

**Regulating Word Order in Modern Greek:
Verb Initial and non-Verb Initial orders & the
Conceptual-Intentional Interface**

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I, Axiotis Kechagias, confirm that the work presented in this thesis is my own.
Where information has been derived from other sources, I confirm that this
has been indicated in the thesis.

To my family

ABSTRACT

After I introduce the notions ‘configurational’, ‘discourse-configurational’, and the basics of the minimalist syntax, on the one hand, and notions relevant to information packaging, on the other hand (Chapter 1), in the following three chapters I proceed to a detailed examination of the syntactic properties of verb-initial and non-verb initial orders, insisting on certain debated aspects.

In particular, in Chapter 2, I compare the syntax of VSO and that of the ‘problematic’ VOS order; I show that what differentiates the two constructions is that the latter order is due to a flexible strategy in the narrow syntax that allows the object to pied-pipe alongside the verb to the TP domain. In Chapter 3, I discuss clitic doubling for which I put forward an alternative account involving feature copying that allows the same DP to occur in two positions in the structure at the same time. In this light, I further argue that clitic doubling is a parameterized version of A-movement. In Chapter 4, I deal with the properties of a range of constructions targeting the preverbal domain. I argue that the peculiar behaviour of CLLD is due to that it is the result of two operations, namely, A-movement in the form of clitic doubling and A-bar movement. I also show that non-focal LD is more productive than previously thought and that the construction involves mere A-bar movement.

In the remaining two chapters I shift attention to issues related to the discourse-configurational nature of the language and information structure. After I discuss various models of integrating information structure into the minimalist grammar (Chapter 5), I argue that Information Structure can refer either to pragmatic articulations or more abstract logico-semantic strategies or both. Regarding the latter one, I show that Greek formally realizes via its word order two such strategies: a predicative and a non-predicative, the former

surfacing as non-Verb initial orders and the latter one surfacing as verb-initial orders. In the second half of Chapter 6, I deal with the interpretive effects of doubling. In particular, I argue that doubling in Greek invariably marks a DP as a topic. I also show that non-focal left dislocated DPs in Greek are fronted ground material that serves as an anchor for the introduction of new information into the discourse.

Chapter 7 summarizes the major contributions of the current thesis.

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anaphora (i.e. pro-drop); and (c) use of discontinuous NPs². With respect to that, the question that naturally arises is the following one: If for the so-called configurational languages the most decisive factor for the way words are put together is the expression of syntactic functions and the argument relations, what regulates word order in those non-configurational languages? As an (obvious) answer to this question many researchers have highlighted the role of what is referred to as ‘the discourse’.

Li & Thompson (1976) distinguish languages according to the prominence of subject and topic. They claim that some languages, such as Chinese, can be more insightfully described by taking the discourse notion of ‘topic’ to be basic and analysing the basic structure as topic-comment (rather than subject-predicate). This implies that in topic-prominent languages the structural encoding of the discourse function ‘topic’ is more important than the encoding of the syntactic function ‘subject’ in word order. Languages where the words in a sentence seem to be ordered according to the discourse functions have been called ‘discourse-configurational’.

E. Kiss (1995:6) defines discourse-configurationality as follows. A language is discourse-configurational if (in intuitive terms):

- a. The discourse-function ‘topic’, serving to foreground a specific individual that something will be predicated about (not necessarily identical with the grammatical subject), is expressed through a particular structural relation (in other words, it is associated with a particular position).

² A number of other languages, which do not exhibit all these characteristics, have also been named non-configurational, under a broader definition of non-configurationality suggested by Bresnan & Mchombo (1987): subject and object functions are not distinctively encoded by phrase structure. Baker (2003) provides a list of these languages.

Or

- b. The discourse-function ‘focus’, expressing identification, is realized through a particular structural relation (that is, by movement into a particular structural position).

Languages can also have both properties. Kiss (1998:5) provides a list of languages that have been identified as discourse-configurational, some of which are also in Baker’s (2003) list of non-configurational languages. These languages come from a range of language families. Probably the best-known example of a discourse-configurational language is Hungarian, where an identificationally focused element (1.2) must occur in the position immediately preceding the verb.

(1.2.) Identificational Focus

“An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrased can potentially hold: it is identified as the exhaustive subset of this set for which the predicate phrase actually holds.”

(Kiss 1998:249)

The object in Hungarian typically occurs after the verb, like ‘egy kalapot’ in (1.3a), but it is preposed to precede the verb when interpreted as identificational focus (1.3b):

(1.3.) a. Mari ki nézett magának [egy kalapot]

Mary out picked herself.DAT a hat.ACC

“Mary picked for herself a hat”

b. Mari [egy kalapot] nézett ki magának

Mary a hat.ACC picked out herself.DAT

“It was a hat that Mary picked for herself”

In the same spirit, Rizzi (1997) argues that Italian marks not exhaustivity but rather contrast: thus in Italian contrastive foci are marked structurally by moving the focal element to a designated position in the left extremity of the clause (see also Cinque 1999, Poletto 2000, Beninca 2001, Belletti 2004 *inter alia*). This movement is either overt as in (1.4a) or covert as in (1.4b):

- (1.4) a. [Il TUO libro] ho letto (non il suo)
the your book have-1s read (not the his)
 “It is your book that I have read”
- b. Ho letto [il TUO libro] (non il suo)
have-1s read the your book (not his)
 “It is your book that I have read”

With respect to this and the general discourse-configurational parameter, the conclusion that must be drawn is that there is a lot of variation within these languages and that there is no single non-configurational type³. On the other hand, the following question arises: In configurational languages, e.g. English, don’t discourse principles play a role in the way words are put together? Of course, answering ‘no, they don’t’ to this question would be absolutely counter-intuitive, since language’s primary goal is to communicate information and information is—in away—parasitic on the discourse. Indeed, a closer examination of data from English reveals that word order ceases to reflect necessarily only syntactic functions and argument structure. For the sake of the argument, while objects in English typically appear in the postverbal domain, in (1.5) where ‘Mary’ is interpreted as a contrastive/exhaustive focus the object appears in the preverbal domain, preceding the subject:

³ I refer the reader to Pensalfini (2004) for a more detailed discussion on this.

(1.5.) MARY John kissed

One the other hand, despite the fact the syntactic functions [subject] and [object] in a language like Greek are by-and-large deducible by nominative and accusative case-marking respectively, in cases where nominative and accusative morphology overlap—as it typically happens in the inflectional paradigm of neutrals—speakers of Greek have a strong tendency to identify preverbal DPs as subjects, and postverbal DP as objects (i.e. in the absence of discourse). The example in (1.6) below illustrates this:

(1.6.) kapio ayori filise ena koritsi (SVO) (%OVS)
some boy kissed some girl
 “A boy kissed some girl”

What observations like the ones above show, is that word order in languages can be just partly determined by discourse or be partly configurational. In this light, it becomes evident that a division into configurational or non-configurational (or discourse-configurational), is descriptively inadequate and very unlikely to be valid. Instead, word order can be viewed as a linguistic means used to express both syntactic functions and discourse functions, where it is seldom the case that languages have their word order determined purely by syntactic principles or solely by discourse principles. All languages are somewhere on the continuum between these factors determining word order, reaching from high influence of discourse on the one end of the continuum, to a high influence of syntax on the other (see Pensalfini 2004, van der Wal 2009)⁴. Where a language is on this continuum may be related to the alternative means a language has to express syntactic relations or discourse functions, besides word order. If a language has a broader inventory of means to encode syntactic relations, for example, the morphological marking of case and agreement, the word order in that language

⁴ Word order, thus, can never be ‘free’.

is more easily used to encode discourse functions. If, on the other hand, a language lacks these alternatives, then word order is used to make clear what the subject or object is. In that case the language can resort to other means, such as prosody, for the encoding of discourse information.

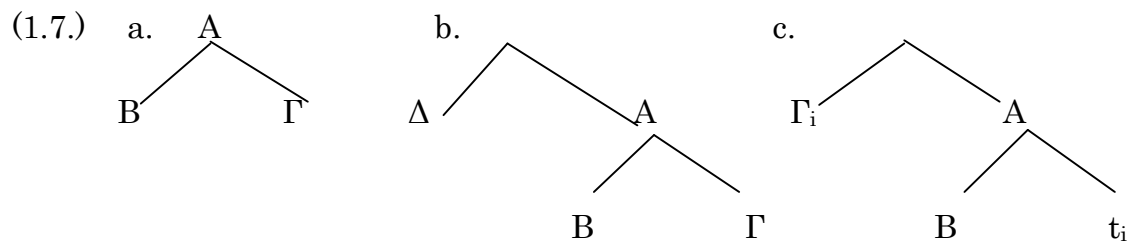
At this point let me expose the way this thesis is structured. In the remainder of this Chapter, I present the generative model of grammar and the minimalist syntax, I introduce and discuss the concept of ‘Information Structure’, I briefly discuss the relation between word order and information structure in Greek, and I define the aims of this thesis. Chapters 2, 3 and 4 are devoted to a discussion of the syntactic machinery of Greek. In particular, in Chapter 2 I deal with issues concerning verb-initial word-orders, and especially the syntax of the problematic VOS order. In Chapter 3 I discuss the syntactic properties of pronominal doubling in Greek, while in Chapter 4 I discuss non-verb-initial orders and particularly the syntactic properties of the debated CLLD. In Chapter 5 I discuss some major models of IS and the way these are integrated into the Grammar. Finally, in Chapter 6 I deal with the interpretive properties of various word orders in Greek and I show that IS may not refer only to the pragmatic articulation of information flow but rather to more abstract conceptual strategies in the Conceptual/Intentional Interface. Chapter 7 offers an overview and some conclusions.

2. The Minimalist Grammar

The main idea of the generative model of linguistics is that the structure-building part of the language system, that is the core computational system or ‘syntax’, can be studied independently of the lexical meaning or context. In the last decades the hypothesis that has been examined is that syntax is a perfect and economical system. The question posed under this hypothesis is the

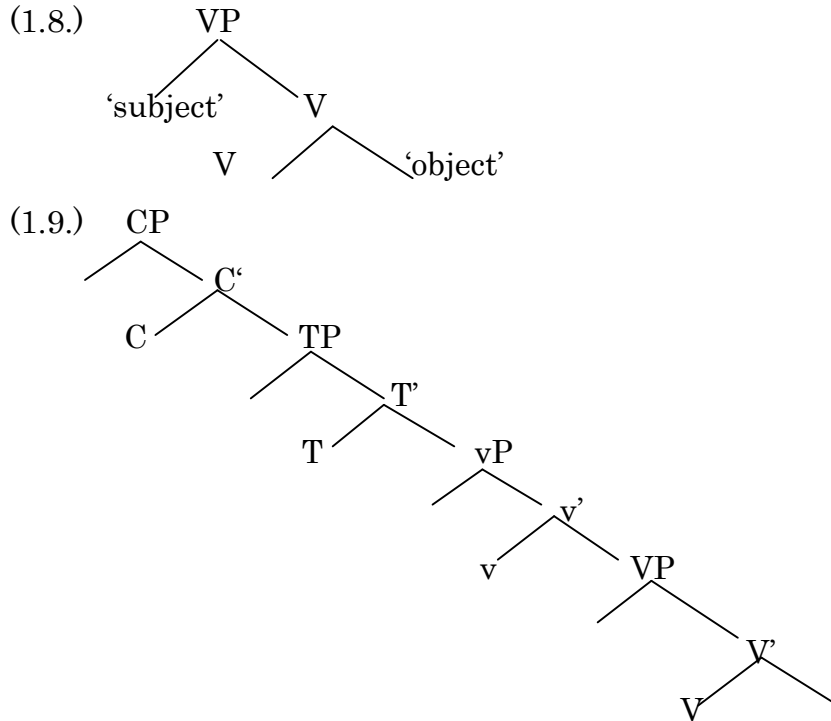
following: suppose that the syntax has minimal means to structure meaning: how far can we get in explaining the properties of linguistic constructions? This is the line of research the generative syntax—especially through its latest theoretical advances codified as the ‘Minimalist program’—has been following.

The input for the structures to be built is the lexical items. These are first selected from the lexicon to form the exhaustive collection of the elements the sentence will consist of, which is called the ‘Numeration’. What syntax does with these lexical items is to combine them to form new, larger units or ‘constituents’. This happens by applying the operation ‘Merge’, which happens to be the only operation postulated in current minimalist syntax (Chomsky 1995, 2000, 2001, 2005, 2006). This operation takes two linguistic elements and combines them, thereby creating a new unit (1.7a). Merging another element to that new unit extends the derivation by one element and forms another unit. To this new unit another element can be merged and so on. However, only one unit is added at a time, and hence Merge creates binary branching structures. When extending the derivation by one element, this element can be either new from the lexicon, like Δ in (1.7b) or from the existing derivation itself, i.e. an element that has already been merged before, like Γ in (1.7c):



The first type of Merge is referred to as ‘External Merge’, (EM) whereas the second type is called ‘Internal Merge’ (IM). Since in IM an element leaves its original position in the derivation and ends up in another position (leaving behind a trace or copy), this operation is typically referred to as ‘Move’.

Properties of lexical items can be projected to a maximal projection, of which the lexical item is the head. In (1.8) the maximal projection is a VP and the head is V. The lexical item to which a head is first merged is defined as a ‘complement’—the verb’s ‘object’ in (1.8)—, whereas the position directly under the maximal projection is a ‘specifier’. The specifier of the VP was assumed to be the position that clausal subjects originated, until the early nineties when researchers assumed that subjects are born somewhat higher in the derivation. On the top of such a maximal projection another projection is built and so on. The derivation of a sentence proceeds from the lexical/thematic domain (the VP domain) to the inflectional domain (TP/IP), and on top of that the complementiser domain (CP domain) is generated (or ‘the left periphery’), as in the tree structure in (1.9). The CP is typically analysed as the domain where sentence type (relative, embedded, question) and pragmatic (topic, focus etc) interpretation is encoded.

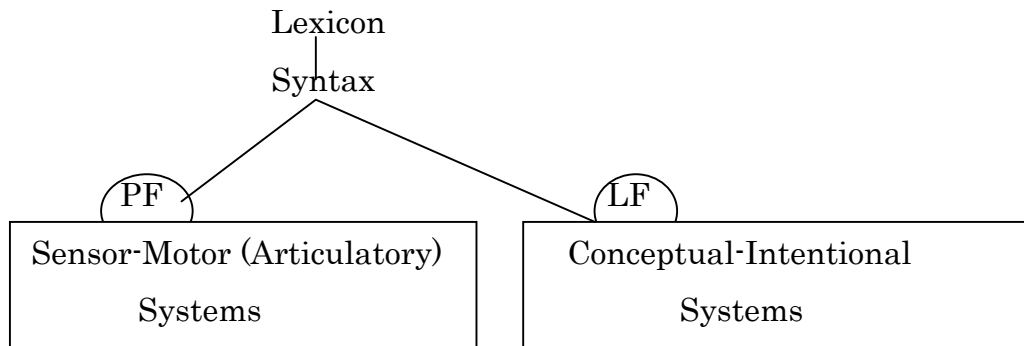


The projections in TP and CP are functional projections and their heads are active in establishing syntactic relations. Still, the inflectional domain is more

related to the lexical domain, since the inflectional domain is where lexical elements can be licensed. The position in which arguments are merged and/or licensed are called A-positions and VP and TP together are thus traditionally called the A-domain. The complementiser domain on the other hand is the A-bar domain.

By combining linguistic elements to form larger units, the syntax creates relations and dependencies between these elements. One such relation, which is often marked via morphology, is ‘Agree’. When two elements agree, they share certain features. These can be present on either one of them or both. Such features include features for person, number, gender and case. The overt expression of an Agree relation can for example be an affix on a verb, such as the subject agreement marker in languages like Modern Greek, German etc. In minimalist syntax an agree relation is initiated by a head—‘the probe’—that searches in the derivation that has been built up so far (the c-command domain). When it encounters an element that has the feature specification that the probe is searching for—‘the goal’—, an Agree relation is established between the probe and the goal. A distinction is often made between interpretable and non-interpretable features. Number and person for example are interpretable features of a noun phrase because they play a role in the interpretation of the noun phrase, but the same features are non-interpretable on a grammatical agreement affix carried by e.g. a verbal probe, since these features do not play some role in the semantic specification of the verb. The checking of these non-interpretable features by matching with interpretable ones is thus like fitting the pieces of a jigsaw puzzle.

In the standard theory (see Chomsky 1995), once the syntactic structure is completed, it is delivered to the so-called PF and LF ‘interfaces’ which are assumed to be the loci where the narrow computational component (i.e. the syntax) meets with external systems. At PF the syntactic structure is given phonological content, while at LF it acquires a meaning:

(1.10.) *'STANDARD' MODEL OF GENERATIVE GRAMMAR*

In Chomsky (2000, 2001) the syntactic structure is built in computational cycles, or ‘phases’. The kernel of this idea is that building of syntactic structures is not ‘holistic’; rather, it happens through smaller building processes or cycles. Once such a cycle is completed, its output, that is, the generated structure, is transferred to the PF and LF interfaces. Once this transfer has taken place, it cannot be accessed anymore. This is the so-called ‘Phase Impenetrability Condition (Chomsky 2001):

(1.11.) *PHASE IMPENETRABILITY CONDITION*

In phase α with head H, the domain of H is not accessible to operations outside α . Only H and its edge (specifier(s)) are accessible to such operations.

$$\text{Phase} = \{v^*P, CP\}$$

The phases are v^*P and CP (although Chomsky admits that DP can be a phase too). According to Chomsky ‘C is shorthand for the region that Rizzi (1997) calls the left periphery, and v^* is the functional head associated with full argument structure, transitive and experiencer constructions. In this way, the edge of a phase is syntactically transparent, while the complement of a phase head is syntactically opaque. Under the PIC, evacuation from a phase is therefore

contingent on an intermediate stage in the derivation in which the displaced occurrence occupies a position at the edge of the phase.

Chomsky (2005, 2006) proposes that all Merge operations are driven by features he calls ‘Edge Features’ (EFs)⁵. As such, EFs are claimed to be irreducible primitives of Universal Grammar. Chomsky maintains that EFs belong to the class of uninterpretable features, yet unlike other uninterpretable features, they are undeletable (up to the point of Transfer). Crucially, EFs are said to be present on all nodes/lexical items and must be satisfied at least once during the course of a convergent derivation by way of some variety of Merge. For Chomsky (2005, 2006) while there are two types of merge (i.e. EM & IM), there is only one species of EF. In his 2006 system, the fundamental difference between EM and IM reduces to a difference between phase heads and non-phase heads with regard to EFs. To be precise, EFs on non-phase heads are assumed to drive EM, while EFs on phase heads drive IM. Edge features of phase heads attract material to their specifiers, and the resulting movement is of the A-bar type. With respect to this, in this system raising to such positions can be multiple. Chomsky asserts that the number of specifiers is indeed unlimited and that the specifier-complement distinction is about the order of the merger.

EF of phase-heads which trigger A-bar movement, are indiscriminate, that is they can attract any goal in their search domain. This is possible because there is no feature matching (‘agreement’) with EFs. The final interpretation of the moved element depends on the position it eventually ends up. Thus, the computational system generates syntactic structures freely. Their interpretation—and potentially their ‘deviance’—is determined at the interfaces. As Chomsky (2005:10) points out: “the only empirical requirement is that S-M and C-I systems assign the interpretations that the expression actually has, including many varieties of ‘deviance’”.

⁵ Or ‘generalized EPP features.’

Chomsky (2005) wants to dissociate agreement and IM (movement). He claims that EF-driven movement to the specifiers of phase heads (C and v^*) does not involve feature matching and agreement⁶. Wh-movement is discussed as an example. Agreement, as we have seen, is reserved for features that T and V inherit from the phase heads C and v^* respectively.

Agreement can thus be one circumstance under which elements undergo movement in the derivation. Otherwise, movement can only occur if it has interpretational effects, or as Chomsky (2005:7) puts it: “To a large extent, external merge yields generalized agreement structure, while internal merge yields discourse-related properties such as old information and specificity, along with scopal effects.”

In essence, for the current (standard) minimalist model the computational system is very simple: only merge is used. Although there are two versions of merge, external and internal, the system is still very limited. This makes its output in principle unlimited, as the operation can basically combine any given linguistic object with another, creating all possible derivations. These derivations, as the output of the computational system, should be legible at the interface with other cognitive modules, or at least the conceptual-intentional/LF interface. The C-I interface checks the interpretation of the sentence and the SM interface instructs the speech organs to pronounce the sentence. The syntax must make sure that whatever structure it derives has the right form and interpretation at the interfaces. As such, these interfaces form restrictions on the derivations that the computational system derives by applying Merge.

⁶ However, because A-movement involves IM to a non-phase head, Chomsky is forced to stipulate the existence of a feature inheritance operation under which A-movement is driven by Agree plus EF inheritance from a higher phase head (e.g. the A-movement driving EFs of T^0 are inherited from C^0 , and similarly A-movement driving EFs of V^0 are inherited from v^0). These inherited features mediate agreement which can result in A-movement (it implies that object agreement takes place in the SpecVP and that if we have T without C we cannot have agreement and A-movement).

3. Information Structure

3.1 Preliminaries

The term ‘Information Structure’ (henceforth IS) was first coined by Halliday (1967) to describe the fact that the linguistic and extra-linguistic context of a sentence can have an influence on the structure of that sentence. Related notions include Chafe’s (1976) ‘information packaging’, as well as the functional sentence perspective of the Prague school (Firbas (1975), Sgall et al. (1986); see also Sgall (1993) for a general introduction). Although there is no agreement on what and how many categories of information structure should be distinguished, or how these can be identified, most works on IS make use of categories such as focus, background, topic, comment, old information, new information etc. Another issue that there is no general agreement about has to do with the nature of IS: For some researchers IS is actually an aspect of syntactic representation which interfaces with the phonological form by rules of IS realization, and receives its meaning via rules of IS interpretation (Jackendoff 1972, Büring 2003); for others, IS is a level of representation in its own right (an ‘Information Component’) at which IS-categories are distinguished in terms of structural units (Vallduvi 1990; Erteschik-Shir, 1997), whereas it may also be that IS actually depends on the psychological states of the participants in a conversation.

IS has to do with the context of the sentence, the discourse. However, IS is not concerned with the organisation of the discourse itself, but rather with the organisation of a sentence within the discourse. This means that only the connections between the context and the elements in one sentence are relevant for IS. Broader principles such as the Gricean Maxims (Grice 1975) or Relevance (Sperber & Wilson 1986, 1995) are thus only indirectly linked to the IS of a sentence. Similarly, IS is concerned with the presentation of a message rather than the message itself. The meaning of a linguistic utterance in terms of lexical

and/or propositional content remains constant. However, depending on the speaker's hypothesis about the hearer's state of mind (assumption, attention etc), that same meaning may be 'packaged' in different ways. In other words, how a speaker chooses to express a certain meaning depends (to some extent at least) on what she thinks is new or old information for the hearer.

