Imperatives, V-movement and logical mood

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Imperative Vs with distinctive morphology either have a distinctive syntax (Modern Greek, Spanish), or distribute like others Vs (Serbo-Croatian, Ancient Greek). The contrast follows from properties of the root C. The first type has a strong Imperative V-feature in C, and under Chomsky's Greed Principle, Imperative Vs raise overtly to check this feature. The second type is the Wackernagel language, whose C hosts no features, but V-features are in I. If no phrase fronts, Vs move to C to support second position items. V-to-C affects all Vs, is last resort, follows Lasnik's Enlightened Self-Interest, and escapes Greed.

1. Introduction

This paper deals with the syntax of Imperative sentences in languages whose Imperative verbs have a distinctive morphology. Such languages include Greek, Spanish, and Serbo-Croatian, and we show that they fall into two different syntactic types, as in (1).

(1) (a) Class I: Imperative Verbs have a distinctive syntax.
     (b) Class II: Imperative Verbs lack a distinctive syntax.

In the first class, Imperative Vs do not distribute like other Vs. This type includes Modern Greek (MGk) and Spanish (Sp), whose Imperatives have unique syntactic properties. By contrast, languages of the second type like Ancient Greek (AGk) and Serbo-Croatian (SC) have Imperative Vs that distribute like any other V. In this paper, we explore why languages displaying a morphological Imperative paradigm differ as to Imperative syntax. We attribute the contrast to the function of the root Complementizer or C: in Class I, C hosts a logical mood feature for imperatives, while in Class II, C hosts no features. Our proposal has diachronic consequences outlined here from a typological, rather than a historical perspective. Namely, we argue that MGk belongs to Class I and AGk to Class II; therefore, the evolution of Greek shows a change in the function of the root C: the earlier

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C was featureless, but the current C hosts the feature for imperatives. In our account, this typological difference is related to Wackernagel (W) properties, or second position (2P) constraints, which were found in AGk (Wackernagel 1892), but are absent in MGk.

As stated, Imperative Vs in Class I have a distribution not shared by other Vs. This is because the root C has a V-feature with Imperative logical mood, which in minimalist terms (Chomsky 1993) is STRONG. The special syntactic properties of Imperative sentences result when the V with Imperative morphology raises overtly to the C with the Imperative feature, in order to check or license it. Under this view, the root C of class I languages is specified for the logical mood feature of imperatives, which triggers overt V-raising. In this way, the syntax of Imperative sentences is distinctive, and, as we shall see, unique.

By contrast with the first class, Class II languages do not have a unique syntax for Imperative sentences, and Imperative Vs distribute like other Vs. For instance, AGk contrasts with MGk because Imperative Vs may occupy the same positions as the Indicative, Subjunctive and Optative Vs of declarative, interrogative and optative sentences. This is because in Class II, the Imperative feature cannot be in C, and is encoded in the position hosting features for other Vs. The root C must be void of strong features, or inert, as its core function is to provide support for 2P/W items. In particular, the AGk C is the landing site of Vs that raise overtly through a last resort process, to provide PF support for sentential particles. In SC, C receives Vs as a last resort, to support clitic pronouns in the syntax. Therefore, by Spell-out, V-distribution in Class II falls under two sets of principles. On the one hand, all Vs including Imperatives check V-features within IP, can remain there, and need not move to C. On the other hand, Class II Vs may raise to C to perform what we label the W-FUNCTION, that is, to be the required first position constituent for 2P-items. This additional V-to-C movement applies only if there is no other first position constituent, which means that the process is last resort and subject to economy. We shall argue that in AGk and SC imperative, interrogative, and declarative sentences, V is in C when it fulfills the W-function, but it is in IP when another constituent fulfills this function, since in Class II V-to-C is always last resort. As a consequence, Vs have a syntactic distribution independent both of logical or semantic mood, and of the inflection of V, or its morphological mood. The same, however, is not true of Class I languages; in this type, Imperatives are special, as they must surface in C, which establishes a correlation between syntactic position, morphological mood and logical or semantic mood.

Our approach entails that in W-languages, Vs raise to C not for their own needs, which are satisfied in IP, but to satisfy the requirements of 2P-items, thus departing from the Principle of Greed (Chomsky 1993). Our proposal supports the approach to economy that Lasnik (1993) labels Enlightened Self-interest: to save the derivation, syntactic processes may affect items that
have already satisfied their own needs. In our view, in Class II languages Vs raise to an empty C to save the derivation, which may explain why the process is consistently last resort.

The main empirical consequence of the last resort support function of the process filling C with V in W-languages is that C cannot contain the Imperative feature hypothesized for this position in Class I languages, since in W-languages, the root C cannot contain strong V-features. In conclusion, W-effects are responsible for the different role the root C plays in the class that includes AGk and the class that includes MGk, which accounts for the observed dichotomy in the syntax of Imperative sentences. Our proposal implies that the loss of W-effects in Greek was a crucial factor for the subsequent development of the special syntax of Imperatives.

The paper is organized as follows. Based on earlier work, section 2 provides a brief overview of Imperatives in languages with a special syntax (Class I). In section 3, we examine languages whose Imperatives have no special syntax (Class II), establishing parallelisms between AGk and SC. Section 4 considers Cypriot Greek (CGk), contrasting it with AGk and MGk. CGk is interesting because it appears to be typologically mixed. On the one hand, this language seems sensitive to 2P-effects like AGk and SC. On the other hand, it is parallel to MGk in Imperative syntax. We argue that 2P-effects in CGk and in W-languages differ in a way that frees the CGk C from the last resort support function for clitics as determining role. That is, CGk is not a true W-language like AGk or SC, and this allows its C to play the role of logical or semantic mood marker.

2. Class I: Imperatives with a distinctive syntax

In this section, we briefly summarize the properties of Imperatives in Class I, as illustrated by MGk and Sp. In these languages, two characteristics combine to make the syntax of Imperatives distinctive. First, as shown in (2), sentences with Imperative Vs cannot be negated.\(^2\) This is not the case for

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\[^2\] The MGk Imperative paradigm distinguishes voice, number, and aspect, and is restricted to second person. For tie the forms are (Triantafillides 1974):

<table>
<thead>
<tr>
<th>Active</th>
<th>Present</th>
<th>Aorist</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG 2</td>
<td>dene</td>
<td>dese</td>
</tr>
<tr>
<td>PL 2</td>
<td>denete</td>
<td>desete</td>
</tr>
<tr>
<td>Middle/Pass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG 2</td>
<td>denou</td>
<td>desou</td>
</tr>
<tr>
<td>PL 2</td>
<td>denest(h)e</td>
<td>dethete</td>
</tr>
</tbody>
</table>

The Sp Imperative paradigm consists of two persons. For tie these are:

<table>
<thead>
<tr>
<th>2SG</th>
<th>2PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ata</td>
<td>atad</td>
</tr>
</tbody>
</table>
other morphological moods, as illustrated in (3) by means of an indicative V. MGk and Sp sentences with Indicatives, Gerunds, and Subjunctives can always be negated; in addition, Sp negates Infinitives, which are absent in MGk.

(2) (a) *Den/mi diavase!  
       NEG read.IMP.2S  
       MGk  

(b) *No le!  
       Intended: ‘Do not read!’  
       Sp  

(3) (a) Den diavases.  
       NEG read.IND.2S  

(b) No leiste.  
       ‘You did not read.’

Second, among Vs with Person and Number marking, Imperatives are unique in preceding clitic pronouns, as shown in (4a–b). By contrast, Indicatives as in (4c–d), and also Subjunctives, must follow clitic pronouns.

(4) (a) Diavase to!  
       read.IMP.2S it  
       MGk  

(b) Léelo!  
       ‘Read it!’  
       Sp  

(c) To diavases./*Diavases to.  
       it read.IND.2S  

(d) Lo leiste./*Leístelo.  
       ‘You read it.’

To account for the above situation, we adopt the core idea in (Rivero 1994a,b), expressed in minimalist terms: in class I, a strong V-feature in C encodes the logical mood of imperatives, and the V inflected with Imperative morphology must raise overtly to check it. This movement obeys the strong

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[3] In MGk and Sp Gerunds, and in Sp Infinitives, Neg precedes V, which is followed by clitics, as in Sp (i) below. We assume that here V raises to a position lower than C and Neg (see Kayne (1991) for Romance Infinitives; Rivero (1994a: section 5) for MGk Gerunds). For Rivero, MGk Gerunds raise to the head of a Modal Phrase, and Terzi (1994) relates this V-movement to the licensing of PRO.

(i) (a) No leyéndolo.  
       NEG read.GER.it  
       ‘Not reading it.’  

(a) Para no leerlo.  
       for NEG read.INF.it  
       ‘Not to read it.’

[4] Rivero (1994a) is the published version of a paper first circulated in September 1988 under the title ‘The structure of IP and V-movement in the languages of the Balkans’, whose main aim is the postulation of a M(odal) head between C and the Tense/Agr projection(s). In both versions, MGk and Rumanian imperatives receive an identical analysis, which is
form of the Greed Principle as stated by Chomsky (1994: (7)): ‘Move raises *alpha* only if morphological properties of *alpha* itself would not otherwise be satisfied in the derivation’.

