On the left periphery

Modal particles and complementisers[*]

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The purpose of this paper is twofold: first, to provide a unified account of the particles *θa, na* and *as* in Greek, and second, to refine the articulated CP structure of Rizzi (1997). To this end, it is argued that *θa, na*, and *as* occupy the lower C head, which is specified for modality. The particles *na* and *as* further raise to a higher C head (partly similar to Rizzi's Force), thus differing from *θa*. The distribution of topic and focus in relation to the particles and the typical complementisers *oti* and *an* is used as evidence for the postulation of an additional C head characterised as a subordinator/connector, typically occupied by the complementiser *pu* and optionally by *oti* and *an*. The resulting structure differs from Rizzi's (1997) in that it provides a tripartite C structure and places FocusP/TopicP between the two higher C heads. In the light of this analysis we also consider the position of negation, as well as the position of the verb in imperatives and gerunds.

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1. Introduction

Modern Greek (henceforth Greek) makes use of a number of modal particles, such as *θa, na*, and *as*. The particle *θa* is characterised as the future marker and along with the verb gives rise to a periphrastic future construction. The particle *na* has been analysed as the subjunctive marker (Veloudis & Philippaki Warburton 1983), while *as* is a hortative particle restricted to direct speech, thus found in root contexts only. Despite their different functions in the clause

structure, these particles show a similar distribution. In particular, they precede clitics and can take 'dependent' (−past, +perfective) verbal forms. The distribution of *θa, na*, and *as* is illustrated in (1) below:

(1) a. Νομίζω   ότι δεν θα   το αγοράσει.
        nomizo   [oti δen *θa*   to aγorasi]
        think-1SG that not PART it buy-3SG
        'I think that she will not buy it.'

   b. Αναρωτιέμαι αν θα   το αγοράσει.
        anarotjeme [an *θa*   to aγorasi]
        wonder-1SG if PART it buy-3SG
        'I wonder if/whether she will buy it.'

   c. Θέλει   (*ότι/*αν) να   μην το αγοράσει.
        θeli   [(*oti/*an) *na*   min to aγorasi]
        want-3SG   that/if   PART not it buy-3SG
        'She wants (him/her) not to buy it.'

   d. Ας   (μην) το αγοράσει.
        as   (min) to aγorasi
        PART not it buy-3SG
        'Let her (not) buy it.'

At the same time, these particles also exhibit a number of distinct properties, as the examples in (1) show. First, *θa*, unlike *na* and *as*, follows negation. Second, the negator used with *θa* is *δen*, while that used with *na/as* is *min*. In fact, *min* is only found with these two particles, negated imperatives and gerunds (see Section 4); the negator *δen*, on the other hand, is used in all the other contexts. Finally, *θa* is compatible with the complementisers *oti* and *an*, while *na* isn't (this of course does not apply to *as*).

The position of these particles in the clause structure is an open issue. Rivero (1994) argues that both *na* and *θa* occupy the head of a Modal Phrase (MP) situated in the IP domain below NegP and above TP, as in (2) (see also Drachman (1994), for the same claim, following different assumptions):

(2)   [$_{CP}$ C [$_{NegP}$ δen/min [$_{MP}$ na/θa [$_{TP}$ T…]]]]

The order *na min* is derived by movement of *na* to Neg. The same could apply to *as*. The structure in (2) accounts for the fact that the particles *θa* and *na* have to some extent a similar distribution. Rivero (1994) further supports her analysis by considering other Balkan languages, which also use future and/or subjunctive particles. Let us refer to the representation in (2) as Analysis 1. One problematic

aspect of this approach is why *na* only has to move to Neg. There seems to be no obvious difference between the two negative elements, that is neither *min* nor *δen* are clitics: for example, they can both bear emphatic stress (cf. na *min* fijis = don't go, an *δen* fijis = if you don't go) (but see Joseph (1990) for the view that *δen* is an affix). Moreover, *min* can appear without *na*, as is the case with negative orders (min fijis = don't go!) and gerunds (see Section 4). Thus if *na* moved to support *min*, then the question is what supports *min* in the absence of *na*.

Philippaki-Warburton (1992, 1994, 1998), following earlier work on *na* by Veloudis & Philippaki-Warburton (1983), Philippaki-Warburton & Veloudis (1984), argues that *na* is in MoodP, while *θa* is the head of a phrase that marks future tense. In Philippaki-Warburton's analysis, MoodP is above NegP, which dominates the *θa* projection, indicated as TP in (3) (see also Pollock (1997) for this order):[1]

(3) $[_{CP}$ C $[_{MoodP}$ na $[_{NegP}$ δen/min $[_{TP}$ θa …]]]]

TP is followed by the projections that host the object clitics. The head Mood is specified as ±Indicative. The subjunctive particle *na* realises the −indicative value. The +indicative specification however, receives no overt realisation in Greek. The −indicative specification selects for Neg *min*, while +indicative selects for *δen*. Since the particle *θa* occurs with *δen*, the Mood head is +indicative, therefore *na* is excluded. Moreover, given this specification, Mood is realised by a zero morpheme; thus *θa* cannot be a mood marker itself. Let us refer to (3) as Analysis 2. This approach avoids the problem raised with respect to Analysis 1, namely *na* raising to Neg in order to get the *na min* order, since *na* is above NegP anyway. What is problematic in (3) though is the treatment of *θa* as a T (future) head. Notice that *θa* may occur in clauses that exclude the future interpretation, as in (4a-c):

(4)   a.   Θα   καθάρισε   το σπίτι
           θa   kaθarise   to spiti   (kaθarise = +past, +perf.)
           PART cleaned-3SG the house
           'He must have cleaned the house'
      b.   Θα   καθάριζε   το σπίτι
           θa   kaθarize   to spiti   (kaθarize = +past, −perf.)
           PART cleaned-3SG the house
           'He was supposed to/would have cleaned the house.'

    c.   Θα   καθαρίζει το σπίτι
          θa   kaθarizi to spiti   (kaθarizi = −past, −perf.)
          PART clean-3SG the house
          'He must be cleaning the house/He will be cleaning the house'
    d.   Θα   καθαρίσει το σπίτι
          θa   kaθarisi   to spiti   (kaθarisi = −past, +perf.)
          PART clean-3SG the house
          'He will clean the house'

As the English glosses show, the combination of *θa* with +past tense specification in (4a&b) blocks any future interpretation. Instead, (4a) has an epistemic reading and (4b) is a counterfactual. (4c), on the other hand, has a preferred epistemic reading, although the future interpretation is possible given the right context: for example, by adding the adverbial expression 'tomorrow'. It is only (4d) that has a clear future reading (Tsangalidis 1999a: 212). As the above examples show, *θa* cannot be simply analysed as a future marker, since it occurs in a number of modalised, non-future contexts. The different interpretations that arise crucially depend on the verbal specification (±past, ±perfective).[2] Thus analysing *θa* as a T (or Future) head turns out to be problematic, while considering it a Modal head, along with *na* and *as*, as in Rivero's (1994) analysis may turn out to be more promising.