In order to give a concrete example, consider the following pair of utterances:

- (1.12.) a. John kissed Mary
 b. Mary John kissed

The two utterances above have the same propositional content {John kissed Mary}, or—to put it in other words— they are subject to the same truth conditions⁷. Crucially, however, they cannot be uttered in the same situation. Thus while the utterance in (1.12a) can be uttered as an answer to '*What did John do?*' rendering the communication task felicitous, uttering (1.12b) as a reply to the same context is inappropriate thus rendering the task infelicitous. On the other hand, (1.12b) qualifies as a legitimate reply to a question such as '*Who kissed Mary?*'

But, what information is relevant for the IS? Or, in other words, which are the segments into which information is partitioned? In what follows I will deal with that question.

⁷ At this point note that I will not be dealing with semantic (truth conditional) differences related to IS of the type discussed in Halliday (1967): The sign 'Dogs must be carried' associated with two distinct meanings (i) If you have a dog you must carry it and (ii) What you must do is carry a dog.

3.2 The units of Information Structure

As pointed out in the preceding subsection the term ‘Information Structure’ was introduced by Halliday (1967) and it informally describes the organization of a spoken sentence which is independent to syntactic constituency:

Any text in spoken English is organized into what may be called ‘information units’ [...] this is not determined [...] by constituent structure. Rather it could be said that the distribution of information specifies a distinct structure on a different plan. The distribution of units represents the speaker’s blocking out of the message into quanta of information or message blocks.

(Halliday 1967:202)

But what should be regarded as primitives of that level of representation? Most eminently, the information given in a sentence can be evaluated with respect to either the sentence or the textual environment or the discourse. In the sentential aspect information units are described as part of what the sentence is about and what is said about it. In the discourse aspect, the contrast is expressed in already known or given vs. not given or newly introduced. As von Stechow (1999:102) notes “theories differ in whether they distinguish aboutness and discourse anchoring or not, and whether they treat both aspects or only one, or whether they mix them.” The pairs *theme-rheme* (Halliday 1967 and the Prague School) and *topic-comment* (Reinhart 1981) are typically used to refer to the aspect of aboutness, while the pairs *presupposition-focus* (Chomsky 1971, Jackendoff 1972), *background-focus* (Chafe 1976), *given-new* (Halliday 1967) and *open proposition-focus* (Prince 1981) are typically used to refer to the aspect of discourse anchoring. Daneš (1974: 134) calls the former aspect ‘utterance organization’ while the latter aspect is labelled as ‘utterance perspective’:

(i) Taking for granted that in the act of communication an utterance appears to be in essence a statement about something we shall call the parts THEME (something that one is talking about, TOPIC) and RHEME (what one says about it, COMMENT).

(ii) Following the other line, linking up utterance with the context and/or the situation, we recognize that, as a rule, one part contains old, already known or given information functioning thus as a starting point of the utterance, while the other conveys a new piece of information. The following example illustrates this dual IS partition:

(1.13.) What does John drink?

- a. John | drinks BEER >> TOPIC-COMMENT partition (aboutness)
- b. John drinks | BEER >> BACKGROUND-FOCUS partition (givenness)

Vallduvi (1990) incorporates both perspectives in his IS theory coming up with a tripartite system, where the main partition is between ground and focus, but the ground is further divided. In particular, in the example in (1.13) the subject ‘John’ is now the ‘link’ while the object ‘beer’ is the focus. The predicate verb ‘drinks’ which appears to be part of both the comment (1.13a) and the background (1.13b) is a ‘tail’. The tails alongside the link form the ‘ground’:

(1.14.) What does John drink?

John | drinks | BEER >> GROUND | FOCUS
 Link | Tail | FOCUS

However, in subsequent work, Vallduvi comes back to that dual layering of IS. For instance, in Vallduvi & Vilkuna (1998) it is assumed that the linguistic message is partitioned in theme/rheme and that each part is further divided into ‘background’ & ‘kontrast’, where theme/rheme is comparable to the division

between topic and comment and the background/kontrast dichotomy more or less aligns with the ground/focus partition in Vallduvi (1990). The example in (1.15) illustrates this idea:

(1.15.) A: I know that this car is a Porsche.

But what is the make of your other car?

B:	(My	OTHER	car)	is	ALSO	a Porsche
	→	Theme			Rheme	
	→	Backg.	kontrast	backg.	kontrast	backg.

To summarize the discussion so far, I have tried to illustrate what IS is meant to be and some basic notions despite the proliferating terminology and the openness of the level where the IS is supposed to be with respect to the grammar. In what follows I will come into a more detailed analysis of the notions that are eminently exploited by IS theories, namely the notions of givenness/newness and topic/focus.

3.2.1 Given information and New Information

Regarding IS and the distinction between old and new information, consider the following fragment from de Swart & de Hoop (1995) as a starting point:

[...] information structuring, that is, presentation of information as old and new. Successful communication requires a balanced presentation of old and new information: too much new information can make it hard to establish the connection with previous discourse and leads to incoherence. Every new sentence in a discourse connects to the previously established context, and, at the same time, adds a new piece of information. Depending on what is new or old in a given context, the same piece of information can be presented in different ways.

(de Swart & de Hoop 1995:3)

Despite the fact that the distinction is meant to be bipolar, that is, given vs. new information, there has always been a tendency for the theories to make efforts in describing the former category; the definition of the former one would naturally come as the ‘opposite’ of givenness. Schwarzschild (1999:2) relates this to the fact that “[...] grammar makes reference to givenness and includes the statement in (a) below but no mention is made of novelty, hence there is nothing like (b):

- (a.) Lack of focus indicates givenness
- (b.) Focus indicates novelty

A piece of information is ‘given’ for Halliday (1967) when treated by the speaker as recoverable anaphorically or situationally. New information on the other hand is characterized by at least three formulations: (i) new information is said to be new not in the sense that it cannot have been previously mentioned—although it is usually the case that it has not been, but in the sense that the speaker presents it as not being recoverable from the preceding discourse or (ii) new information is ‘contrary’ to some predicted or stated alternative or (iii) new is what is replacing the Wh-element in a presupposed question.

Chafe (1976), who assumes that the discourse is organized according to the beliefs of the speaker about the beliefs of the hearer rather than according to the semantic content of linguistic expressions, (‘information packaging’) defines givenness as follows:

[...] Givenness. What is it? The key to this assumption is the notion of consciousness [...]. Given (or old) information is that knowledge which the speaker assumes to be in the consciousness of the addressee at the time of the utterance. So-called new information on the other hand is

what the speaker assumes he is introducing into the addressee's consciousness by what he says.

(Chafe 1976:30)

Thus the relative newness/oldness of a piece of content depends on what the hearer already knows. IS is thus based on the speaker's assumptions of the hearer's knowledge and should help the hearer understand what the speaker intends. Yet, not all information a hearer has in her head is taken into account, neither is it coded in the grammar. As Chafe (1976, 1987) notes, the conveying of information not only involves knowledge (long term memory) but also consciousness (short term memory). Since our minds can only focus on very few concepts at a time, only a limited number of concepts can be cognitively 'active'. Chafe (1987) suggests that a concept can then be in one of three possible activation states: active, semi-active or inactive. A concept is active only for a short while, when it is 'lit up' as the centre of consciousness, and then becomes semi-active, which means that it is still in the awareness of the speaker, but more peripheral. After a while, it can get back to the inactive state: equal to most concepts that were unused in the previous discourse. In this light, according to Lambrecht (1994:99) concepts can count as active (i.e. old/given information) for three reasons: by being previously mentioned in the discourse (textually accessible information), by being related to the current situation or the text-external world (situationally accessible) or by being related to the semantic frame (inferentially accessible). In order to show how this works, I use van der Wal's (2009) example:

'[...] as an example of the first two possibilities of activation, imagine we have a conversation in which the referent 'sailing boat' becomes active in our minds. This could be the case for example when you have just told me you went sailing with your boat last week ('text'), or when we happen to be sitting at the harbour and a yacht passes by ('situation'). In both

cases the referent is activated in our minds. [...]. The third possibility, the activation by a semantic frame, happens through the semantic connection with a related concept that is activated. For example, when ‘pancakes’ are mentioned, not only this referent gets activated in the mind of the hearer, but also the syrup and icing sugar she normally puts on her pancake become more activated [...].”

(van der Wal 2009:142)

In a similar way, Givenness/Newness for Gundel & Fretheim (2004) among others is a relation between a linguistic expression and a corresponding non-linguistic entity in the speaker’s/hearer’s mind, the discourse or some real or possible world depending on where the referents or corresponding meanings of the linguistic expressions are assumed to reside. Crucially, and in line with Chafe’s observations above, the referents or denotata of linguistic expressions are not supposed to be either given/old or new; rather, there is an *activation continuum* within which they fall in the course of the discourse (cf. also Heim’s (1982) *Familiarity Condition*, Lambrecht’s (1994) *Activation and identification processes*, Ariel’s (1990) *Accessibility Scale*).

3.2.2 Topic and Focus

Most researchers agree that the concepts ‘topic’ and ‘focus’, unlike purely syntactic functions such as subject and object, have a consistent semantic/pragmatic value. However—and beyond the problems related to proliferating terminologies in the area of IS (cf. Kruijff-Kurbayova & Steedman 2003)—topics and foci are also sometimes defined directly on syntactic structures (see Rizzi 1997, Kiss 2002, Belletti 2004 among many others). Consequently, topic and focus (and related terms) have been used in a dual sense to refer to syntactic (and phonological) categories as well as their pragmatic/discourse interpretation.

Let me start with topic. One distinction I would like to make is that between ‘discourse topic’ and ‘sentence topic’. The discourse topic can be the issue of debate for a longer stretch of time, or for a larger unit than the sentence (paragraph, text, whole conversation), and it can be more abstract (Reinhart 1981). Sentence topics on the other hand, can vary for each sentence in the discourse and correspond to an expression in the sentence.

The topic of a sentence in the literature has been defined as a) that part which is old or given information or b) what the sentence is about (leaving aside syntactic and prosodic definitions⁸)⁹. Although topic referents are usually associated with old information, Prince (1981) and Reinhart (1981) show that being discourse-old is neither necessary nor sufficient to function as a topic:

(1.16.) A. Did you order the pork or the chicken?

B. It was the PORK that I ordered

(adopted from Gundel 1985)

(1.17.) A. What about the beans? Who ate them?

B. I don’t know about the beans, but the soup John ate.

(adopted from Büring 2000)

Instead of taking pragmatic aboutness as a defining notion, the topic can be viewed as the referent to which the information in the proposition should be stored.

⁸ These could be respectively ‘first position in the sentence (Halliday 1967) or ‘non-stressed elements’ (Chomsky 1971).

⁹ Anticipating the discussion, in Chapter 6 I will show that actually neither definition is unproblematic. As such, I will adopt a slightly revised definition of ‘topic’ and ‘topichood’.

Nonetheless, this aboutness criterion is usually paired with a familiarity requirement as an inherent property of topics cross-linguistically. This requirement can be formulated in cognitive terms by saying that a topic referent must be identifiable for both the speaker and the hearer or it must at least be accessible on the basis of the situation or the discourse content (cf. Lambrecht 1994). Virtually, as Gundel & Fretheim (2004) point out, the whole range of possible givenness conditions on topics has been suggested, including presupposition, familiarity, specificity, referentiality etc. Well known facts that indicate a connection between topicality and some kind of referential givenness have to do with ‘definiteness’ and ‘presupposition’ effects of topics; for instance *wa*-marked phrases in Japanese necessarily have a definite (including generic) interpretation (under the assumption that *-wa* is a topic marker). Similarly, in prototypical topic-comment constructions the topic phrase adjoined to the left of the clause is definite. Indefinites are generally excluded from topic position unless they can be interpreted generically or contrastively (see Gécseg & Kiefer 2009):

- (1.18.) a. The window, it’s still open
 b.*A window, it’s still open.

Lambrecht (1994) formulates this requirement in cognitive terms by saying that a topic referent must be identifiable both for the speaker and the hearer or at least be accessible on the basis of the situation or discourse content. Since indefinites denoting a brand new referent do not satisfy this identifiability condition or accessibility requirement, they are claimed to not function as topic expressions. This explains why topicalized constituents are restricted to definite or in some marginal cases—specific indefinite expressions across languages. For others (e.g. Erteschik-Shir 1997, 2007) these identifiability conditions are replaced by the more restrictive requirement that the topic referent must be

situationally or contextually evoked, that is it must be in the cognitive state of activeness (a la Chafe 1987, Lambrecht 1994). This is in line with Gundel (1988) who proposes a condition on felicitous topics which states that their referents must be already familiar in the sense that the addressee must have an existing representation in memory.

Erteschik-Shir (2007), taking more or less the same definition of topic as Reinhart (1981), specifies topic as the ‘pivot for truth value assessment’. The proposition is evaluated within the frame that is set by the topic and it is only within the limits of this topic that a proposition can be judged as true or false. Since every sentence is assigned a truth value, every sentence must have a topic, according to Erteschik-Shir (2007). That is, every sentence has a ‘pragmatic’ topic, but this is not necessarily overtly realized in every sentence (in line with Gundel 1988). A sentence can thus have a pragmatic topic—an anchor within the broader discourse—(a referent/an event), but lack a topic expression (that is, a specific word or phrase). When a sentence lacks a linguistic expression to refer to the topic, the pragmatic topic is the ‘here and now’. This is referred to as a ‘stage topic’ (Gundel 1974). This is what happens with seemingly topic-less sentences which have been described as ‘thetic’ sentences (Kuno 1972, Kuroda 1972, 2005, among others) or ‘all-new information/sentence-focus’ constructions (Lambrecht 1994, 2000). The examples below illustrate the idea of topic-less sentences:

(1.19.) It is raining

(1.20.) A: What’s the problem?

B: My NECK hurts

To summarize the discussion in this subsection, topic is a pragmatic relation between a referent and a proposition. The proposition is evaluated with respect to the topic, or in other words, the topic restricts the domain in which the proposition is true or false. The association of topics with definiteness across languages suggests that topics must be familiar or at least identifiable, while some researchers define topics even more narrowly to include only entities with the highest degree of referential givenness. While there is still some controversy about the referential givenness properties of topics, it is generally agreed that topics must be at least referential (that is, able to introduce a referent into the discourse).

Let me now come into the notion ‘focus’. Unfortunately, as with the case of topic, there is no general agreement on how this notion should be defined. One approach views focus as the non-presupposed information. For instance, Lambrecht (1994:207) notes: “the focus of a sentence, or more precisely, the focus of the proposition expressed by a sentence in a given utterance context, is seen as the element of information whereby the presupposition and the assertion differ from each other” (see also Jackendoff 1972). Another group of definitions is based on the concept of newness, in the sense that it is understood to be that part of an utterance that carries the new or highlighted information or the information that is “textually or situationally non-derivable” (Halliday 1967:202). For Vallduvi (1992) the focus part of a sentence contains the updating information, the information that is to be added of a specific ‘file-card’ (the ground). The ground contains already known information that acts as an anchor for the focus, indicating where and how the new information should be added.

Semantic accounts on focus, on the other hand, are built upon the idea that focus triggers the formation of an additional semantic value. The most cited semantic account of focus is probably Rooth’s (1992) *Alternative Set* theory,

according to which the effects of focus on semantics can be said to be the introduction of a set of alternatives that contrasts with the ordinary semantic meaning of a sentence. Consider the following example:

(1.21.) Mary only likes [SUE]

The ordinary semantic meaning of (1.21) is the binary relation:

like⟨*Mary*, *Sue*⟩

(1.21) is true if and only if *Mary* stands in the *like* relation to *Sue*. The set of alternatives that is a resultant of *Sue* being focused is the set:

, $\{like\langle Mary, y \rangle | y \in E\}$, where E is the domain of entities or individuals.

The relevant alternatives for example (1.15) might be a set like:

$\{like\langle Mary, Sue \rangle, like\langle Mary, Bill \rangle, like\langle Mary, Lisa \rangle\}$

In (1.21), the set of alternatives is said to contrast with the ordinary semantic meaning because the speaker indicates that the ordinary semantic meaning is true while every alternative is false. For example in the example above, *Mary likes Sue* is true while *Mary likes Bill* and *Mary likes Lisa* are both false. Generally, the meaning of (1.21) can be summarized as ‘*Mary likes Sue and no one else.*’

Another characteristic of IS theories on focus is that several authors distinguish different types of focus, which may be encoded differently in a language. In this light, Kiss (1998) shows that for Hungarian there is a difference in the interpretation between post-verbal and preverbal ones. She claims that the postverbal element receives ‘information’ focus and the preverbal element has ‘identificational’ focus. The first type of focus is the new information the speaker gives without a special background or reference set in mind, for example as an answer to a wh-question. The second type indicates that the concept is selected from a restricted set and that for the rest of the members of that set the

proposition does not hold. Moreover, researchers like Kiss (1995, 1998), Rizzi (1997), Beletti (2004) Beninca & Poletto (2004) among others assume a special projection for identificational (i.e. exhaustive/contrastive) focus in the syntactic representation. However, researchers like Lambrecht (1994) do not adhere to that generalization:

‘the impression of contrastiveness [...] arises from particular inferences which we draw on the basis of given conversational contexts [...] Contrastiveness [...] is not a category of grammar but the result of the general cognitive process referred to as ‘conversational implicatures.’

(Lambrecht 1994:291)

A last distinction often drawn in the discussion of focus is that between ‘narrow’ and ‘wide’ or ‘broad’ focus. Example (1.22c) illustrates a case of narrow focus while (1.22a) and (1.22b) illustrate wide(r) focus. Examples like (1.22a) are also described as ‘all new information’ or ‘all-focus’ sentences:

(1.22.) a. A: What’s this noise?

B: [F My neighbour is building a storage-room]

b. A: What’s your neighbour doing?

B: My neighbour is [F building a storage-room]

c. A: What’s your neighbour building?

B: My neighbour is building [F a storage room]

Summarizing the discussion, in section 3 I presented and discussed some major notions that are often put forward as the primitive units or building blocks of IS. In what follows, I will only briefly touch upon some issues regarding IS and

word order in Greek. I will close this Chapter by defining the aims of the current thesis.

4. Information Structure and Word Order in Greek

Greek is a language that shows a considerable degree of flexibility in the way words are put together. For instance, a propositional content {kissed <Aris, Maria>} can surface as any of the following six logical options¹⁰:

- (1.23.) a. o Aris filise ti Maria (SVO)
the Aris-nom kissed the Maria-acc
 “Ares kissed Maria”
- b. o Aris ti Maria filise (SOV)
- c. filise o Aris ti Maria (VSO)
- d. filise ti Maria o Aris (VOS)
- e. ti Maria filise o Aris (OVS)
- f. ti Maria o Aris filise (OSV)

Similarly, the ordering of a direct and an indirect object may also vary (1.24), as it is also the case with adverbs and arguments (1.25):

- (1.24.) a. eδosa sti Maria ta kliδia (VIODO)
gave-1s to-the Maria the keys
 “I gave Mary the keys”
- b. eδosa ta kliδia sti Maria (VDOIO)
gave-1s the keys to-the Maria
 “I gave the keys to Mary”

¹⁰ Note that the object may (or—with some ordering possibilities—must) show up doubled by a pronominal clitic. For the time being I am leaving that aspect aside. I will deal quite extensively with doubling in Chapters 3 and 4.

(1.25.) a. *elisa simera tis askisis* (VAdvO)
solved-1s today the exercises
 “I solved the exercises today”

b. *elisa tis askisis simera* (VOAdv)
solved-1s the exercises today
 “I solved the exercises today”

Nonetheless, despite this flexibility, word order is never ‘free’ in absolute terms: each order is usually indicative of a different Information Structure that is, of a different partitioning of the linguistic message in terms of new vs. old information, focal and topic information, along the lines described in the previous section. In this light, it has been assumed that Greek belongs to this group of ‘discourse-configurational’ languages along the lines of Kiss (1995, 1998) (see also Philippaki-Warburton 1987, Tsimpli 1990, 1995, Agouraki 1993, Holton et al. 1997, Alexiadou 1997, Alexopoulou 1999, Keller & Alexopoulou 2001, Haidou 2004/2006, Roussou & Tsimpli 2006 among others), that is, the language primarily marks discourse functions via its word order rather than syntactic relations.

Despite this however, there is a general consensus among the researchers (see Keller & Alexopoulou 2001, Haidou 2004 in particular) that word order is a relatively weak factor in realizing IS in this language, at least as compared to the role that phonology and morphology play: On the one hand, the informational properties of a syntactic object [αβγ] will vary depending on where stress is assigned. This is shown below where the same word order (SVO) delivers the linguistic message in three distinct ways due to different prosodic patterns¹¹:

¹¹ Double lines indicate ground or/and old information.

(1.26.) A: Who bought a car?

B: o ARIS ayorase aftokinito (SVO)

the Ares.nom bought car.acc

“ARES bought a car”

(1.27.) A: What did Ares bought?

B: o Aris ayorase AFTOKINITO (SVO)

the Ares-nom bought car-acc

“Ares bought a CAR”

(1.28.) A: Did Ares buy a car?

B: ne, o Aris AGORASE aftokinito (SVO)

yes, the Ares bought car

“Yes, Ares DID buy a car”

On the other hand, the role that morpho-syntactic properties, such as pronominal doubling, have in the realization of IS is equally important and decisive. For instance, while a dislocated preverbal object in a OVS linear string can be interpreted as either focal or non-focal (1.29), depending on whether it will be assigned main sentential stress or not, the same object must be interpreted as non-focal in case it is doubled by a pronominal element attached on the verb: (1.30):

(1.29.) ti Maria filise o Nikos (OVS)

the Maria-acc kissed the Nikos.NOM

“Maria, NIKOS kissed” or “MARIA Nikos kissed”

Chapter 2

Verb-Initial Orders

1. Preliminaries

1.1 Subjecthood and the ‘canonical’ VSO

A core characteristic of Greek is that it allows all types of predicate verbs (transitives, unaccusatives, unergatives) to occur before lexical subjects, or—to put it reversely—it allows subjects to occur in the post-verbal domain. (2.1) illustrates this:

- (2.1) a. *filise o Aris ti Maria* (VSO)
kissed the Ares the Maria
 “Ares kissed the Maria”
- b. *filise ti Maria o Aris* (VOS)
- c. *erxete o Aris* (VS)
comes the Ares
 “Ares comes”
- d. *siavazi o Aris* (VS)
reads the Ares
 “Ares is reading”

This very fact, coupled with the observation that preverbal subjects in this language display properties not typical of subjects in configurational languages like English¹², has created a lot of controversy about the syntactic status of subjects in Greek. Philippaki-Warburton (1985, 1987) assumes that there is no “canonical” subject position within the phrase marker of Greek in the sense that the “real” subject is the subject-agreement suffix carried by the verbal form. Catsimali (1990) puts forward a “flat” account of the Greek phrase marker. In that analysis, the lexical subject is hosted by a free branch which may appear in a range of positions within a clause. (See also Horrocks 1994 for a ‘partly’ configurational account).