The Imperative feature differs from V-features of other morphological moods, in that it signals what philosophers traditionally call logical mood, corresponding to the semantic operators exemplified in the work of Stenius (1967), among others. Stenius distinguishes between the radical of a sentence, or its descriptive content, and its modal operator: declarative, imperative, or Yes/No interrogative. The Imperative V-feature we propose for C is equivalent to this modal operator, and is the formal ingredient that contributes to the determination of illocutionary force (and see Wilson & Sperber (1988) for discussion). Antecedents of the idea that logical mood features are in C include the abstract morpheme in the underlying representation of imperatives in Katz & Postal (1964), and the performative Vs of generative semantics (Ross 1970), in particular, the abstract Vs of command proposed by R. Lakoff (1968).

As stated, Imperative Vs can only be used in imperative sentences, so their morphology carries intrinsic logical mood. By contrast, Vs in other morphological Moods can be used not only in declarative sentences but in interrogatives, exclamatives, and imperatives, so their morphological mood does not indicate logical mood. If in UG the root C is the designated syntactic slot to encode logical mood, it is natural for the Imperative V-feature to be in C in these languages. Under this view, it also seems natural that V-features for morphological moods like the Indicative are not encoded in C, as they do not indicate intrinsic logical mood; a common assumption is that in the languages under discussion such V-features are in I, and not C. In other words, MGk and Sp Imperatives are special because their morphological mood correlates one-to-one with their logical mood, and this is why they involve C in a way that gives them a unique syntax.

With this proposal in mind, let us first see why negation is incompatible with Imperative Vs, a crucial characteristic distinguishing sentences involving such Vs from all other sentences in MGk and Sp. In our account, this restriction is purely syntactic and formal: negated imperatives are impossible

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used for Romance by Rooryck (1992), based on the 1988 manuscript. Rivero’s analysis is discussed in Zanuttini (1990), which contains the alternative proposal that Imperatives fail to be negated because they lack Tense, an idea Zanuttini (1994) abandons.

Laka (1990) and Zanuttini (1994) argue that Romance Imperatives raise to the head of the functional projection for negation/affirmation, which they label $\Sigma P$ and PoP respectively; Rivero (1994b) points out problematic aspects of this proposal for Spanish. Philippaki-Warburton (1993) suggests that MGk Imperatives raise to $M$; according to Rivero (1994a: sections 4 and s), however, the syntactic differences between MGk Imperatives and MGk Gerunds follow from the fact that the former land in C while the latter land in M. For Beukema & Coopmans (1989), English Imperatives remain in VP. Henry (1994) discusses a variety of Hiberno-English where Imperatives raise to C while other Vs do not, as in *Go you away*.
because Neg prevents V from reaching C. This happens because Neg (a) heads NegP, a projection standing between CP and IP, (b) cannot incorporate V and (c) constitutes a minimality barrier that will lead to a violation of the ECP if V bypasses it in order to license the feature in C. This situation is schematized in simplified form in (5):

(5)  \[ CP \ C [\text{NegP Neg} [IP V]] \]

The derivation where V does not raise past Neg is ruled out because the strong imperative feature in C is not licensed. As a consequence, Imperative sentences are grammatical only if Neg is absent. Motivation for the analysis of Neg in (5) is given by Laka (1990) and Bosque (1994) for Sp, and by Rivero (1994a) for MGk.

Let us now see how the strong Imperative feature in C impinges on the relative order of V and clitics, making V necessarily precede them. If MGk and Sp clitic pronouns are heads that adjoin to an empty functional head, in the spirit of Kayne (1994), they are located in the functional projection that takes IP as complement, as schematized in (6). Then, V + CL order arises because V bypasses the clitics when it moves to C to license the Imperative feature:

(6)  \[ CP \ C [FP CL [IP V]] \]

If Neg and CL are both X₀'s between the basic position of V and its C-landing site, as we assume, they must be different types of heads: V cannot bypass Neg, but it can bypass clitic pronouns. Among the properties distinguishing Neg from clitic pronouns, we mention that Neg can be modified (by adverbs) as in (7), stand in isolation, as in (8), and be stressed, as in (9). Clitics do not show these characteristics:

(7)  (a) O Yiannis shedon den efage.  
the John almost NEG eat. PAST. 3S  
MGk
(b) Juan casi no comió.  
John almost NEG eat. PAST. 3S  
Sp  
‘John almost didn’t eat.’

(8)  (a) Mi!  
(b) No!

(9)  (a) Aftos den tha figi.  
He NEG FUT leave. PRES. 3S  
‘He will not leave.’
(b) Juan NO viene.
   John NEG come. PRES. 3S
   'John will not come.'

However, the crucial difference between Neg and clitics that does not allow the former to be bypassed by V-movement and prevents Imperatives from being negated is that Neg is an $X^0$ with operator features, or A-bar characteristics (Rivero 1994a, Terzi 1992), which makes it a minimality barrier. We propose that the Imperative feature in C has operator features or logical mood, so it is similar to Neg in this respect. Thus, a version of Relativized Minimality (Rizzi 1991) made sensitive to the properties of heads in the sense of Roberts (1992) rules out as a violation of the ECP the case where the Imperative V is in C and Neg stands in the path of the V-trace, since Neg and the Imperative C have operator features.

Neg and the Imperative C also seem similar in being L-related to V, in the sense of Chomsky & Lasnik (1993). The C-position of Imperatives must be L-related to V, since it encodes V-features. The two lexical entries for sentential Neg in MGk are sensitive to V-features (den appears with Indicative Vs, min with Subjunctives), so this suggests that Neg is also L-related to V. However, the crucial factor that blocks movement of V to C across Neg is not that C and Neg are L-related to V, but the operator features shared by the two positions. This is because clitic pronouns are also L-related to V, but allow movement of V to C. Neg as $X^0$ blocks V-movement to C because it resembles the Imperative C as to operator features. Clitic pronouns resemble the Imperative C in being L-related to V, since it is usually assumed that they are associated with Agreement and/or Case. However, if clitics lack operator features, the version of Relativized Minimality that assigns a blocking effect to Neg should permit movement of the Imperative V to C across intervening clitics. Thus, operator features seem to be the crucial ingredient distinguishing clitics from Neg as to their effect on Imperative Vs.

To summarize, class I Imperative Vs license a strong V-feature located in C, the designated syntactic site for the logical mood intrinsic to the morphology of these Vs. As a result, Imperative sentences cannot be negated,

[5] In contrast with some recent proposals, we do not reduce the A vs. A-bar distinction to the L vs. non-L related dichotomy, and agree with Haegeman (1994), who distinguishes four types of positions. For instance, for us MGk Neg is both an A-bar head and a head L-related to V, as mentioned in the text, and its A-bar properties are relevant to block V-raising. This is more in the spirit of the version of Relativized Minimality for Long Head Movement in Roberts (1992) and Rivero (1994a), and not the version in Roberts (1994).

The distinction between A vs. A-bar heads is also relevant for the licensing of CGk clitics, as discussed later (and see fn. 17).


[7] The Germanic languages discussed by Platzack & Rosengren (1994) may constitute a subgroup of Class I languages, as their Imperatives display a distinctive syntax not shared
and show V + CL word order as the only option. Movement of V to C in Imperative sentences complies with Greed in that it satisfies the properties of the moved item.

3. **Class II: Imperatives with no distinctive syntax**

In this section, we consider Class II languages. Like the languages of Class I examined above, they have a morphological Imperative paradigm with intrinsic logical mood, but differ from Class I in lacking a special syntax for

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by other moods. For Platzzack & Rosengren in these V2-languages finite Vs move to C, and Imperative Vs raise to a head lower than C, which suggests that since the root C is the host of finite features, it is incompatible with logical mood.

[8] The AGk Imperative paradigm is morphologically rich. It distinguishes voice, person, number, and aspect. For *unitie* the forms are (Smyth 1920):

<table>
<thead>
<tr>
<th>Active</th>
<th>Present</th>
<th>Aorist</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
<td>2  lue</td>
<td>luson</td>
<td>lelukōs isthi or leluke</td>
</tr>
<tr>
<td>3  luetō</td>
<td>lusatō</td>
<td>lelukōs estō or leluketo</td>
<td></td>
</tr>
<tr>
<td>DUAL</td>
<td>2  lueton</td>
<td>lusaton</td>
<td>etc.</td>
</tr>
<tr>
<td>3  luetōn</td>
<td>lusatōn</td>
<td>etc.</td>
<td></td>
</tr>
<tr>
<td>PL</td>
<td>2  lute</td>
<td>lusate</td>
<td>etc.</td>
</tr>
<tr>
<td>3  luontōn</td>
<td>lusantōn</td>
<td>etc.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
</tr>
<tr>
<td>3  luesthō</td>
</tr>
<tr>
<td>DUAL</td>
</tr>
<tr>
<td>3  luesthōn</td>
</tr>
<tr>
<td>PL</td>
</tr>
<tr>
<td>3  luesthōn</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
</tr>
<tr>
<td>3  Like Middle</td>
</tr>
<tr>
<td>DUAL</td>
</tr>
<tr>
<td>3  Like Middle</td>
</tr>
<tr>
<td>PL</td>
</tr>
<tr>
<td>3  Like Middle</td>
</tr>
</tbody>
</table>

The SC Imperative paradigm consists of three persons. For *read* these are:

<table>
<thead>
<tr>
<th>2SG</th>
<th>1PL</th>
<th>2PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>čitaj</td>
<td>čitajmo</td>
<td>čitajte</td>
</tr>
</tbody>
</table>
Imperatives. In our analysis, the contrast derives from the location of V-features. In Class II, all V-features are in IP, and Vs do not raise to C for feature-checking. However, any V may raise to C in order to perform the support or W-function for 2P-items, and this means that Imperatives lack the special distribution observed in Class I. In W-languages, V-to-C is last resort and does not combine with fronting to Spec-CP, due to economy, so it cannot always apply. Thus, the option of placing a strong syntactic V-feature in C is not viable in these languages, as the feature remains unlicensed when V-raising is absent.