    The third approach put forward in the literature (Analysis 3) takes *na* to be a complementiser. The relevant clause structure is given in (5) (Agouraki 1991; Tsoulas 1993):

(5) $[_{CP}$ na $[_{NegP}$ δen/min $[_{TP}$ T…$]]]$

The treatment of *na* as a C element accounts for its incompatibility with *oti/an* (cf. (1c)), as both sets of heads introduce complement clauses. Moreover, it dispenses with the postulation of a MoodP, assuming that *θa* is a T head, although its status is not very clear in this approach. The problem with (5) is that *na* may cooccur with a wh-phrase in matrix and embedded interrogatives, as in (6a&b), or the complementiser *pu* in relatives, as in (6c):

(6)   a.   Ποιο βιβλίο να   διαβάσω;
             pjo   vivlio na   δjavaso
             which book PART read-1SG
             'Which book should I read?'

    b.   Δεν ξέρω   ποιο βιβλίο να   διαβάσω
         δen ksero   [pjo vivlio na   δjavaso]
         not know-1sG which book PART read-1sG
         'I don't know which book to read'

    c.   Θέλω   ένα σπίτι που να   έχει   μεγάλο κήπο
         θelo   ena spiti [pu na   exi   meɣalo kipo]
         want-1sG a   house that PART have-3sG big   garden
         'I want a house that has a big garden'

Even if we assume that the wh-phrase in spec,CP in (6a&b) does not violate the 'Doubly-filled Comp Filter', on the assumption that *na*, unlike *oti/an*, is not specified for the ±wh-feature, we still have to account for (6c). One way to accommodate *pu* and *na* in relatives is to invoke CP-recursion, so that *pu* realises the higher C and *na* the lower one (cf. also Philippaki-Warburton 1992, 1994). This solution would have to be restricted to *pu* though for reasons that need to be clarified.

    Another potential problem for (5) is the presence of *na* in matrix clauses, given that in Greek typical complementisers are restricted to embedded contexts only. Perhaps this is also due to the underspecification of *na* with respect to the ±wh feature, but it's difficult at this point to see how this property can be further exploited. What seems to be relevant though is the fact that a matrix *na*-clause always carries a modal reading, as shown in (7) and also (6a) above (cf. Rouchota 1991):

  (7) a.   Να   έφυγε;
         na   efije
         PART left-3sG
         'Can it be the case that she left?'

      b.   Να   δουλεύεις λιγότερο
         na   δulevis   liɣotero
         PART work-2sG less
         'You should work less'

      c.   Να   έφευγε!
         na   efevje
         PART left-3sG
         'I wish she left!'

The examples in (7) show that the presence of *na* in matrix clauses yields a number of different modal readings. Notice that the verb in (7a) is inflected for +past, +perfective and the reading is epistemic; in (7c) it is +past, −perfective

and corresponds to an optative (an unrealised event). Finally, in (7b) it is −past, −perfect and has an imperative reading (suggesting, advising, prohibiting, etc.). It is interesting to compare the readings in (7) with those in (4) with the particle *θa*. Once again, the similarities between the two particles in terms of modality are evident. Thus, if we want to maintain the analysis of *na* as a C-element, then a few modifications may be required: for example, C could be taken as the head (also) specified for modality. If this is the case, then there is no clear reason why *θa* cannot be a C head as well. This approach, however, leaves the position of *oti/an* and their (in)compatibility with *θa* and *na* unaccounted for, at least in a system that makes use of a single C position.

To summarise the discussion so far, we see that analysis 1 accounts for the similarities between *na* and *θa*; analysis 2 accounts for their differences, as these are indicated by the choice and the position of Negation. Both analyses 1 and 2 take *na* and *θa* to be inflectional elements since MP/MoodP (and TP for *θa* in analysis 2) are in the IP domain. At the same time, the incompatibility of *na* with a lexical C (other than *pu*) is accounted for as follows: the 'subjunctive' C in Greek is realised as zero (although it may receive an overt realisation in the other Balkan languages (cf. Rivero 1994) and the data in Section 2 below). The implication is that C is also sensitive to Mood/Modality as the availability of distinct morphological realisations in these languages shows. Finally, analysis 3 accounts for the differences between *na* and *θa*, by taking *na* to be a C head like *oti/an*, while *θa* is an inflectional head. Each of the above approaches captures a different insight: for analysis 1 both *na* and *θa* are essentially modal particles, for analysis 2 *na* and *θa* differ, and for analysis 3 *na* shares some properties with *oti*. Ideally then we would like to provide a unified account that combines all these insights.

The purpose of this paper is to show that this is indeed possible, provided we assume a more articulated C structure. To this end we adopt and adapt Rizzi's (1997) version of the left periphery and consider the properties of the C heads involved in the light of the modal particles *na/θa/as* in combination with typical complementisers, such as *oti* and *an*. In Section 2 we present and modify Rizzi's analysis and provide evidence for the C status of the modal particles. In Section 3 we consider the interaction of particles with topics and foci, and further modify the C-structure. In Section 4 we discuss the interaction of particles with verb movement and clitic placement, as in the case of imperatives and gerunds. Section 5 concludes the discussion.

2. The articulated C-structure and the position of modal particles

In this section we will provide evidence for treating *θa/na/as* as C heads, and in particular as modal elements realising the lower C in an articulated C-structure. The basic aim is to accommodate the insights of the analyses discussed in the preceding section, with the more general aim of offering a new approach to the C domain in Greek. We will start by summarising the main properties of these particles and arguing for their modal specification.

2.1 The particles as C heads

Recall from the discussion in the preceding section that the particles *θa/na/as* precede inflectional elements such as clitics (cf. (1)). Assuming that clitics attach to the highest I head (cf. Kayne 1989), then these particles will have to occur in a head above IP. Second, *θa/na/as* are morphologically invariant: they do not form (inflectional) paradigms. Their lack of any inflectional property can be taken as an indication that they do not occur in the IP domain, i.e. they cannot realise an inflectional head. If this is correct, then the MP of Rivero (1994) (and similarly the MoodP of Philippaki-Warburton (1992, 1994, 1998)) will have to be positioned above IP, that is in the CP domain.

Consider *na* first, which marks the subjunctive. The question is whether the subjunctive particle *na* is an inflectional element of the 'mood' paradigm. The answer seems to be negative, given that *na* does not inflect, as just mentioned above. Notice that mood is a property of verbal paradigms on the basis that it is morphologically realised on the verb (usually by different endings), as is the case of subjunctive morphology in Classical Greek and Latin (and in a more restricted fashion in Romance). Modality, on the other hand, is not tied to verbal forms, as it can also be expressed by means of particles, a distinct class of verbs (as in English), or adverbs (Palmer 1986).[3] Similar arguments extend to *θa* which gives rise to a periphrastic future. In other words, the question is whether *θa* is a Tense (Future) head, on a par with the synthetic future of Classical Greek and Latin for example, which show future inflection on the verb. Once again, the fact that *θa* does not inflect and most crucially does not necessarily mark futurity (cf. the examples in (4)) argues against its status as a T (or Future) head. The same argument based on the lack of inflection holds for *as*, which has actually been considered less problematic and for that reason has received less attention in the literature.

The next point has to do with the fact that all three particles subcategorise for all possible inflected verbal forms along the ±past, ±perfective specifications. As shown in (4) and (7) in Section 1, the various readings that arise are the by-product of the individual particle and the tense and aspectual properties of the verb (cf. Tsangalidis 1999b). Thus based on these facts, we can conclude that *θa/na/as* are modal particles, therefore agreeing with Rivero (1994). However, given that they are arguably non-inflectional, the MP in (2) will have to be situated above IP, namely in the CP-domain. In other words, MP is a C-related projection. The same holds for the MoodP of analysis 2. If this is correct, then we have placed not only *na* but also *θa* and *as* in the C domain, somehow extending analysis 3 to all the particles under consideration.

