

**Directionality of Cliticization:  
Comments on Mavrogiorgos’  
“C-T and the EPP: Deriving Enclisis in Modern Greek”**

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Modern Greek has variable clitic placement dependent on clause type. Mavrogiorgos attributes the relative order of clitic and verb to a difference in the height of verb movement, triggered by a difference in the position of a person feature in either the T- or the C-domain. I propose some modifications to his theory that sharpen his insight into the role of person, provide a more straightforward mapping from syntax to morphology and to prosodic structure, and strengthen the cross-linguistic predictions.

### 1. Introduction

A defining characteristic of clitics is their prosodic deficiency. Clitics have no independent accent and thus cannot form prosodic words on their own. Rather, they have to attach to a phonological host, typically itself a prosodic word, in structures such as (1).<sup>1</sup> Linearization with respect to the phonological host yields *proclisis* (1a) or *enclisis* (1b).

- (1) a. [*clitic* [phonological host]<sub>ω</sub>]<sub>ω</sub>  
b. [[phonological host]<sub>ω</sub> *clitic*]<sub>ω</sub>

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\* Thanks to Sabine Iatridou, Elena Anagnostopoulou, Marios Mavrogiorgos and Artemis Alexiadou for discussion and help with the Greek data, and Olga Mišeska Tomić for help with Macedonian. This work was partially supported by NSF grant (BCS 0418581) on “The Historical Syntax of Medieval South Slavic” with a focus on diachronic change in the clitic system.

<sup>1</sup> The recursive structure in (1) characterizes “affixal clitics” (Anderson 2005: 46). Clitics can also attach to other clitics to form prosodic words, and in such cases one of the clitics is stressed (Bošković 2001: 160-161, a.o.). Such clitic combinations may involve “internal clitics” ([clitic clitic]<sub>ω</sub>), with stress assigned to the new prosodic word, or “PWord clitics” ([clitic]<sub>ω</sub> clitic]<sub>ω</sub>), with the accented clitic becoming a prosodic word. Modern Greek has “affixal clitics”: in (i), from Anderson (2005: 24, 43), the two clitics do not form an independent prosodic word, and stress is assigned to the penultimate syllable of the larger word:

- (i) [[ðóse]<sub>ω</sub> mú to]<sub>ω</sub>  
give me-CL<sub>gen</sub> it-CL<sub>acc</sub>  
‘Give it to me’

In addition to their prosodic deficiency, some clitics (known as *special clitics*) are also characterized by distinct syntactic behavior. Modern Greek pronominal clitics are of this type: they have different distribution in the clause than their non-clitic counterparts. Pronominal clitics in Modern Greek are always verb-adjacent. Furthermore – and this is the main topic of concern for Mavrogiorgos (this volume) – in indicative and *na*-clauses (counterparts of subjunctives and agreeing infinitives) clitics must precede the verb, whereas in imperatives and gerunds they must follow the verb (e.g., (2)).

- (2) a. Na    *to*            *feris*.  
           NA    it-CL<sub>acc</sub>    bring-2SG  
           ‘You should bring it.’
- b. Fer                    *to!*  
           bring-IMP.SG    it-CL<sub>acc</sub>  
           ‘Bring it!’

As it happens, in Modern Greek the verb-adjacency requirement on clitics goes hand-in-hand with the prosodic phrasing: the verb is the phonological host for the clitics. Thus, the clitic *to* ‘it<sub>acc</sub>’ is a phonological proclitic in (2a) but a phonological enclitic in (2b). The position of the clitics before or after the verb is coextensive with the proclitic-enclitic distinction.

This is perhaps the reason why Mavrogiorgos adopts a purely syntactic approach to cliticization in Modern Greek. In that, he follows a tradition started by Kayne (1975, 1991) that has been very influential in the study of Romance, Slavic and Greek clitics. One desirable consequence of this approach is that the direction of cliticization is not specified in the lexical entry of clitics but is derived in the syntax, in accordance with the linear order of the clitic and the verb. For Mavrogiorgos, and I believe correctly so, clitics are directionally neutral; the proclitic-enclitic distinction follows entirely from the linearization of syntactic structure, with no need for lexical encoding of such information.

The syntactic approach has been very successful in identifying verb-movement and the licensing of verbal inflection as the relevant factors behind the placement of verbal clitics. Mavrogiorgos’ particular contribution is to refine these two factors. He proposes that only A-related verb-movement, i.e., movement that checks inflectional features on the verb, is associated with post-verbal cliticization. Movement of T(ense) to interrogative C(omplementizer), for instance, is not A-related,

and does not lead to post-verbal clitic placement. As for the role of inflection, Mavrogiorgos suggests that the relevant feature is not finiteness, or tense, or agreement in general, but specifically person: whereas in indicative and *na*-clauses the verb inflects for person, in imperatives and gerunds it doesn't. Tying together the two factors, A-related verb-movement and the checking of a person feature, Mavrogiorgos posits that person marking is associated with the presence of an EPP/person feature on T whereas lack of person marking is associated with an EPP/person feature on a higher functional head, CMo(o)d, although the link with overt morphology is accidental. The EPP/person feature triggers A-related verb-movement, so that in indicative and *na*-clauses the verb surfaces in T, whereas in gerunds it surfaces in CMod, and in imperatives it surfaces even higher, after passing through CMod. In other words, the position of the verb in the functional layer of the clause is the result of the checking of a person feature. Word order of the verb with respect to the clitic is then said to follow directly, in line with the Kaynean approach.