The section is organized as follows. SC is discussed in 3.1, and AGk in 3.2. Section 3.3 deals with the theoretical assumptions that derive the W-effects behind the distribution of Vs, making Imperatives parallel to other Vs in these languages.

3.1 Serbo-Croatian

In section 2, we mentioned that a first property distinguishing MGk and Sp Imperatives from other Vs is that they cannot appear in negative clauses. By contrast, SC Imperatives are like Indicatives, and appear not only in affirmative, but in negative clauses as well:

(10) (a) Čitajte!
read.IMP.2P
‘You (p) read!’

(b) Čitate.
read.PRES.2P
‘You (p) are reading.’

(11) (a) Ne čitajte!
NEG read.IMP.2P
‘Do not read!’

(b) Ne čitate.
NEG read.PRES.2P
‘You (p) are not reading.’

We also saw that MGk and Sp Imperatives are unlike finite Vs in that they must precede clitic pronouns. In this respect too, SC Imperatives are like other Vs. They precede clitic pronouns when no other constituent begins the sentence, as in (12a), and must follow them in the presence of an initial constituent, as in (13a).

(12) (a) Čitajte je!
read.IMP.2P it
‘You (p) read it!’

(b) Čitate je.
read.PRES.2P it
‘You (p) are reading it.’
(13) (a) Knjige im čitajte!
Books to. them read. IMP. 2P
‘You (p) read books to them!’
(b) Lica im razaznajte.
Faces to. them distinguish. PRES. 3S
‘He distinguishes their faces.’

To determine how Classes I and II contrast formally, we begin by examining the licensing requirements of clitic pronouns that determine V-position in SC. SC clitic pronouns require the syntactic support of a first constituent, and are in WP, the functional projection that complements C (see Rivero (1994b,c) for references and discussion). To provide the support that licenses the clitic, in (12) V raises to C, and in (13) a phrase raises to Spec-CP, as shown in (14a,b):

(14) (a) \[
[CP [C [co V]_I ] \in \text{LP} [CL [IP t_i]]]
\]
(b) \[
[CP [XP [co \emptyset] ] \in \text{LP} [CL [IP [Io V] t_i]]
\]

The process in (14a) is \(X^0\)-movement, and that in (14b) is \(X^{\text{max}}\)-movement, but they do not co-occur, because the first is last resort and must apply without other frontings: *Knjige čitajte im!; *Lica razaznajte im. Then, given the licensing requirement of clitics, Vs may surface in C, but only when 2P-clitics are not preceded by a constituent in Spec-CP, as in (12 = 14a); otherwise, Vs surface within IP, as in (13 = 14b). When Vs surface in IP, they check their V-features at that point, so they need not move to C for this purpose.

Class I languages offer a different situation. On the one hand, clitics do not require syntactic support and fail to trigger V-raising in declarative sentences. On the other hand, CL + V order is excluded in imperatives sentences, because Imperative Vs always raise to C by a process that is not last resort, and checks the strong V-feature.

In brief, the relative position of Clitic pronouns and Vs in Class II imperative and declarative sentences is symptomatic of the syntactic inertness of C: (a) all Vs can surface in C, which is not the case in Class I, and (b) obligatory requirements for Vs to be in C to check V-features are lacking, which is also not the case for Class I Imperatives.

When SC Vs are not in C, we propose that they surface in the highest functional head of the I-type. In other words, SC has overt V-raising to I, with strong V-features located in this position. Motivation for this idea comes from Object Shift as in (15), as established by Kudra (1994):

(15) Majke se obično za njih brinu do kraja života.
mothers REFL usually for them worry.PRES. 3P till rest live
‘Mothers usually worry about them for the rest of their lives.’

In (15), Object Shift has applied to the PP za njih. Following Holmberg (1986), we take Object Shift to indicate overt V-raising out of the VP. This

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means that V-features in I (for short) must be strong, and licensed by V-movement. Imperatives distribute like Vs in the Present, so the Imperative feature is also strong and in I, like other V-features.\footnote{Object Shift motivates our proposal that SC V-features are strong, located in I, and trigger overt V-raising to that position. By contrast, Wilder & Čavar (1994) locate SC V-features in C, as in V2 languages, consider them weak, and apply V-raising mostly in LF; they do not mention Imperatives, but consider overt (finite) V-to-C for 2P early altruism that minimally departs from Greed, given that (weak) V-features are in C. By contrast, for us V to C for 2P is an instance of Enlightened Self-interest, which escapes Greed, given that we locate (strong) features in I and not C.}

Let us continue with Negation. In Class II, all Vs can be negated, which is not the case in Class I, where Imperatives are only affirmative. Let us see how this follows from the properties of Neg in SC. Neg and V count as a single first position-item, and together may precede 2P clitic pronouns, as in (16). If another constituent begins the sentence, however, Neg and V must follow 2P clitics, as in (17), regardless of verbal morphology.

(16) (a) Ne čitajte je!
NEG read .IMP .2P it
‘Do not read it!’
(b) Ne čitate je.
NEG read .PRES .2P it
‘You are not reading it.’

(17) (a) Knjige im ne čitajte!
b\\text{oo}ks to .them NEG read .IMP .2P
‘Do not read books to them!’
(b) Lica im ne razaznaje.
f\\text{aces to .them NEG distinguish .PRES .3S}
‘He does not distinguish their faces.’

(Radanović-Kočić 1988: 107)

For Rivero (1994b,c), SC Neg heads the phrase that complements WP, and takes IP as complement. In (16), Neg plus V count as a constituent because V incorporates to Neg (Rivero 1991), with the two forming the complex $X^\theta$ that raises to C last resort, in order to support CL: (18a). By contrast, the phrase in Spec-CP in (17) makes raising of the Neg+V complex to C unnecessary, and in fact impossible, so V remains in NegP: (18b).

(18) (a) \[CP \[C_{\text{co}} \text{Neg}+V_{\text{t}} \] [WP CL \[\text{NegP} t_l [\text{ip t}_l]]]]
(b) \[CP XP_{\text{t}_{\text{co}}} \text{Neg}+V_{\text{t}} \] [WP CL \[\text{NegP} \text{Neg}+V_{\text{t}}]]

Then, negative sentences are like affirmative sentences, in that all Vs can surface in C, once they incorporate to Neg. However, the features of V are not licensed in C, and negated Vs including Imperatives remain within NegP if a phrase fronts to Spec-CP, as in (18b). If the SC strong Imperative feature was in C in this case, it would remain unlicensed. Thus, C must be
syntactically inert and cannot hold strong features. The strong Imperative features is in I, and licensed when V moves to I out of the VP, before it incorporates to Neg and raises to C. Movement from I to C does not license V-features, but provides support for clitics.

As in imperative and declarative sentences, in interrogative sentences Vs are sensitive to W-requirements, not to logical mood factors. On the one hand, V in direct questions precedes 2P-clitics if it performs the W-function, as in (19a), so is in C due to the last resort process. On the other hand, V must follow clitics in the presence of an initial constituent such as da in (19b), or the wh-phrase in (19c). Thus, in the last two cases V remains in I because raising to C violates economy:

(19) (a) Čitate li je?
read.PRES.2P Q it
‘Are you reading it?’
(b) Dali je čitate?
da Q it read.PRES.2P
‘Are you reading it?’
(c) Kada je čitate?
when it read.PRES.2P
‘When are you reading it?’

Second, in cases of multiple wh-fronting like (20) borrowed from Rudin (1988), the second and subsequent wh-phrases separate clitics and V:

(20) Koliko im ko daje?
how.much to.them who give.PRES.2S
‘Who gives how much to them?’

For Rudin, (20) has the first wh-phrase in Spec-CP and the second adjoined to IP, so this sentence provides additional evidence that in SC Vs usually remain in IP, and move to C only as a last resort to satisfy 2P-requirements for clitics. Given that in (20) the first wh-phrase satisfies those requirements, V cannot raise past IP; again, features connected with V are satisfied away from C in the syntax.

Third, wh-questions with overt subjects also confirm that V need not surface in C, because such interrogative sentences display Subject-Verb order, which means that V is within IP, as in (21).

