*  
 have-I to phone you instead of going where?  
 ‘Where do I have to phone you instead of going?’

However, this prediction is not verified by the Greek data. Island effects, normally exhibited in single *wh*-questions with a fronted *wh*-element (see 57a), are obviated when the *wh*-element is left in situ, as in the long-distance multiple question in (57b):

- (57) a. \**Pjon<sub>i</sub> efige i Maria xoris na xeretisi t<sub>i</sub>?*  
 who<sub>i</sub>.ACC left.3RD.SG the Maria.NOM without to greet.3RD.SG  
 ‘Who<sub>i</sub> did Mary leave without greeting *t*<sub>i</sub>?’  
 b. *Pjos efige xoris na xeretisi pjon?*  
 who.NOM left.3RD.SG without to greet.3RD.SG who.ACC  
 ‘Who left without greeting whom?’

The grammaticality of (57b) is unexpected under the remnant movement analysis.

A second problem is posed by multiple questions with two in situ *wh*-phrases, like (58). The relevant derivational steps are illustrated in (59a) and (59b):

- (58) *Pjos edose ti se pjon?*  
 who.NOM gave.3RD.SG what.ACC to who.ACC  
 ‘Who gave what to whom?’

- (59) a. [CP *t*<sub>i</sub> se *pjon*<sub>j</sub> [IP *pjos edose t*<sub>i</sub> *t*<sub>j</sub>]]  
 b. [XP [IP *pjos edose t*<sub>i</sub> *t*<sub>j</sub>]<sub>k</sub> [CP *t*<sub>i</sub> se *pjon*<sub>j</sub>]]

Under the assumption that every derivational step has to be legitimate, (59a) requires that multiple *wh*-fronting is allowed in Greek, as in Bulgarian-type languages. This, of course, is not the case (recall the ungrammatical (6b) from section 1).<sup>26</sup>

<sup>26</sup> For similar arguments against the remnant movement analysis of Spanish *wh*-in situ see Reglero (2005).

A third problem arises when the word order facts observed in section 2 are taken into consideration. The remnant movement analysis predicts that *wh*-in situ normally surfaces in sentence final position.<sup>27</sup> This is certainly not the case with the Greek multiple questions, where *wh*-in situ precedes vP-internal constituents.<sup>28</sup>

To conclude, there is strong evidence that neither the multiple *wh*-topics analysis nor the remnant movement analysis fare well with respect to the Greek data.

### 8. Summary

In this paper, the word order exhibited by the Greek multiple questions has been examined. It has been observed that *wh*-in situ precedes other vP-internal constituents in these constructions. Building on the well-known similarities between CP-peripheral focus and *wh*-constructions, I have aimed to analyze multiple questions as focus constructions. First, I have argued that clause-internal focus constructions involve a low focus position. Subsequently, I proposed that *wh*-in situ moves to this clause-internal focus position, due to its focal status. Finally, I have shown that alternative analyses, such as the multiple *wh*-topics and the remnant movement analysis, cannot adequately account for the Greek data.

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<sup>27</sup> See the “Sentence Final Requirement” proposed by Uribe-Etxebarria (2002) to account for the word order of in situ *wh*-questions in Spanish.

<sup>28</sup> Under the remnant movement analysis, the attested word orders can be derived, if the constituents following *wh*-in situ undergo movement before the application of remnant movement. See the relevant discussion with respect to clause-internal focus constructions in section 4.2.

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