Assuming that this is a desirable outcome, we have to account for the following: if *θa/na/as* are in C, what is the syntactic position of the typical complementisers like *oti/an* (and *pu*)? More crucially, how do *θa/na/as* differ from *oti/an*? Notice that this problem arises only if we assume that there is a single C head. However, it has been argued in the literature that the C domain also contains a FocusP that hosts focus and/or wh-phrases (cf. Brody 1990 on Hungarian, Agouraki 1990 and Tsimpli 1990 on Greek, and the collection of papers in Kiss 1995). Furthermore, the availability of strings of complementisers in some languages, such as *of da* (*if that*) in West Flemish (Haegeman 1992) and Dutch (Zwart 1993), has been accounted for in terms of CP-recursion, as in Vikner's (1995) analysis (on CP-recursion see also Rizzi & Roberts 1989; Authier 1992). More recently, Rizzi (1997) has argued that C splits into two basic heads. The higher C carries clause-typing properties, called the 'Force' of the clause, while the lower one carries information about Finiteness. Force and Fin can be separated by the interpolation of topics and foci, as shown in (8):

(8)   [Force [Topic/Focus [Fin [IP …]]]]

Topics can appear on either side of Focus. Thus there are essentially two basic C heads, namely Force and Fin, while the CP domain consists of (at least) four distinct projections: Force-Topic-Focus-(Topic-)Fin.

Notice that Finiteness is a cover term that subsumes a cluster of properties. As Rizzi (1997) points out, finite forms can be specified for tense, agreement, mood, etc., while non-finite forms generally lack these specifications.[4] Mood, tense, agreement and aspect are inflectional properties associated with verbal paradigms. Any of these properties can also be morphologically realised on (the lower) C, hence its characterisation as Fin.[5] The term Fin, however, does not express the feature content of C, since it is not a distinct feature. On the

other hand, modality is. Thus identifying the lower C as a Modal head allows us to capture the interaction of modality with the properties expressed in the IP domain. At the same time the availability of modal particles in languages like Greek offers empirical support for this characterisation. We thus take Fin to correspond to a Modal head, i.e. C_M. Consequently the head that the Greek particles *θa/na/as* realise is C_M and corresponds to Rizzi's (1997) Fin position in (8).

Let us next consider Force in (8), leaving Topic and Focus aside for the time being. If *θa/na/as* are in C_M (Fin in (8)), then *oti/an* will have to occur in Force. The Cs *oti* and *an* mark the clause as an embedded declarative and interrogative respectively.[6] Thus Force is the head that corresponds to clause-typing operators. Given that 'Force' is a pragmatic notion, we will call the higher C an Operator position, i.e. C_{Op}, following the terminology of Manzini & Savoia (1999).[7] The CP domain in Greek has the (preliminary) structure in (9) (we leave aside *pu*, but we will get back to it in the following section):

(9) $[_{COp}$ *oti/an* $[_{CM}$ *θa/na/as* $[_I$ cl+V$]]]$

Thus the lower C position is occupied by the modal particles, while the higher one by typical complementisers.

Given the representation in (9) we have to assume that when *na* (and *as* for that matter) is present, C_{Op} is realised as zero (cf. analyses 1 and 2 in Section 1). There are a couple of points that need to be clarified in relation to (9). In particular, we need to account for the position of negation, which precedes *θa*, but follows *na* and *as*. Moreover, we still need to express the important insight of Philippaki-Warburton's (1992, 1998) account (analysis 2), which distinguishes *θa* from *na* (and *as*). The structure in (9) as it stands cannot capture this difference since it assigns the same position to the particles under question. We next turn to a refinement of the basic structure in (9).

2.2   *Na* vs. *θa*, and the position of negation

Recall that negation precedes *θa*, but follows *na/as*. Suppose that there are two NegPs available in Greek: the higher one (*δen*) is situated between the two Cs, while the lower one (*min*) is in the IP domain, preceding clitics. If this is correct, then (9) is modified as in (10):

(10) $[_{COp}$ *oti/an* $[_{Neg1}$ *δen* $[_{CM}$ *θa/na/as* $[_{Neg2}$ *min* $[_I$ cl+V$]]]]]$

Descriptively, (10) gives us the right results, namely the order *δen θa* and *na min*. However, it fails to express the insight that the choice of the different negative

elements in Greek correlates with 'mood' distinctions, so that *δen* occurs with the indicative, while *min* with the non-indicative (cf. Philippaki-Warburton 1994; Tsimpli & Roussou 1996).[8] In this respect, postulating one NegP in the CP domain where the clause-typing/modal properties of the sentence are represented, and another one in the IP domain, especially when the latter is clearly sensitive to modality, seems to be counterintuitive. Ideally then we would like to have a single NegP in Greek. Given that both negators are sensitive to the properties of the C system, as their interaction with the modal particles shows, it seems reasonable to postulate a NegP in the C domain, and in particular in the position between the two C heads, that is where Neg1 appears in (10).

As already mentioned, the presence of NegP in (10) in the C system yields the right order with *δen*, i.e. *oti/an δen θa* + clitic-V, but the wrong order with *min*, i.e. **min na/as* + clitic-V. The problem is solved if *na* (and *as*) raises to C_{Op} (head movement), thus yielding the desired *na min* order. Evidence for this type of movement comes from the presence of *na* and *as* in conditionals:

(11) a. Να / αν το ήξερα,   θα   σε βοηθούσα
        na / an to iksera   θa   se voiθusa
        PART if it knew-1SG PART you helped-1SG
        'If I had known it, I would have helped you'

    b. Ας / αν μου το έλεγες   (και) θα   σε βοηθούσα
        as / an mu to eleɣes   (ke)[9] θa   se voiθusa
        PART if me it said-2SG and PART you helped-1SG
        'If you had said it to me, I would have helped you'

    c. Had/*if I known it, I would have helped you.

As the examples in (11) show when the complementiser *an* is present (see note 6) *na* and *as* are excluded. The complementary distribution of *an* and *na/as* in conditionals is reminiscent of I-to-C movement in counterfactuals in English, which is blocked when *if* is present, as in (11c). Unlike English though, *na/as*-conditionals are not restricted to counterfactuals. The data in (11) then provide independent evidence for *na/as*-raising to the higher C. Under this approach, *na* (and similarly *as*) is the spell-out of both a modal and a clause-typing operator feature. This is a desirable result for a number of reasons: first, we derive the right order with respect to negation. Second, we account for the complementary distribution of *na* with *θa*, as well as with *oti/an*, since *na/as* moves from C_M to C_{Op}.[10] This way, we can formally express the distinct properties of *na/as* in relation to *θa* for example, since the former spells-out two C heads. The structure in (10) is thus modified as in (12):

(12) $[_{C_{Op}}$ *oti/an/na/as* $[_{Neg}$ *δen/min* $[_{CM}$ *θa/t$_{na/as}$* $[_I$ cl + V…$]]]]]$

The representation in (12) captures the insights of all three approaches discussed in Section 1. By having *na* (and *as*) generated in C_M we capture the similarities with *θa* (analysis 1); by raising it to C_{Op} we capture the differences with *θa* (analysis 2) and the similarities with *oti/an* (analysis 3).[11]

Before leaving this section, it is worth mentioning the other Balkan languages, which make use of a 'subjunctive' C, as illustrated in (13) below (from Rivero 1994:67). This is done for purely typological reasons, as their particular properties will not be discussed any further in the present paper:

(13) a. Dua   [që Brixhida të   kendojë]   (Albanian)
          want-1SG that Brigitte PART sing-3SG
          'I want Brigitte to sing'
      b. Vrea   [ca Petru să   citeascã]   (Rumanian)
          want-1SG that Peter PART read-3SG
          'I want Peter to read'

The modal particle *të* may cooccur with the C *që* in Albanian, and the modal particle *sã* with the C *ca* in Rumanian. The corresponding indicative complementisers *se* and *cã* are incompatible with the modal particles in (13), as expected. In Rivero's (1994) analysis the particles are in MP and the lexical complementisers in C (see also Motapanyane 1994 for Rumanian, Turano 1994 for Albanian, and Terzi 1992 for a general discussion). In terms of the present analysis, *të* and *sã* can be taken as the realisation of C_M, while *që* and *ca* are in C_{Op}. Notice that the complementisers *që* and *ca* are not obligatory. In other words, the embedded clauses in (13) can be directly introduced by the subjunctive particles, in a way similar to *na*-clauses in Greek. Extending the analysis of *na* to the constructions in (13) we take *të* and *sã* to raise to the higher C_{Op} head, in the absence of a lexical complementiser. Manzini & Savoia (1999) reach the same conclusion with respect to the subjunctive particle *të* in the Albanian Arbëresh dialect. The difference then between Greek and Albanian/Rumanian is that in the former the subjunctive particle *na* always raises to the highest C position, while in the latter, movement of the particle depends on the absence of a lexical C.[12]

Having provided the basic functional structure of the left periphery in Greek clauses, slightly modifying Rizzi's (1997) structure, we are in a position to consider topics and focalised elements. It will be shown that (12) has to be further modified (partially) to accommodate these elements. To this end we propose the postulation of one more C position.