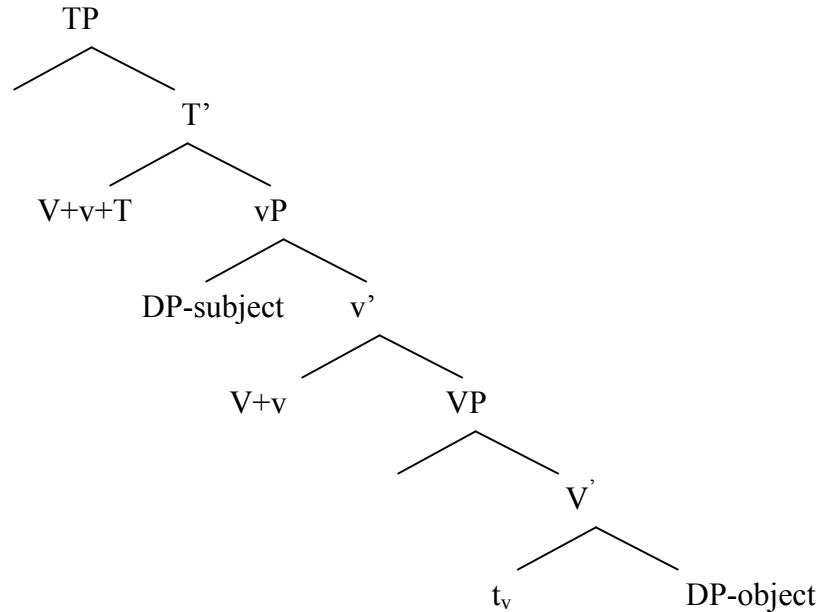
In the nineties & early noughties new theoretical developments gave rise to a different perspective. The tendencies of this period are mainly depicted in the works of Tsimpli (1990), Alexiadou & Anagnostopoulou (1998), Philippaki-Warburton & Spyropoulos (1999) and Philippaki-Warburton (2001). Despite the differences—which are mainly due to exploitation of different stages of the theory—the crucial point is that all these accounts assume that VSO is the canonical word order in Greek in the sense that it is the only order in which the subject occurs in its thematic position, namely SpecvP¹³. Another similarity these approaches share is that there is overt V-to-T movement, as well as the idea that preverbal subjects in Greek are adjuncts, base-generated

¹² It is widely accepted that TP in Greek is dominated by further material such as MoodP and NegP (there is some controversy though with respect to whether there is an independent FutureP or not). Furthermore, if preverbal subjects were in SpecTP it would be impossible for the verb to be for example negated. Note that the negative marker and the verb in Greek form a constituent: no other material can intervene between the negation marker and the verb. In the same spirit, a subject in SpeTP would block the formation of the subjunctive mood; subjunctive mood is formed with the particle *na* which is assumed to be in MoodP°. Although not affixal, the verb at T needs to be adjacent to the MoodP in order to acquire the subjunctive mood.

¹³ The reader is referred to Alexiadou & Anagnostopoulou (1998) and Philippaki-Warburton & Spyropoulos (1999) for extensive argumentation on this.

above the TP domain, in which case SpecvP is occupied by a *pro*. The syntactic representation of a VSO is thus as follows:

(2.2.)



Nonetheless, despite this agreement about the position of postverbal subjects and generally the way that VSO is generated, there is still a lot of controversy in the literature about the position of the subject and the syntactic representation of the VOS order. As such—and taking as a starting point the syntactic representation illustrated in (2.2) above, I will devote the remainder of this Chapter to a thorough examination of VOS. Anticipating the discussion, I will argue that VOS also involves a subject in [Spec;vP] while object displacement is due to pied-piping to TP. Before I come to this, I will briefly refer to EPP.

1.2. A note on EPP

In the light of the aforementioned positions, the question that naturally arises is the following one: how is the so-called ‘Extended Projection Principle’ (EPP) is satisfied in Greek, that is, the requirement which—informally put— states that languages should merge a subject at SpecTP (Chomsky 1981, 1986) since subjects in Greek never seem to occupy that position? Chomsky (1995) attributes this formal requirement to the existence of a (strong) nominal (i.e. D-) feature on the functional category T which triggers either movement of the subject to [SpecTP] (i.e. Internal Merge) or insertion of an expletive in that position (i.e. External Merge). In terms of the minimalism of the last decade (Chomsky 2000, 2001) this is a by-product of the operation Agree: An unvalued feature F (a *probe*) on the T head scans its c-command domain for another instance of F (a *goal*) with which to agree.

With respect to this puzzle, Alexiadou & Anagnostopoulou (1998), after showing that Greek VSO does not involve an expletive *pro* in SpecTP¹⁴¹⁵¹⁶, argue that the rich nominal morphology on the verb in languages like Greek suffices to satisfy the EPP feature of the T head, when the verb raises and adjoins to T' in order to license its own \varnothing -features. On the other hand, languages without rich morphological agreement manifestation in the verbal ending cannot check the EPP feature of the T head via head-adjunction and, thus, have to employ Move/Merge XP (i.e. lexical subject vs. expletive) to

¹⁴ In their analysis this position corresponds to their SpecAgrS.

¹⁵ The main argument for this assumption is that inverted orders in Greek occur with all eventive predicates (transitives, ergatives, and unaccusatives) and moreover there are not Definite Restrictions on the inverted subject as it happens in languages like English.

¹⁶ Let me clarify here that Alexiadou & Anagnostopoulou (1998) primarily talk about the absence of an expletive *pro*. As far referential *pro* is concerned, they leave open the possibility that it is still generated in SpecTP. However, such a view would be against economy. We cannot see why a language without expletive *pro* (and as such without active SpecTP along their lines) should display a referential *pro* in that position since verbal morphology suffices for satisfying EPP. As such, following Pesetsky & Torrego (2001) I will be assuming that EPP satisfaction can be invariably be fulfilled by verbal morphology and that a *pro* at SpecTP is not actually needed. I will leave this issue open for a future discussion.

SpecTP, so as to prevent the derivation from crashing because of the unchecked [D] feature on T.

On the other hand, Philippaki-Warbuton & Spyropoulos (1999) and Philippaki-Warbuton (2001) follow a different path. In particular, they argue that EPP in Greek is satisfied by a covert bundle of nominal features—a ‘subject clitic—in SpecTP. Moreover, they propose that “subject” in Greek must be defined as an element which occupies two positions at the same time: a subject clitic in SpecTP and a DP/pro at the relevant theta position (i.e. SpecvP), the implication being that subject in Greek is a discontinuous element. This subject element, although discontinuous, behaves as a single syntactic element, despite the fact that both of its constituent parts enter the numeration as independent elements and are present at all the levels of representation (interfaces).

The major points of criticism against the parameterized EPP satisfaction account resides to the fact that Alexiadou & Anagnostopoulou assign nominal status to the verbal ending and allow it to enter the numeration as an independent element which violates the strong lexicalist principle upon which Minimalist Program is based. According to P&S—in line with the standard Minimalism—the verb enters the numeration as a complete word (this means that the functional projections that dominate the verbal projection do not contain overt affixal material; rather they contain the formal features that will check the verbal ϕ -features). An account in which an affix may perform a syntactic checking operation violates fundamental principles of the theory.

Finally, Sifaki (2003) offers an alternative account: As a starting point in her discussion, she assumes—following Holmberg (2000)—that EPP should actually be decomposed into two different things, a D feature, as before, plus a P-feature that virtually states that the D feature on T can be checked only by material with phonological content, ruling thus out non-overt material. Given

this, and building on Rackowski & Travis's (2000) position according to which EPP in the T head can be satisfied by categories other than subjects, she argues that EPP in VSO (as in all other verb-initial orders in Greek) is satisfied by VP-preposing.

Although choosing an account on EPP satisfaction does not have any direct impact on the purposes of the current thesis, I will follow Alexiadou & Anagnostopoulou's parameterized account (1998) for reasons of coherence and economy that will become clearer in Chapter 3 where I discuss the syntactic properties of doubling in Greek (see also Pesetsky & Torrego 2001 for similar observations). Furthermore, I will assume that the requirement for a subject in SpecTP is due to an edge feature (or generalized EPP feature) along the lines of Chomsky (2005, 2006). In this sense, it does not specifically refer to the traditional EPP but it applies to any functional head (core functional heads, C, T, v of Chomsky 2000).

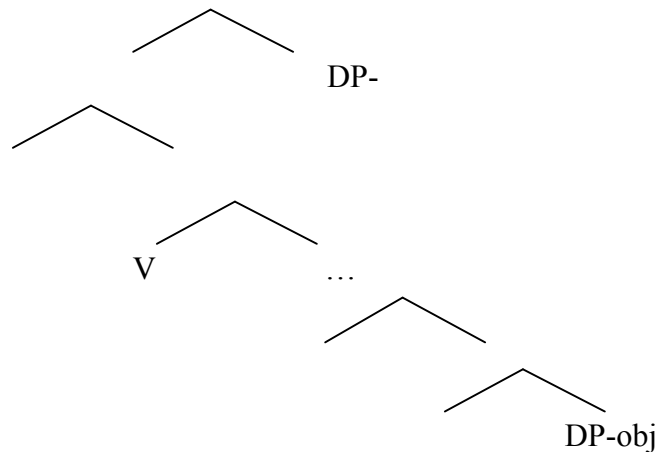
2. The controversial VOS

Turning now to VOS, the analyses put forward in the last two decades vary radically with respect to each other. The main task of this paper is to evaluate these analyses on the basis of syntactic evidence that has not been taken into consideration so far. As we will show, none of the existing analyses can account adequately for the syntactic properties of the VOS order, at least for a language such as MG. Instead, we will put forward an alternative account, according to which VOS is the outcome of an operation that allows the object to move alongside the verbal head. Before we present the syntactic data and before we reach any conclusions, in the remainder of this introductory part we briefly present all the possible syntactic configurations that could lead to a verb-object-subject linearization. In subsequent chapters, we will discuss this

in more detail and present a critical evaluation of the predictions each account makes.

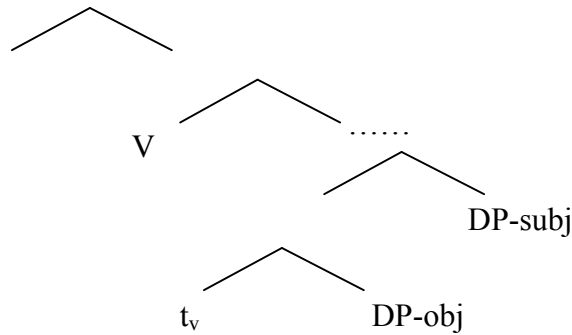
One possibility is that the linear order verb-object-subject is due to right-adjunction of the subject in a position relatively high in the tree (see 2.3). Tsimpli (1990) distinguishes between pre-verbal subject topics (SVO) and post-verbal subject topics (VOS), the only difference being the directionality of the adjunction operation (i.e. left-adjunction to CP gives SVO, while right-adjunction to CP gives VOS).

(2.3.)



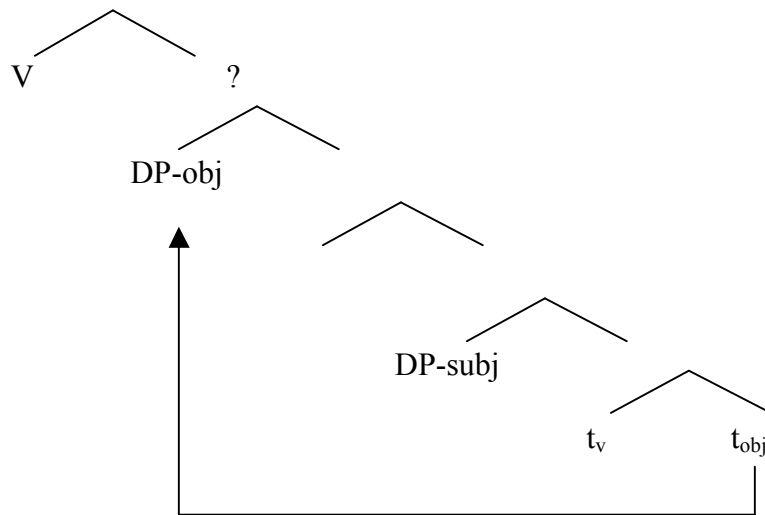
In the same spirit, it could be that VOS is due to the fact that [SpecVP] (or [SpecvP])—which hosts the lexical subject—projects to the right. Although such an idea has never been put forward explicitly for MG, it has been proposed for languages such as Catalan (Bonet 1990, Solà 1992) and French (Friedemann 1995):

(2.4.)



Another possibility would be to allow the object—from an underlying VSO order—to undergo local movement; after such movement takes place, the object ends up in a position higher than the in situ subject and lower than the verb, which has been raised to T. We will be referring to analyses of this kind as “object-scrambling” analyses. Such an idea has mainly been explored by Alexiadou (1997, 1999, 2006), and it has also been adopted by Haidou (2000):

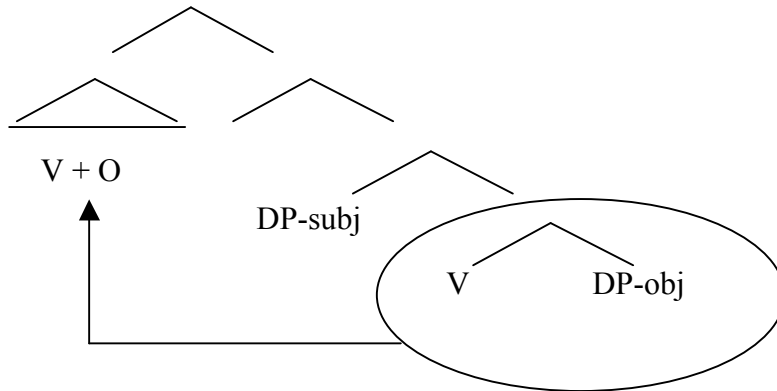
(2.5.)



Finally, a third possibility would be to allow something larger than the object alone to move to a position higher than the subject. Anticipating the

discussion, we will show that the syntactic evidence favours an analysis of this type:

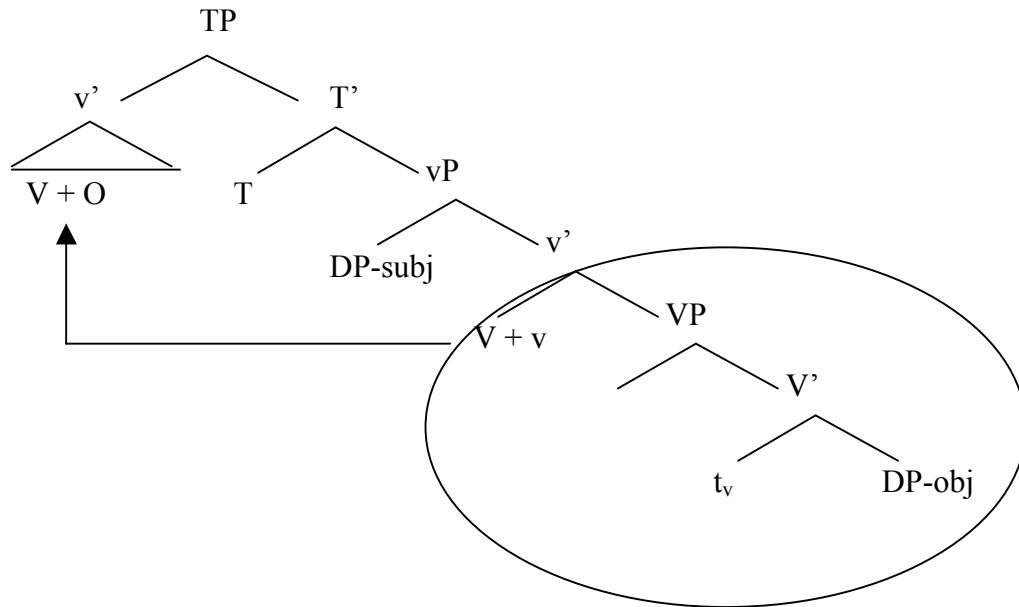
(2.6.)



Although the idea of moving something larger than the object to obtain the VOS order is not radically new, since a variant of it is also found in the analyses of Philippaki-Warbuton (2001), Georgiafentis (2001) and Georgiafentis & Sfakianaki (2004), we will show that actually the only thing that needs to be taken into consideration is “pied-piping¹⁷”: when something moves, it can optionally 'drag along' more material. In this light, we will argue that what minimally differentiates VOS from VSO is that in the former case, the overt operation of V-to-T movement involves not just the verbal head, but rather a larger constituent, namely the v' node which contains the verb and its complement. Thus we propose that the syntactic representation of VOS should be as in (2.7):

¹⁷ Although we are not coming into details for space reasons, we believe that the use of remnant movement operations and the invention of extra functional projections upon which these analyses heavily rely for the generation of the VOS orders are not justified either by the syntactic or by the interpretational properties of the order under investigation.

(2.7.)



Note that as long as V-to-T movement is an operation triggered by the structural need for the uninterpretable T features of the verbal morphology to be checked against T, T° can no longer be the landing site for the raised constituent: it is hard to see how checking could be performed between a head and a non-head category (i.e. the v' node). As such, we assume that the landing site this time is the specifier of T, where checking can be established in a Spec-Head configuration, provided that the T features of the verb can percolate higher to the v' node.

The remainder of this section is organized as follows: In 3.1.1 I discuss new evidence from the field of secondary predication; Section 3.1.2. deals with adverb placement, 3.1.3 with anaphoric binding and 3.1.4 with quantifier scope. Finally, in part 3.1.5 I discuss some problematic issues concerning VOS and variable binding.

3. The data

3.1. Secondary Predication

In Greek, VSO orders followed by object-oriented secondary predicates constitute grammatical formations. For instance, the utterance in (2.8) involves a depictive secondary predicate, while that in (2.9) involves a resultative¹⁸:

(2.8.) efaje i Maria to suvlaki omo (V-S-O1-AP1)
ate the Maria the suvlaki raw
 “Maria ate the suvlaki raw”

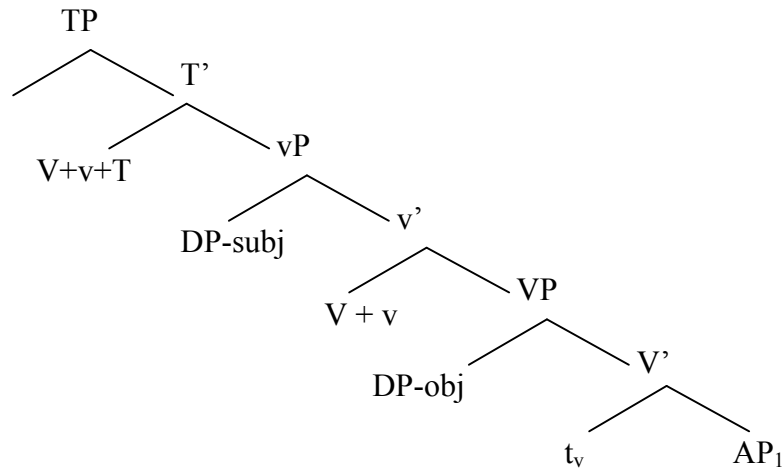
(2.9.) evapse o Jianis tin porta prasini (V-S-O1-AP1)
painted the John the door green
 “John painted the door green”

In order to accommodate VSO1AP1 cases—such as these in (7) and (8)—syntactically, we resort to the *VP shell-structure* idea (cf. Larson 1988): the verb first merges with the secondary predicate, whereas the DP-object projects in a shell-like node and the subject is generated as the specifier of vP. Subsequent V-to-T movement (via v) will give us the desired linear output. It should be noted here that such a configuration fully respects secondary predicate licensing conditions such as the requirement that a secondary predicate has to be c-commanded by its subject (see Williams 1980)¹⁹. This is illustrated in (2.10):

¹⁸ Note that while depictive secondary predication is productive in Greek, this is not the case with resultative secondary predication. cf. Giannakidou (1999), Horrocks & Stavrou (2003).

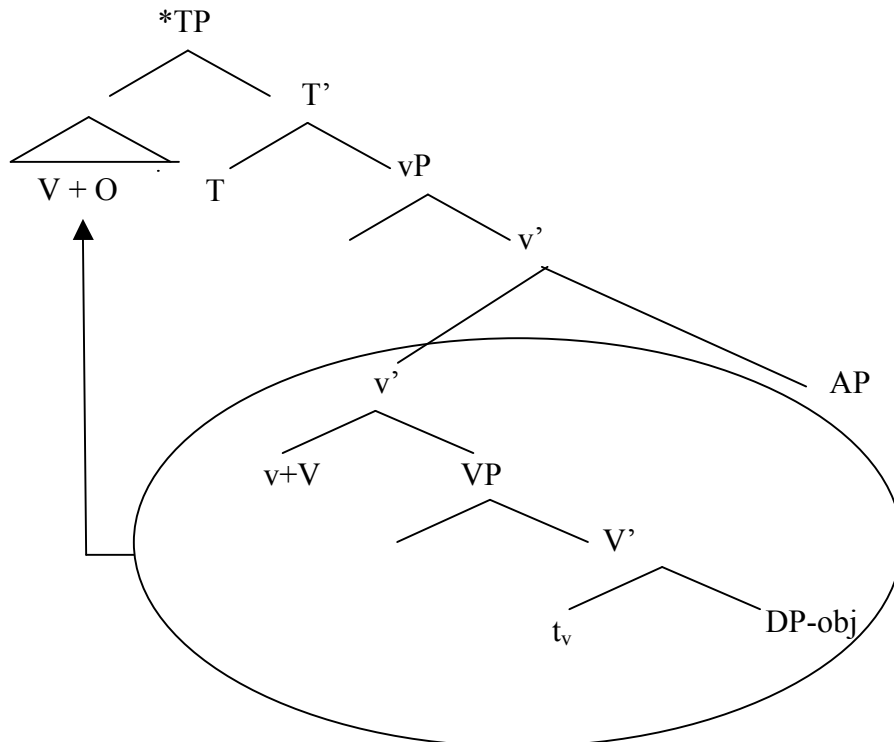
¹⁹ For a different view on secondary predication licensing conditions in Greek cf. Spyropoulos (1998).

(2.10.)



As far as VOS+secondary predicate orders are concerned, the analysis we pursue here makes one strong prediction, namely, that such orders should be expected to be ungrammatical, since either (i) the object will not c-command the secondary predicate (see 2.11) in case the latter is generated as an adjunct or (ii) there is no way for the secondary predicate to be stranded in the structure (see 2.12) in a VP-shell structured tree.

(2.11.)



Another prediction our analyses makes is that VO1AP1S orders should be unproblematic. In such cases, the secondary predicate moves alongside the verb and the object contained in v' (i.e. no stranded), and, thus, it is indisputably c-commanded by its subject (i.e. the DP-object). Once again the empirical data verifies this prediction. Consider for instance the following two utterances, which constitute grammatical—although informationally marked—constructions for all our informants:

- (2.15.) *jiati evapse tin porta prasini o Janis?*
why painted the door green the John
 “Why did John paint the door green?”