This sums the logic and the novel aspects of Mavrogiorgos' syntactic proposal. In section 2, I address the specifics of his analysis, clarifying the derivational mechanisms underlying proclisis and enclisis, and proposing some modifications to them. Specifically, in the case of both proclisis and enclisis, I suggest that the clitic moves independently to the functional head that may host an EPP/person feature; verb-movement beyond this head checks different inflectional features (e.g., imperative), not person. This provides a non-accidental link with the overt morphological marking of person. The modifications also improve the cross-linguistic predictions of the analysis.

Additionally, while it is certainly imperative to determine the syntactic factors that underlie clitic placement, the question of prosodic structure needs to be addressed too. Given the special phonological and syntactic properties of special clitics, an adequate theory must tease apart the relative role of the syntactic and post-syntactic components of the grammar. Mavrogiorgos notes that clitics incorporate into their syntactic host due to a structural deficiency but does not elaborate further. Presumably the syntactic incorporation conditions the prosodic alignment, but no details are provided. The question of why the clitics' phonological and syntactic hosts coincide is particularly pertinent in light of cross-dialectal variation in Greek discussed in Condoravdi and Kiparsky (2002) and Terzi (1999). In section 3, I address the issue of the syntax-phonology mapping, noting some outstanding problems and speculating on possible explanations for the observed cross-dialectal and cross-linguistic variation.

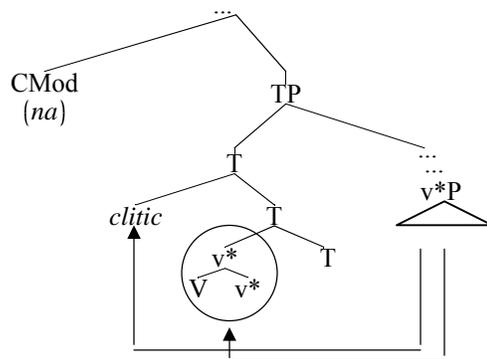
## 2. The Syntax of Clitic Placement in Modern Greek

As discussed in the introduction, Mavrogiorgos suggests that the link between clause type and directionality of cliticization in languages such as Modern Greek, Spanish and Italian is ultimately determined by the height of the functional head that hosts a person feature probing the verb. The position in which the verb surfaces varies, resulting in different clitic-verb orders. The core of the proposal is as in (3):

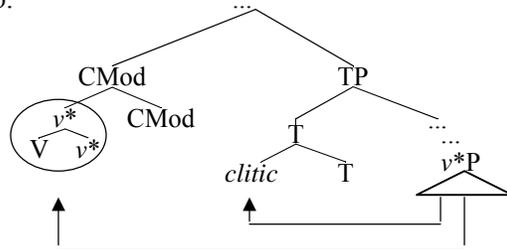
- (3) a. EPP/person feature in T → verb in T → proclisis  
 b. EPP/person feature in CMod → verb in CMod (or higher) → enclisis

The rest of the analysis could follow along familiar lines: the pre-verbal and post-verbal position of the clitics can be said to be essentially the same, either T (as in (4a)-(4b)) or a head immediately above T and below CMod (an option not illustrated here). This is the essence of the approach in Rivero (1994) and Terzi (1999) for Modern Greek (details, of course, differ).

- (4) a.



- b.



What is needed for the (traditional syntactic) analysis in (4) to work is for the clitic to be attracted to T. In fact, Mavrogiorgos' own proposal relies on such a movement, at least in the case of enclisis, but possibly also in the case of proclisis (as discussed below). He attributes the trigger of the clitic movement to an EPP/topic feature on T. With that feature in place, (4) should be adequate to handle the syntactic aspects of clitic placement in Modern Greek. Let us see how Mavrogiorgos' analysis compares with (4).

## 2.1 Where is the Clitic?

Mavrogiorgos' proposal is not quite (4). Specifically, as far as I can tell, the cliticization site differs in the two types of clauses, in addition to the variation in the position of the verb. Or perhaps not – the text is somewhat unclear on this point. In the case of proclisis, two ideas are presented. The first suggestion is that the order of clitic and verb is determined low in the clause, at the edge of the lower phase v\*P, after which the verb and clitic move together to T (sections 2 and 4.1.1 in Mavrogiorgos' paper). Another option is considered later in the paper, and it involves an independent movement of the clitic to T, along the lines of (4a) (section 4.1.2). In the case of enclisis, the clitic raises to T independently, while the verb moves to CMod alone, as in (4b).