(21) Šta Ivan kupuje?
what John buy.PRES.3S
‘What is John buying?’

To summarize, in a 2P language like SC Vs have the same distribution in imperative, interrogative, and declarative sentences. This is because V-features are strong and in I, regardless of verb morphology and logical mood. Strong V-features cannot be in C, as this position is only filled by V-
movement as last resort. V raises overtly from VP to I to license V-features. Subsequently, if no element fills Spec-CP, V overtly raises from I to C by a last resort operation that satisfies 2P-requirements of clitic pronouns. This process is insensitive to Chomsky’s Principle of Greed, but allows the derivation to converge, in tune with Lasnik’s Enlightened Self-interest. Thus, V’s have a doubly faceted distribution that cuts across distinctions in both morphological and logical mood. This is in contrast with languages of class I, where Imperative V’s are special because their morphological and logical moods are paired up in C in the syntax by a process that satisfies V-features.

3.2 Ancient Greek

AGk Imperatives are like SC Imperatives and unlike MGk Imperatives in two respects. On the one hand, AGk Imperatives can appear in negative sentences, as in (22).10

(22) Mê mega lege.
   NEG grandly say.IMP.2S
   ‘Do not boast so.’

(Plato, Phaedo 95b)

In Imperatives, Neg is mê, which, during this period, is also used in Subjunctives and Optatives, and can occur with Indicatives with a modal-like use, as in conditional clauses, interrogatives, and relatives. We later argue that Neg receives the same syntactic analysis, whether filled by mê or ouk: it heads NegP, with IP as complement. Neg is L-related to V, and encodes V-features, with mê specialized for Imperative complements, which ouk does not allow.

On the other hand, the AGk Imperative V can be sentence-initial, preceding 2P-clitic particles (P), represented in bold from now on, as in the famous words in (23a), which are not taken from Smyth. However, when another constituent begins the clause, V follows P, as in (23b). Thus, it appears that in AGk V and P are located along the same lines as V and clitic pronouns in SC, as in (16) vs. (17): Ne čitajte je and Knige im ne čitajte!11 By contrast, MGk Imperative V lacks ordering flexibility and always precedes clitic pronouns.

(23) (a) Pataxson men, akouson de.
   strike.IMP.2S P listen.IMP.2S P
   ‘By all means strike, but listen.’

(Plutarch, Themistocles 11.3.6)

---

[10] AGk examples are as quoted in Smyth (1920), unless otherwise indicated. We gloss the verb mood, but not its tense.

[11] AGk clitic pronouns can appear in 2P, as Taylor (1990) shows, but also occur in other positions. When 2P-sentential particles are present, clitic pronouns follow them. In this paper we concentrate on sentential particles as indicators of WP, not on clitic pronouns.
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(b) Ta men poiei, ta de mē poiei.
these P do.IMP.2S, these P NEG do.IMP.2S
‘Do this, but do not do that.’ (Plato, Protagoras 325d)

We will now show that these two properties are shared by all Vs, because AGk is a W-language, and its C-position is filled by V for 2P-effects, and not for the checking of V-features. That is, V is in C regardless of its morphological mood and its logical mood, when it fulfills the W-function. However, it is not in C, if the W-function is fulfilled by another constituent. As a result, the syntax of Vs is parallel in AGk and SC, since it cuts across distinctions in V-inflection and logical mood. We now proceed to justify these claims by first looking at the position of Vs.

3.2.1 Wackernagel particles

MGk Imperative Vs must precede clitics. By contrast, AGk Imperative Vs precede or follow sentential clitic particles or P, as in (23). Vs in other Moods have a similar distribution, as the following paradigm illustrates:

(24) (a) Eboulomēn men ouk erizein enthadē.
wish.IND.IS P NEG contend.IND.SUBJ.3S ‘And I wish(ed) I was not contending here (as I am).’
(Aristophanes, Ranae 866)

(b) Ego men ouk oida.
I P NEG know.IND.IS ‘I, for my part, do not know.’ (Xenophon, Cyropaedia, 1.4.12)

(25) (a) Hupolabēi de mēdeis.
suppose.SUBJ.3S P no.one ‘And let no one suppose.’ (Thucydides 6.84)

(b) Hēmeis de prosmenōmen?
we P wait.SUBJ.IP ‘And shall we wait?’ (Sophocles, Trachiniae 390)

(26) (a) Gnoiēs d’ an hoti touth’houtōs exei.
know.OPT.2S P that this so has.IND.3S ‘You may see that this is so.’ (Xenophon, Cyropaedia 1.6.21)

(b) Epeita de kai ti pathoiimi.
thereupon P also something suffer.OPT.IP ‘After that, may I suffer anything.’ (Homer, Odyssey phi 274)

The examples in (24) contain Indicative Vs. In (24a), V is clause–initial and precedes men, while in (24b) a NP precedes this particle, and V follows it, with Neg intervening between the two. The examples in (25) have Subjunctive Vs, and exemplify an initial V before P, (25a), and an initial NP, with V following P, (25b). Finally, (26) contains Optative Vs, with either V before P, or another constituent before it, in which case V appears deeply embedded in

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the sentence. We propose that this situation follows from a clausal structure where AGk P occupies the same slot as clitic pronouns in SC: the Spec of the functional projection that complements C and is labelled WP, as in (27).

(27) \[ \text{[CP Spec \[c\ C \[w_P P \[w' W [YP]]]} \]

This hypothesis is motivated by the position of AGk P and SC clitic pronouns in embedded clauses. For instance, in the protasis of the conditional, P follows and is strictly adjacent to AGk \textit{ei} ‘if’, as in (28a,b), and clitics follow and are strictly adjacent to SC \textit{ako} ‘if’, as in (29a–b). This parallelism follows if AGk sentential particles and SC clitic pronouns surface in the functional projection WP, as shown (Rivero 1994c).\[^{12}\]

(28) (a)
\[
\text{Ei } \text{de } \text{duo eks } \text{enos agônos gegenêsthon } \text{ouk egô aitios.}
\]
\[
\text{if P two from one trial have.been.made NEG I responsible}
\]
\[
\text{‘But if two trials have been made out of one, I am not responsible.’}
\]
\[
\text{(Antiphon 5.85)}
\]

(b) \[ \text{[CP ei \[w_P de \[i_P duo eks enos agônos gegenêsthon]} \]

(29) (a) \[ \text{Ako } \text{ti } \text{bog } \text{ne pomogne,...} \]
\[
\text{if you God NEG help,...}
\]
\[
\text{‘If God does not help you,...’}
\]

(b) \[ \text{[CP ako \[w_P ti \[i_P \text{negP bog ne pomogne]} \]

Sentential particles have the function to ‘set forth the logical relations between clauses’ (Smyth 1920: 632), and to establish a connection with the previous discourse. This follows if WP is the syntactic locus for, roughly speaking, point of view (Rivero (1994c) based on an idea by Uriagereka (1995)).

In this analysis, phrases move to Spec-CP in (24a–26a), or V raises to C in (24b–26b), and these processes do not combine because V-raising is last resort. Under this approach, C cannot hold a strong Imperative feature in AGk, in contrast with MGk. If C held this feature, it would not be licensed when a phrase fronts like in (23b); in this situation, V must remain in the

\[^{12}\] Ann Taylor (p.c.) points out that \textit{de} in the protasis in (28) semantically affects the apodosis. For her, this favors a phonological approach to 2P (Taylor 1990 and later work): namely, sentential particles move to 2P by a PF cliticization rule. In particular, in (28) \textit{de} is moved after \textit{ei} ‘if’ by a process sensitive to phonological phrasing, not syntactic structure. In our view, this semantic effect does not necessarily favor the phonological approach over the syntactic approach we have adopted. If, for the sake of the argument, the protasis is in the Spec-CP of the apodosis, and both \textit{ei} and WP are part of the C-system (Rivero 1994c), then the particle could have scope over both clauses, accounting for the semantic effect on them. Alternatively, it could be that the first P in the protasis identifies an empty second P in the apodosis (i.e. this would be an EC functioning as the traditionally labelled apodictic \textit{de}). Smyth points out (1920: 290) that when \textit{ei} stands before \textit{men...de}, it exerts its force on both opposed clauses. However, such an effect cannot be due to the overt movement of \textit{ei} from apodosis to protasis, so scope principles also applicable to P must be at work.
clause, and cannot reach C. We thus conclude that the AGk Imperative feature is licensed by the V in the same way as features are licensed in other Moods, so it appears in IP rather than in C, and this is the essential difference with MGk. It is beyond the scope of this paper to determine if AGk has overt V-raising to I, or if its frequent V-final order indicates that V remains in VP in the syntax. However, two aspects suggest that V-features are strong and trigger overt movement. First, if morphological richness is a symptom, features should be considered strong in AGk. This language has an elaborate verbal morphology, including the extensive Imperative paradigm listed in footnote 8. Second, if the frequent OV orders of this language result from Object Shift (in addition to Scrambling), overt V-raising to I must exist, which indicates that V-features are strong, like in SC. What is important for our purposes, however, is that all Vs license their V-features by appearing in the same position in IP in PF, and the evidence is clear on this count. Thus, AGk Vs raise out of IP to C to satisfy W-effects, not to license V-features, and last resort movement affects all Vs irrespective of overt morphology and logical mood, which is why they all distribute alike, like in SC.13

The conclusion that all Vs have the same distribution receives further support from V-position in interrogative sentences. First, Ancient Greek direct Yes/No questions may be introduced by interrogative particles, as in (30). This is reminiscent of dali-questions in SC, as in (19c) (Dali je čitate?):

(30) (a) ē kai oikoi tôn plousión ēsthα; Q also at. home of. the rich be.IND.2S
‘Were you really one of the rich men when you were at home?’
(Xenophon, Cyropaedia 8.3.36)

In (30) interrogative ē is sentence-initial, the focalized adjunct and the predicate follow, and V is in final position, as in many other interrogative sentences, so remains in IP.