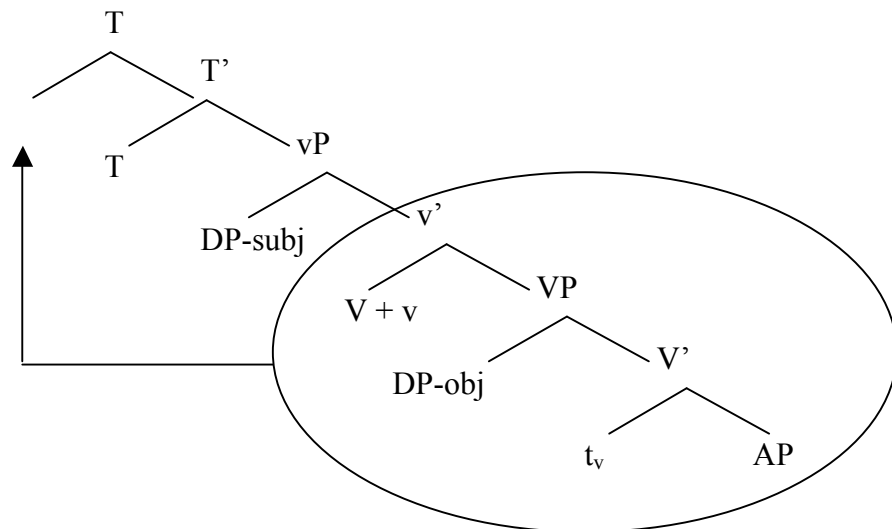
(V-O1-AP1-S)

- (2.16.) *mono [an fai ena psari omo i Maria] tha ikanopiiθo*
only if eat a fish raw the Maria will be-1s-satisfied
 “I will feel satisfied only if Maria eats a fish raw”

(V-O1-AP1-S)

The syntactic representation of VO1AP1S is given below in (2.17):

- (2.17.)



To sum up the discussion, we have seen that the empirical data seem to verify our working hypothesis: VOS orders are due to movement of *v'* rather than due to movement of the object. In respect with that, we have also argued that what minimally differentiates VOS from VSO orders is that in the former case V-to-T movement involves more material than the verbal head alone.

Carrying on, let us now present some more complex cases. Both (2.18) and (2.19) below involve a VSO order, but this time two secondary predicates are involved, one subject- and one object-oriented:

- (2.18.) *epiði efaye o Aris ena psari omo meθizmenos,*
because ate the Ares a fish raw drunk
ðe simeni oti ine iliθios
not mean that is-3sg stupid
 “The fact that Aris ate a fish raw drunk does not mean he is stupid”
 (V-S1-O2-AP2-AP1)

- (2.19.) ?**epiði efaye o Aris ena psari meθizmenos omo,*
because ate the Ares a fish drunk raw
ðe simeni oti ine iliθios
not mean that is-3sg stupid
 “The fact that Aris ate a fish raw drunk does not mean he is stupid”
 (V-S1-O2-AP1-AP2)

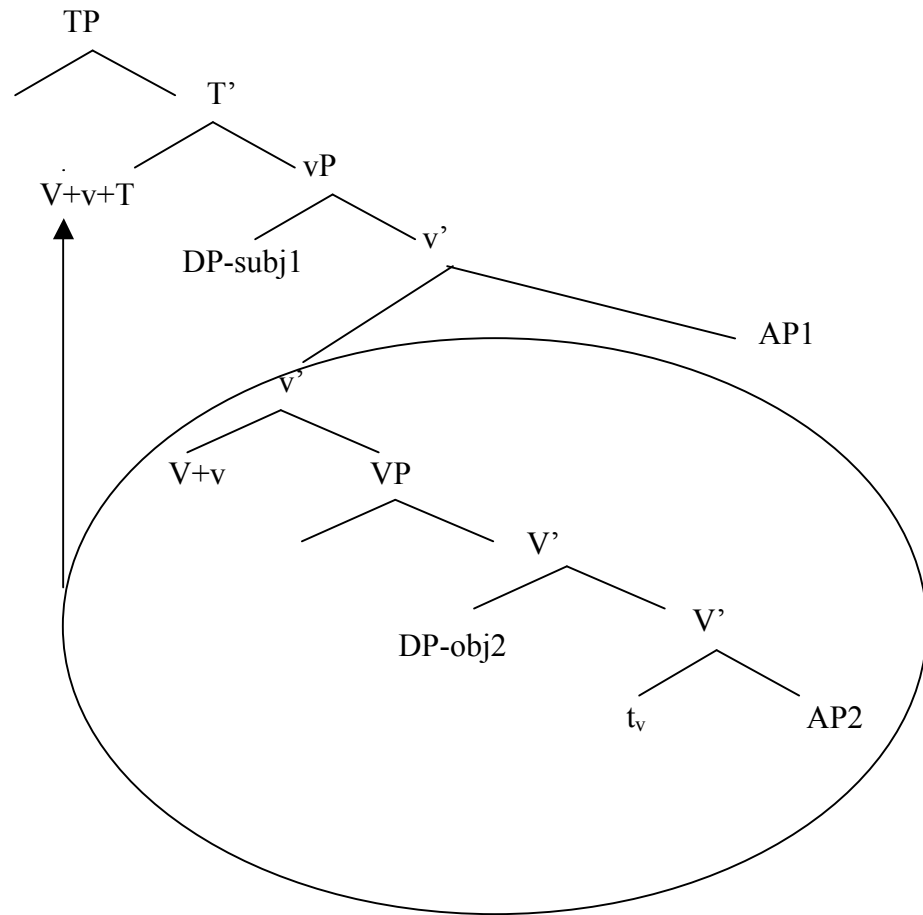
As far as the utterance in (2.19) is concerned, I assume that its ungrammaticality is due to a linearization failure concerning the subject-oriented secondary predicate. In particular, assuming that such secondary predicates generate as right adjuncts²¹ to *v'*, there is no means by which the

²¹ The idea that the subject-oriented secondary predicate is generated as a low adjunct is further supported by VS1AP1O cases like the one in (a) below, which are judged as marginal:

object-oriented secondary predicate (which, as we argued, generates in a shell position within vP) will follow the subject-oriented one. On the contrary, the linearization in (2.18) is unproblematic: the subject-oriented secondary predicate –being a right-adjunct—follows the object-oriented one.

The idea is illustrated by the configuration in (2.20):

(2.20.)



there is no means by which the adjunct can precede the verbal complement. VS1OAP1, as expected, is unproblematic (b):

- (a) ??? *pire o Aris meθizmenos ena xapi* (V-S1-AP1-O)
took the Ares drunk a pill
- (b) *pire o Aris ena xapi meθizmenos* (V-S1-O-AP1)
took the Ares a pill drunk
 “Ares got a pill drunk”

It is worth noting here that there is no possibility for the object to be associated with a secondary predicate in the AP1 position due to lack of c-command. Similarly, the subject cannot be associated with a secondary predicate in the AP2 position, something that is in line with Williams's (1980) observation according to which secondary predication must meet c-subjacency. Given these observations, consider now the following two cases in (2.20) and (2.21). As before, there are two secondary predicates in each utterance, but this time they interact with a VOS order.

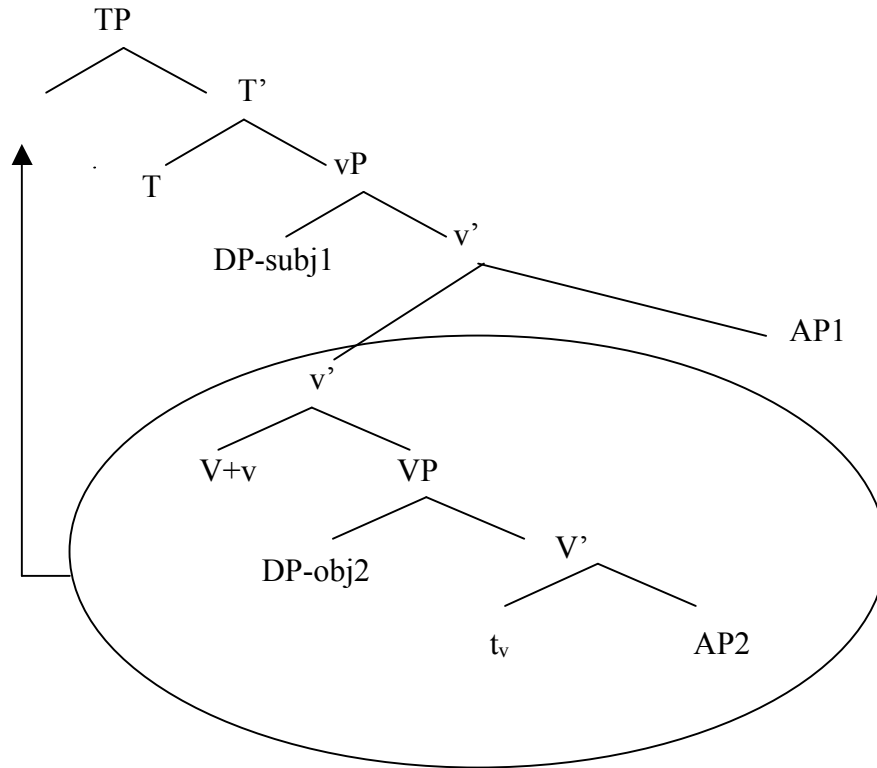
- (2.21) ?epiði efaye ena psari omo o Aris meθizmenos,
because ate a fish raw the Ares drunk
 δε σιμενι οτι ine iliθios
not mean that is-3sg stupid
 “The fact that Aris ate a fish raw drunk does not mean he is stupid”
 (V-O2-AP2-S1-AP1)

- (2.22) *epiði efaye ena psari o Aris omo meθizmenos,
because ate a fish the Ares raw drunk
 δε σιμενι οτι ine iliθios
not mean that is-3sg stupid
 “The fact that Aris ate a fish raw drunk does not mean he is stupid”
 (V-O2-S1-AP2-AP1)

Although I recognize that the utterance in (2.21) does not enjoy the same degree of acceptability as the one in (2.18) above (i.e. the one in a VSO fashion), what is important though, is that the one in (2.22) is ruled out as ungrammatical. The asymmetry should not be surprising: if what moves in VOS, is the lower v' node and not just the object, there is no means by which the object-oriented secondary predicate in (2.22) (i.e. omo “raw”) can be

stranded. In sharp contrast, when the movement involves the object and the secondary predicate (contained in the lower v'), the acceptability clearly improves (2.21). The syntactic representation of the utterance in (2.21) is given below in (2.23):

(2.23.)

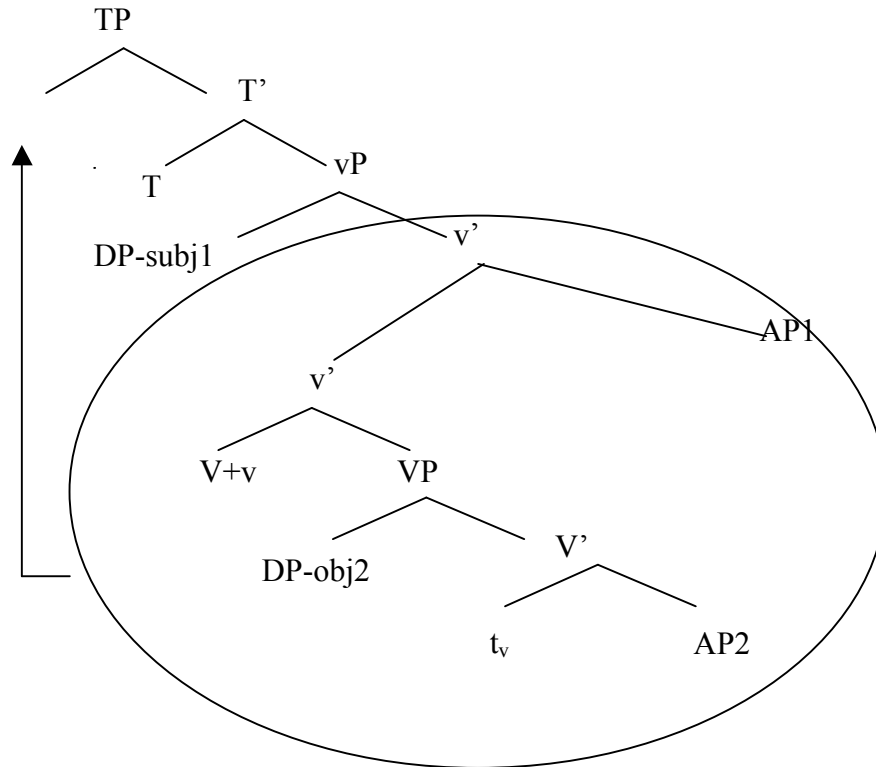


Note here that even VO1AP1AP2S2 linear strings constitute grammatical formations, an indication that pied-piping can optionally affect the higher v' node instead. Consider the following case:

(2.24.) *ʔepiði efaye to kreas omo meθizmenos o Aris, ðe simeni oti...*
because ate the meat raw drunk the Ares, not means that...

The representation in (2.25) illustrates this:

(2.25.)



The data, once again, seems to verify our working hypothesis: VOS is due to movement of a larger constituent which contains both the verb and its complement, and possibly more material. Crucially, an object-scrambling approach cannot easily account for the attested asymmetries. If VOS was due to object movement (scrambling), we should expect that there would be no problem with the VO1SAP1 (cf. 12-13) and VO2S1AP2AP1 (cf. 21) cases above, contrary to fact. Unavoidably, scrambling analyses have to seek for independent factors that could possibly constraint the generation of a VOS order. For instance, somebody could argue that the ungrammaticality of the VOS cases examined before is actually due to lack of a trigger: according to some researchers (see Alexiadou 1997, 1999, Georgiafentis 2001, Georgiafentis & Sfakianaki 2004) the VSO>VOS alternation is triggered by stress/discourse-related factors. Roughly speaking, the idea is that VOS is generated from a VSO underlying structure, when—for discourse-related reasons and by

application of the default stress rules— main prominence must be assigned to the subject (i.e. instead of the object). However, even if we assume that such an interface constraint that ensures that the stress will be assigned to the subject exists, still this cannot explain the ungrammaticality of the VO1SAP1 & VO2S1AP2AP1 orders. The idea is undermined by utterances such as the one in (2.26), where main clausal stress is assigned to the secondary predicate which follows a VOS order; if such an interface constraint were valid, the utterance would be ungrammatical (since there would be no trigger for generating VOS), contrary to fact:

(2.26.) A: ti simveni?

“What is going on?”

B: pire ena xapi o Janis **nistikos** || (ke tu ponai to stomaxi)

Took the pill the John on empty stomach...

“John got the pill on empty stomach (and he has a stomachache)”

(V-O-S1-AP1)

Before I finish this section, let me examine the predictions the two other possible analyses make, namely the right-adjunction (see 2.3) and right specifier (see 2.4) hypotheses, with respect to secondary predication. The main problematic aspect for both these analyses has to do with a licensing condition on secondary predicates, namely that a secondary predicate must be c-commanded by its subject. Consider for instance the following case:

(2.27.) pire ena xapi o Aris nistikos (V-O-S1-AP1)

took a pill the Ares on empty stomach

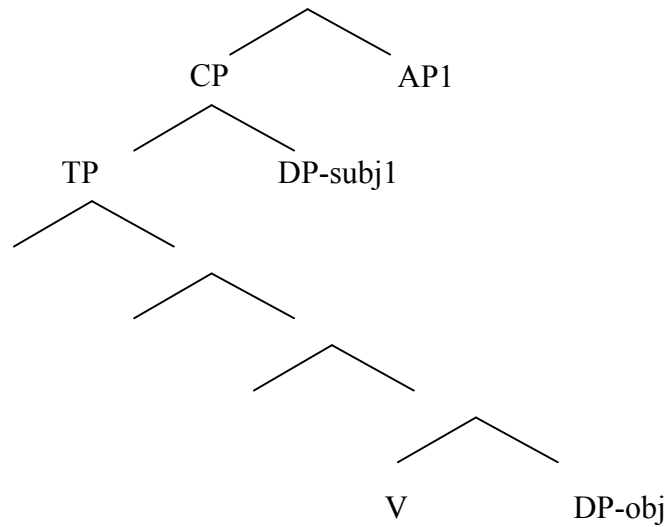
“Ares took the pill on empty stomach”

If we assume that in VOS the subject is generated as a right adjunct (possibly at the CP layer; see Tsimpli 1990) or as right specifier of the vP, there is no

means by which the secondary predication licensing condition of c-command can be met: the secondary predicate cannot be c-commanded by the clausal subject. This is illustrated in (2.28) and (2.29) respectively. On the other hand, adjunction of the secondary predicate lower than the subject does not lead to the desired linear output.

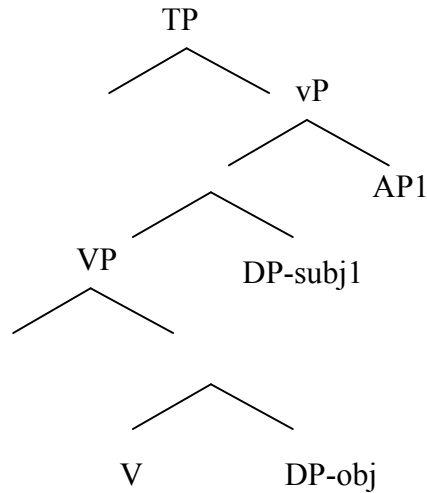
(2.28.)

*



(2.29.)

*



What is important, after all, in this discussion, is that the working hypothesis I pursued here, by distinguishing between v-to-T and v'-to-SpecTP movement for VSO and VOS orders respectively, and by building on well-established ideas on secondary predication licensing, is the only analysis that is in a position to account for all the attested asymmetries in a rather straightforward manner.

3.2 Adverb Placement

Having examined the way V-initial orders interact with secondary predicates, let me now present some extra evidence which validates and strengthens our working hypothesis. In particular, I will be dealing with the distribution of low adverbials, such as manner adverbs. As I will show, only an analysis which allows the object to move alongside the verb can account for certain asymmetries in the distribution of such adverbs with respect to VOS. To begin with, consider the following four cases: (2.30) and (2.31) involve a VSO order, while (2.32) and (2.33) involve a VOS order:

(2.30.) A: What happened here ?

B: klotsise δinata ena peði mia bala ki espase to tzami
kicked hard a kid a ball and broke the glass

“Some guy kicked a ball hard and the window’s glass broke”

(V-adv-S-O)

(2.31.) B: klotsise ena peði δinata mia bala ki espase to tzami

kicked the one guy hard a ball and broke the glass

(V-S-adv-O)

(2.32.) B: eno ola itan irema, ksafnika, klotsai mia bala δinata ena peði..

while all was quiet suddenly kicks a ball hard one guy

...ke spai to tzami

and broke the glass

“While everything was quite, all of a sudden some guy kicked a ball
Hard and the window’s glass broke” (V-O-adv-S)

(2.33.) *eno ola itan irema, ksafnika, klotsai ðinata mia bala ena peði..*

while all was quiet suddenly kicks hard a ball the Ares

...ke spai to tzami²²

and broke the glass

“While everything was quite, all of a sudden Aris kicked a ball hard
the window’s glass broke” (V-adv-O-S)

What is interesting in the set of data above is that while in the VSO orders the manner adverb can surface either between the verb and the subject (2.30) or between the subject and the object (2.31), it seems that in VOS it can only surface between the object and the subject (2.32); utterances like the one in (2.33) where the manner adverb surfaces between the verb and the object are quite marginal²³. The same kind of asymmetry is also attested in dependent clauses:

(2.34.) *ða ekplayo mono an lisi tin askisi yriyora o Aris*

will be-surprised-1sg only if solves the exercise quickly the Ares

“I will only be surprised if Ares solves the exercise quickly”

(V-O-adv-S)

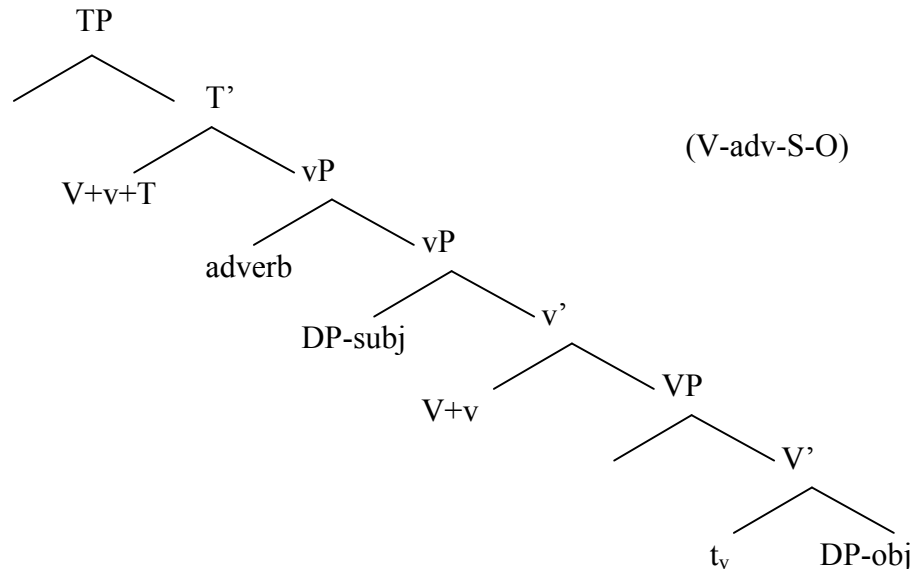
²² The order is not ruled out as ungrammatical; however it is rather marginal. While VOadvS gained an overall median score of 2.27, VadvOS gained a score of 1.09.

²³ We should note here that according to Alexiadou (1997, 1999) both VOadvS and VadvOS orders are ungrammatical. However, for the vast majority of our informants while VadvOS is marginal, the VOadvS order is judged as grammatical.

- (2.35.) *θa ekplayo mono an lisi yriyora tin askisi o Aris*
will be-surprised-1sg only if solves quickly the exercise the Aris
 (V-adv-O-S)

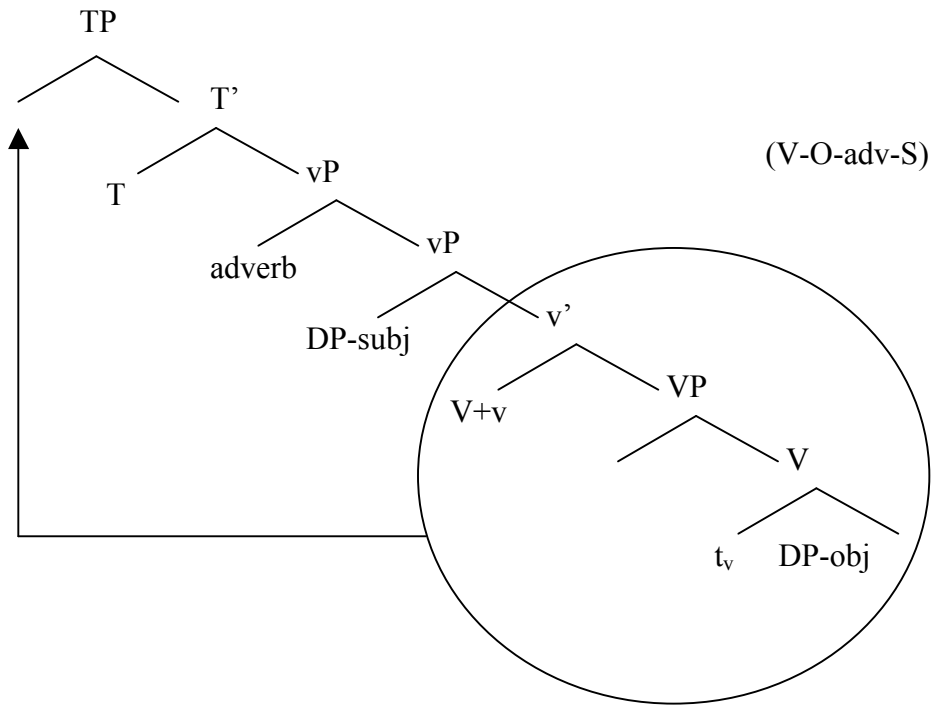
The analysis I have been pursuing here allows us to generate the grammatical VadvSO and VOadvS orders (2.30, and 2.32/2.34 respectively) only by assuming that what moves to TP in VSO orders is the verbal head, while in VOS is more material, that is, the v' node. (see 2.36 & 2.37 respectively). On the other hand, adopting Bobaljik (1999) where it is argued that adverbs can be generated in various positions in the tree, I assume that in the case of VSadvO the adverb is generated as an adjunct to the v' node. (see 2.38). As far as the marginal status of the VadvOS orders is concerned, I propose that this is due to the fact that (left-) adjunction within v' is banned²⁴, as is the case with English.