3.   Topic, focus, and the refinement of the left periphery

3.1   Topic, focus and the *oti/na* asymmetry

In Rizzi's (1997) structure, illustrated in (8), TopicP and FocusP occur between Fin and Force, i.e. between the two basic C positions. Assuming that the Operator position in (12) corresponds to Force in (8), we expect Topic and Focus to occur below the higher C, i.e. to follow *oti/an/na* (and *as*). As the data below show, this prediction is borne out only partially (we illustrate this with *oti* and *na* only, bearing in mind that *an* and *as* behave like *oti* and *na* respectively):

(14) a.   Νομίζω   (τα μήλα) ότι   (τα μήλα) δεν θα   τα   φάει
            nomizo   (ta mila) oti   (ta mila) δen θa   ta   fai
            think-1SG the apples that the apples not PART them eat-3SG
            ο   Πέτρος
            o   petros
            the Peter

  b.   Νομίζω   (*τα μήλα*) ότι (*τα μήλα*) δεν θα   φάει   ο   Πέτρος
            nomizo   (*ta mila*) oti (*ta mila*) δen θa   fai   o   petros
            think-1SG the apples that the apples not PART eat-3SG the Peter
            'I think that Peter won't eat the apples'

(15) a.   Ελπίζω   τα μήλα να   (*τα μήλα) μην τα   φάει   ο
            elpizo   ta mila na   (*ta mila) min ta   fai   o
            hope-1SG the apples PART   the apples not them eat-3SG the
            Πέτρος
            petros
            Peter

  b.   Ελπίζω   *τα μήλα* να   (*τα μήλα*) μην τα   φάει   ο
            elpizo   *ta mila* na   (*ta mila*) min ta   fai   o
            hope-1SG the apples PART   the apples not PART eat-3SG the
            Πέτρος
            petros
            Peter
            'I hope that Peter won't eat the apples'

The examples in (14) and (15) show a clear contrast between *oti* and *na*-complements: while topic/focus can appear on either side of *oti* (and above negation), they have to precede *na*.

        There are at least two ways to account for the distribution of topicalised and focused elements in relation to *na* and *oti*. The first approach takes the structure

in (8), i.e. with Topic/Focus located between the two C positions, to be essentially correct. The question then is why this order is blocked when *na* is present. A possible answer is to attribute the ungrammaticality of (15) to a violation of Relativised Minimality: the presence of intervening material blocks movement of *na* from one C position to the next.[13] The reason why (14) is grammatical is then straightforward: *oti* is directly merged in the higher C, so there are no intervention effects by Topic/Focus. This is illustrated in (16a–b) below:

(16)   a. $^*[_{COp}$ na $[_{XP}$ Topic/Focus $[_{CM}$ t_{na} $[_{IP}$ …$]]]]]$
　　　b. $[_{COp}$ oti $[_{XP}$ Topic/Focus $[_{CM}$ $[_{IP}$ …$]]]]]$

Notice that (16a) only accounts for the ungrammatical versions of (15), namely why Topic/Focus cannot occur between *na* and the verbal complex. What it does not account for though is the grammatical versions of (15) and for that matter the availability of topic/focus preceding *oti* as well, as in (14).[14] In other words, (16a) predicts that there can be no focus/topic occurring in the left periphery of the *na*-clause, contrary to fact. Similarly, (16b) predicts that these elements can only follow *oti*, once again contrary to fact. It's worth pointing out that the problem clearly arises with respect to the position of Focus, which is supposed to have a rather fixed position in the left periphery, unlike Topic which projects more freely (cf. (8) and Rizzi's (1997) discussion). For this reason, we will consider Focus as a clearer diagnostic for the structure of the C-system.

The immediately preceding discussion seems to indicate that the structure in (16) has to be somehow revised so that it includes a position above C_{Op} that hosts Focus (and another one for Topic also), as indicated in (17) below:

(17)   [Topic/Focus $[C_{Op}$ [(Neg) $[C_M$ [… I …$]]]]]]$

(17) differs from (16) minimally with respect to the relative position of Focus (and Topic) and C_{Op}. The revised structure accounts for the ordering of focus with respect to *na* and also predicts that *oti* follows. However, it presents the reverse problem: it cannot account for the fact that focus (and topic) may follow *oti*, as shown in (14). Assuming that Focus at least has a fixed position, then the two different orderings between the focused element and *oti* will have to be derived in some other way. To be more precise, if FocusP does not project on either side of C_{Op}, then it must be *oti* that occurs in two different positions, yielding different orders. If this is correct, then (17) has to be modified as to provide a higher C position to which *oti* (and possibly *an*) moves, leaving Focus behind. Similarly, if *oti* does not move, Focus precedes. Postulating a higher C allows us to attribute the different orders in (14) to the movement of the

complementiser and not to that of the focused element, thus maintaining a single FocusP.[15]

The obvious question is whether there is any independent evidence for expanding the C structure along these lines. We discuss this issue in what follows.

3.2   Expanding the C structure

Recall that in Section 1 we discussed the cooccurrence of *na* with the C *pu*, as illustrated in (6c) repeated as (18a) below for ease of exposition. Interestingly, a focused or topicalised phrase can intervene between *pu* and *na* as in (18b) and (18c) respectively (cf. also Philippaki-Warburton 1992, 1994):

(18) a. Θέλω   ένα σπίτι που να   έχει   μεγάλο κήπο
          θelo   ena spiti [pu na   exi   meγalo kipo]
          want-1SG a house   that PART have-3SG big   garden
          'I want a house that has a big garden'

      b. Θέλουν   ένα βοηθό   (*ποτέ) που ποτέ να   μην αργεί
          θelun   ena voiθo   [(*pote) pu pote   na   min arγi].
          want-3PL an assistant never that never PART not be-late-3SG
          'They want an assistant who is never late'

      c. Θέλουν   ένα βοηθό   (*τα αγγλικά) που τα αγγλικά να
          θelun   ena voiθo   [(*ta aglika) pu ta aglika   na
          want-3PL an assistant the English   that the English PART
          τα   μιλάει   καλά
          ta   milai   kala].
          them speak-3SG well
          'They want an assistant who speaks English well'

Recall also that *na* is incompatible with any other C such as *oti* or *an*. As argued in Section 2, this is due to the fact that *na* moves to C$_{Op}$ and competes for this position with *oti/an* (cf. (12)). On the other hand, the compatibility of *na* with *pu* suggests that these elements occupy distinct heads, thus *pu* must occur in a different C. As the examples in (18b&c) show, focus and topic occur between *pu* and *na*, and crucially cannot precede *pu*. Based on this pattern, we can argue that *pu* occupies the highest position in the CP structure, which also precedes Focus.