[13] As illustrated by the relative in (i), and the complement clause in (ii), AGk Imperatives can be embedded (Smyth 1920: 411), resembling Indicatives, Subjunctives, and Optatives:

(i) Kratēres eisin... ōn krat’ erēpson. (Sophocles, Oedipus Tyrannus 473) bowls are whose brims crown.IMP.2S
‘There are mixing-bowls, the brims of which thou must crown.’

(ii) Oistha o drason; (Euripides, Hecuba 225) know what do.IMP.2S
‘Do you know what you are to do?’

The above Imperatives appear in clauses with clear-cut non-root characteristics. The non-root nature of (ii) is signaled by the use of the relative o ‘what’ instead of a wh-question word. In AGk, the use of relative phrases is characteristic of indirect questions, as opposed to direct questions.

The possibility of embedding distinguishes AGk Imperatives both from Class I Imperatives, and SC Imperatives, and is unproblematic in our approach: the Imperative V is licensed in I, not in C, so should not be restricted to main clauses with C available as landing site. Although embedded Imperatives are not common crosslinguistically, the AGk situation suggests that the reason for this restriction might not be syntactic.
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Second, the same conclusion is reached for Yes/No questions with de as in (25b) repeated now as (31): the NP-subject has been fronted to Spec-CP, so V remains in the clause following the WP-clitic.

(31) Hêmeis de prosmênoûmen?
we P wait.SUBJ.IP
‘And shall we wait?’ (Sophocles, Trachiniae 390)

Third, wh-questions with V in IP as in (32) (traces are omitted) reinforce our conclusion. This example is borrowed from Crespo (1992: 302):

(32) (a) Ti oun ou kai Prodikon ekalesamen;
why then NEG also Prodicon invite.IND.IP
‘Why then have we not also invited Prodicon?’

(Plato, Protagoras 317d)

(b) [CP ti [WP oun [NEG ou kai Prodikon ekalesamen]]]

In (32), the wh-phrase is in Spec-CP, and V is final, appearing after an adverb and a (focalized) object NP, which shows that Vs need not surface in C in AGk interrogatives, and distribute according to the canons of W-requirements, not the logical mood encoded in interrogative features.14

In brief, Vs in imperative, declarative, interrogative, and optative sentences follow parallel principles as to their distribution. The last resort fronting rule fills C with V when it is necessary to support W-items in PF, and not for the satisfaction of V-features, including the logical mood features contributing to the pragmatic determination of illocutionary force. Thus, AGk Imperative Vs do not have a distinctive syntax.

3.2.2 Negation

Recall that MGk imperative sentences cannot be negated. This is because Imperative Vs must surface in C, but Neg heads NegP, and constitutes a minimality barrier for V-to-C movement. This is not true in AGk, which displays negated imperative sentences.

The contrast in Imperatives relates to the role of the root C, since AGk Neg shares the structural properties of its MGk counterpart. That is, AGk

[14] AGk resembles SC in allowing apparent multiple wh-fronting, as in the last clause of (i):

(i) (a) Epeidan tis tina philêi, poteros poterou philos
when one another love.IND.35 who of.who lover
gignetai;
become.IND.35?
‘When one person loves another, which one is the lover of which?’

(Plato, Lysis, 212a)

(b) [CP poteroi, [IP poterou philos, [IP t, gignetai t]]]

This area requires research, but if the frontings in (ia) result from wh-movement of poteros ‘who’ and Scrambling of poterou philos ‘of.who lover’, the first wh-phrase could be in Spec-CP and the second could be scrambled within IP, as shown in (ib), like in Rudin’s analysis (1988) of SC. Under this analysis, the final V is not in C.

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Neg is the head of NegP with IP as complement, is L-related to V, and disallows Incorporation of V. AGk negated Imperatives and other negated Vs are unproblematic, however; they can remain in IP since they do not license their features in C. By contrast, due to licensing requirements MGk Imperatives must raise to C, but cannot raise past Neg, which leads to a conflict. While Vs distribute along similar lines in AGk and SC, the status of Neg is different in these two languages. The difference is that the SC Neg allows Incorporation of V. As a result, SC negated Vs can be in C to fulfill the W-function, but no evidence exists that negated Vs are in C in AGk.

Evidence that in AGk Neg heads NegP and takes IP as complement is strong, and applies to both *ouk* and *mê*, the two lexical items for clausal negation. First, Neg appears early in the clause, usually in first or second position, and precedes V, but often is non-adjacent to it, since V-final clauses are common. As to *ouk*, this situation is illustrated in the apodosis of (28a) (*ouk egô aitios* Neg I responsible ‘I am not responsible’), and the interrogative sentences in (32) and (33).

(33) **Ouk** epi têν ekeinou pleusometha;

    *NEG against the his set. sail. IND. IP*

    ‘Shall we not set sail against his country?’ (Demosthenes 4.44)

As to *mê*, lack of adjacency between Neg and V is illustrated by the Imperative in (22) (*Mê mega lege*), and the examples in (34). In the non-root clause in (34b), Neg follows the complementizer and precedes the subject, not an unusual word order.

(34) (a) **Mê** agroikoteron eî to alêthes eipein.

    *NEG too + rude is. SUBJ. 3S the truth tell. INF *

    ‘I suspect it is too rude to tell the truth.’

    (Plato, Gorgias 462e)

    (b) **Ei mê** umeis èlthete...

        if *NEG you come. IND. 2S*

        ‘If you had not come…’ (Xenophon, Anabasis 214)

From this, we conclude that Neg is a head that often appears as a Spec-less predicate with a V-final IP complement, as sketched in (35a,b), for (32) and (34b) respectively. This order also shows that Neg does not incorporate V:

(35) (a) \[NegP [Neg [NegO ouk] [IP epi têν ekeinou pleusometha]]\]

(b) \[[CP [C' [Co eî]NegP [Neg [NegO mê]] [IP umeis èlthete]]]]\]

Under this approach, the negative Imperative in (22) is as in (36). This pattern illustrates that Imperative sentences show no special word order. To repeat, (a) Neg is a predicate taking IP as complement, with V in final position, (b) Neg does not incorporate V, and (c) V need not be in C.

(36) \[NegP [Neg [NegO mê] [IP mega lege]]\]

Second, Neg is less often clause-final, as when the item preceding Neg is contrasted, like in (37).
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(37) (a) 
Oi de stratēgoi eksēgon men ou, sunekalessan de. 
the P generals lead.out.IND.3P P NEG called.together.IND.3P P 
‘And the generals did not lead them out, but called them together.’
(Xenophon, Anabasis 6.4.20)

(b) [[CP [IP, oï de stratêgoi eksēgon] [WP men [NegP ou [IP t]]]]]
(c) [[LDP oï de stratêgoi [[CP [IP, eksēgon] [WP men [NegP ou [IP t]]]]]]

The contrastive reading of this sentence suggests IP-preposing, as in the analysis in (37b). Alternatively, the initial NP could be a left-dislocated phrase (LDP), and external to the IP that is preposed, as in (37c), partially suggested by an anonymous referee. What is important is that IP moves before the WP-particle, and we assume that it lands in Spec-CP, like phrases that undergo Topicalization as a fronting process. This further motivates the claim that Neg is a head, because it licenses the fronting of its complement like English modals (Lead them out, he certainly will), and can remain stranded, also like a modal. Under the perspective we just developed, (38a) is another case of X_{max} movement to Spec-CP, as in (38b), with mê as licensing head.

(38) (a) Apoloito men mê. 
perish.OPT.3SG P NEG 
‘Perish, indeed, may he not.’
(Euripides, Medea 83)
(b) [[CP Apoloito [c [WP men [NegP mê [IP t]]]]]]

To summarize, AGk is a W-language with particles in WP. W-particles require support by Spell-out, or PF. When C is not overtly filled, as in root clauses, support is provided by either X_{max}-fronting to Spec-CP, which subsumes the process known as Topicalization, or V-to-C as last resort. A result of the last resort nature of V-to-C is that C cannot contain strong V-

[15] As stated, we assume that sentential particles that establish connections among different clauses are in WP. In addition, when P has a focalizing effect on a fixed constituent, it could be that it heads a functional projection in a non-sentential constituent such as DP. For instance, the first clause in (37) contains two independent particles: Oi de stratēgoi eksēgon men ou. In our analysis, men is the sentential P contrasting the first clause with the second, and is in WP, as in (37b-c). De as focalizing P could be in DP, as in [LDP of [WP de [Ip stratēgoi]]], that is, second in DP, and not a sentential particle.