- (2.36.)

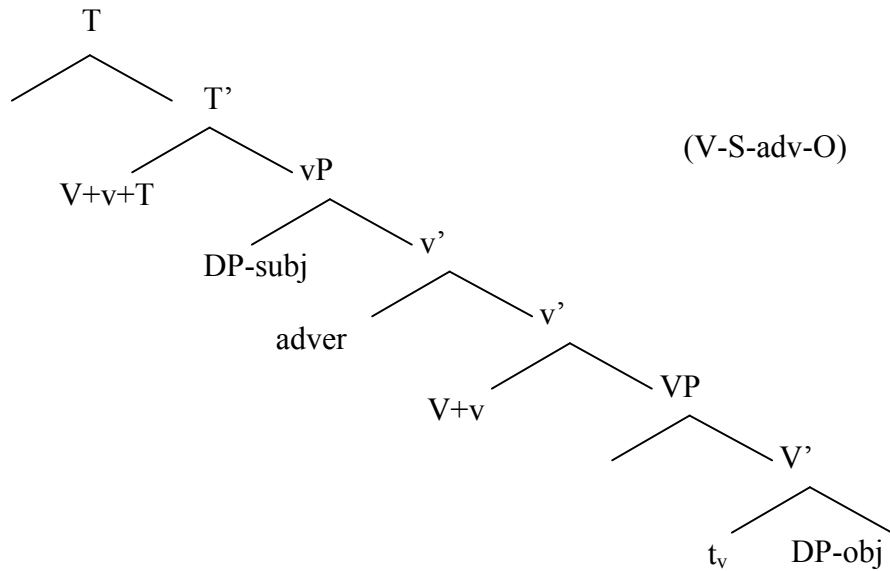


²⁴ However, this does not eliminate the possibility for right-adjunction. Note that VSOadv and VOSadv orders are also grammatical constructions; (see also Xydopoulos 2001).

(2.37.)



(2.38.)



If a manner adverb can surface either between the verb and the subject or between the subject and the object in VSO orders, why is it that in VOS the only position available is the one between the object and the subject? In other words, why—if the object undergoes movement— can it not target a position below the adverb adjoined to vP, while it can target a position above it²⁵? In the same way, the right-adjunction and the right-specifier hypotheses face similar or even more severe problems, since—under the same assumption, namely, that the adverb is adjoined to vP—they cannot account for the VOadvS cases, and additionally, they wrongly predict that VadvOS orders should be grammatical.

To sum up, it turns out that the way manner adverbs interact with V-initial orders seems to verify the hypothesis being tested here: VOS cannot be due to object scrambling or generation of the subject to the right (either as specifier or adjunct); rather, a system which distinguishes between V^o-to-T^o and v'-to-SpecTP movement and allows various adjunction sites for the (at least manner) adverbs, seems to capture all the empirical data.

3.3 Further evidence

3.3.1 VOS and Anaphoric Binding

So far I have shown that VOS should be due to movement of v' to [SpecTP] rather than due to mere object movement or due to projection of the subject to

²⁵ Alexiadou (1997, 1999) accounts for the degraded acceptability of VadvOS as follows: manner adverbs are generated within VP as verbal complements that for checking reasons have to move to a position higher in the structure; after movement takes place they end up in [Spec,VoiceP] just above VP. Furthermore, she argues that object scrambling also targets the same position, that is, [Spec,VoiceP], and thus the alleged ungrammaticality of the order under examination is due to the fact that there is only one position available (under the assumption of course that there is no possibility for multiple specifiers). Beyond the theoretical orthodoxy of these assumptions, such an idea is simultaneously too weak and too strong: As we have shown, while VadvOS is rather marginal, VOadvS is constantly judged as a grammatical (though maybe marked) construction. On the other hand, such an analysis forces Alexiadou to assume that even VSadvO orders are ungrammatical, something that is not verified by the data and the speakers' judgements.

the right. In the remainder of section 3 I will deal with two related issues, namely, the properties of this operation in terms of the A- vs. A-bar distinction, and whether the object c-commands the subject or not.

Alexiadou (1997, 1999) and Haidou (2000) assume that the object in VOS is in an A-position, while Philippaki-Warbuton (2001) and Georgiafentis (2001) argue that it is in an A-bar position²⁶. In what follows I will be considering data from anaphoric binding and quantifier scope interaction. Anticipating the discussion, I will show that this movement operation has A-bar properties, and that the object in VOS ends up in a position from which c-command over the subject cannot be established. To begin with, consider the following cases:

(2.39.) *o pateras tu Petru₁ ektimai [ton eafto tu]₁²⁷
the father the Petros-gen appreciates the self-his
 “Petros’s father₁ appreciates himself₁”

(2.40.) *o Joryos₁ ipe pos i Maria diafimizi [ton eafto tu]₁
the George said that the Maria advertises the “self”-his
 “George₁ said that Maria advertises himself₁”

Greek reflexives generally pattern with English reflexives in all relevant aspects²⁸. Thus—as expected—both the utterances above are ungrammatical.

²⁶ Crucially, all these analyses rely heavily on pronominal binding asymmetries. However, as we will show in part 3, pronominal binding in Modern Greek cannot be used as a diagnostic test for establishing the A or A-bar properties of a movement operation.

²⁷ Morphologically the Greek reflexive pronoun is a complex noun phrase, consisting of the noun “o eaftos” (“the self”) inflected for case (nominative, accusative or genitive) plus a possessive clitic pronoun in genitive. According to Iatridou (1988) co-indexation and thus binding is established between the antecedent and the pronominal element. Anagnostopoulou & Everaert (1999), on the other hand, argue that it is the whole NP and not just the possessor that constructs the anaphoric element: within the reflexivity framework it is the SELF element that reflexivizes the predicate.

²⁸ The situation, however, is quite different when subject reflexives come into play; in such cases it seems that the distribution is much freer, since, even in VSO (where the subject occupies its base position), the subject can be a nominative reflexive. Nonetheless, as has been

In (2.39) binding cannot be established since the embedded antecedent does not c-command the reflexive, while in (2.40) the binder and the reflexive are contained in different governing categories.

Coming now to our case, a prediction our analysis makes is that any VSO/VOS alternation should not be expected to affect anaphoric binding relations. In particular, it should be possible for a reflexive object to be co-indexed with a subject lower in the structure. The empirical data seem to verify such a prediction. Consider for instance the set of data from (2.41) to (2.44):

(2.41.) *tromokratise i Maria₁ [ton eafto tis]₁* (V S O)
terrified the Maria the self-her

(2.42.) *tromokratise [ton eafto tis]₁ i Maria₁* (V O S)
terrified the self-her the Maria
 “Maria terrified herself”

(2.43.) *de sevastike o Aris₁ [ton eafto tu]₁* (V S O)
not respected the Ares the self-his

(2.44.) *de sevastike [ton eafto tu]₁ o Aris₁* (V O S)
not respected the self-his the Ares
 “Ares did not respect himself”

The data above fully fits into the pied-piping hypothesis: the object ends up in a position (after *v'* moves to [SpecTP]) from which c-command over the subject is not possible. Thus, the absence of Principle C effects is explained by the fact that there is no c-command²⁹. Moreover, in order for Principle A of binding to

claimed in the literature, nominative reflexives generally show different licensing properties from those of object reflexives. (cf. among others, Anagnostopoulou & Evaraert 1999).

²⁹ Note, however, that it is not entirely clear whether c-command is the crucial factor in such configurations. For instance, constructions such as “Himself₁, John₁ likes most” are

take effect, I assume that in (2.42) and (2.44) the moved constituent has to reconstruct to its base position; if reconstruction is a diagnostic for A-bar movement, we have some evidence in favour of the A-bar properties of the movement operation under investigation³⁰. For an A-scrambling account there is no means by which Principle A can take effect, in order for the reflexive object to be c-commanded by its binder (namely, the lower subject), under the assumption that A-moved categories do not reconstruct, while on the other hand, the absence of Principle C effects are difficult to be accounted for.

3.3.2 VOS and Scope

In the previous section I showed that in VOS orders there is no c-command relation between the object and the subject. Furthermore, I have shown that the movement operation actually shows A-bar characteristics, given that in certain cases we need to resort to reconstruction so that Principle A of binding can take effect. In what follows, I will show that even quantifier scope data favours an A-bar movement analysis. To begin with, consider the VSO cases in (2.45) and (2.46) below:

- (2.45.) δ javase kapios maθitis kaθe vivlio (V S O)
read some student every book
 “Some student read every book”

→ This student was Ares.

- Existential > Universal (•Universal > Existential)³¹

grammatical although c-command is not established. What is important, though, is the fact that an A-scrambling analysis can not account for the grammaticality of the VOS orders, since according to such analyses the object is in A-position and c-command over the subject is indisputable.

³⁰ The fact that A-movement is argument-related movement could also exclude the possibility for the operation at hand to show A-characteristics; recall that the moved category is the non-argumental v' node.

³¹ The parentheses simply indicate that the intended reading is not the preferred one or even that it is marginal.

(2.46.) δ javase ka θ e ma θ itis kapio vivlio (V S O)
read every student some book
 “Every student read a book”

- Ares read book A, Maria read book B, Christina read book C...
 • Universal > Existential (• Existential > Universal)

What the VSO utterances above indicate is that the preferred reading of scope dependencies in Greek is defined by-and-large by surface structure rather than quantifier raising (see Giannakidou 2000 and references therein). In (2.45) the preferred reading is overwhelmingly the one in which the existentially quantified subject takes scope over the universal. Similarly, in (2.46) the preferred reading is the one in which the universal quantifier (subject) takes scope over the existentially quantified object. The situation, however, seems to be quite different with VOS orders. Consider for instance the following two cases in (2.47) and (2.48):

(2.47.) δ javase ena vivlio ka θ e ma θ itis (V O S)
read a book every student
 “Every student read a book”

- Ares read book A, Maria read book B, Christina read book C...
 • Universal > Existential (• Existential > Universal)

(2.48.) δ javase ka θ e vivlio enas ma θ itis (V O S)
read every book a student
 “A student read every book”

- This student was George

•Existential >Universal (•Universal >Existential)

In both cases, the preferred reading is the one in which the subject takes scope over the object³². So, in (2.47) the preferred reading is the one in which the universally quantified subject takes scope over the existentially quantified object, and in (2.48) it is the one in which the existential subject takes scope over the universally quantified object. In order to account for these cases of inverse scope we should once again resort to reconstruction: in the VOS cases scope is calculated after the moved category (that is the intermediate *v'* node containing the object) has reconstructed to its base position. And once again, if reconstruction indicates A-bar properties, then the operation which yields VOS should be an instantiation of A-bar movement. Crucially again, an A-scrambling account can hardly account for these facts.

3.3.3 VOS and Pronominal Binding

All the existing analyses on VOS make use of data involving pronominal binding in order to establish the A or A-bar properties of the movement operation. According to the analyses of Alexiadou and Haidou, binding is affected (new binding possibilities arise), and so we are dealing with A-movement. On the other hand, for Philippaki-Warburton and Georgiafentis binding is not affected, and hence they opt for an A-bar analysis. For our analysis this question is rather trivial; recall that according to our working hypothesis it is not the object that undergoes movement, but rather a larger constituent containing the object. Thus, the object ends up in a position from which *c*-command over the subject is not possible.

³² For some of our informants, however, the preferred reading is the reverse, that is, the one where the object takes scope over the subject. Nonetheless, this does not affect the argument since in principle both readings are available.

Consider now the following cases:

(2.49.) ?* θ_a o δ i γ isi o i δ jokt τ is tu $_1$ to ka θ e aftok τ in τ o $_1$ (V S O)
will drive the owner his the each car

(2.50.) θ_a o δ i γ isi to ka θ e aftok τ in τ o $_1$ o i δ jokt τ is tu $_1$ (V O S)
will drive the each car the owner his

“Each owner will drive his car”

(2.51.) ?*sinandise o pateras tu $_1$ to ka θ e koritsi $_1$ (V S O)
met the father-nom his the each girl-acc

(2.52.) sinandise to ka θ e koritsi $_1$ o pateras tu $_1$ (V O S)
met the each girl-acc the father his-nom

“Each father met his girl”

(2.53.) ?*afu prota eksetasi o jiatro τ stu ton ka θ ena $_1$.. (V S O)
after first examines the doctor his-nom the each one-acc

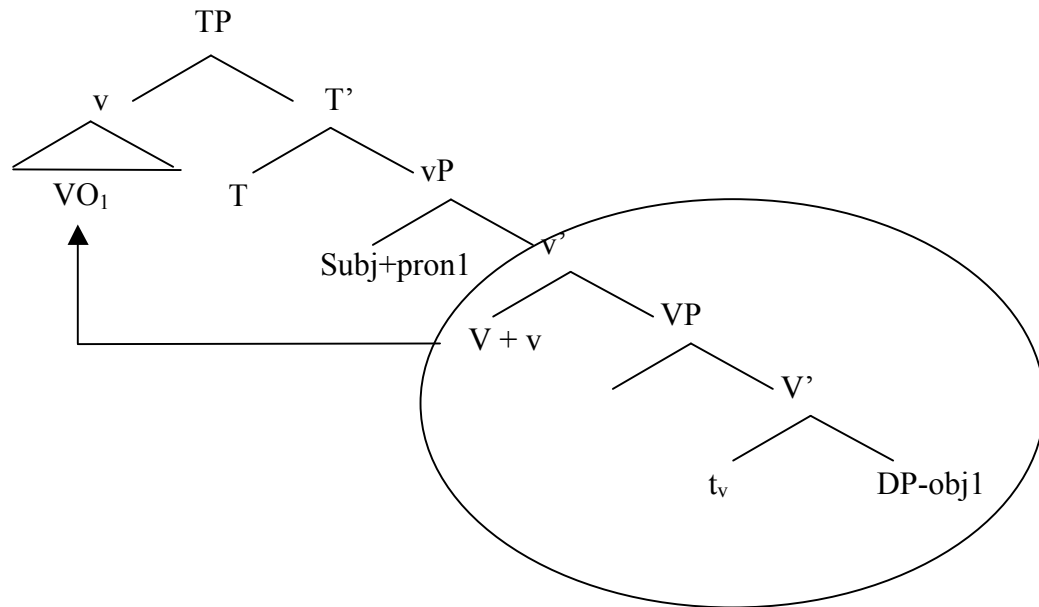
(2.54.) afu prota eksetasi ton ka θ ena $_1$ o jiatro τ stu $_1$ (V O S)
after first examines the each one the doctor his

“After his doctor examines each one”

In (2.49), (2.51) and (2.53) above, a bound-variable reading is difficult to obtain due to the fact that the pronominal form contained in the subject can not be bound by the lower binder (the DP-object). In sharp contrast, the same binding configuration is perceived as unproblematic in (2.50), (2.52) & (2.54) respectively. Proponents of object scrambling, such as Alexiadou (1997, 1999) and Haidou (2000), have used this kind of asymmetry as evidence allegedly

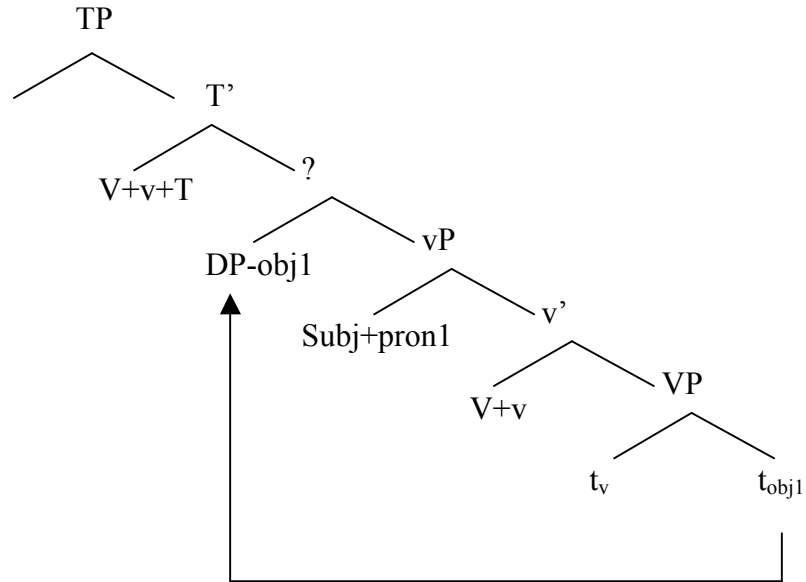
favouring the A-status of scrambling: VOS creates new binding possibilities³³ (see also Ordoñez 2000 for VOS in Spanish). At first sight, the variable binding data poses a significant problem for our analysis: given that variable-binding is usually defined through co-indexation and c-command, it seems that our analysis fails to meet the latter requirement, since, according to the working account I have been pursuing, the object in VOS does not c-command the subject (see 2.55 below). On the other hand, a scrambling analysis can account in a rather straightforward way for the attested asymmetries: after scrambling the bare object ends up in a position from which c-command over the lower subject containing the pronominal form is possible (see 2.56):

(2.55.)



³³ The VSO examples are not ruled out as ungrammatical altogether: However, for the majority of our informants the intended reading is much more salient in a VOS configuration. (cf. also Philippaki-Warbuton 2001 and Georgiafentis 2001 who argue that the pronominal binding is not affected at all, favouring an A-bar analysis).

(2.56.)



As long as c-command is a strict requirement for variable binding, I cannot offer any satisfactory explanation. Nonetheless, if we could show that variable binding is controlled by factors other than a strict configurational requirement such as c-command, the problem will only be apparent. In this light, consider the following cases: in (2.57) binding is established between a deeply embedded binder and the pronoun in the DP-object, while in (2.58) the embedded object is able to bind into the lower pronominal form contained in the subject:

(2.57.) *iðe* [i mitera [tu kaθe peðiu₁] to ðaskalo tu₁ (V S O)
saw the mother of each child the teacher his
 “The mother of each child saw his teacher”

(2.58.) ?sinandise [i kiria [pu frontizi kaθe peðaki₁]] tin mitera tu₁
met the lady that takes-care-of each child the mother his
 “The lady who takes care of each child met his mother”
 (V S O)

In the same spirit, in (2.59) below the possessive pronoun in the subject appears to be able to be bound by the universal quantifier contained in the preceding PP:

- (2.59.) ?pire xrimata[apo tin kaθe mana₁] to peði tis₁ (V O PP S)
took money from the each mother the child her
 “Each child was taking money from his mother”

In all the cases above variable binding is established. Crucially, though—and irrespective of the exact accommodation of the data—the c-command requirement cannot be met in any of these cases. This being so, we have good reasons to believe that pronominal binding (at least in a language like Greek) is not defined strictly through c-command; rather—I assume—there must be some linearity (precedence) constraint ensuring that the binder precedes the bindee. Indeed, all the cases above turn out to be ungrammatical when the bindee precedes the binder:

- (2.60.) *iðe to ðaskalo tu₁ i mitera [tu kaθe peði₁] (V O S)
saw the teacher his-cl the mother of each child
 “The mother of each child saw his teacher”

- (2.61.) *sinandise ti mitera tu₁ [i kiria [pu frondize [kaθe peðaki₁]]]
Met the mother his-acc the lady that looks-after each child
 “The lady that looks after each child met his mother”

(V O S)

- (2.62.) *pire to peði tis₁ xrimata [apo tin kaθe mana₁] (V S O PP)
took the child her money from the each mother
 “Each child took money from his mother”

The fact that pronominal binding is not subject to a strict configurational (i.e. syntactic/hierarchical) schema such as c-command is not a peculiarity of Greek. Williams (1997) comments:

‘[...] the answer is that there is no “device”—no specific rules or principles—of bound anaphora in the first place; bound anaphora is instead a phenomenon that arises at the intersection of how an operator determines the interpretation of its scope and how pronouns are interpreted, perhaps among other things. The pronoun must be in the scope of the operator for the phenomenon of bound anaphora to be evident, but there is no c-command restriction that must hold between an operator and a pronoun that is bound by it.’

(1997: 586)

Nonetheless, on the other hand, in dependencies where c-command is expected to be a crucial factor, such as anaphoric binding and the distribution of referential expressions, VOS cannot involve an object in a c-commanding position. Thus, I assume that pronominal binding data cannot be considered a decisive factor in favour of the A or A-bar status of the movement operation, since, as we have seen, c-command does not seem to play a crucial role in variable binding, and, as such, we have no reason to believe that the object should c-command the subject.

3.4 Extensions

Beyond the fact that the proposed analysis seems to be able to account for all the syntactic data examined in section 3 in a rather straightforward manner, there are a couple of further theoretical advantages that the analysis I put forward has.

First of all, such an analysis, while it retains the optional character of pied-piping operations across languages, it also by-passes the idea of *prosodic*

movement: a common characteristic of the analyses of Alexiadou, Haidou, Georgiadjis (and to a lesser extent of Philippaki-Warbuton) is that they all assume in a way or another that the movement operation is due to discourse/stress-related reasons: An object must move locally to a position higher in the structure so that the subject will receive main clausal stress by application of the default stress rule, which, according to the theory, assigns main clausal prominence to the most deeply embedded element in the c-command domain³⁴, that is, the subject. However, this cannot be the case: as we have seen there are grammatical VOS+**x** cases; that is, cases where the main prominence is not assigned to the subject (2.63-2.64). Similarly, there are cases in which the generation of a VOS order—instead of a VSO one— appears to simply repair syntactically problematic configurations, such as variable binding (2.65):

(2.63.) Pire ena xapi o Aris **nistikos** || ke tu ponese to stomaxi
got a pill the Ares on empty stomach and to-him hurt the stomach
 “Ares got a pill on empty stomach and he had a stomachache”
 (V O S1 AP1)

(2.64.) Θa pari ta peŋia o Aris **avrio** || ke Θa ta pai sto parko
will take the kids the Ares tomorrow and will them-CL go to-the park
 “Ares will take the children tomorrow and take them to the park”
 (V O S1 ADV)

(2.65.) ??afu eksetase o jiatrostu1 ton kaθena1... (V S O)
after examines the doctor his the each one

³⁴ This idea goes back to Chomsky & Halle (1968) and Cinque (1993). It is also found in Zubizarreta (1998). However, Haidou (2004/2006) convincingly shows that main stress in Modern Greek is assigned to the rightmost element of the intonation phrase.