### 2.1.1 Proclisis 1

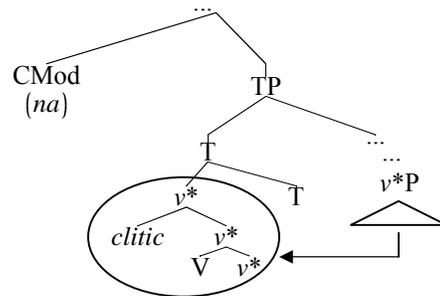
The essentials of the derivation that yields proclisis, according to what we can call Option 1, are highlighted in (5):

- (5) Proclisis (indicatives and *na*-clauses), Option 1:
- a. the phase-head v\* contains object phi-features and an EPP feature, attracting the clitic to the edge of the v\*P
  - b. the clitic incorporates into the V-v\* complex head, resulting in [clitic-V-v\*]
  - c. [clitic-V-v\*] raises to T for V-related feature checking

In other words, instead of the verb and clitic moving to T independently of each other and only there forming a complex head, as in (4a), Mavrogiorgos suggests that the clitic-verb unit is formed earlier

in the  $v^*P$  phase and is then moved to T, preserving proclisis (with excorporation excluded), as in (6).<sup>2</sup>

(6)



### 2.1.2 Enclisis

The specifics of the derivation that yields enclisis are not entirely clear. Mavrogiorgos proposes that the initial steps inside the  $v^*P$  are the same as in the case of proclisis: the phi-features and the phase EPP feature of  $v^*$  attract the clitics to the edge of the  $v^*P$ . However, although so far the syntax is as in (5a), the next step in (5b) cannot occur. If the clitic were to incorporate into the  $V-v^*$  complex head, resulting in a *clitic-V-v\** structure, proclisis would obtain. We therefore need a way to distinguish between the complex head formation in (5b) and a structure in which the clitic is still at the edge of the  $v^*P$ , but does not incorporate into  $V-v^*$ . I return to this issue in section 2.1.4.

In any event, Mavrogiorgos notes that “object clitics are also attracted to the edge of  $v^*/T$  independently” by an optional EPP/topic feature (section 4.1.2).<sup>3</sup> The basics of the derivation that yields enclisis can be summarized as in (7).

- (7) Enclisis (imperatives and gerunds):
- a. the phase-head  $v^*$  contains object phi-features and an EPP feature, attracting the clitic to the edge of the  $v^*P$  (= (5a))

<sup>2</sup> Evidence for this derivation is argued to come from the lack of clitic-adverb-verb orders (section 2 of Mavrogiorgos’ paper). Yet, the impossibility of intervening adverbs, or any other elements for that matter, is expected by definition, since these are verbal clitics. And even putting aside the fact that clitics need a verbal syntactic host, given the assumption that verbs in indicative and *na*-clauses raise overtly to T, all that the adverb facts are telling us is that the clitics also target T, and not that they have to merge with the verb below the position of the adverb.

<sup>3</sup> The notation  $v^*/T$  should presumably not be taken to mean that  $v^*$  has moved to T, not with imperatives and gerunds at least.

- b. the clitic does not incorporate into the V-v\* complex head
- c. the clitic is attracted to T by an EPP/topic feature
- d. the verb moves to CMod for V-related feature checking, skipping T

Clearly, this is the traditional account in (4b), enriched by the novel proposal in (3) about the triggers of verb-movement.

### 2.1.3 Proclisis 2

Towards the end of section 4.1.2 of his paper, Mavrogiorgos suggests a different derivation for proclisis: “in finite clauses (indicatives/subjunctives) person/EPP on T phi-probes V, forcing it to merge at the edge of person, while clitics are attracted to the edge of the v\*/T head, yielding proclisis.” Under this alternative analysis, the syntax of the clitics themselves is the same in proclisis and enclisis.

- (8) Proclisis (indicatives and *na*-clauses), Option 2:
  - a. the phase-head v\* contains object phi-features and an EPP feature, attracting the clitic to the edge of the v\*P (= (5a)/(7a))
  - b. the clitic does not incorporate into the V-v\* complex head (= (7b))
  - c. the verb moves to T for V-related feature checking
  - d. the clitic is attracted to T by an EPP/topic feature (= (7c))

Option 2 is an instantiation of the traditional syntactic account in (4a).

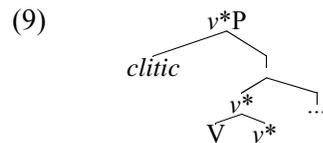
How do we decide between Options 1 and 2? They differ along several aspects: the syntax of clitics inside the v\*P, the link between proclisis and verb inflection, the presence of an EPP/topic feature on T as in enclisis, the expected clitic placement with respect to auxiliaries. I will discuss these issues in turn in section 2.1.5, concluding that Option 2 is to be preferred for Modern Greek.