The interesting example in (i) (Herodotus 1. 6 1) cited by an anonymous reviewer suggests that small clauses may also contain a WP-projection. As a result, particles need not appear in the second position of the sentence that contains them:

(i) Kroisos én [Lydos men genos], [pais de Alyattēo].
‘C. was Lydian on-the-one hand by birth, child but of A.’

And see Denniston (1954) for a semantic study of Greek particles, and discussion of their position.
features, and, in particular, Imperative features. Like other Vs, Imperatives license their features within IP, in a position lower than Neg. Thus, AGk Imperatives have no special syntax, and can be negated.

3.3 Deriving 2P effects in W-languages

We have argued that Imperatives have a similar syntax in SC and AGk as the result of W-effects. In this section, we examine the theoretical assumptions that derive those effects. We adopt the formal system of Kayne (1994), where word order and phrase structure are closely related. In particular, in this system multiple adjuncts/specifiers in one $X^{\text{max}}$ are disallowed, and adjunction to the right is not possible. Within this system, 2P-order in SC and AGk derives from the interaction of three factors: (a) the WP-projection, with W-items in Spec-WP, (b) the licensing requirements of those items and (c) the last resort nature of the V-to-C rule.

First, following Rivero (1994c), we view the W-position as a functional projection WP that complements C, in tune with Cardinaletti & Roberts (1991), Halpern (1992), Rouveret (1992) and Uriagereka (1992, 1995), among others. We also adopt the idea that W-items occupy the Spec of this projection, following a proposal of Shlonsky (1994) for West Flemish subject clitics. This results in the structure in (39), with P standing for discourse particles in AGk, and CL for clitic pronouns in SC:

$$[	ext{CP } C [\text{WP CL/P } [\text{wW WYP}]]]$$

In non-root clauses, W-items are strictly adjacent to C, as in 

\textit{Ei de duo eks enos agónos gegenésthon} ‘if two trials have been made out of one’ and \textit{Ako ti bog ne pomogne} ‘if God does not help you’. This follows from the assumption that (a) CL/P is in the Spec-of-WP, and (b) further adjunction to WP is disallowed. Thus, C and CL/P must be strictly adjacent to each other, with no material separating the two.

Second, main clause CL/P cannot be first in AGk and SC, which means that CP must be phonologically filled if CL/P is present. This is not the case in other languages: West Flemish subject clitics are in Spec-WP, but can be first, and Slovenian clitics have the same characteristics as SC clitics, but can be first in Yes/No questions. That is, in some languages, CP need not be filled if WP is present. This difference follows from the second factor that we hold responsible for 2P in our Class II languages, the PF-licensing requirements for W-items. We propose that W-items in AGk and SC must be licensed by appearing inside the internal domain of a C which is visible before Spell-out/PF. A C is visible in PF if (a) it is filled by material with phonological content, such as a complementizer or V or (b) if its Spec is filled by overt material. We define Internal domain as in Chomsky (1993): a head has as internal domain its minimal complement domain. In our case this amounts to saying that clitics are contained in WP, so they must be licensed.

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by C, which is the head that has WP as its internal or minimal complement domain, as in (40).

(40) CP
    Spec C'
    C Internal Domain of C

In simple terms, CL/P in W-languages must be preceded by one overt constituent contained in the CP-layer. In main clauses like in embedded clauses, the first constituent supporting a 2P W-clitic must be in CP, and it cannot be in WP, since adjunction to WP of either an XP or an X₀ is disallowed. The internal domain condition ensures the existence of an overt constituent in CP, giving rise to the two main situations discussed above. First, when V precedes CL/P, as in (41), corresponding to Eboulomên men ‘and I wish’ and Čitate je ‘you are reading it’, it must be that V has moved to C, which makes C visible before Spell-out. Thus, CL/P in (41) is licensed by the item in C in the same way as in (39):

(41) \[ \text{CP}_C \ [\text{V}_W] \ [\text{WP}_C \ [\text{CL/P}_W \ [\text{W}_W \ [\text{IP}_W \ t_i]]]] \]

Second, when YP precedes CL/P, as in (32), corresponding to Epeita de kai ti pathoimi ‘After that, may I suffer anything’ and Knige im čitate ‘You are reading books to them’, the first constituent is in the Spec-CP, since multiple adjuncts in WP are disallowed. In this case, CL/P is licensed by being contained in the internal domain of a C that is made visible because it has been filled by Spec-Head agreement with YP (Dynamic Agreement, in Rizzi’s terms (1990)):

(42) \[ \text{CP}_C \ [\text{YP}_1 \ [\text{C}_C \ Ø]] \ [\text{WP}_W \ [\text{CL/P}_W \ [\text{W}_W \ [\text{IP}_W \ V_t]]]] \]

In addition, (42) shows that when YP is fronted, V remains in IP, and cannot raise to C because YP and V-frontering never combine. The contrast in V-order in (41) and (42) follows from the third factor behind the derivation of 2P in Class II languages: the last resort nature of V-to-C. This process only applies when no other constituent fronts to CP to license the 2P-item in WP.¹⁶ This last factor prohibits third position W-items in SC and AGk, and in our approach excludes the possibility of strong V-features hosted by C.

Such V-features remain unlicensed when V-raising is prevented by economy considerations. This explains why imperatives show no special word order in Class II, in contrast with Class I.

Under our approach, the V-to-C movement rule of SC and AGk proceeds along the lines of Lasnik’s Self Enlightened Interest principle: it applies overtly in the syntax to satisfy the PF needs of CL/P, and not to license V-features. When wh-movement or Topicalization apply, they are triggered by features located in Spec-CP and unrelated to CL/P, but the PF licensing requirements of CL/P can then be met as a side effect of these fronting rules. However, if Topicalization and wh-movement do not apply, the last resort process applies and moves the V that has licensed its features in I to C, providing the PF licenser required by CL/P. It is well known that V-movement to C has no topic-like effects in these languages, and that sentences with initial Vs represent stylistically unmarked word orders. The fact that Vs with different logical moods can be sentence-initial confirms this idea from another perspective.

4. CYPRIOT GREEK: A MIXED SYSTEM?

Cypriot Greek (CGk) is interesting because its properties appear to be mixed. On the one hand, it resembles AGk and SC in displaying apparent 2P-restrictions on clitic pronouns, so contrasts in this respect with (standard) MGk. On the other hand, like MGk but unlike AGk and SC, it displays distinctive Imperative syntax.

Let us first outline how CGk resembles W-languages. Like the AGk discourse particles, and the SC clitic pronouns, CGk clitic pronouns cannot be initial, and are preceded by V, as in (43), which contrasts with MGk (44):

(43) (a) *To edkiavasa.  
   it read.PAST.IS  
   CGk
(b) Edkiavasa to.  
   ‘I read it.’

(44) (a) To diavasa.  
   it read.PAST.IS  
   MGk
(b) *Diavasa to.

Like AGk Vs, the CGk V can follow clitics when an item like the initial NP in (45a) has undergone the fronting process known as Topicalization. With such a fronted NP, it is impossible for V to precede clitics: (45b).

(45) (a) Touto to vivlio sou edoken i Maria.  
   this the book to.you give.PAST.2S the Mary  
   ‘This book Mary gave to you.’
(b) *Touto to vivlio edoken sou i Maria.
Word order in (44)–(45) may suggest that CGk belongs to Class II, with an inert root C filled by V by the last resort process which is triggered to support second position clitics, failing to combine with fronting rules such as Topicalization. We later argue that (45a) involves last resort V-movement for non-imperatives, with the landing site being a position in the clause lower than C. However, if CGk belonged to Class II, its Imperatives (a) should be negated without conflict and (b) should show flexibility as to the relative order of CL and V, but both of these predictions are disconfirmed.

Firstly, CGk Imperatives cannot be negated, as (46b) illustrates, in contrast with Vs lacking intrinsic logical mood, like the Subjunctive in the embedded clause in (47a), or the Indicative in the main clause in (47b), which are negated:

(46) (a) Fige!
   leave.IMP.2S
   ‘Leave!’
(b) *En/mi fige!
   ‘*Don’t leave!’

(47) (a) Theli na mi figi.
   want.3S.M NEG leave.PRES.3S
   ‘She wants not to leave.’
(b) En theli na figi.
   NEG want.PRES.3S.M leave.PRES.3S
   ‘She does not want to leave.’

Secondly, Imperative Vs and CL display a rigid position. As (48a–b), illustrates, V never follows CL, even when a NP fronted by Topicalization is initial. In this way, Imperatives and Indicatives contrast, as the comparison of (45) and (48) shows:

(48) (a) Tuto to vivlio dose tou!
   this the book give.IMP.2S to.him
   ‘This book give to him!’
(b) *Tuto to vivlio tou dose!