For present purposes, let us take the highest C, realised by *pu* in (19), to have the properties of a subordinator: it connects the clause to some element of the higher clause (so that the former depends on the latter).[16] Given its connecting

properties we will simply refer to this head as C. In the light of the above data the structure in (12) is now modified as in (19) (final version):

(19) $[_C$ *pu* [Topic/Focus $[_{C_{Op}}$ *oti/an/na/as* $[_{Neg}$ *δen/min* $[_{CM}$ *θa/t$_{na/as}$*$[_I$ cl + V…]]]]]]

According to (19) there are three basic C positions each specified for different features. The higher C gives us 'subordination', the middle C clause-typing, and the lower C modality. NegP is situated between the lower two C heads, while Focus/Topic is situated between the two higher ones (for an alternative view of the clause structure in Greek see Drachman & Klidi (1992)).[17]

Let us now reconsider the examples in (14) and (15) on the basis of (19). So far we have argued that *oti/an* and *na/as* occupy C_{Op}, that is the middle C head. If Topic/Focus is above C_{Op}, then we derive the order topic/focus — *oti/an/ na/as* in a straightforward manner. The structure in (19) also accommodates the *oti/an*–focus (or topic) order, by allowing *oti/an*, but not *na/as*, to move to the highest C. In this case *oti* (and *an*) spells-out features for both clause-typing and subordination. Given though that this ordering is optional, we can further assume that spelling-out the highest C is optional, otherwise *oti* (and *an*) would also obligatorily precede Focus at least, as is the case with *pu*. The next question that arises concerns the optional character of this realisation. If it is syntactic, then we have to assume that the syntactic feature that triggers movement is optional. However, this approach is not compatible with recent minimalist assumptions. The alternative is to take *oti/an* to bear this feature optionally as part of their lexical specification in the following way: both morphemes are fully specified for clause-typing properties (e.g. declarative, interrogative) but optionally for subordination. Rizzi (1997) provides a similar account for the complementiser *that* in English, namely that it can be optionally +finite. The idea that *oti/an* can lexicalise the highest C predicts that they are incompatible with *pu* as is indeed the case. On the other hand, *na/as* spell-out features associated with modality and clause-typing operators. The compatibility of *na* with *pu* is derived on the basis that the latter is the realisation of the highest C only, while its incompatibility with *as* is due to the fact that *as* is restricted to direct speech.

The basic feature specification of *oti, an, na, as, θa* and *pu* is given in (20) below:

(20)   a.   *θa:*   modal
       b.   *na, as:*   modal, clause-typing
       c.   *oti, an:*   clause-typing, (subordinator)
       d.   *pu:*   subordinator

According to (20) *θa/na/as* share the modal property, *na/as/oti/an* share the clause-typing property, and finally, *oti/an/pu* share the subordinating property (see also Tsangalidis 2000). The complementiser *pu* is specified as a subordinator only, i.e. it is more 'specialised' than the other morphemes. The fact that it only occurs in relatives and certain complement clauses (factives) offers further support for this specification. Thus the articulated C-system in (19) provides us with a clear picture of the distribution of various C elements and their interaction with topic/focus.

As is clear from (19), the modification of Rizzi's (1997) system involves the addition of one extra C position, the postulation of Topic/Focus between the higher and the middle C heads, as well as the presence of (mood/modality-sensitive) NegP in the CP domain. Leaving negation aside, the revised structure in (19) essentially involves splitting the higher C, i.e. Force in Rizzi's system, into two heads (subordination and clause-typing). The interpolation of Focus/Topics still occurs between two C positions, albeit between the higher and the middle Cs. If the revised structure in (19) is not to be restricted to Greek, then we should at least consider some basic cases discussed by Rizzi (1997) and see if and how they fit in with this schema. Let us then take the following English examples as representative of the core cases:

(21) a. I think (that) John has left.
      b. Who do you think (*that) left?
      c. I think *(that) next year I'll go on holidays.
      d. [Force [Topic/Focus [Fin [… I …]]]]

In (21a) *that* alternates with C_0; in (21b) the C_0 variant is obligatory with subject extraction, while in (21c) *that* is obligatory with topicalisation. Rizzi (1997: 312) suggests the following specification for *that* and C_0:

(22) a. *that:*   +decl, (+fin)
      b. C_0:   (+decl), +fin, (+Agr)

According to (22) *that* obligatorily realises clause-typing, and the zero morpheme finiteness. In subject extraction, the zero form is selected as it can also realise agreement, thus voiding an ECP effect; *that* is incompatible with agreement as the ungrammaticality of (21b) shows. In this case C_0 spells-out both Force and Fin (+Agr). On the other hand, when TopicP projects the C system splits so that *that* spells-out Force and C_0 Fin. In other words, *that* cannot spell-out the lower C as well. In the neutral case (that is when neither of

the above is at stake), as in (21a), either of these two morphemes can be present, spelling-out Force and Fin.

In the tripartite C-system illustrated in (19) the only real modification concerns the role of the middle C. Assuming that Topic/Focus occurs between the two higher C positions (C and C_{Op}) the account of the data in (21) is slightly modified. Let us start with (21c) where *that* is obligatory and precedes the topicalised element. In this respect it is like *pu* and can be taken to occupy the highest C position. This is further supported by the fact that the preposed adverbial in (21c) cannot precede *that*, i.e. **I think next year that I'll go on holidays*. Consider next (21b), which involves subject extraction. The ungrammatical version of (21b) follows as in Rizzi's system: the presence of *that* (or its trace) in the lower C is incompatible with agreement. Thus we can take *that* to be a subordinator, which can spell-out the lower C positions as well. In movement terms, *that* starts in the lower C_M (Fin) and moves to C via C_{Op}.

A comparison with the Greek system may turn out to be useful: *that* differs from *oti* as it realises features of the lowest C and has to move to the highest C obligatorily. It differs from *pu* as the latter only carries features for subordination. Finally, it differs from *na* since it moves all the way up to C. In this respect, English *that* is a less-specialised morpheme than *oti*, *na*, or *pu* in Greek, given that it can spell-out all three positions. Notice also that it introduces relative clauses, while Greek has a different C, namely *pu*. Consider next C_0, which is not available with topics, as (21c) shows. On this basis we can assume that C_0 can spell-out the two lower C heads (i.e. C_{Op} and C_M), but not the higher one. In other words, C_0 is more specialised than *that*. The question is how or why it is available in (21a). The problem is solved, if we assume that in the absence of *that*, the zero morpheme spells-out all three positions as a last resort. In general then we expect that those complementisers that (obligatorily) precede focus (and topic) occur in the highest C position (i.e. they are lexically specified as subordinators). Whether they also realise the features of the lower C heads depends on their further lexical specification. This rather sketchy analysis is meant to show how the tripartite C-structure can capture the relevant empirical facts, cross-linguistically. What makes the Greek C system more transparent is the availability of a larger number of specialised C elements.

Having presented the basic C positions, we next turn to their interaction with head movement in imperative and gerundive clauses.

4.   Imperatives, gerunds, and V-movement

So far we have presented evidence for an articulated C system in Greek, arguing that the modal particles *na, as* and *θa* are C elements. In this section we consider imperatives and gerunds and how they interact with the CP domain, to the extent that they do. These two constructions have also been discussed by Philippaki-Warburton (1992, 1994, 1998) and Rivero (1994) in connection with the modal particles. It thus seems appropriate to consider what the present analysis has to say about these cases. We will first start with imperatives and then move on to gerunds.

4.1   Imperatives

In Section 2 it was argued that Greek has no inflectional morphology for the subjunctive or the future, as these are formed periphrastically by means of the particles *na* and *θa* (plus the verb) respectively. The only inflectionally marked mood in Greek is the imperative, as in (23) (cf. Philippaki-Warburton 1994, 1998):

(23)   a.   γράφε   γράφετε
            γrafe   γrafete
            write-2sG   write-2PL
       b.   γράψε   γράψετε
            γrapse   γrapsete
            write-2sG   write-2PL

The imperative forms are restricted to second person singular and plural.[18] The verb also inflects for ±perfective, yielding the expected differences in interpretation. For example, (23a) has the −perfective stem, while (23b) is +perfective. Regarding tense, only the −past specification is possible.