### 2.1.4 At the Edge of v\*P

As noted above, Option 1 requires that the clitic, once attracted by the relevant features on v\*, incorporates into v\* and undergoes further movement as a unit with the verb. In Option 2, as in enclisis, the clitic is similarly attracted by v\* but does not incorporate into it, and is thus able to move out of the v\*P on its own.

The non-branching status of clitics can be utilized to capture the different syntactic behavior of clitics at the edge of the v\*P. Clitics are

neutral with respect to the head/phrase distinction (Chomsky 1995b: 402-403), as noted by Mavrogiorgos, and therefore they can merge both as heads and as phrasal projections. We can thus posit two structures at the edge of v\*P. The incorporation structure in (5b)/(6) results from the clitic adjoining to v\* as a head. The clitic can also merge as a specifier to v\*, still checking the phi- and EPP features on v\*, as in (9). From the structure in (9), the clitic can move higher up in the clause separately from the verb.



The structures in (5b)/(6) and in (9) are both licit with respect to the chain uniformity condition (Chomsky 1995a: 253, 1995b: 405-406). This is trivially so if clitics are first merged directly at the edge of the v\*P (with null pronouns or doubled DPs in theta positions).<sup>4</sup> If clitics are initially merged in theta positions, as assumed by Mavrogiorgos (see Anagnostopoulou 2006 for a general discussion of the position of first merge of clitics), they are maximal projections at the foot of the chain and as specifiers in (9), but also as adjuncts to v\* (simultaneously to being minimal) since they do not project further. Similar considerations apply to the chain created by the movement of the clitic to T out of the structure in (9): adjunction to T is allowed as the clitic is a minimal projection, but chain uniformity is not violated either, as the clitic does not project further and is thus also maximal. To conclude, I hope to have clarified the mechanisms needed to execute the derivations in (5), (7) and (8). Based just on the syntax of clitics at the edge of the v\*P, neither of Option 1 and 2 has a clear advantage.

### 2.1.5 Arguments in Favor of Option 2 for Modern Greek

An important argument against Option 1 for Modern Greek comes from the fact that it has no natural connection to the generalization in (3). Verb inflection (e.g., indicative vs. imperative) has no bearing on the choice between the v\*P syntax in (5b)/(6) and (9).<sup>5</sup> In other words,

<sup>4</sup> Following Mavrogiorgos, I abstract away from details about the different case-checking positions of direct and indirect object clitics.

<sup>5</sup> While it may be possible to link verb inflection and its corresponding clause type to properties of v\* by positing different v\*s in, e.g., indicatives and imperatives (manifested

nothing prevents an imperative verb from having the v\*P structure in (5b)/(6), but this structure leads to proclitic order, contrary to fact. Whether the verb then raises to T or to CMod, probed by the EPP/person feature in accordance with (3), will have no effect on the directionality of cliticization. A generalization would be missed – the very generalization that the paper is supposed to capture.

Option 2 posits the same EPP/topic feature on T, as in enclisis. As no interpretational differences are found between proclitics and enclitics themselves, a uniform treatment is to be preferred. Furthermore, this approach makes an empirical prediction, which turns out to be correct. If clitics move to T alone, in periphrastic constructions proclitics are expected to precede the (person-marked) auxiliary. Option 1, on the contrary, predicts that the clitics should precede the main verb, having incorporated into it at the edge of the v\*P. Under this analysis T does not attract the clitic itself; the clitic ends up in T only because the verb moves there. In Modern Greek, clitics precede the auxiliary, not the main verb, supporting Option 2 (see (10); (10a) is from Terzi (1999)).

- (10) a. *To*        *echo*        *fai*  
           it-CL<sub>acc</sub>    have-1SG    eaten  
           ‘I have eaten it.’
- b. \*Echo    *to* *fai*.

## 2.2 Where is the Person Feature?

Mavrogiorgos insightfully notes that the crucial factor behind the proclisis-enclisis alternation is the encoding of the feature person. The distinction is expressed overtly in the morphology of verbs: the verb inflection varies according to person in indicative and *na*-clauses, but not in imperatives and gerunds. However, the presence or absence of overt person marking on the verb is not implicated in the actual analysis. Both types of verbs – those marking person and those that do not – have a person feature that is checked in a functional projection. It is true that in Modern Greek the morphological realization of that feature correlates with the height of the projection in which the feature is checked, T or CMod, but the correlation is accidental, and as Mavrogiorgos notes, does not hold in Bulgarian. Furthermore, the probe EPP/person feature is implicated only as far as it regulates the height of the verb. There is no

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in restrictions on the subject, for instance), it is not clear how to link the mode of merger of the clitic to the type of v\*.

essential link with clause-type. All clauses have an EPP/person feature that checks the verb's person feature; the difference is in the position of checking, T or CMod.