- (2.66.) a. ?*sinandise o pateras tu₁ to kaθe koritsi₁ (V S O)
met the father-nom his the each girl-acc
- b. sinandise to kaθe koritsi₁ o pateras tu₁ (V O S)
met the each girl-acc the father his-nom
 “Each father met his girl”

For the line of argumentation I have been following, there is actually no need to resort to a specific trigger for the VSO/VOS alternation; v'-to-T movement is operative for exactly the same reasons V-(to-v)-to-T movement is operative in the language³⁵. Such a movement—while in principle optional—can be both constrained and promoted by independent factors: for instance, there is no doubt that such a configuration seems to promote the subject as the information nucleus of the utterance when delivered to the PF interface³⁶. Similarly—as we have already seen—a VOS order might be chosen instead of VSO in order for certain syntactic configuration to be facilitated. On the other hand, it seems that when the verbal complement is complex (either a complex DP or dependent clause) the VOS orders are disfavoured³⁷.

Finally, another advantage of the hypothesis and analysis I pursued here has to do with the fact that it totally dispenses with the idea that there is a one-to-one relation between the position a category occupies in the tree and its interpretation. Indeed, Alexiadou (1999), Georgiafentis (2001) and Philippaki-Warburton (2001) build their syntactic accounts on VOS adhering to an idea

³⁵ However, V-to-T movement in the checking theory of movement ends up being problematic. In the light of Chomsky (1995, 2000, 2001) checking can be established via distant feature-matching. Given this, and given that the operation can not be of a morphological nature (after all, the verb enters the derivation as a full word—the functional heads contain abstract material), we have no actual trigger for such an operation. For related problems and a different view on V-raising see Koenenman (2000).

³⁶This, however, is the case only when the subject is the rightmost phonological word in the intonational phrase.

³⁷ Cf. also Alexiadou's (1997) “lightness” constraint.

that the object in VOS should occur in specific regions in the tree since interpretively that object has a very specific interpretation. However, as I will show later on in Chapter 6, objects in VOS can have many different pragmatic interpretations and, consequently, VOS can realize various information structures. All in all, I assume that the pied-piping hypothesis by refraining from taking pragmatic interpretation into account, serves the economy since we do not need to create different trees for any possible interpretation, while on the other hand it is in line with the minimalist idea about the autonomy of syntax.

4. Summary

In this Chapter I discussed some major aspects of the syntax of V-initial word orders in Greek insisting more on the properties of the ‘problematic’ VOS order. With respect to this, I argued that VOS minimally differs from VSO in that in VOS it is not the verbal head that moves to the TP domain—as it happens with VSO—but rather a larger constituent, arguably the *v'* node, as a case of pied-piping. In what follows, before I discuss the syntax of operations targeting the preverbal domain in Greek, I will draw attention to clitic doubling.

Chapter 3

Clitics, Doubling and A-Movement

1. Introduction

Since the early stages of generative grammar, pronominal clitics and their distribution within the clause have been in the epicentre of linguistic research as elements of special interest, at a syntactic, morphophonological and semantic level. However, despite the large amount of work, certain aspects of the behaviour of these elements still remain rather opaque, a situation that—to some extent—can be attributed to the fact that cross-linguistically—and even across the various dialects of the same language—clitics and their distribution within the clause seem to be subject to non-uniform and idiosyncratic conditions (See Anagnostopoulou 2005, Tsakali 2006, Estigarribia 2006 for a more detailed discussion).

Some of these opaque aspects relate to what is referred to in the literature as ‘Clitic Doubling’ (henceforth CD), that is, the configuration where a post-verbal direct or indirect object can be optionally presumed by a pronominal clitic

which appears attached on the verb in the sentence. The ‘doublee’, that is, the lexical DP, and the ‘doubler’, that is the clitic, are obligatorily co-referential while they also agree in ϕ -features (person, number, gender) and case. The example in (3.1) below illustrates this with a direct object DP:

- (3.1) *tin*³⁸ *filisa* *tin Maria* *paθiazmena*
her-acc-fem-s.CL *kissed-1s* *the Maria-acc-fem-s* *passionately*
 “I kissed Mary passionately”

At this early point let me briefly tackle the following question that one may come up with: Why such a discussion is necessary in a thesis that virtually deals with word order variation in Greek and more particularly the dichotomy between verb-initial and non-verb initial orders? The answer to the question is actually quite straightforward: On the one hand, the content of the discussion in this Chapter is relevant to what will follow in Chapter 4 where the syntactic properties of operations targeting the preverbal domain will be discussed; as we will see, some of these operations seem to share characteristics of CD. On the other hand, the discussion of doubling in this Chapter will become relevant and offer helpful insights when the attention will be shifted to the properties of the C/I interface in Chapter 6. As many researchers have pointed out (see Philippaki-Warbuton 1987, Agouraki 1993, Tsimpli 1990, 1995, Anagnostopoulou 1994, 1997, Keller & Alexopoulou 2001, Alexopoulou & Kolliakou 2002, Haidou 2004/2006) doubling appears to have a direct impact on information packaging, the implication being that doubling is one of the means through which Greek formally realizes IS.

Given this, and before I proceed to a more detailed discussion of the issues I will be dealing with, this is how the Chapter is organized: In section 2 I

³⁸ Note that from now on I will not be giving the full morphological specification of clitics and DPs. The reader should assume that the clitic and its associate agree in all the above mentioned features.

present some of the theoretical puzzles related to clitics and their distribution in the clause. In part 3, I focus on core characteristics of the construction in Modern Greek. In part 4, I try to account for the data putting forward an alternative analysis of CD in Greek; In a nutshell, the main idea is that in CD the doubler, that is, the pronominal clitic, never enters the numeration as an independent DP/D, but rather, the clitic is a mere reflection (or a copy) of a bundle of features already present on a lexical DP. Moreover, I show that doubling has A-properties. In part 5 I discuss some major existing analyses on CD. Finally, part 6 summarizes the discussion.

2. Clitics & Cliticization: (Some of) the Puzzles

So, what are clitics, or what qualifies as a clitic³⁹? Rather surprisingly, given the complications and the problems related to the overall theory of clitics and their distribution in the clause, at a descriptive level there is a general consensus that clitics are pronominal forms that show up attached onto a syntactic host, typically the verb. For instance, pronominal clitics in languages like Spanish, Albanian and Greek (respectively in 3.2 below) attach on the verb forming a phonological and syntactic unit⁴⁰:

³⁹Clitics may essentially belong to any grammatical category. However, in this thesis I use the term as exclusively referring to pronominal forms.

⁴⁰ Cliticization and doubling are possible with both accusative and genitive/dative (syncretism in Greek) DP complements. In this thesis, nonetheless, I deal only with the former ones. This ‘fragmentational’ or ‘separationalist’ strategy is mainly driven by two reasons: On the one hand, it simply has to do with the fact that it serves the economy of the thesis, that is, it helps the writer to keep the discussion within certain limits. On the other hand, it has quite often been pointed out in the literature that direct object clitics are subject to distinct restrictions from indirect objects both within and across languages and as such they should be examined separately (see among other others Anagnostopoulou 1994, 2005, 2007, Uriagereka 1995, Sportiche 1992/1996, Kallulli 2001). In a nutshell, the idea is that while accusative clitics (as we will see later on in this Chapter as well as in Chapters 6) have a direct interpretational import on the doubled DP (topic reading, old information, specificity etc.). These interpretative effects seem to be absent when dative/genitive clitic doubling takes place. Moreover note that in certain languages (e.g. Albanian,) while direct object doubling is optional (in the sense that absence does not lead to ungrammaticality), indirect objects should appear doubled. In a

- (3.2.) a. Juan [lo - leyo] (Spanish)
Juan it-CL read
 “John read it”
- b. An-a [e - lexoi] (Albanian)
Anna-the it-CL read
 “Anna read it”
- c. O Aris [to - ðiavase] (Greek)
the Ares it-CL read
 “Ares read it”

similar way, researchers like Anagnostopoulou (1994, 2003, 2007) and Tsakali (2006) have identified environments where doubling of indirect objects in Greek looks obligatory. This is for instance what happens with the so-called ‘quirky’ dative subjects of the sort shown below in (i) and with indirect object in passive constructions (ii):

- (i) *(tu) menun tu Are akoma tris meres ksekurasis
to.him-CL remain.-3pl to-the Ares more three days of relaxation
 ‘There are three more days of relaxation left to Orestes’
- (ii) to γrama *(tu) taxiðromiθike tu Petru xtes
the letter to.him-CL was.posted to-the Petros yesterday
 ‘The letter was posted to Peter yesterday’

(from Anagnostopoulou 2003)

Moreover, while direct object doubling seems to be subject to restrictions such as, that only definite DPs can be doubled (cf. Anagnostopoulou 1999-I will come back to this issue towards the end of this section), these restrictions seem to be much laxer for dative clitic doubling. For instance, consider the following asymmetry: doubling of the bare negative quantifier in (iiia) as a direct object is problematic, while this is not the case when doubling occurs with it being an indirect object in (iiib):

- (iii) a. *?ðen ton iða kanena
not him-CL saw.1s no one
 ‘I didn’t see anyone’
- b. ðen tu ðino kanenos to aftokinito mu
not to-him-CL give.1s to-no one the car mine
 ‘I don’t give to anyone my car’

For reasons like these it has been proposed that dative/genitive clitics in doubling environments behave more like agreement markers. Thus, they seem to fall outside the scope of this thesis, and as such they will eventually be left aside.

b. Si, l' ho risolto
yes, it-CL have-1s solved
 “Yes, I solved it”

(3.4.) a. exis lisi to provlima? (Greek)
have-2s solved the problem
 “Have you solved the problem?”

b. Ne, to elisa
yes, it-CL solved-1s
 “Yes, I solved it”

Given these observations the question that arises is the following one: how do clitics attach onto a syntactic host? In principle and without coming into details there are two different possible approaches to cliticization, namely (a.) lexical approaches, and, (b.) syntactic approaches.

Lexical accounts of clitics became very popular in the generative tradition due to the strong resemblance of clitics to morphological affixes. Very generally, lexical analyses take clitics to be word-level affixes, that is, elements added to the constructed word in the pre-syntactic Lexicon. These analyses treat clitics as morphological parts of their host. Another characteristic of these analyses—that essentially stems from the fact that clitics are treated as affixes—is that clitics are assumed to modify the lexical entry of the predicate they appear attached on. In this sense, pronominal clitics are seen as ‘intransitivisers’ given that they saturate (part of) the thematic-grid of a given verb. Consider the difference between (3.5a) and (3.5b):

(3.5.)	a. lei	b. lo-	lei	(Spanish)
	<i>read-1s</i>		<i>it-CL read-1sg</i>	
	‘I read’ (+transitive)		‘I read it’ (-transitive)	

However, researchers like Kayne (1975) and Sportiche (1992/1996) among others have noted that there are serious counterarguments to the assumption that cliticisation is a lexical operation of the type described above. A problem for the lexical approach (essentially the hardest one to tackle, at least for those lexical approaches that assume a word-level affixation) is that clitics may attach to hosts to which they bear no lexical relation. This is illustrated below:

- (3.6.) a. Jean est semblable à sa mere (French)
Jean is similar to his mother
 ‘John takes after his mother’
- b. Jean lui est semblable
John to-her-CL is similar
 ‘John takes after her’

Similarly, constructions like the ones below in (3.7) and (3.8) where the clitic attaches to the verb of the higher clause, although it belongs to the embedded clause in terms of argument structure, are even more problematic for the lexical approach. ‘Clitic climbing’ is illustrated below⁴²:

- (3.7.) Gianni la vuole trovare (Italian)
Gianni her-CL wants to-find
 ‘John wants to find her’
- (3.8.) la quiero ver (Spanish)
her-CL want-1s to-see

⁴² The configuration is absent in Greek since the language does not have infinitives, a prerequisite for climbing constructions. The functional burden of infinitives is in most of the cases undertaken by subjunctive *na*-clauses.

‘I want to see her’

Data like this above has led linguists like Kayne (1975) and Sportiche (1992/1996) to assume that cliticization is then a syntactic process, and not a morphological one. However, researchers like Klavans (1985), Anderson (1992), Monachesi (1995), Spencer (2000), among others, have argued that most of the arguments that have been used in the literature against the lexical/affixal status of clitics do not really prove that clitics cannot be affixes under the view that cliticisation can still be accounted for via post-syntactic phrasal-level affixation. What practically this means is that clitics are added by morphological mechanisms to phrases (e.g. VP) post-syntactically rather than to stems/words pre-syntactically.

Regarding this controversy, i.e. whether cliticization is of morphological or of syntactic nature, at this point I would like to remain indifferent. As I will show later on in the discussion, for the alternative account of clitic doubling I will be pursuing, this question will prove to be rather trivial, in the sense that both syntax and morphology seem to play a role in cliticization (and doubling).

Now, if clitics are generated as syntactic units and their distribution is likewise regulated by syntactic mechanisms, how can this be implemented as a theory? Although there are many and, not infrequently, contradictory analyses, let me at this point only refer briefly to one them, namely, the so-called ‘traditional movement’ analysis on cliticization (Kayne 1975, 1989 *inter alia*), as it will help me transfer the discussion more directly from cliticization to the core of this chapter, that is, clitic doubling in Modern Greek. The core idea of the movement analysis is that a clitic is merged as a verbal complement in the canonical/thematic position from where then it moves and attaches to a syntactic host higher in the clause; given this, the clitic is assumed to be linked to a trace in the VP domain. The movement analysis is successful in capturing

the complementary distribution between clitics and overt lexical DPs in languages like French (3.9) and Italian (3.10):

- (3.9) a. Jean connaît Louis (French)
Jean knows Louis.acc
 “Jean knows Louis”
- b. Jean le connaît
 Jean him-CL knows
 “Jean knows him”
- c. *Jean le connaît Louis
Jean him-CL knows Louis
- (3.10) a. Maria ha mangiato la mela (Italian)
Maria has eaten the apple
 “Mary ate the apple”
- b. Maria l’ ha mangiata
Maria it-CL has eaten
 “Maria has eaten it”
- c. *Maria l’ ha mangiato la mela
Maria it-CL has eaten the apple

Jaegli (1982, 1986) treats this as evidence that cliticization is a case-absorption mechanism whereby the clitic absorbs the structural accusative case by the verb. Thus, CD is ungrammatical because the doubled DP cannot get Case and thus violates the so-called case filter. Evidence in favour of this idea comes from the observation that CD seems to be allowed just in case the doubled

element is able to get case by a case assigner other than the verbal head, such as the dummy prepositions ‘a⁴³’ in Rioplatense Spanish (3.11) and ‘pe’ in Romanian (3.12). Thus, languages like Italian and French with clitics, but without such independent case assigning mechanisms, are expected—as it is the case—to not allow for CD configurations (see above 3.9-3.10). This idea is usually referred to in the literature of CD as ‘Kayne’s Generalization’:

(3.11.) lo vimos *(a) Juan (Rioplatense Spanish)
him-CL saw-1pl John
 “We saw John”

(3.12.) *l-am văzut *(pe) Popescu* (Romanian)
him-CL saw-1pl Popescu
 “We saw Popescu”

In what follows, I will present some more core characteristics of this phenomenon in Greek that, on the one hand, will help the reader to comprehend the phenomenon more thoroughly, while on the other hand, it will form the basis for the analysis of doubling I will put forward in part 4. Note that from now on any discussion on clitics and cliticisation will only be indirect, through doubling.

⁴³ However, Suñer (1988), building on examples like the one in (i) below where ‘a’ shows up in non-doubling environments, has argued that it should be seen as an animacy marker rather than a case-assigning preposition:

(i) Juan estima a Pedro.
Juan appreciates Pedro
 ‘John appreciates Peter’

3. Clitic Doubling in Greek: The data

Now, coming into the core of this Chapter, and before I present some more general characteristics of the construction in Greek that will help the reader comprehend the configuration to a better extent and eventually justify the syntactic analysis I will put forward in the coming section, let me only briefly—at this stage—point out that CD is assumed to be regulated/constrained by discourse factors. Traditionally, this is captured through the assumption that doubled objects are necessarily interpreted as part of the ground partition of the clause. As such, objects cannot appear doubled in utterances that are meant to contain only new information. This is shown in the example (3.13) below:

(3.13.) A: Why are your eyes red?

B: (#ton) kitaza ton ilio
 it-CL *was-looking-1s* *the sun*
 ‘I was looking at the sun’

Reversely, a doubled object cannot bear focal stress, since the ungrammaticality of (3.14) (i.e. and not only discourse-infelicity as in 3.13 above):

(3.14.) A: Who are you going to meet tonight?

B: θa (*ton) sinandiso ton ARI
 will *him-CL meet-1s* *the Ares*
 ‘I am going to meet ARES’

Having said this, let me now go back to the syntax. Perhaps the most striking and well-cited characteristic of CD in Greek is that this language freely violates Kayne’s Generalisation, that is, the idea that doubling is licensed only when a language displays some mechanism that ensures that the DP associate will get case from a head other than the verb, since the verb’s accusative is

absorbed by the pronominal clitic. Nonetheless, the prediction is not borne out in Greek, where no such ‘dummy’ elements show up, yet no case filter violation occurs; rather, both the doubler and the doublee are marked for accusative case (see Anagnostopoulou 1994, Philippaki-Warbuton et al. 2004, Tsakali 2006 and references therein). The example in (3.15) illustrates this:

- (3.15.) a. $i\delta\alpha$ ton Ari
 saw-1s the Ares
 “I saw Ares”
- b. ton $i\delta\alpha$
 him-CL saw-1s
 “I saw him”
- c. ton $i\delta a$ $ton Ari$
 him-CL saw-1sg the Ares

The situation is also identical with doubling that involves first and second person clitics, in which case the doubled DP is a full first and second person pronoun respectively):

- (3.16.) a. me $kseris$ $emena$
 me-CL know.2s me
 “You know me”
- b. se $ksero$ $esena$
 you-CL know-1s you
 “I know you”

With respect to this peculiarity, the question that arises is the following one: What about if Greek does not display genuine doubling at all, and eventually

all cases that have been described as CD are due to right dislocation? In Italian for instance—a language with clitics but without genuine CD—a clitic and a full DP can show up in the same utterance only if there is sharp intonational break between the predicate and the full DP, this being the hallmark of right dislocation (3.17b):

- (3.17.) a. *I' ho mangiata la mela
it-CL have-1s eaten the apple
- b. I' ho MANGIATA # la mela...
it-CL have-1s eaten the apple
 “I did eat it; the apple..”

Moreover, in Rioplatense Spanish, where the dummy preposition is a necessary condition for CD (3.18a), the preposition can be omitted only in case there is a sharp intonational break, that is, only in case the doubled DP is right dislocated (3.18b):

- (3.18.) a. lo vimos *(a) Juan
him-CL saw-1pl John
- b. lo VIMOS # Juan..
him-cl saw.1pl John
 ‘We did saw him; John..’

Despite the fact that CD and right dislocation are not very easily distinguishable in Greek due to that CD in this language does not depend on any dummy preposition, as several researchers have pointed out (see Schneider-Zioga 1994, Anagnostopoulou 1994, 1999, Papangeli 2000, Tsakali 2006 among others) Greek data cannot be reduced to mere right dislocation altogether, an indication that Greek displays real doubling. Overall, there are

five points towards such a conclusion, the last two being essentially new observations:

First, while it is true that CDed DPs cannot bear the main pitch accent of the clause or be emphatically focused, nonetheless, this does not mean that they cannot bear a secondary stress or that they have to be completely de-stressed, and be separated from the rest of the utterance by a sharp contour, as it typically happens with right dislocated material. For the sake of the argument, in (3.19) below the nuclear stress is assigned to the rightmost element of the clause, that is, the temporal adverb, while the doubled DP can still carry (secondary) pitch prominence:

- (3.19.) ο Orestis ta elise ta provlimata to proi
the Orestes them-CL solved the problems the morning
 “Orestes solved the problems in the morning”

Second, as Tsakali (2006) points out, Greek clVOS orders contrast sharply with clVOS orders in Catalan. In this language, which also allows subjects to occur post-verbally, while the linear string clVSO is grammatical, when the post-verbal subject appears in clause final position in a clVSO manner, the construction is ungrammatical. What this shows is that this language does not display genuine CD, but rather only right dislocation, as the ungrammaticality of clVOS suggests: the subject cannot occur after the right dislocated object. This is shown in (3.20). In Greek, however, the situation is completely different, since clVOS is unproblematic (as clVSO is), a further indication that the doubled object is not right dislocated:

- (3.20.) Catalan
 a. cl V S O
 b. *cl V O S

- (3.21.) $\delta\epsilon\nu$ *to* $\epsilon\lambda\iota\sigma\epsilon$ *to* $\rho\rho\nu\lambda\iota\mu\alpha$ *o* $O\text{restis}$ (Greek cI VOS)
not it-CL solved the problem the Orestes
 “Orestes didn’t solve the problem”

The third piece of evidence against the right dislocated status of doubled DPs in Greek comes from the fact that CDed objects surface in positions where right dislocation is difficult—if not impossible—to occur (cf. Schneider-Zioga 1994, Anagnostopoulou 1994): ECM/control constructions (3.22) and secondary predication constructions/small clauses (3.23) constitute such environments:

- (3.22.) $\theta\alpha$ **tin** αfiso **ti** **Maria** na ϵrthi
will her-CL let-1s the Maria SUBJ come-3s
 “I will let Maria come”

- (3.23.) ton $\theta\epsilon\text{ori}$ ton **Oresti** αnikano $j\alpha$ αftin ti $\delta\upsilon\lambda\iota\alpha$
him-CL considers-3s the Orestes incapable for this the job
 “S/he considers Orestes incapable for this job”

In the same spirit—and that’s the fourth point in the discussion—it seems that, not only does not doubling block selection of a lower clausal complement, by a matrix verb (3.24), but the doubled DP cannot even occur in a position where right dislocated material would be expected to be unproblematic (3.25):

- (3.24.) a. $\mu\epsilon$ ρotise **emena** αn $\iota\chi\alpha$ $\kappa\text{sanapai}$ $\epsilon\kappa\iota$ (wh-clause)
me-CL asked-3s me if had-1s again-gone there
 “S/he asked me if I had been there again”

b. se diaveveose kanis **esena** oti to grama exi stali? (that-clause)
you-CL ensured anyone you that the letter has been-sent
 “Has anyone ensured you that the letter has been sent?”

(3.25.) a. *me rotise an ixa ksanapai eki emena
me-CL asked-3sg if had-1sg again-gone there, me

b. *se diaveveose kanis oti to grama exi stali esena?
you-CL ensured anyone that the letter has been-sent you

Finally, if the doubled DP were a right dislocated constituent (i.e. had adjunct properties) we would expect that any extraction out of the doubled DP to the left-periphery would not be possible. However, it seems that this is not the case⁴⁴:

(3.26.) Pote den exo diavasi Menandro...; pandos
 “I have never read Menander...however...
 ?...tu Aristofani₁ tis exo diavasi [tis komoðies t₁] oles
the Aristophanes.gen them-CL have-1s read the comedies all
 “Aristophanes’ though, I have read all the comedies”

To sum up, in this section I presented some formal characteristics of CD in Greek, insisting on differences this construction has compared to CD in various Romance languages. I also showed why CD in Greek cannot be

⁴⁴ Philippaki-Warburton et al. (2004) argue that utterances like the one in (3.26) are ungrammatical. I have to make two points here: First, while I do recognize that the construction is rather marked, it can by no means be taken as ungrammatical as testing with native speakers has indicated to me. Second, if the complex DP ‘the comedies of Aristophanes’ occurred undoubled, extraction of the genitive DP out of the complex DP is even more problematic, if not ungrammatical as (i) below suggests:

(i) *?tu Aristofani₁ exo diavasi [(tis komoðies) t₁] oles
the Aristophanes.Gen have-1s read the comedies all
 “Of Aristophanes I have read all the comedies”

accounted for in terms of right dislocation. In what follows, I will come to the core of this chapter, that is, the syntactic representation of CD in Greek.