Therefore, in non-imperative sentences, CGk is reminiscent of Class II. However, in imperative syntax, it belongs to Class I. To account for the above situation, we propose that CGk belongs to Class I as to the properties of C, and we adopt the idea in Terzi (1994) that CGk is not a language with clitics in WP, displaying a first position-prohibition for clitics that is not identical to the 2P-requirement of W-languages. These three factors result in rigid word-order characteristics in Imperatives like those of MGk, and alternations of V + CL vs. CL + V orders in non-imperatives resembling AGk.

In imperative sentences, CGk has a strong V-feature in C, so Imperative Vs must overtly raise to that position to license it. This accounts for their
incompatibility with Negation and entails that they show only one grammatical option as to clitic order. Earlier, we suggested that the root C is the syntactic node for logical mood, that Imperative morphology is endowed with intrinsic logical mood so that Imperatives surface in C, and CGk Imperatives conform to this situation.

As to non-imperative Vs, the ban against initial clitics, and the CL + V vs. V + CL alternation resulting from this prohibition, we adopt the analysis of Terzi (1994). On this view, CGk clitics cannot appear first, need not appear second, and can be third, or fourth. This is because (a) CGk clitics like MGk clitics are in a position in the clause that is lower than the WP of W-languages and (b) must comply with a PF-licensing requirement that ensures the presence of at least one preceding constituent, but does not legislate against more than one constituent before the clitic.

The difference in the position of CL in CGk vs. the W-languages is the crucial factor behind the properties of Imperatives, since it allows CGk to use C in ways that differ from those discussed in the previous section. Since CGk clitics are not in WP but lower in the clause, and require PF-support, they can be supported by constituents in positions lower than Spec-CP or C. By contrast, clitics in WP must necessarily be supported by material in either Spec-CP or C, which is filled last resort with any type of V. Given that the CGk C is not reserved for supporting clitics as a last resort, it can hold the strong feature indicating imperativity, as in class I languages. As a consequence, in CGk and MGk Imperatives V-movement to C is similar, in contrast with AGk and SC. The process is overt, and must always apply obligatorily to license the strong feature. Thus, given that the strong Imperative feature in C must be licensed, V-fronting in Imperatives differs from the last resort rule that applies only in the absence of other frontings.

An important difference is that the fronting process dubbed Topicalization does not interfere with V-raising in Imperatives. The two can combine, as in (48), resulting in a structure with the clitic in third position, with V-raising satisfying the strong Imperative feature, and Topicalization satisfying the syntactic Topic feature (equivalent to 'focus' in semantic terms). We saw that in W-languages, the word-order parallel to (48) is ungrammatical, regardless of verbal morphology: SC Knjige *im čitajte! 'Read books to them!' vs. *Knjige čitajte im! This is because in W-languages, Imperatives and other Vs raise to C as last resort, not to license their own features. Therefore, (48) is important in that it provides strong evidence that CGk is not a W-language.

However, clitic position in (43b) vs. (45a) suggests that, abstracting from Imperatives, CGk shares with W-languages the last resort V-movement rule that supports clitics, and fails to combine with syntactic frontings like Topicalization. However, if CGk clitics are not in WP, the V-fronting rule need not place the non-imperative V in C, because lower clause positions that ensure support for clitics are available. That is, under principles such as
Shortest Move (Chomsky 1993), a landing site that precedes CL suffices to license it, so C need not be involved in the support function. CGk C is never used for last resort V-movement, in contrast with C in W-languages. Having outlined our proposal, we now summarize the motivation for (a) the structure of CGk clitics and (b) their PF-licensing requirement, which is at the core of our solution.

CGk clitic position differs from SC clitic position in important ways. Firstly, in main clauses with neutral word-order (i.e. no Topicalization), the CGk clitic must be adjacent to V and not necessarily in 2P, while the SC clitic must be in 2P and not necessarily adjacent to V, as the contrast in (49) illustrates:

(49) (a) Poli anthropi panda kamnoun to sosta. CGk
    many men always do. PRES. 3P it correctly
    ‘Many people always do it correctly.’
(b) Mnogi ljudi ga pažljivo čitaju. SC
    many people it carefully read. PRES. 3S
    ‘Many people read it carefully.’

Secondly, in embedded contexts, CGk clitics are always adjacent to V, and need not immediately follow C, while SC clitics must follow C as the determining characteristics. A first pattern illustrating this contrast is (50a,b): here CGk to ‘it’ follows V, and SC ga ‘it’ follows C. Alternative orders are excluded:

(50) (a) Ksero oti poli anthropi kamnoun to sosta. CGk
    know. is that many men do. PRES. 3P it correctly
    ‘I know that many people do it correctly.’
(b) Znam da ga mnogi ljudi pažljivo čitaju. SC
    ‘I know that many people read it carefully.’

A second case with the CGK clitic adjacent to V and the SC clitic adjacent to C is (51a,b), with the CGK clitic preceding V this time, which would also be the case if the subject was located after the verb:

(51) (a) Lipoume pou i Maria en to dkiavazi. CGk
    regret. PRES. IS that the Mary NEG it read. PRES. 3S
    ‘I regret that Mary does not read it.’
(b) Zali što ga Maria nije kupila. SC
    regret. PRES. IS that it Mary not. has bought
    ‘I regret that Mary has not bought it.’

Based on these and other considerations, Terzi (1994) proposes that CGk clitics occupy the same slot as MGk clitics: the functional projection notated FP in (52a) for (51a). This projection is the complement of Neg and contains IP as complement. Recall that SC clitics are in WP, which complements CP and contains NegP as complement (Rivero 1994c), as in (52b) corresponding to (51b).
(52) (a) $[\text{CP}_{\text{co}} \text{ pou}][\text{NegP i Maria}][\text{NegM en}][\text{FP to}][\text{IP dkiavazi}][]$
(b) $[\text{CP}_{\text{co}} \text{ sto}][\text{WP ga}][\text{NegP Maria nije kupila}][]$

For Terzi, the difference between CGk and MGk clitic position in non-imperative sentences follows from licensing: namely, CGk clitics have a strong feature that needs licensing before Spell-out, which is not the case in MGk. The strong feature is licensed when the clitic is in the internal domain of a functional head meeting two conditions: (a) it must have A-bar characteristics and (b) be visible in PF/Spell-out. Let us see how this works and explains the differences not only with MGk clitics, but also with clitics in W-languages.

Prototypical functional heads with A-bar characteristics have operator features in their lexical entry, and these include Neg and M (for modal particles). Neg and M head NegP and MP respectively (Rivero 1994a, Terzi 1992, among others), so if they are present, they are visible by Spell-out. CGk has no lexical entry for a Topic head; however, it can be assumed that the operator features of this head become visible by Spell-out if the Spec of CP is filled by $X^{\text{max}}$-movement (Lasnik & Saito 1992) in the process traditionally known as Topicalization; that is, here, visibility results from Spec-Head Agreement. In the same vein, $wh$-movement has the same effect as Topicalization: a $wh$-phrase that moves to Spec-CP, endows C with A-bar characteristics that are visible in PF.

Let us now establish how these heads contribute to the licensing of clitics in CGk. When the CGk clitic is in the complement of Neg, as in (53a), of M, as in (54a), of C with Topicalization as in (45a) repeated now as (55a), or C withwh-movement, the clitic’s strong feature is licensed. Intuitively, the constituent before the clitic is of the type that counts as first position. More technically, the strong feature is licensed because the clitic is contained in the internal domain of an A-bar head made visible in PF via the phonological content in either $X^0$ or Spec.

(53) (a) En $to$ edkiavasa.
     NEG it read.PAST.1S
     ‘I didn’t read it.’
(b) *En edkiavasa $to$.

[17] Haegeman (1994) maintains the traditional A/A-bar dichotomy (Chomsky 1981, and later work), in addition to the newer L/non-L-related dichotomy (Mahajan 1990, Chomsky & Lasnik 1993, Chomsky 1993), which gives rise to four kinds of positions, reminiscent of proposal by Weibelhuth (1992). Irrespective of L-status, for Haegeman a Spec is an A-bar position when it agrees with a head as to operator features like WH, NEG, and FOC(us). Our proposal deals with licensing effects on clitics of A-bar heads, but the characterization coincides with Haegeman’s. Recall as well that in section 2 we proposed that the A-bar nature of Neg is the factor that prevents V-to-C in Imperatives in Class I languages, which now includes CGk.
IMPERATIVES, V-MOVEMENT AND LOGICAL MOOD

(54) (a) Thelo na ton do.  
  want PRES.1S M him see PRES.1S  
  'I want to see him.'
(b) *Thelo na do ton.

(55) (a) Touto to vivlio sou edoken i Maria.  
  this to you give PAST.3S the Mary  
  'This book Mary gave to you.'
(b) *Touto to vivlio edoken sou i Maria.

(56) (a) Pios ton ide?  
  who him see PAST.3S  
  'Who saw him?'
(b) *Pios ide ton?

Without a visible A-bar head, V must precede CL, and cannot follow it. This is observed in at least two types of main clauses. The first is the V that is clause-initial and precedes CL, as in (43b) repeated now as (57).

(57) Edkiavasa to.  
  'I read it.'