This theory raises several questions. There is no independent way to determine whether the probe EPP/person feature will be expressed on T or on CMod. What prevents the feature from being on CMod in indicative clauses, attracting the verb higher than the clitic in T and resulting in enclisis? We have already concluded that the clitic must be moving to T independently of the verb (Option 2), so proclisis would not have previously been established at the v\*P edge. The answer cannot be that the indicative verb has to move to T anyway, to check agreement or tense. Imperative verbs too mark agreement, and moreover, such considerations would take us back to the traditional explanation of the proclisis-enclisis distinction in terms of finiteness. Similarly, what prevents the EPP/person feature from being expressed on T in imperatives? The imperative verb, having to check person, will raise to T, where proclisis will be established, and any further movement to CMod and higher will preserve the proclitic word order. With no independent link to overt morphology or to clause type, the account has no predictive power.

To see this more clearly, consider the case of Bulgarian and Macedonian. Like Modern Greek, these two languages have verbal pronominal clitics. In indicative and *da*-clauses (the counterpart of *na*-clauses), clitics precede the verb and align prosodically with it (e.g., Franks and King 2000: 63, 82, a.o.).<sup>6</sup>

- (11) a. Ti    mi    go    dade.                    (√ Bul, √ Mac)  
           you me-CL<sub>dat</sub> it- CL<sub>acc</sub> give-PAST.2/3SG  
           ‘You gave it to me.’
- b. \*Ti        dade mi go.

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<sup>6</sup> In Bulgarian, there is an additional restriction against clitics coming first in the intonational phrase (*Tobler-Mussafia* law). If the verb is the only other element in the clause, enclisis has to obtain to meet the *Tobler-Mussafia* restriction (compare (i) to (11a)).

- (i) Dade                    mi            go  
       give-PAST.2/3SG    me-CL<sub>dat</sub>    it- CL<sub>acc</sub>  
       ‘You/he/she gave it to me.’

This requirement is often confused with directionality of prosodic alignment, and Bulgarian clitics are wrongly considered to be prosodic enclitics, not only in (i), but also in cases like (11a) (e.g., Franks and King 2000: 63, 66; Bošković 2001: 180-182).

- (12) a. Da *mi go* dadeš. (√ Bulg, √ Mac)  
 DA me-CL<sub>dat</sub> it- CL<sub>acc</sub> give- NON-PAST.2SG  
 ‘You should give it to me.’
- b. \*Da dadeš *mi go*

In imperatives and gerunds, however, Bulgarian diverges from Macedonian and Modern Greek. Bulgarian pronominal clitics remain pre-verbal in imperatives and optionally so in gerunds, whereas Macedonian clitics have to appear after the verb (e.g., Franks and King 2000: 64-65, 82-84 a.o.).<sup>7</sup>

- (13) a. Ti *mi go* daj! (√ Bulg, \* Mac)  
 you-SG me-CL<sub>dat</sub> it- CL<sub>acc</sub> give-IMP.SG  
 ‘You give it to me!’
- b. Ti daj *mi go!* (\* Bulg, √ Mac)
- (14) a. ne *mi go* davajki (√ Bulg, \* Mac)  
 not me-CL<sub>dat</sub> it- CL<sub>acc</sub> give-GERUND  
 ‘not giving it to me’
- b. ne davajki *mi go* (√ Bulg, √ Mac)

Extending Mavrogiorgos’ theory to the two Balkan Slavic languages will result in the following picture. In Bulgarian, the EPP/person feature is on T in indicatives, *da*-clauses and imperatives, and optionally so in gerunds. Only in gerunds can the EPP/person feature be on CMod. In Macedonian, on the other hand, the split is as in Modern Greek: the EPP/person feature is on T in indicative and *da*-clauses, and on CMod in imperatives and gerunds. Clearly, there is no link between the position of the EPP/person feature and the clause type – imperatives and gerunds pattern differently in the two Balkan Slavic languages. Nor is there a link with overt morphology – the inflectional marking is essentially identical in Bulgarian and Macedonian, as seen in the examples above, yet the cliticization facts differ. The account is not explanatory, and Mavrogiorgos’ important insight regarding the relevance of person is lost.

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<sup>7</sup> In the case of negative imperatives, Macedonian optionally has preverbal clitics (Franks and King 2000: 83). Isac and Jacob (2004) propose that negation may check the imperative probe feature.

It seems to me that a better alternative is to posit a person feature only on verbs in indicative and *na/da*-clauses – the only verbs that may show an overt morphological marking for person – together with a corresponding EPP/person feature on T, and T alone. Or rather, let us split T into different projections – licensing person, number and tense – as indeed suggested by Mavrogiorgos, with EPP/person being expressed on the Person functional head. Only verbs in indicatives and *na/da*-clauses move to Person, since only they have a person feature to check (with reflexes in the morphology). Imperatives and gerunds, not having to check person, do not move to Person. In Macedonian and Modern Greek they move to higher heads for checking of different inflectional features, and are morphologically marked for those features and not for person. In Bulgarian, imperatives remain in Number and check their imperative feature by Agree, whereas gerunds optionally move from Tense (or a lower head).<sup>8</sup>