4. The Syntax of Clitic Doubling

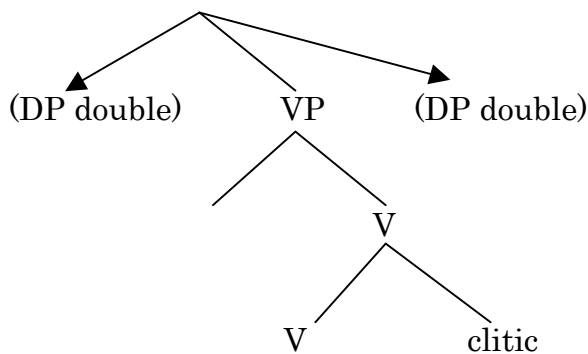
4.1 Introducing the Schemata

Despite the abundance of approaches on doubling, and irrespective of the exact syntactic relation between the doubling clitic and the doubled DP, it seems that there is one assumption that the vast majority of the analyses share—either overtly or tacitly—which informally can be put as

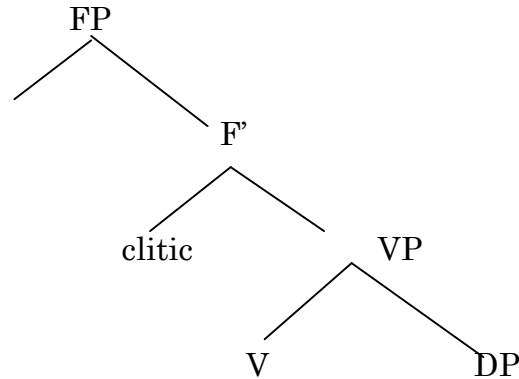
Two agreeing elements, a pronominal ‘doubler’ and a lexical ‘doublee’, are generated in a given domain as two independent entities of the category D.

What all these analyses differ in is the way they implement this relation. Despite the large number of proposals on CD that have been put forward in the last—at least—thirty years, it seems that they can be summarized by three main schemata, illustrated (in a rather rough fashion for the time being) in (3.27), (3.28) and (3.29) respectively

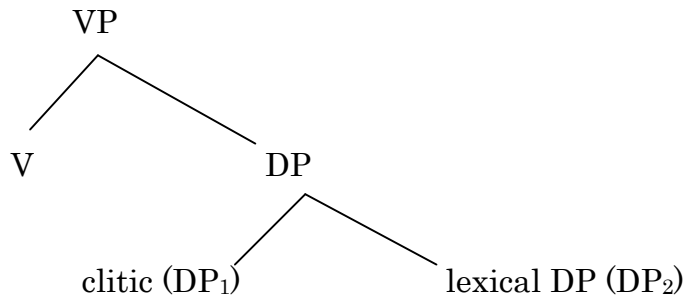
(3.27.) The Adjunction Analysis



(3.28.) The Functional Analysis



(3.29.) The Split or Big DP analysis



In very rough lines—since I will come back to these analyses and the predictions these make in the last part of this Chapter—for the first type of analyses the clitic DP⁴⁵ is generated as the verbal complement from where it moves higher up in the clause, whereas the lexical DP is an adjunct. On the other hand, for the functional analyses, the clitic is generated VP externally as the head of a some kind of functional phrase; then the lexical DP which is generated in the post-verbal domain as the verbal complement moves either overtly or covertly to the specifier of that phrase for agreement to be established in a Spec-Head fashion. Finally, the core idea for the ‘split’ DP analyses is that the two D elements, the clitic and the lexical DP are generated as two sub-parts parts of a ‘bigger’, ‘complex’, or ‘super-ordinate’ DP that is

⁴⁵ I am following Chomsky (1995) in this respect: pronominal clitics are DP/D⁰s at the same time.

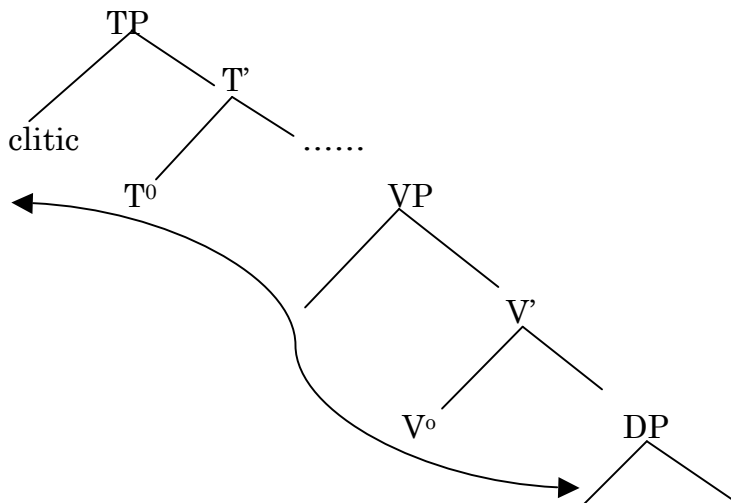
merged as the verbal complement; then the clitic moves higher up stranding the lexical DP behind.

Now, given this, the question that arises is the following one: Does doubling really involve two distinct elements of the category D? Or, to put it differently, does the syntax merge two different nominal categories that end up sharing morphological specifications?

4.2 Clitic Doubling Revisited

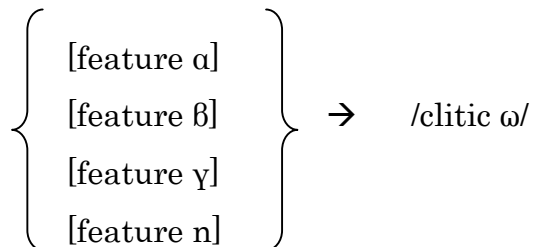
In this section I would like to explore the possibility that in CD constructions, at least in a language like Greek, there is actually only one D element that enters the numeration, the DP, so that external merge takes place once, the clitic being the spell-out of features that have been copied and moved higher up in the clausal domain, in essence reiterating and reinforcing Anagnostopoulou's (1999b, 2005) treatment of clitics as spellout of formal features. The site where the clitic surfaces as a reflection of a DP's features is the (external) specifier of the TP, having been probed by an EF of the T head. The overall idea is illustrated in (3.30) below, where the relation between the clitic and the doubled DP is shown schematically in (3.31):

(3.30.) Clitic Doubling by feature movement



(3.31.) *Clitic Doubling as Feature Movement*

If we are right, then doubling in Greek does not have to depend on any ‘special’ syntactic configuration such as a complex DP or a Functional Phrase (either within the TP domain or the DP itself). Rather, CD is treated on a par with A-movement/scrambling operations across languages targeting the T domain (see section 3.2.1); The idea is that Greek, instead of re-merging a full DP higher up in the clause for whatsoever structural requirement to be fulfilled, reemerges a set of features of that DP—eventually spelt-out as a clitic— allowing the DP itself to remain in-situ in the post verbal domain. The implementation is reminiscent of the spirit of *Distributed Morphology* (Halle & Marantz 1993). For this model the phonological content of syntactic terminals is provided in the mapping to the Phonological Form. In other words, syntactic categories are purely abstract, having no phonological content prior to delivery to the PF interface (‘late insertion’). Given this, syntax-phonology correspondence rules allow bundles of features to be spelt-out as various morphemes. Although the exact formulation of these rules is beyond the scope of the current work (and it much depends on the specific theory adopted) the schema in (3.32) below illustrates this tentatively:

(3.32.) *Syntax-Morphophonology Correspondence*

So, if it is indeed the case that CD involves re-spell out of features associated to one non-terminal node, that is, the lexical DP, whose features have been copied and moved higher in the clause, there are two questions that need to be tackled here: What features are we dealing with? And is there any evidence that there is eventually copying involved?

Let me first deal with the first question. If CD is due to feature copying and movement, this essentially means that we allow for certain features to occur twice in the derivation (overtly), once on the lexical DP, the doublee, and once at T (as the clitic), the doubler. Although such a step might look radical at first sight, nonetheless, such duplication is a wide-spread phenomenon across languages in word formation, usually referred to as ‘Multiple Exponence’ (Matthews 1974, Anderson 1992, 2001; see also Sells 2004, Müller 2006, 2009 for its relevance to syntax):

(3.33.) **MULTIPLE EXPONENCE**

A single property can have multiple realizations in a given domain (Anderson 1992)

The examples below illustrate the phenomenon: in the example (3.34) from Dumi (Kiranti languages, Nepal), both *-n-* and the final *-∂* are a manifestation of a discontinuous subject. Similarly, in the example (3.35) from German, the plural is marked twice in dative contexts by *-er-* and *-n-*:

(3.34.) Dza·ŋ·p∂·t∂

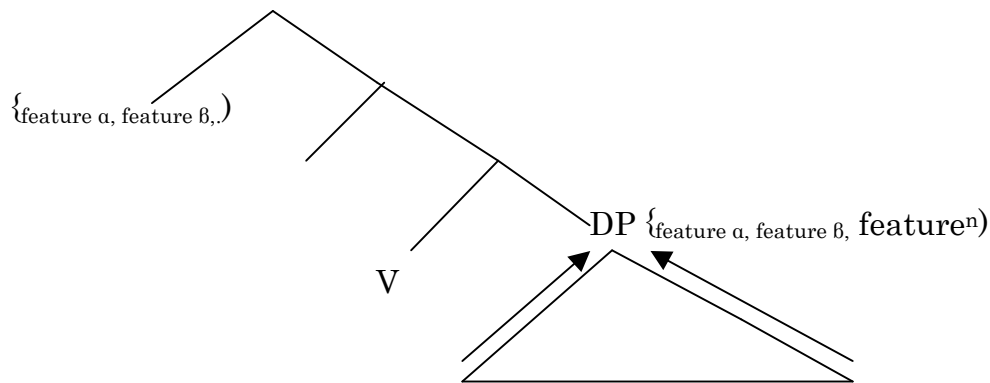
“I m going to eat” (from van Driem 1993)

(3.35.) Kind·er·n

child-pl-dat.pl (from Eisenberg 2000)

For the hypothesis I have been sketching out the movement of features takes place from the DP node, assuming that features internal to that node have percolated to that position and are thus visible for operations external to it. (cf. Lieber 1980, Williams 1981, and Grimshaw 1991/2005). Put more schematically, the DP node functions as a ‘feature pool’ from where some of them are copied and moved higher. The doubling clitic is ultimately inserted as the overt spell-out of these features (3.36). One possible complication of such an implementation relates to the underlying assumption that copying and movement of features occurs from a non-terminal node (i.e. the DP node), an idea that goes against—at least—standard generative assumptions. However, recent work on the field of morpho-syntax has actually offered good evidence towards the hypothesis that spell-out operations may indeed target non-terminal nodes. I refer the reader to Weerman & Evers-Vermeul (2002) and Neeleman & Szendrői (2007).

(3.36.) Feature Copying



Note here that it cannot be that all the material contained in the DP is copied: If that was the case, then the doubler would have to show up identical as the DP node, along the lines of the so-called copy theory of movement. In very rough terms, according to copy theory of movement after a syntactic object Σ (which is the accumulation of a given set of features) has been merged it can be then re-merged (i.e. moved) by copying these features in a target position

higher in the clause. Then, it is a matter of the PF system to decide which copy is going to be spelled out and which not. While typically it is the higher copy that is going to be spelled-out, there have been pointed out cases where both copies are spelled-out. However, what this means is that the two copies are expected to be identical, that is of the form $[\Sigma \Sigma]$. Obviously, this cannot be the case with doubling. Now, given this, the question remains: What features are copied?

Recall from the discussion in the previous sections that the clitic and the lexical DP obligatorily agree in phi-features (person, number and gender⁴⁶) and case. For instance, in (3.37) below, both the clitic and the DP object are marked as [third person⁴⁷], [plural] and [feminine]. Furthermore, the clitic and the DP obligatorily match in case; in (3.37) both elements are obligatorily marked as [accusative]. What this means is that the two elements have to carry identical case specifications, as the ungrammaticality of (3.38) indicates, where the clitic is inflected for accusative while the doubled DP is marked as dative/genitive:

(3.37.) **tis** *iðes* **tis files** *su* *sto parti?*
 them-CL saw -2s the friends your at-the party
 “Did you see your (girl)friends at the party?”

(3.38.) ***ton** *ipa* **tu Niku** *tin aliθia*
 him-CL.acc *said-1s* *Nikos-dat/gen* *the truth*
 “I told the truth to Nikos”

Therefore, we can safely assume that the full grid of nominal ϕ -features and case present in the DP are amongst the features that are copied and moved higher up in the structure. In the same spirit, another feature that is

⁴⁶ Gender is relevant only for third person clitics. First and second person pronouns lack gender specifications.

⁴⁷ In the sense that neither the clitic nor the DP can be substituted by a first or a second person clitic, and a first or a second person full pronoun respectively.

necessarily copied is the categorial [D] feature of the DP complement. That the clitic obligatorily spells out such a feature becomes evident from the following three observations:

First, when the verbal complement is a category other than a DP, for instance a PP, there is no D feature on the PP node to be copied and as such a clitic cannot be spelled out:

(3.39.) a. *tin efaya [PP apo [DP ti supa]]
it-CL ate-1s from the soup
 “I ate it from the soup”

b. *ton eδosa to δoro [PP s(e) [DP ton Ari]]
him-CL gave-1s the gift to- the Aris
 “I gave the gift to Ares”

Given this ban, consider now the following thing: As we have already seen despite the fact that Italian lacks CD, researchers like Cecchetto (2000) and Belletti (2004, 2005) assume that CD is still the underlying configuration behind the construction known as Clitic Left Dislocation (CLLD henceforth). Although I cannot go into details—since we will be examining this construction in the following chapter—CLLD differs from CD in that the doubled DP occurs dislocated in a position above TP rather than in the postverbal domain as it happens in CD. The construction, which is very productive both in Greek and Romance among other languages, is illustrated below:

(3.40.) a. Gianni lo vedo Italian
Gianni him-CL see-1s
 “John I see him”

- b. to Yianni ton vlepo Greek
the Yannis him-CL see-1s
 “John I see him”

Strikingly, Italian shows a different behaviour when compared to Greek, as far as what clitics can double is concerned, in the sense that, in Italian, PPs appear able to be doubled by clitics. For instance, in (3.41) below the prepositional indirect object ‘to John’ is doubled by the clitic ‘gli’:

- (3.41.) [PP A Gianni] gli ho dato una mela.
to John him-CL.dat have-1s given an apple
 “To John I have given to him an apple”

Of course, any attempt to double such a prepositional object in Greek leads to ungrammaticality:

- (3.42.) [PP Sto Gianni] (*tu) exo dosi ena milo
to-the John him-CL.dat have-1s given an apple
 ‘To John I have given to him an apple’

One could argue that this is simply because Greek lacks clitics like ‘gli’ (or *ci*⁴⁸), which is presumably specified as of category P and as such it can double PPs (cf. Alexopoulou, Doron & Heycock 2004, Tsakali 2006 among others). However, this could only be partially true since in Italian even ‘regular’ (i.e. clitics that double DPs) third person clitics can double constituents that can

⁴⁸ (i) [PP In quella cita] non **ci** sono mai stato
to that town not there-CL have-1s ever been
 ‘In that town I have never been there’

(ii) [PP Con Gianni] non **ci** ho ancora parlato
with Gianni not with.him-CL have-1s yet spoken
 ‘With John I haven’t talked yet’

hardly be seen as of category D (3.43-3.44). (Note also the absence of feature agreement in 3.42)

- (3.43.) [AP **Bella**]₁ non lo e mai stata e₁
beautiful-fem not it-CL-masc. have-3s ever been
 ‘Beautiful, she has never been it’

- (3.44.) [VP **Messo da parte**]₁ non lo e mai stato e₁
Got out of the way not it-CL have-3s ever been
 ‘Been out of the way, he has never been it’

Revealingly, the equivalent examples are ungrammatical in Greek. This is illustrated below in (3.45) and (3.46):

- (3.45.) [AP Omorfi] δen (*to) exi iparksi pote
Beautiful not it-CL have-3s been never
 ‘Beautiful, she has never been it’

- (3.46.) [VP vyalmenos apo to δromo] δen (*to) exi iparksi pote.
Got-out.PastPrt. of the way not it-CL has-3s been never
 ‘Got out of his way, he has never been it’

Thus, given these observations, I assume that the bundle of features that are copied and moved also contains a categorical D feature. If there is no feature to be copied, a clitic cannot be spelt out (i.e. doubling is illicit). Note here that for such cases where doubling is illicit, theories that invariably allow for two elements to enter the numeration as independent entities need to further assume that there is some kind of feature mismatch between the clitic and its associate (see Uriagereka 1995, Raposo & Uriagereka 2005 and references therein). A problem that such analyses face is data like that from Italian in (3.43) and (3.44) above where there is an obvious mismatch but doubling is still

a possibility unlike what happens in Greek. Reversely, if such a theory was retained we would have no means in accounting for the fact that pronominal clitics in Greek resist association with categories other than DPs.

That feature copying and movement involve a D-feature, or subsequently—for the line of argumentation I have been following—that clitics spell out such a feature, becomes evident also by the fact that bare singulars and bare plurals cannot be doubled. Consider the following cases:

(3.47.) (*to) ayorasa spiti
it-CL bought-1s house
 “I bought a house”

(3.48.) (*ta) efaya portokalia
them-CL ate-1s oranges
 “I ate oranges”

The fact that such elements cannot be associated with a clitic straightforwardly follows from the observation that bare singulars and bare plurals (at least when used as complements) are NPs and not DPs, and as such there is no D feature to be copied and spelt out of a clitic is not possible: Kallulli (2001) provides extensive argumentation towards that idea. In particular, she argues that bare singulars and bare existential plurals are not arguments but predicates, in which case they denote properties, not individuals.

The next piece of evidence that would justify an analysis of the sort of the one I am putting forward comes from a closer consideration of certain syntactic properties of clitics in doubling environments. First, consider the following cases. In the examples in (3.49) and (3.50) below coindexation between a third

person strong pronoun and a following DP leads to ungrammaticality which is meant to be either due to a violation of Principle C of binding theory which depends on the notion of c-command, or alternatively due a violation of Williams's (1997) 'Generalized Principle of Anaphoric Dependency' (GPAD), which is by-and-large based on precedence relations and linear order.

(3.49.) *Afti₁ katiyorise ti Maria₁
she accused the Maria.acc
 'That one/she accused Maria'

(3.50.) ?*Afti₁ den irθe. Ti Maria₁ den tin iðe kanis
she not came. The Maria.acc not her-CL saw no one
 'That one/She didn't come. Maria nobody saw her'

However, coindexation between a clitic pronoun and a lexical DP in doubling constructions not only does not create any problem with respect to Principle C (or GPAD), but the two elements obligatorily share a referential index, as the ungrammaticality of (3.51b) suggests:

(3.51.) a. tin₁ katiyorise ti Maria₁ (cIVO)
her-CL accused.3g the Maria
 'S/he accused Maria'

b. *tin₁ katiyorise ti Maria₂ (cIVO)
her-CL accused the Maria

Crucially, for most analyses that assume that there are two independent D categories involved in the derivation, this behaviour cannot be accounted for naturally, or at best, these analyses would have to resort to the stipulation of some independent mechanism that would ensure that the clitic and the lexical

DP share referential properties. On the other hand, for the analysis I have been sketching out this neither constitutes a problem nor does it require stipulation of any independent mechanism since essentially the clitic is a second spell-out of features of the lexical DP.

Before I proceed, let me briefly highlight something important about (pronominal) doubling and its rather limited occurrence across languages. It easily becomes evident that if a language lacks elements that spell-out the content of a DP-node (e.g. English) doubling would never surface. In the same spirit, doubling by items with richer morpho-phonological content (e.g. strong pronouns) would also be blocked since such items presumably spell-out more features than those that clitics do. On the other hand, the fact that in Greek clitics do show up has to do with the obvious explanation that the language has clitics in its lexical inventory, but also with the tentative conclusion that in this language the head of a chain should be spelt-out. This being so, let me now lead the discussion into something else.

So far, I have discussed the way feature copying and movement is implemented and some predictions this analysis makes. However, almost nothing has been said about any real positive evidence in support of the idea that doubling involves a second spell out of features already present to an entity merged as the verbal complement. In the remainder of this section I will show that such evidence does exist. To begin with, consider the utterances in (3.52), (3.53) and (3.54) below:

- (3.52.) **mas** *θeorun* **emas** *iliθius*
 us-CL *consider-3p* *us* *stupid*
 ‘They consider us stupid’

(3.53.) **se** rotise esena an θelis?
you-CL asked you if want-s
 ‘Did s/he ask you if you want?’

(3.54.) **tin** filises aftin?
her-CL kissed-2s that-one
 ‘Did you kiss that one/her?’

The examples above minimally differ from the cases examined so far in that the doubled category is not a noun but rather a full (strong) pronoun: in (3.52) it is the first person pronoun, in (3.53) it is the second person and in (3.54) it is the third person. The interesting thing about such cases is the striking resemblance between the full pronoun and the doubling clitic, in the sense that it is not only the case that clitics appear as the weak counterparts of the full pronouns, but systematically clitics in Greek seem to be uniformly derived by mere omission of the so-called support morphemes (af-, e-, -na) of the strong pronouns (see Neeleman & Szendroi 2007 for more details), as if the clitic is a realization of some of the features of the full pronoun in some other part of the a given domain. The table below in (3.55) illustrates the pronominal paradigm of Greek (for accusative case):

(3.55.)

	Greek Personal Pronouns	(Accusative)
	STRONG PRONOUNS	CLITICS
1 SG	e- me -na	me
2 SG	e- se -na	se
3 SG M	af- ton	ton
3 SG F	af- tin	tin
3 SG N	af- to	to
1 PL	e- mas	mas

2 PL	e-sas	sas
3 PL M	af-tus	tus
3 PL F	af-tes	tis/tes
3 PL N	af-ta	ta

Regarding this table⁴⁹ and the examples from (3.52) to (3.54) above, there is one more thing I would like to point out: case, person, number and gender (for third person clitics) morphology is spelled-out on both elements, that is, both the clitic and the full pronoun. Because of that, I believe that one is entitled to assume that the clitic is actually a reflection of features of a given DP in the

⁴⁹ Interestingly, the situation is different in other languages with clitics such as Italian (i) and French (ii): despite that the clitics are—no doubt—derivationally related to their strong counterparts in these languages, clitics do not appear to spell out a constant part of the morphology of the strong pronouns:

(i) Italian Personal Pronoun (Accusative)

	STRONG PRONOUNS	CLITICS
1 SG	me	mi
2 SG	te	ti
3 SG M	lui	lo
3 SG F	lei	la
1 PL	noi	ci
2 PL	voi	vi
3 PL M	loro	li
3 PL F	loro	li

(ii) French Personal Pronoun (Accusative)

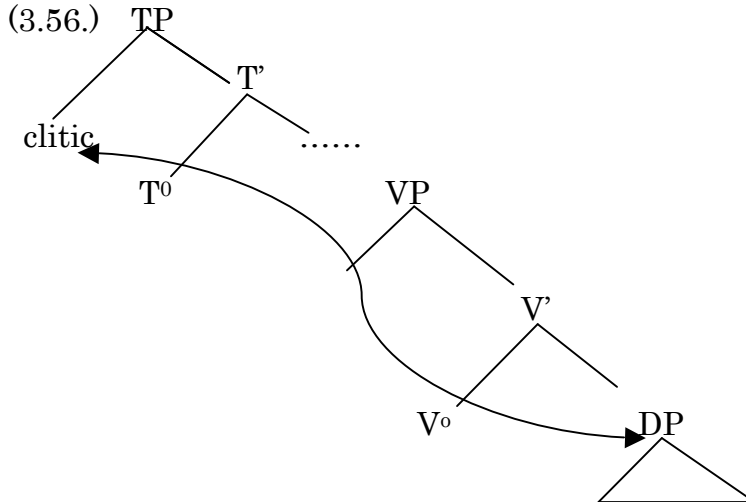
	STRONG PRONOUNS	CLITICS
1 SG	moi	me
2 SG	toi	te
3 SG M	lui	le/en
3 SG F	elle	la/en
1 PL	nous	nous
2 PL	vous	vous
3 PL M	eux	les/en
3 PL F	elles	les/en

thematic postverbal position, doubling then being an operation driven by economy related reasons: the language, instead of remerging a full DP higher in the clause for the satisfaction of whatsoever requirement, re-merges just a portion of it, allowing the DP argument to remain in situ (see next section).