   As mentioned in Section 1, the meanings associated with the imperative mood can also be expressed periphrastically by means of the particles *na* or *as* (extending to other persons as well) (cf. (1d) and (7b)). When the particle is used, the verb cannot take the imperative inflection. We illustrate this with particle *na*:

(24)   a.   να   γράφεις   να   γράψεις
            na   γrafis   na   γrapsis
            PART write-2sG   PART write-2sG

b. *να   γράφε   *να   γράψε
   *na   γrafe   *na   γrapse
   PART write-2SG   PART write-2SG

The contrast in (24) shows that there is indeed a morphological difference between the 'bare' imperative and the *na*-imperative (or 'surrogate' imperative in Rivero's (1994) terminology). Of course, there are pragmatic differences as well (cf. Rouchota 1991), which we will not discuss. Finally, imperative forms are restricted to root clauses only, as they are associated with direct speech. In embedded contexts the imperative takes the form of a *na*-clause:

(25) a. γράψε
      γraps-e
      write-2SG
      'Write!'

    b. Μου ζήτησε   να   γράψω
      mu   zitise   na   γraps-o
      me   asked-3SG PART write-1SG
      'She asked me to write'

Apart from the morphological (and pragmatic) differences between true and *na*-imperatives there are some syntactic ones as well. Recall that *na/as* precede clitics, which in turn precede the verb (proclisis). However, when the verb is in the imperative mood it precedes the clitic (enclisis). In this respect an imperative verb distributes like *na* as far as cliticisation is concerned, as shown in (26):

(26) a. Γράψε   το!
      γrapse   to
      write-2SG it
      'Write it!'

    b. *Το γράψε!
      *to γrapse
      it   write-2SG

    c. Να   το γράψεις!
      na   to γrapsis
      PART it write-2SG
      'Write it!/You should write it'

As the data in (24)–(26) show, the imperative and the particle *na* (and *as*) are in complementary distribution. It is then natural to assume that the particle and the verb compete for the same position. In fact, Philippaki-Warburton (1994,

1998) argues that the verb in this case raises to Mood, hence its incompatibility with *na*. It also moves past the clitic, triggering enclisis. Rivero (1994), on the other hand, argues that the verb raises all the way to C. It is not clear though why the verb cannot just move to the head of MP. This way the complementary distribution with *na* would be captured in a straightforward manner. Instead Rivero assumes that *na* cannot be present in this case because it would block V movement: *na* counts as an intervener (Minimality). In this case the verb cannot move to C and the 'surrogate' *na*-imperative has to be used. In terms of the present analysis, the modal particle *na* is a C head. The complementary distribution of imperatives and *na* is accounted for if the verb moves to the C position occupied by *na*. Let us assume for the time being that this is the lower C_M, i.e. the position that carries the features for modality.

Consider next negated imperatives, as in (27):

(27) a.   Να   μην το γράφεις/γράψεις!
            (na)   min to γrafis/γrapsis
            PART not   it write-2sg

      b. *μην/δεν γράφε/γράψε το!
           *min/δen γrafe/γrapse to
           not   write-2sg   it

The contrast in (27a) and (27b) shows that the imperative V cannot cooccur with negation. Instead the verbal form used with *na* is present in (27a), yielding proclisis. The particle *na* is optional (again the constructions with and without *na* have different pragmatics). If the verb moves to C in imperatives, then negation must block this movement. Both Rivero (1994) and Philippaki-Warburton (1994, 1998) argue that the Neg head blocks V-movement to C for the former, and to Mood for the latter. Thus negation yields a Relativised Minimality effect. Recall that for Rivero NegP is above MP in the IP domain, while for Philippaki-Warburton it is below MoodP, as in (28a) and (28b) respectively:

(28) a. $[_{CP}$ γrapse $[_{NegP}$ min $[_{MP}$ M $[_{TP/ArS}$ T/Agr $[_V t_V…]]]]]$
      b. $[_{CP}$ C $[_{MP}$ γrapse $[_{NegP}$ min $[_{TP/ArS}$ T/Agr $[_V t_V…]]]]]$

We can now see why Rivero (1994) has to assume that the imperative raises to C: if it moved up to M, then Negation wouldn't intervene, allowing for a negated imperative, contrary to fact. Philippaki-Warburton's (1994) analysis, however, does not face this problem, since it takes NegP to be situated below MP. Despite the different landing sites of the imperative V, both analyses rule out negated imperatives as an intervention effect.

Let us now see how our system handles this problem. Recall that NegP is in the C domain. Moreover, NegP dominates the C_M, as illustrated in (19) and repeated in (29) below:

(29) $[C_{Op} [Neg [C_M [I …]]]]$

If the imperative V moves to C_M, as suggested earlier on in the discussion, then we have 'Rivero's problem' in the sense that negation cannot intervene. We thus have to assume that the verb moves to C_{Op} in imperatives, predicting this way the blocking effect of the Neg head. This approach is in fact consistent with the complementary distribution of *na* and the imperative. Recall that, as argued in Section 2, *na* moves from C_M to C_{Op}. The same then holds for imperatives. This comes as no surprise if imperatives define a clause-type (see Lyons 1977 and note 7). When negation is present though, V-raising is blocked under Relativised Minimality. The unavailability of V-movement is reflected on the verbal form and on the position of clitics (proclisis). The particle *na* doesn't have to be present in this case. Manzini & Savoia (1999) in their discussion of negated imperatives in Arbëresh, argue that when the subjunctive particle is absent in negated imperatives, it is the negative particle itself that moves from Neg to C_{Op}, providing C_{Op} with a realisation. The same account can then hold of the negated imperatives in Greek: *min* raises to C_{Op} when *na* is absent. If this is correct, then *min* can be optionally specified for the Operator feature as well.[19]

Before we leave this section, there is one further point that we need to consider regarding *na*- and V-movement. It's been argued that Neg blocks V-raising to a higher C head. At the same time, we have argued that *na* raises from C_M to C_{Op} and that NegP is situated between these two projections, as shown in (29) above. The question that arises is why Negation does not block *na*-movement as well (cf. note 13). Alternatively, why Neg only blocks V-movement. If Neg counts as an intervener, then we would expect it to block any kind of head movement. The answer to the problem requires a clarification of what we consider the nature of movement to be. So far in our discussion, we have argued that *na* moves from C_M to C_{Op}. We also showed that it spells-out two different features (clause-typing and modality), and that this is part of its lexical specification (cf. (20)). Thus movement is the case where a single lexical item spells-out (lexicalises) more than one syntactic features (cf. Roberts & Roussou 1999). Based on this, I will assume, following Manzini & Roussou (2000), that lexical items are directly merged in the position where they surface, from where they relate to other elements in the clause structure under the operation *Attract/Agree*, provided minimality is respected. In the light of this approach then, *na*

is directly merged in C_{Op} from where it attracts and spells-out the features of C_M as well. Let us next consider what happens when negation is present. According to what we've just said, *na* is merged in C_{Op} and *min* in Neg. In this case *min* is a closer attractor to C_M, and given that it is also specified for mood/modality it spells out the features of C_M as well. The particle *na* in C_{Op} becomes associated with C_M indirectly in this case, that is via *min*, which is in fact selected by *na*. Thus the result is grammatical and no minimality effect arises.