Concerning the position of the clitics, no significant change needs to be made to (7)-(8): an EPP/topic feature on Person attracts the clitics. In indicative and *na/da*-clauses, Person hosts both EPP/topic and EPP/person; in imperatives and gerunds it has only an EPP/topic feature. It is, of course, tempting to dispense with the EPP/topic feature altogether and have an EPP/person feature in all types of clauses attract the clitics. The difficulties with this solution are the following. In indicative and *na/da*-clauses the clitics do not check the EPP/person feature. This is done by the person feature on the verb, which, following Alexiadou and Anagnostopoulou (1998) includes a nominal element with interpretable phi-features. Then, why are the clitics attracted by EPP/person if they do not check it? Note that the subject does not need to move to Person, although it has a person value, so this is not a case of Attract-All-person. Perhaps locality can account for this – the clitics are closer to the probe EPP/person than the subject. But then a direct and indirect object clitics will have to count as equally close to the probe. And we are still left with the fact that the clitics are attracted by a feature that they do not enter into a checking relation with. Furthermore, in imperatives and gerunds the EPP/person feature cannot be checked by the verb, since the verb has no person feature. The clitics then can be said to check the feature, but the problem is that direct and indirect object clitics can have different person specifications. I don't see a way to

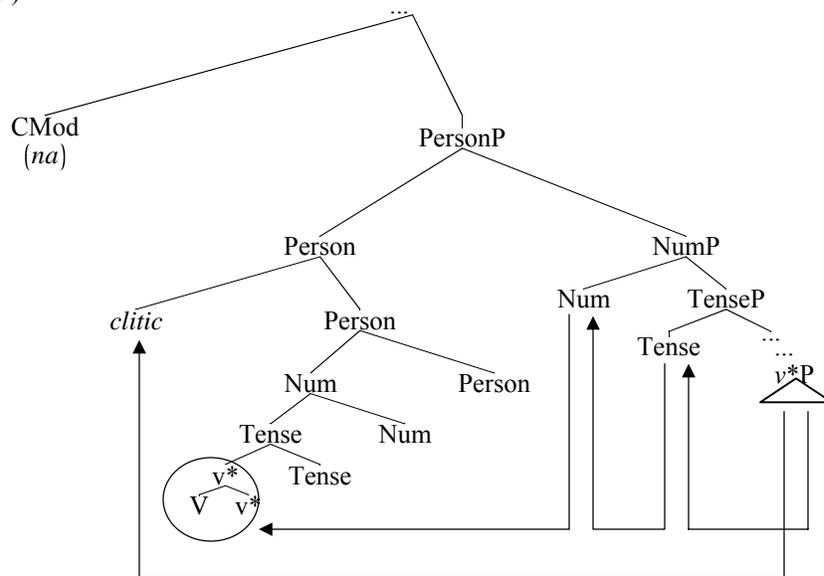
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<sup>8</sup> How this optionality is handled is beyond our concern here. Clearly, a truly explanatory analysis will offer a principled reason for optionality with gerunds but not imperatives in Bulgarian, and with negative imperatives but not positive imperatives or gerunds in Macedonian.

overcome these problems, thus Mavrogiorgos' use of an EPP/topic feature to attract the clitics will be retained.

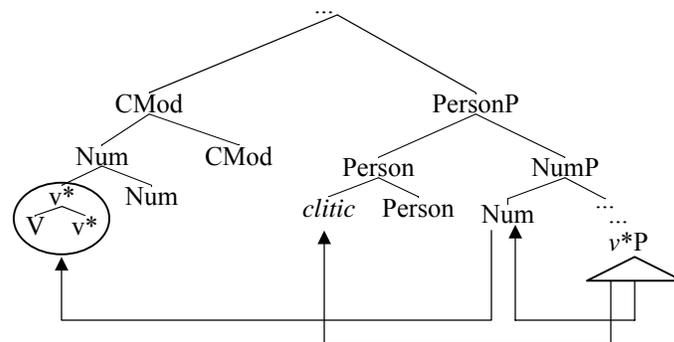
The tree in (15) illustrates the structure of indicative and *na/da*-clauses in the three languages. The relative order of Person and Number is not essential. If the order is reversed, the clitic will form a complex head with the verb in Person, and the two will move to Number as a unit. The Person functional head has an EPP/person feature, which probes the verb, and an EPP/topic feature which probes the clitic. The verb needs to move prior to the clitic, if we are to derive the correct order in the complex head through consistent left-adjunction. This ordering of the movement operations is, unfortunately, a stipulation. It does not arise under Option 1 in (5)/(6), but we had to abandon Option 1 in favor of an independent movement of the clitic and the verb out of the v\*P.

(15)



The tree in (16) illustrates the relevant parts of the structure of imperatives. Gerunds differ minimally in that they do not check Number. In Modern Greek and Macedonian, imperatives move to CMod, in Bulgarian they stay in Number, resulting in a different word order with respect to the clitics, attracted by EPP/topic to Person.