The second is the case with one or more neutral non-topicalized phrases in sentence-initial position and V before CL, as in (49a) repeated now as (58). Here, neither subject not adverb count for 'first position' in the relevant sense, while V does:

(58) Poli anthropi panda kamnou to sosta.  
  'Many people always do it correctly.'

We propose that in (57)–(58) word order results from application of the last resort V-movement process that CGk shares with AGk and SC, and licenses clitics. However, there are two important differences between CGk, and W-languages. The first difference is that the AGk P and the SC CL are in WP, and V raises to C, so as to license them. However, CGk clitics are not in WP, and (58) shows that the landing site of V is before clitics, and after non-contrastive preposed phrases. Thus, V in CGk does not reach C, but moves to the first available Xº that has the clitic in its internal domain. More precisely, if (58) contains two functional projections whose heads are empty and whose Specs are filled, as schematically shown in (59a), Xº-movement raises V to the first of these empty heads, as in (59b):

(59) (a) [YP poli anthropi vo [e] [XP panda xo [e] [CL/IP [V]]]]
(b) [YP poli anthropi vo [e] [XP panda xo [V] [CL/IP [tí]]]]

The second difference pertains to the obligatory movement of V past the clitic in (57)–(58). This follows from the requirement that the licensing head for CGk clitics have A-bar properties. V must raise in (57)–(58) because the Xºs heading the functional projections are featureless, as they result from the absence of multiple adjunction in the system we adopt. Under such
conditions, V-raising is like an A-bar movement, and ensures that the clitic can be licensed before Spell-out because it makes the head c-commanding the clitic visible.

Interesting variations in clitic position in embedded clauses further motivate the different effect of A-bar heads vs. other functional heads. These alternations also show that CGk has a root/non-root distribution for clitics that differs from the one in W-languages.

In factive clauses, which contain the complementizer *pou, order must be CL+V, as in (60). The preverbal or postverbal position of the subject or its absence do not affect this point:

(60) (a) Lipoume pou (i Maria) to dkiavazi (i Maria).
     ‘I regret that Maria reads it.’
(b) *Lipoume pou (i Maria) dkiavazi to.

V-raising cannot apply in this environment because, as often suggested in the literature, factive C has operator features. Then, the clitic in (60) is licensed by appearing in the internal domain of pou, a head with A-bar properties visible in PF.

By contrast with factive complements, complement clauses with oti like (49a) repeated now as (61) must show V+CL order, again irrespective of the presence/absence of a preverbal phrase such as the subject:

(61) Ksero oti poli anthropi kamnoun to sosta.
     ‘I know that many people do it correctly.’

Clearly, with oti, V-raising must apply. This complementizer lacks A-bar properties, in contrast with pou; if V-movement did not apply in (61), the clitic would not be licensed, as it would be in the internal domain of a visible head, but with the wrong characteristics. Recall that nontopicalized preverbal XPs like the subject in (61) do not produce a licensing effect in our system, as they are in functional projections whose (empty) heads lack A-bar properties. As to the landing site of V in (61), since Balkan clauses contain a MP layer between CP and IP, V can land in the equivalent of this projection.18

The licensing of clitics in SC differs from the licensing of CGk clitics discussed above. SC clitics in WP are licensed in the internal domain of C, without reference to the A-bar characteristics of this head. This is why the SC complementizer da corresponding to CGk oti can license clitics in its internal domain, so disallows V-raising; this situation leads to the strict 2P-effect

[18] It might be thought that complement clauses with oti show CP-recursion; under this alternative, oti would be in C1, and a lower featureless C2 would contain V. However, two aspects militate against this solution. First, several constituents such as subjects and adverbs can intervene between oti and the V+CL sequence, indicating that V is not in C2. Second, V+CL order is the only option, so the matrix V would only take a recursive CP as complement, and reject a non-recursive CP, which is problematic. Thus, the solution in the text is preferable.

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illustrated by *Znam da ga mnogi ljudi pažljivo čitaju* ‘I know that many people read it carefully’. By contrast, (61) shows that CGk *oti* cannot license clitics in its internal domain because it lacks the appropriate characteristics, so it triggers V-raising, leading to 3P or 4P effects for clitics that distinguish CGk from SC as a W-language.

In CGk, non-imperative V-raising to license clitics is last resort, like the similar process in W-languages. It applies when an alternative licensing domain for the clitic is absent, and responds to the Enlightened Self-interest principle. Thus, this V-raising does not combine with Topicalization because this is an alternative means to endow a functional head with visible A-bar properties. Since non-imperative V-movement in CGk has exclusively this effect, it will not apply in this context.

To summarize, CGk is a Class I language, with a strong Imperative feature in C, which triggers obligatory V-raising, making CGk Imperatives identical to those of MGk: they cannot be negated, and must follow clitics. The rule that raises V to C in Imperatives is not last resort, so can combine with Topicalization. With non-Imperatives, a last resort V-movement rule that does not land V in C applies in order to provide a licensing domain for clitics. Due to its last resort nature, this second type of V-raising results in some of the 2P-effects that make CGk resemble W-languages, and does not combine with A-bar frontings such as Topicalization, because they also establish a licensing domain for clitics. CGk disallows first-position clitics because they have a strong feature that needs to be licensed in the internal domain of a head, like clitics in W-languages. However, C is the only licensing head in W-languages, while any functional head with A-bar characteristics licenses clitics in CGk. As a result, clitics surface second in W-languages, but can appear in several positions in CGk, with the exception of the initial position.

Having outlined our proposals, we conclude by contrasting AGk, CGk, and MGk. The syntactic distribution of Imperative V's in AGk vs. MGk/CGk contrasts in important ways. AGk was a W-language with 2P-restrictions. In this period, movement of V to C followed Enlightened Self-interest in the sense of Lasnik (1993): to save the derivation, V's overtly raised to C by means of an altruistic last resort process with the aim to support 2P-items. As a result, all V's had the same distribution, regardless of morphology and logical mood, and C was featureless. By contrast, MGk is not a W-language, V's do not raise to C to support 2P-items, and altruistic V-to-C movement no longer exists. MGk Imperative V's raise overtly to C because this position now holds a strong V-feature with logical mood that needs checking. Thus, Imperative V-to-C complies with the principle of Greed, and the distribution of Imperatives and other V's differs. CGk is mixed, and combines two types of V-movement: with Imperatives, raising complies with Greed, as in MGk, but with finite V's the process is altruistic, as in AGk. This is because Imperative V-raising is triggered by a strong V-feature in C while finite V-raising is triggered by the need to satisfy a first position prohibition that
affects clitic pronouns. This prohibition, however, is unlike that 2P-restriction of AGk, which always affects C. Since CGk does not have 'true' W-characteristics affecting the C-position, the CGk root C can contain the strong V-feature of Imperatives.

As to clitics, CGk clitics and MGk clitics are not in WP, but the former differ from the latter in having a strong feature that needs to be licensed in the internal domain of a head. However, CGk clitics also differ from AGk W-items in the manner they are licensed. W-items in WP must be licensed in the internal domain of C. This leads to C being filled by V if Spec-CP is empty, as a last resort option, and precludes it from holding a strong Imperative feature. By contrast, CGk clitics are in FP and can be licensed in the different internal domains defined by higher functional heads with visible A-bar properties, such as NEG, and M, or they can be licensed through last resort V-raising to a lower position than C. Thus, the CGk C has a different function: it holds the strong Imperative feature. The situation is summarized in chart (62).

<table>
<thead>
<tr>
<th></th>
<th>CL/P position restrictions</th>
<th>Licensing Head in C</th>
<th>Logical Mood in C</th>
<th>Distinctive Imp syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGk</td>
<td>Yes</td>
<td>C</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CGk</td>
<td>Yes</td>
<td>A-bar H</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>MGk</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Above, we suggested that the natural syntactic location in the clause for the logical mood that contributes to illocutionary force is C, that is, the highest functional layer of the clause. The evolution of Greek seems to support this view. That is, the logical mood of an imperative is preferably syntactically encoded in C, and Imperative Vs whose morphology is endowed with intrinsic logical mood will preferably move to that position, unless some factor interferes. In AGk Imperatives the logical mood of imperatives is not encoded in C due to the interfering factor of the Wackernagel effect, which results in a syntax for V that (a) disregards logical mood, (b) is driven by last resort considerations and (c) departs from Greek. When the W-effects making C inert and denuding if of the role of logical mood marker disappear, the development of a new imperative syntax with the less marked properties of MGk and CGk becomes possible, and in fact develops.

CGk provides an insight of the complex changes that seem to underly the loss of W-characteristics, a frequent diachronic change among Indo-European languages. On the one hand, CGk has developed what we

[19] Interestingly, AGk contrasts with the modern stages of Gk in the same way Archaic Latin contrasts with Sp. While Archaic Latin is a W-language, with negated Imperatives, Sp is similar to MGk in lacking W-properties and negated Imperatives.
consider the unmarked imperative V-syntax with C a logical mood indicator, and obligatory V-raising. On the other hand, CGk shows a V-syntax for non-imperatives that is driven by last resort considerations that depart from economy principles such as Greed.

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