Consider next the case of imperatives. Following the same line of reasoning, the verb should be merged in C_{Op} from where it attracts the positions that typically constitute the V-chain, such as T and the lexical V position, as well as C_M, given that the verb is in the C-domain. In this case, the 'moved' verb spells-out features associated with its extended projection, i.e. those that occur in the I domain, as well as those associated with the C domain. Suppose next that the negation (*min*) is present, which as just said spells out both Neg and C_M. The question is whether V can spell-out the features of C_{Op} and C_M. The answer has to be negative, given the ungrammaticality of negated imperatives. Notice that at this point there has to be a choice between *min* and the verb, regarding the spell-out of these features. The former is a C element, specified for operator features, which interact with modality. The latter is a V-element that carries inflection and can realise C_{Op} in imperatives, provided there is no other lexical item (e.g. a particle) present that fulfils this role. Negation is such an element in this case, thus the derivation crashes when imperative V is merged, but converges with *min*. The minimality effect then reduces to a lexical choice between a more specialised vs. a less specialised lexical item.

To summarise the discussion so far: we have argued that the imperative V moves to the middle C head (C_{Op}). This movement accounts for its complementary distribution with *na* (and *as*) and the enclisis pattern. When negation is present, V-movement is blocked. In this case the imperative morphology is not available and the verb is realised in a position inside the I domain, following clitics. We next turn to the discussion of gerunds.

4.2   Gerunds

In the present section we will briefly consider the properties of gerunds in relation to the particles. The present discussion has a very restricted scope and does not aim at providing a full analysis of the distribution of gerunds and their related properties (but see Tsoulas (1996), and particularly Tsimpli (2000) for

more detailed accounts). Gerunds are formed by attaching the affix *-ondas* on the verbal stem, as shown in (30):

(30) a. γnoriz-ondas
    b. *γnoris-ondas
       'knowing'
    c. *na/as/θa* γnorizondas
    d. Γνωρίζοντας το πρόβλημα, αποφάσισε να   μείνει
       γnorizondas to provlima apofasise   na   mini
       knowing   the problem   decided-3sg PART stay-3sg
       'Knowing about the problem, she decided to stay'

The gerund cannot inflect for +perfective aspect, as the ungrammatical (30b) shows. Moreover, it cannot inflect for tense and agreement. In this respect it is a true non-finite form. (30c) shows that the gerund is not compatible with any modal particle. Finally, gerunds are restricted to adjunct positions and they carry an adverbial interpretation (cf. (30d)).

Gerunds precede clitics and are negated by *min*:

(31) a. Γνωρίζοντάς το, αποφάσισε να   μείνει
       γnorizondas to apofasise   na   mini
       knowing   it decided-3sg PART stay-3sg
       'Knowing about it, she decided to stay'
    b. Μην γνωρίζοντας το πρόβλημα, …
       min γnorizondas to provlima
       not knowing   the problem
       'Not knowing about the problem, …'

As (31) illustrates, the gerund, just like the imperative, triggers enclisis. It also takes the negator *min* associated with 'non-indicative' clauses. Rivero (1994) argues that *-ondas* is a modal head, and it attaches to V, by V raising to M. Given that NegP dominates MP (cf. (28a)), the order Neg-Gerund follows.[20] Thus while imperatives move to C, gerunds are realised in M. Gerunds are problematic for Philippaki-Warburton's analysis. If the gerundive affix is in Mood, then V-movement would leave the clitics in a lower I head, yielding enclisis as in imperatives. However, when negation is present V-movement should be blocked, given that Mood dominates Neg (cf. (28b)). Thus one would expect that gerunds, like imperatives, cannot be negated, contrary to fact. Faced with this problem, Philippaki-Warburton (1994) argues that the gerund moves to an inflectional position (T) lower than negation. Therefore Neg does not intervene.

On the other hand, the lack of any tense and agreement specification on the gerund blocks movement of the clitic from the VP-internal position to I, on the assumption that clitics attach on heads specified for agreement at least. Thus the enclisis pattern in this case is not due to V-movement to a head past the clitic, but due to absence of clitic movement to the relevant I head. This approach accounts for the properties of gerunds, but at the same time it does not draw any correlation between gerunds and the modal particles, in particular *na* (and *as*) despite the fact that they are both negated by *min*.

Let us now see how these facts are accommodated by the current approach. Given that negation *min* is possible, the gerund must be in a position lower than Neg. To be more precise, since NegP is situated between C_{Op} and C_M, the gerund cannot have moved to C_{Op}, otherwise we would have the same blocking effects that we have with imperatives. On the other hand, the gerund precedes clitics, exactly like the imperative. Thus it must have moved to a position higher than I, the head that hosts the clitic. The only possible candidate in this case is C_M. This captures the modal reading associated with gerunds, as well as their incompatibility with the modal particles, on the basis that the latter realise the lower C head (as well). Our approach then is in agreement with Rivero's (1994): the gerund is in the Modal head. The difference is of course that in the present analysis the Modal head is in the C domain. The structures in (32) illustrate the position of the gerund and the imperative in terms of the present analysis:

(32)   a. $[_{COp}$ [Neg $[_{CM}$ γnorizondas$[_I$ clitic…]]]]]
       b. $[_{COp}$ γrafe [(Neg) $[_{CM}$ [I clitic…]]]]]

Negation does not affect V-movement in the case of the gerund in (32a), but it does in the case of the imperative in (32b).[21]

In the present section we have considered the properties of the imperative and the gerund and have argued that the former moves to C_{Op}, while the latter moves to C_M. Both are instances of V-movement to the C domain. Given the different positions targeted in each instance of movement, Negation has a blocking effect only in the case of imperatives. In this case the verb cannot move to C and remains within the I domain following the clitic.

5.   Conclusion

In the present paper I considered the distribution of the particles *na, θa,* and *as,* arguing for their analysis as modal particles that occur in the C domain.

In particular, it was argued that *na/as* spell-out features associated with the lower two C heads, such as C_{Op} and C_M, while *θa* only spells-out C_M. The typical complementisers *oti* and *an* spell-out C_{Op}, and optionally the highest C head (subordination), while *pu* realises the highest C only. The positions for Focus (and Topic) were postulated between the two higher C heads. This analysis enriches Rizzi's (1997) structure by adding another C head and further modifies it by locating Focus (and Topic) higher up in the articulated C system. Finally, we considered the position of the verb in imperatives and gerunds. It was argued that imperative V is in C_{Op}, unless negation is present, while the gerundive V is in the lower C head, namely C_M.

Notes

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1. To be more precise, Philippaki-Warburton (1992, 1994, 1998) calls this projection FutureP and distinguishes it from TP, thus allowing for the possibility of *θa* being followed by a +past verb, as in (4a&b) in the text. Tsimpli (1990) also argues that *na* is the head of MoodP, while *θa* is in T, but in her analysis MoodP is only projected when *na* is present. See Tsangalidis (1999a, b) and the text that follows for criticisms.

2. Grammatical aspect in Greek is marked on the verbal stem in one of the following ways by: (a) adding *-s-*: *aku-o > aku-s-o* (to hear); (b) changes on the thematic vowel: *men-o > min-o* (to stay); (c) both *-s* and changes on the thematic vowel: *δin-o > δo-s-o* (to give), or (d) by suppletion: *troo > fao* (to eat).

3. In this respect we take the standard view that 'mood' is the grammaticalisation of modality on the verb (cf. Lyons 1977, Palmer 1986, Giorgi & Pianesi 1997, a.o.).

4. This is not meant to imply that non-finite forms lack all these properties. For example, inflected infinitives in European Portuguese show agreement, but no tense.