(16)



These minimal changes to Mavrogiorgos' theory capture the facts of clitic placement in Modern Greek, Bulgarian and Macedonian and also incorporate the links to the morphological marking of person and the clause types. In all three languages, verbs in indicatives and *na/da*-clauses have and check a person feature and show overt marking for person; verbs in imperatives and subjunctives do not have a person feature and do not show overt inflection for person. Clause type is reliably represented by the presence or absence of an EPP/person feature on Person. The relevance of person for the proclisis-enclisis distinction lies in the expression of EPP/topic on Person and in the obligatory raising of verbs in indicatives and *na/da*-clause to Person. This is why all three languages behave the same in indicatives and *na/da*-clauses. Cross-linguistic variation is limited to imperatives and subjunctives. They may have either proclisis or enclisis, depending on the independent properties of A-related feature-checking; the fact that proclisis is not enforced follows from the lack of person-checking.

### 3. Beyond the Syntax of Clitic Placement

#### 3.1 The Role of the Lexicon

Encoding directionality of cliticization in the lexical entry of clitics is a common practice. For instance, Condoravdi and Kiparsky (2002) suggest that Modern Greek clitics are (word-level) prefixes, subcategorizing for a finite verb to their right (they do not discuss imperatives and gerunds). Similarly, Halpern (1995: 184-186) proposes that in Macedonian, where pronominal clitics show a similar distribution and prosodic phrasing to clitics in Modern Greek, the choice of pre- or post-verbal positioning of clitics is determined by morphological selection, sensitive to the inflectional affixes on the verb, "a matter of

idiosyncratic listing” (p. 186). Bošković (2001: 257-266) posits that pronominal clitics in Macedonian are lexically ambiguous: one set of clitics are specified in the lexicon as prefixes to finite verbs, and the other set of clitics are listed as (second-position) suffixes.<sup>9</sup> The former appear with indicative and *da*-clause verbs and the latter with imperatives and gerunds.

In contrast, the approach pursued by Mavrogiorgos avoids lexical specification of clitics as phonological proclitics or enclitics. The clitics are prosodically neutral, with the syntactic structure determining the directionality of their attachment. This analysis is to be preferred on the grounds of simplicity to the analyses that posit a role for the lexicon in the proclisis-enclisis distinction (see, e.g., Anderson 2005: 61, for the same stance).

### 3.2 The Syntax-Phonology Mapping

Given that pronominal clitics in Modern Greek are best analyzed as prosodically neutral, the question arises of how the directionality of phonological attachment is determined based on the structure created by syntax.

As noted above, in Modern Greek the syntactic and phonological dependencies of clitics coincide. But things need not have been this way. After linearization of syntactic structure, the clitic finds itself before or after the verb, along the lines of (2a-b). Each of the word orders can then, in principle, be parsed in two different ways prosodically. Instead of the attested structure in (17a), where the clitic forms a prosodic word with the following verb, indicative and *na*-clauses could have had the prosodic structure in (17b), with the clitic, still verb-adjacent, attaching to a phonological host to its left, i.e., functioning as an enclitic.<sup>10</sup>

<sup>9</sup> The second-position idea stems from examples like (i) (Franks and King 2000: 85; Bošković 2001: 256). The pronominal clitic may appear sentence-initially when followed by a lexical verb; (11a) is fine in Macedonian if the subject is dropped.

- (i) a. \**Mi*            *e*                    *mil*    *Petko*  
           me-CL<sub>dat</sub>    be-CL<sub>pres.3sg</sub>    dear    *Petko*  
           ‘Petko is dear to me.’  
       b. *Petko mi e mil*

I believe that the facts of (i) are not triggered by the (variable) properties of pronominal clitics, but rather by the properties of the copula clitics. (ia) is ruled out, as the pronominal clitic cannot provide phonological support to the copula clitic. However, an account of the variable properties of copulas and auxiliaries is still needed.

<sup>10</sup> Strictly speaking, the particular example (2a) could not have had the prosodic structure in (17b) as the marker *na* is itself a clitic, and in standard Modern Greek it cannot be grouped with clitics into prosodic words along the lines discussed in footnote 1. In some dialects of Greek this is possible, however. Condoravdi and Kiparsky (2002) note that in

Conversely, the attested pattern of encliticization in imperatives and gerunds, as in (18a), could have been supplanted by a structure as in (18b), with the clitic procliticizing onto a following element.

- (17) a.  $[X]_{\omega} [clitic \rightarrow [V]_{\omega}]_{\omega}$   
 b.  $[[X]_{\omega} \leftarrow clitic]_{\omega} [V]_{\omega}$

- (18) a.  $[[V]_{\omega} \leftarrow clitic]_{\omega} [X]_{\omega}$   
 b.  $[V]_{\omega} [clitic \rightarrow [X]_{\omega}]_{\omega}$

The alternative prosodic phrasing, where the phonological and syntactic hosts of the clitic diverge, is not just a logical possibility that is ruled out by a general property of cliticization. It is attested in a number of languages (Anderson 2005: 81-82) and also some Greek dialects. In their cross-dialectal study of Greek clitics, Condoravdi and Kiparsky (2002) identify the Eastern type (Type A) of clitics that have to appear immediately adjacent to the verb – pre-verbally, if there is a constituent to their left to which they can encliticize, and post-verbally otherwise. Cypriot Greek clitics appear to be similar (Terzi 1999). Condoravdi and Kiparsky (2002) suggest that Type A clitics are phonological enclitics that attach as maximal projections at the edge of TP. If the syntactic derivation does not place a constituent that is a prosodic word higher than TP, a prosodic readjustment results in post-verbal clitic placement.

Within the parameters of Mavrogiorgos' theory and its extensions developed here, we can say that Type A clitics are similarly attracted by EPP/person but that they merge as specifiers, rather than heads.<sup>11</sup> This difference in syntactic structure is reflected in the prosodic phrasing – at the very least, the clitics do not have to procliticize to the following verb as they do not form a complex head with it. Possibly, they are also lexically marked as enclitic, an option pursued by Condoravdi and Kiparsky (2002), although a better alternative is to derive their enclitic status from the mode of their syntactic attachment. An interesting idea to explore is that head-adjoined clitics necessarily align prosodically with their syntactic host (as in Modern Greek, Macedonian and Bulgarian indicative and *na/da*-clauses, Bulgarian imperatives and optionally

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the Cappadocian dialect of Ulaghatsh, where pronominal clitics are enclitics, *na* is stressed when a clitic follows it.

(i) ... ge NA se rotış ...  
 and NA you-CL ask-3SG  
 '(Now my father will come) and will ask you'

<sup>11</sup> Condoravdi and Kiparsky (2002) propose that the clitic is adjoined to a TP that cannot have a filled specifier.

gerunds, and optionally Macedonian negative imperatives). Linearization of the complex head determines proclisis or enclisis; directionality is not specified in the lexicon but is a property of the syntax-phonology mapping. On the other hand, clitics that are not incorporated into heads (Type A clitics, second-position clitics) or clitics adjoined to phonologically null heads (Modern Greek and Macedonian imperatives and gerunds, and optionally Bulgarian gerunds and Macedonian negative imperatives) have to attach to the preceding prosodic word. Enclisis emerges from the syntax-phonology mapping, without having to be stipulated in the lexical entry of individual clitics.

Clearly, this is all rather speculative. The important point for our present purposes is that the existence of Type A dialects of Greek alongside standard Modern Greek shows clearly that simply specifying the relative order of the clitic and the verb in the course of the syntactic derivation is not sufficient. The specifics of the syntactic merger to the host, head-adjunction vs. specifier-head relation, and the corresponding mapping from the syntactic to the prosodic structure are also relevant for the determination of the directionality of the phonological dependency.

#### **4. Conclusions**

In this commentary, I have attempted to clarify and, where necessary, modify and extend, Mavrogiorgos' core proposals concerning the variability of clitic placement in Modern Greek indicative and *na*-clauses vs. imperatives and gerunds. Mavrogiorgos' main contribution is in identifying the role of the feature person in positioning the clitic and the verb in the inflectional part of the clause. This is an important insight as it reinstates verb-movement as a viable source for deriving clitic-verb and verb-clitic orders with verbal pronominal clitics.

Two factors have previously prevented researchers from arriving at a comprehensive theory of clitic placement centered on verb-movement. First, the fact that clitics are bypassed by verb-movement in, e.g., imperatives in Macedonian, resulting in enclisis, but are moved as proclitics together with the verb to C in questions in that language. Mavrogiorgos notes that parameterizing verb-movement provides a way around this problem. Only A-related verb-movement – verb-movement for checking of inflectional features – is implicated in the proclitic-enclitic distinction. Once the clitic-verb or verb-clitic order is established in the inflectional domain, further movement of the verb and the incorporated clitic preserves that order.

Second, the role of finiteness in the placement of clitics has been established early on in the literature, but a unified account has been

elusive because of the cross-linguistic variation: e.g., French vs. Italian infinitives or Bulgarian vs. Modern Greek imperatives. Focusing on person specifically, allows us to see that person-marking verbs always follow clitics in the languages that show variability of clitic placement according to clause type. It is the non-person marking forms – infinitives, imperatives, gerunds – that may precede or follow clitics in the different languages (and sometimes within the same language). I hope that the modifications I have proposed to Mavrogiorgos' theory actually sharpen his insight into the role of person, and strengthen the cross-linguistic predictions. The modified theory is that the clitic is hosted by a Person functional head and only verbs that have a person feature, namely verbs in indicative and *na/da*-clauses in Modern Greek, Macedonian and Bulgarian, move to Person and yield proclisis (and may have overt person morphology). Variability across and within languages is observed with verbs that do not check person, according to whether or not they move across Person to a higher functional head, to check inflection other than person.

Finally, I have emphasized that a complete theory of cliticization needs to address not only the role of verb-movement in positioning the verb relative to the clitic but also the question of how the syntactic structure is mapped onto the phonological structure. An adequate theory of the proclisis-enclisis distinction is necessarily an interface theory.

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