5. In languages like Greek the +/−finite distinction barely holds, as there are no infinitives. This is a general characteristic of the Balkan languages (cf. Joseph 1983). *Na*-clauses subsume the functions of the subjunctive and optative moods as well as of the infinitive. The verb in the *na*-construction is fully inflected for agreement, aspect and tense, as shown in (7). So *na*-clauses cannot be treated as infinitives. Moreover, the fact that they carry tense specification distinguishes them from inflected infinitives of the European Portuguese type. Thus morphologically, *na*-clauses are always finite, even when they have the distribution of non-finite forms.

6. The C *an* introduces the antecedent of conditionals as well, so it is more like *if* in English; *pu* is a marker of relativisation, but also introduces factive complements (cf. Christidis 1981,

Roussou 1994, Varlokosta 1994). It is worth pointing out that the 'dependent' verbal forms are also found with *an*, various temporal conjuctions such as *otan,* (when), *afou* (after), etc., and pronouns introducing free relatives such as *opjos(δipote)* (whoever), *opu(δipote)* (wherever), etc. The negator used in all these cases is *δen*.

7. Manzini & Savoia (1999) assume that C_{Op} is the locus of intensional operators. This is rather vague, as modal operators are also intensional. It makes more sense to consider C_{Op} as the position that determines whether a clause is an assertion (declarative), or an interrogative, or what Lyons (1977) calls a 'jussive' sentence (command). The operators in the two C positions are propositional and can be subsumed under the notion of veridicality, in the sense of Giannakidou (1998).

8. One of the reviewers mentions that the structure in (10) can be tricky for sentences with *na mi δen*, as in *Fovame na mi δen erθi* (I fear he may not come). I find this sentence with *na* present ungrammatical. On the other hand the sequence *mi δen* after a verb like *fear* is not problematic, given that *mi* is the reduced form of the complementiser *mipos* (lest) and not the negator *mi.*

9. The conjunction *ke* (*and*) is only possible when *as* is present, and not *an.*

10. Notice that *na* and *as* in conditionals retain their original meanings as modal particles. Conditionals with *an, na* and *as* have different pragmatics, as expected (see Christidis & Nikiforidou 1994).

11. On the affinity of the particles with the verbal complex see Philippaki-Warburton & Spyropoulos (1998).

12. The idea of particle raising is not new. Roussou (1994) argues that *na* moves from Mood/Modal to C. The same has been argued for Albanian (Turano 1994) and Rumanian (Motapanyane 1994). Notice that when there is no lexical C in (13) the subject cannot intervene between the subjunctive particle and the verb, exactly as is the case in *na*-clauses. For a discussion of the position of the subject in subjunctive complements in Rumanian, Bulgarian and Albanian see Motapanyane (1994).

13. Notice that, if this is correct, negation *min* should also block *na*-raising, contrary to fact. We discuss this point in section 4.1.

14. As a reviewer points out the ungrammatical versions of (15) could be attributed to the prosodic requirements of *na* which block the presence of any phrasal material between it and the verb (see also the reference in note 11). Even if we accept this approach, we still need to modify Rizzi's (1997) structure in such a way as to account for the grammatical versions of (15) with Topic/Focus preceding *na*.

15. On the interaction of focus and wh-phrases in embedded clauses see Tsimpli (1998). We will not consider this issue in the present paper.

16. In fact Rizzi (1997:328, note 6) suggests, citing Bhatt & Yoon (1991), that a tripartite split into Subordinator-Force-Fin is possible. Alexiadou (1997:74–78) argues, based on the distribution of adverbs in Greek, that the C domain has (at least) the following positions:

(i)   [$_{RelativeP}$ pu [$_{TopicP}$ [$_{FocusP}$ [$_{Wh/SubordinatorTypeP}$ oti [$_{TopicP}$ [$_{IP}$]]]]]]

Her structure only partly overlaps with the one suggested in (19). In particular, Alexiadou assumes that *θa* and *na* are situated in MP as in Rivero's (1994) analysis, thus they are not part of the CP structure. The problem with (i) is that it cannot account for the presence of focal/topicalised elements on either side of *oti*, unless we assume that FocusP can also project below the lower C and above IP, i.e. where TopicP is in (i).

17. One question that arises with respect to (19) is whether the highest C is available in root clauses as well. Perhaps the topmost C is not present in this case, as its role is to connect one clause to another, a property clearly lacking from root contexts (see Tsimpli (1995) for the idea that root clauses are more 'reduced' at this level). On the other hand, we could assume that the highest C is present and its role in this case is to connect the sentence to the discourse, e.g. to a previously mentioned topic (this could for example be the position of 'hanging topics'). It is worth pointing out that *pu*-clauses can occur in root contexts with a very marked interpretation (e.g. curses):

(i)   που να χαθείς!
      pu na xaθis!
      that PART get-lost-2SG
      "(I wish) that you may get lost!"

18. The ending for 2nd singular is *-e*. The segmentation for 2nd plural in (23) is not very straightforward. One could argue that the ending is *-ete*, which would make it identical to 2nd plural indicative. Brian Joseph (p.c.) suggests that the imperative ending is *-te*, as the *-e* part may be missing in some forms, e.g. *pes* (say-2SG), *pes-te* (say-2PL).

19. It is interesting to note that *min*, unlike *δen*, can stand on its own in prohibitions: *mi!* 'don't!' vs. *δen!* 'not!'. If *mi(n)* can also spell out the Operator feature, while *δen* cannot, this difference in their distribution is accounted for.

20. Not all gerunds are easily negated though. This perhaps has to do with their distribution (whether they are temporal or manner gerunds), in a way that has to be further defined.

21. Tsimpli (2000) argues that gerunds are truncated clauses that basically lack the T and C projections, but contain an Aspectual and a Mood head. In her analysis, the (temporal) gerund moves to the Mood head. This is consistent with the present proposal that takes the gerund to be in C_M. If we want to extend Tsimpli's analysis to the present system, we have to say that the higher two C heads (perhaps including Topic and Focus) are missing. Given that typical complementisers occupy these heads, then we correctly predict that they are missing in gerunds in line with Tsimpli's account.

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Περίληψη

Ο σκοπός αυτού του άρθρου είναι διττός: να δώσει μια ενιαία ανάλυση των μορίων *θα*, *να* και *ας* στα Νέα Ελληνικά και να επεκτείνει τη δομή τής Φράσης του ΣΔ που έχει προταθεί από τον Rizzi (1997). Υποστηρίζεται ότι τα *θα*, *να* και *ας* βρίσκονται στη χαμηλότερη κεφαλή του ΣΔ, η οποία φέρει τα χαρακτηριστικά τής Τροπικότητας. Τα μόρια *να* και *ας* μετακινούνται στην υψηλότερη κεφαλή ΣΔ (εν μέρει παρόμοια με την κεφαλή Force τού Rizzi) και μ'αυτό τον τρόπο διαφοροποιούνται απο το *θα*. Η εισαγωγή μιας επιπλέον κεφαλής ΣΔ βασίζεται στην κατανομή των φράσεων θεματοποίησης και εστίασης σε σχέση με τα μόρια και τους τυπικούς συμπληρωματικούς δείκτες *ότι* και *αν*. Η νέα αυτή κεφαλή χαρακτηρίζεται ως υποτακτικό/συνδετικό στοιχείο και πραγματώνεται λεξικά από το ΣΔ *που* και προαιρετικά από τα *ότι* και *αν*. Η καινούρια δομή διαφέρει από αυτή του Rizzi (1997) στο ότι έχει τρεις βασικές κεφαλές ΣΔ κι επιπλέον τοποθετεί τις φράσεις Θεματοποίησης και Εστίασης ανάμεσα στις δύο υψηλότερες κεφαλές ΣΔ. Οι θέσεις της Άρνησης και του ρήματος στην προστακτική και στα γερούνδια εξετάζονται μέσα στα πλαίσια αυτής της ανάλυσης.