To summarize the discussion so far, I have argued that CD in Greek can be captured as a process of feature copying and movement: Clitics are added in the phrase marker as spell outs or reflections of features of verbal DP complements that have been copied and moved higher up in a given domain. In other words, doubling does not involve two entities that enter the numeration as distinct items of the category D that have to agree, but rather just a duplication of features. In what follows I will discuss the position of the spell out, that is, [SpecTP] and the qualitative syntactic properties of the operation.

4.3. EPP and the T^0 Probe

Recall from the discussion earlier that in the analysis I have been sketching out the clitic surfaces higher in the clause, presumably at [SpecTP], where it forms a phonological unit with the raised verb. What this means in other words is that the bundle of features that have been copied will be spelled out as high as in the TP domain, an observation that is in line with Anagnostopoulou (1994, 1999, 2003), Iatridou (1995), Philippaki-Warbuton et al. (2004). (see also Mavrogiorgos 2009 for a slightly differentiated view on the issue). The configuration in (3.56) illustrates this:



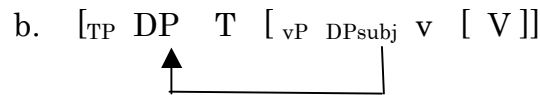
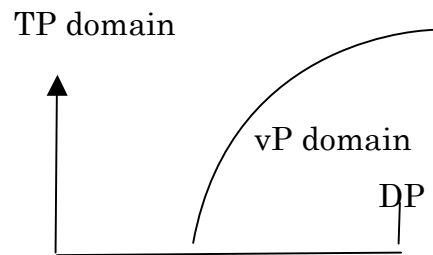
The question that naturally arises and that I will be trying to tackle in this section is the following one: Why does the bundle of the copied features end up in the T domain⁵⁰? In order for this question to be given an answer, another—related—question should be answered: What purposes does doubling serve, or—in other words—what is the trigger for doubling?

To begin with, let me first briefly refer to how grammatical subjects are licensed across languages. Subjects are assumed to be generated in the [SpecvP] from where they obligatorily move to the T domain, and more particularly to [SpecTP] in order to—arguably—eliminate some nominal feature on the T head. Put into minimalist terms, some D feature on the T head is meant to be a probe which attracts a goal, that is, the subject DP. This operation—which has been codified as ‘EPP’ and has been lately put forward as the trigger of all kinds of syntactic movement (as ‘generalized EPP features’

⁵⁰ Recall from the discussion in Chapter 1 that in Chomsky (2000, 2001, 2005) the syntactic structure is built in computational circles, or phases. Once such a circle is completed, the syntactic object is transferred to the C-I and S-M interfaces, where it is interpreted (see Chapter 1). Although for Chomsky the phases are v*P and CP, several researchers (cf. Fox & Pesetsky 2005, Slioussar 2007 among others) have argued that VP can also have phase properties. Given this, I leave open the possibility that feature movement proceeds in two steps, that is, movement to some specifier of the VP phrase before it finally reaches the T domain.

or ‘edge features’)—can be seen as an ‘externalization’ process in the sense that a lexical category which has been generated within vP leaves this domain for [SpecTP], a position from where it will scope over the verb and its complement(s) plus the functional domain with which the verb is tightly related (as it contains the relevant functional heads that the verb spells-out). Schematically this is shown in (3.57) below:

(3.57.) a. *Subject EPP*

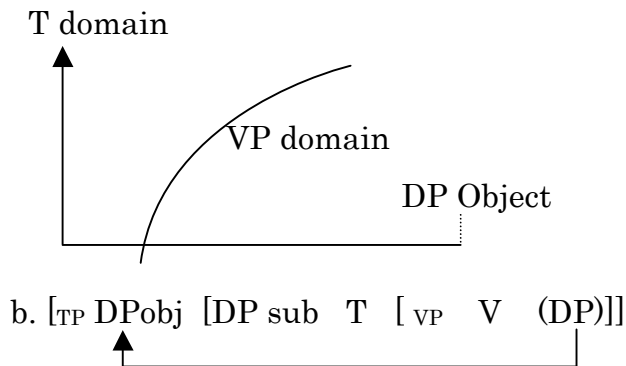


Nonetheless—recall from the discussion in Chapter 2— despite the fact that EPP satisfaction is meant to be universal, it is not the case that all languages satisfy this structural requirement in a uniform way: Alexiadou & Anagnostopoulou (1998, 2001, 2006) have convincingly argued that Null Subject Languages (like Greek) satisfy this structural requirement after V-to-T raising via the nominal features carried on the verbal morphology (i.e. subject agreement or a ‘subject clitic’)⁵¹. Furthermore, it is this property of NSL that allows a lexical DP subject to occur in its base position, that is post-verbally, as opposed to what happens in languages like English that have to move a full DP to [SpecTP] (or merge an expletive).

⁵¹ For similar ideas see also Pesetsky & Torrego (2001) and Manzini & Savoia (2002) among others.

Bearing this in mind, I would like to suggest that T can optionally host a DP object being attracted by some D feature that probes into objects⁵². An object is re-merged to a position from where it scopes over the functional and thematic domain and is of similar nature as subject movement for EPP satisfaction. The schema in (3.58) illustrates this:

(3.58.) a. *Optional Object EPP*



The structural outcome of this step in the derivation is that DP object merged as a complement within the V-bar node can be re-merged as external to the head it has been selected by and the functional domain that typically dominates DP objects. In what follows I will show that such movement exists across languages, and that it has A-properties in line with subject movement to [SpecTP]. In 3.2.3 I will argue that Greek is one of these languages, the only difference being that movement does not involve displacement of the full DP, but rather CD as feature copying and movement that allows the lexical DP to remain in-situ, on a par with the way that Greek satisfies traditional (i.e. subject) EPP requirement, along the lines of Alexiadou & Anagnostopoulou (1998, 2001).

⁵² This implies that multiple specifiers are indeed a possibility in natural languages, despite the fact that subjects in Greek arguably never occupy that position. This would also allow us to generate cIVOS orders in Greek (cf. Chapter 2): the clitic is spelled out on the external specifier, while the moved v' node occupies the internal one: [TP clitic [T VO [T [vP]]]]. For an extensive argumentation on multiple specifiers, see, among others, Chomsky (1995), Sabel (2002), McGinnis (2000); Doron & Heycock (1999) and Heycock & Doron (2003) for Hebrew and Arabic; Koizumi (1995), Takahashi (1996), and Hiraiwa (2001) for Japanese.

McGinnis (2000) discusses several dislocation phenomena in different languages that arguably involve scrambling of DP objects to [Spec.TP] and as such they show A-properties. To begin with consider the following data from Georgian:

- (3.59.) a. [_{TP} *Tavisi₁ deida [_{VP} Nino-s₁ xaTav-s]]
self's aunt.NOM Nino.DAT draw-PRES
 ‘His₁ own aunt is drawing Nino₁’

- b. [_{TP} Nino-s₁ [Tavisi₁ deida [_{VP} t xaTav-s]]]
Nino.DAT self's aunt.NOM draw-PRES

While the in-situ object in (3.59a) cannot bind a possessive anaphor embedded in the subject, this is possible once the object in (3.59b) moves past the subject in the (external) [SpecTP] from where c-command from an A-position is established.

Korean is presumably another language that shows object movement to the position under examination, that is, [Spec.TP]. Consider the asymmetry in the example below in (3.60):

- (3.60.) a. * [_{TP} chinkwu-ka [_{VP} nwukwu-lul paypanhayass-ni]]
friend-NOM who-ACC betrayed-Q
 ‘Who (x) did his (x) friend betray?’

- b. [_{TP} nwukwu-lul [chinkwu-ka [t paypanhayass-ni]]]
who-ACC friend-NOM betrayed-Q

In (3.60a) the dependency is ill-formed since the wh-operator cannot bind the subject in [SpecTP]. In (3.60b) however, where the object has moved past the

subject, binding is unproblematic (note the absence of WCO effects), the implication being that the object DP in (3.60b) has moved to an A-position c-commanding the subject, presumably an external [SpecTP].

In the same spirit, Sabel (2002) argues that wh-objects in German move to [SpecCP] via an intermediate A-step to [Spec.TP]. This is because (A-bar movement induced-) WCO effects are absent in German (3.61a) in contexts where they still appear in languages like English (3.61b):

- (3.61.) a. [_{CP} Wen_i hat [_{TP} t_i [seine Mutter [_{VP} immer t_i geküßt]]]]?
 who has his mother always kissed
 ‘Who did his mother always kiss?’

- b.* [_{CP} Who₀₁ does [_{TP} his₁ mother often kiss t_i]]?

Japanese is another language that allows its object DPs to occur past the grammatical subjects, presumably to an external [SpecTP]. The example in (3.62) illustrates this:

- (3.62.) Mary-o John-ga hometa
 Mary.ACC John-NOM admired
 ‘John admired Mary’

As several researchers have argued⁵³ this should be due to A-scrambling, since movement feeds binding (3.63), overrides WCO effects (3.64), and does not reconstruct for scope (3.65).

⁵³ I refer the reader to Saito (1992), Boskovic & Takahashi (1998), Miyagawa (2001) among many others. For an alternative view see Neeleman & van de Koot (2007, 2008): according to them, natural languages display a flexibility on where they project their thematic positions; as such they argue that Japanese A-scrambling does not involve any movement; rather DP objects can base-generated in A-positions higher in the clause.

- (3.63.) a. **Otai-no sensei-ga gakusei -o sikatta*
each-other-GEN teacher-NOM students-ACC scolded
 ‘Each other’s teachers scolded the students’
- b. [_{TP} *gakusei -o otai-no* [*sensei-ga* [_{VP} *t sikatta*]]]
students-ACC each-other-GEN teacher-NOM scolded
- (3.64.) [_{TP} *daremo-i-o* [*zibun-i-no hahaoya-ga* [_{VP} *t hihansita*]]]
everyone-ACC self-GEN mother-NOM criticized
 ‘Everyone was criticized by his mother’
- (3.65.) *Dareka-o daremo-ga hihansita*
Somebody-ACC everyone-NOM criticized
 someone >> everyone BUT *everyone >> someone

To summarize the discussion, in this section I have provided the theoretical background of the idea that objects can be exceptionally re-merged higher than their thematic position, namely in the TP domain. I have also shown that on a crosslinguistic basis objects can indeed appear in that domain. In what follows I will show that CD in Greek is indeed due to A-movement, drawing a direct parallel between movement of the type discussed in this section and CD in Greek.

4.4. Clitic Doubling as A-Movement

In the previous sections I argued that it is possible for direct object DPs to occur at [Spec.TP] fulfilling some sort of optional object-related EPP requirement related to predication. Furthermore, I argued that spell out of a clitic in that domain should be treated as a parameterized variation of this

phenomenon: a functional-like lexical morpheme is spelt out in that domain allowing the full DP object to occur in its thematic position, as it happens with subject EPP satisfaction in this language. In what follows I will present empirical data from Greek favouring the idea that CD is actually A-scrambling⁵⁴.

To begin with it seems that CD feeds anaphoric binding. For instance, consider the following case in (3.66):

- (3.66.) *jiati* δ en ^{??}(ton) *ikanopii* [*i* *ikona* [*tu* *eaftu* *tu*₁]] *ton/enan* *efivo*₁?
why not him-cl satisfies the image of-the self his.nom the teenager-acc
 ‘Why isn’t a teenager satisfied by the picture of his ‘self’?’

In the utterance above the object cannot bind the possessive anaphor contained in the in-situ subject⁵⁵; however this is possible when the object DP appears doubled by a clitic presumably c-commanding the subject. In the same spirit, consider also the following case in (3.67):

- (3.67.) δ iskola ^{??}(ton) *ikanopii* *o* *eaftos* *tu*₁ *ton/enan* *efivo*₁
hardly him-CL satisfies the self his.nom the/a teenager-acc
 ‘The/A teenager is hardly satisfied by his ‘self’”

The example in (3.67) minimally differs from the one in (3.66) in that the former involves a reflexive subject. As expected, the dependency when the reflexive is generated higher than the object binder is problematic; however, when the DP object appears doubled by a clitic c-commanding the subject the dependency is unproblematic. More interestingly, and in line with what I have

⁵⁴ The reader can find a similar discussion in Alexiadou & Anagnostopoulou (1995). However in that piece of work the researchers highlight the resemblance of CD with object shift of the type found in various Germanic languages.

⁵⁵ Note that the subject either as definite or indefinite has a strong generic interpretation of the sort that the plural NP ‘teenagers’ would have in English.

argued in Chapter 2, it seems that even a VOS order is not sufficient⁵⁶ in order for the problematic situation to be overridden⁵⁷; in contrast, and rather expectedly, the dependency is unproblematic when the object appears doubled:

- (3.68.) δ iskola ? (ton) ikanopii ton/enan efivo₁ o eaftos tu₁
hardly him-CL satisfies the/a teenager-acc the self his-nom
 “A teenager is tough to get satisfied with his ‘self’”

Thus, we have a first good piece of evidence that CD truly involves A-movement. The next piece of evidence comes from the field of pronominal binding. To begin with, consider first the utterances in (3.69):

- (3.69.) ? (to) angaliase i mana tu_(x) ka θ e pedi_(x)
him-CL hugged the mother his-nom every child-acc
 “His mother hugged every child”
 (Each child was hugged by his own mother)

In the case the object appears undoubled, the variable binding reading cannot be established since the quantified object does not c-command the pronominal contained in the subject⁵⁸. On the contrary, when the object appears doubled the bound reading is possible. Note that not surprisingly again, the ill-formed dependency cannot be rescued just by a VOS order, that is, an order where the object appears scrambled over the subject; still, the most effective remedy is doubling. This is shown below:

⁵⁶ It is true that the result is somewhat better than it is in VSO, presumably due to linear order.

⁵⁷ This constitutes another piece of evidence that VOS in Greek cannot be due to mere A-scrambling of the DP object (Alexiadou 1997, 1999).

⁵⁸ Recall that in Chapter 2 I argued that pronominal dependencies in Greek might not be regulated by strict configurational schemata such as c-command, but by precedence and scope along the lines of Williams (1997). All in all, irrespective of the exact condition that regulates such dependencies in this language, CD has a ‘healing’ effect, an indication that it displays properties typical of A-movement. I am leaving this issue open for a future discussion.

- (3.70.) ??(to) angaliase kaθe peði_(x) i mana tu_(x)
him-CL hugged every child-acc the mother-his.nom
 “His mother hugged every child”
 (Each child was hugged by his own mother)

Interestingly, there are also cases where CD seems to bleed pronominal binding. For instance consider the example in (3.71) below. While in the undoubled version of it the universally quantified indirect object can bind the pronominal contained in the lower direct object, when the latter appears doubled the clitic c-commands the indirect object and destroys the well-formed dependency:

- (3.71.) (?*ton) eδosa tu kaθe eryati to misθo tu
it-CL gave-1s the every worker-gen the salary-his.acc
 ‘I gave to each worker his salary’

In the same vein, it seems that CD can override WCO effects (see also Alexopoulou 1999). Although I will come back to this issue in more details in Chapter 4, WCO effects arise when a DP containing a pronoun co-indexed with a moved phrase in an A-bar position intervenes between the surface position of that moved element and its base position.

- (3.72.) a. *Who₁ did his₁ dog bite t₁?
 b. ???Pion₁ δangose o skilos tu₁ t₁?
who.acc bit the dog his.nom
 “Who did his dog bite?”

Interestingly, such effects in Greek are observed even when no crossing takes place. For instance consider the following VSO cases:

(3.73.) ?*paraligo na dangone o skilos tu₁ kapion/enan₁ ...
almost SUBJ bit the dog- his.nom someone/one.acc
 ‘Someone was nearly bitten by his own dog’

(3.74.) ?* θa feri telika o pateras tu₁ kanenan₁ avrio?
will bring finally the father- his.nom no one.acc tomorrow
 ‘Will anyone be brought by his own father tomorrow?’ (e.g. to the party)

What the example in (3.73) shows is that the quantified object cannot bind the pronominal contained in the subject. In sharp contrast, such binding becomes licit when the quantified object shows up doubled by a clitic, a further indication that the clitic occupies an A-position from where it binds the pronominal. In a similar way, in (3.74) the negative quantifier (under an existential reading) cannot be co-indexed with the possessive pronoun contained within the subject. Such coindexation however, becomes absolutely legitimate when the quantified object appears doubled.

Strikingly, it seems that such effects persist even with VOS orders, an indication that VOS cannot be due to object A-scrambling along the lines of Alexiadou (1999), or that the object does not c-command the subject along the lines of the analysis in Chapter 2. However, coindexation becomes unproblematic when the object is further doubled by a clitic. This is shown below in (3.75) and (3.76):

(3.75.) paraligo na ton dangone kapion/enan₁ o skilos tu₁ (VOS)
almost SUBJ him-CL bit someone.acc the dog-his.nom
 ‘Someone was almost bitten by his own dog’

- (3.76.) θa ton feri kanenan₁ o pateras tu₁ avrio? (VOS)
will him-CL bring no one.acc the father- his.nom tomorrow
 “Will anyone be brought by his own father tomorrow?”(e.g. to the party)

The last pieces of evidence favouring the A-status of CD come from the fields of scope and parasitic gap licensing. Let me begin with scope. First, consider the following cases:

- (3.77.) telika prepi na lisi KA θe ma θ itis mia askisi
finally must SUBJ solve every student an exercise
 “EVERY student must solve an exercise”

→ every >>an exercise ?? an exercise >> every

- (3.78.) telika prepi na **tin** lisi KA θe ma θ itis mia askisi
finally must SUBJ it-CL solve every student an exercise
 “EVERY student found an exercise difficult”

→ an exercise >> every

In (3.77) the bare indefinite ‘an exercise’ cannot take scope over the universally quantified subject. In other words the only available reading is the one that the subject takes scope over the indefinite. In (3.78), on the other hand, where the DP object shows up doubled by a clitic, the situation is reversed: the only available reading is the one that the object takes wide scope. Assuming that the clitic has been spelt-out above the post-verbal subject, it seems that the DP object cannot be interpreted lower than the position the clitic surfaces. As such, if scope reconstruction is typical of A-bar movement, we can assume once again that the clitic occupies an A-position.

Before I conclude this section let me discuss the last piece of evidence, namely licensing of parasitic gaps. Although judgments on data involving p-gaps are not uncontroversial in Greek, following Chomsky (1982), I assume that such gaps are licensed by the presence of an A-bar trace that does not c-command the p-gap site. The examples in (3.79) and (3.80) involving Wh- and focus movement respectively illustrate this (assuming that the adjunct clauses are either vP or VP adjuncts):

- (3.79.) ?ti petaksēs [xoris na exis diavasi e]
what-acc threw-2s without SUBJ have-2s read
 “What did you throw away without having read?”

- (3.80.) ?to PERIODIKO petaksa xoris na exo diavasi e]
the magazine threw-1s without SUBJ have-1s read
 “THE MAGAZINE I threw away without having read”

However, CD does not seem able to license such gaps, an indication that there is no A-bar trace. Alternatively, one could argue that the gap-site is in the c-command domain of the clitic in SpecTP which is an A-position⁵⁹. This is illustrated below in (3.81):

⁵⁹ Interestingly in languages such as Spanish cliticization appears to be able to license such gaps:

- (i) lo tire sin leer
It-cl threw-away-1s without read
 “I threw it away without reading”

In Greek this is still not possible, an indication that the clitic occupies an A-position:

- (ii) to petaksa xoris na *(to) diavaso
It-cl threw-away-1sg without SUBJ it-cl read-1sg

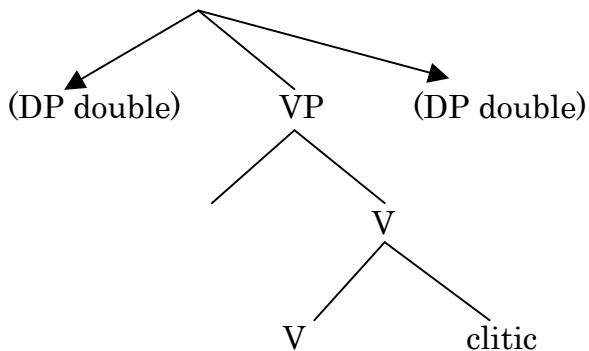
- (3.81.) *to petaksa to perioδiko [xoris na exo diavasi e]
it-CL threw-1s the magazine without SUBJ have-1s read
 “I threw away the magazine without having read”

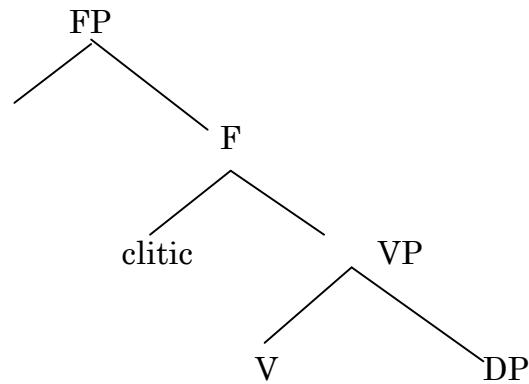
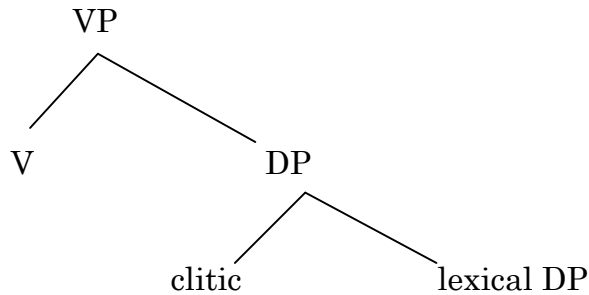
To summarize the discussion so far in section 4, I argued that CD in Greek is due to feature copying and movement to [SpecTP]. I also showed that the operation has A-properties and that it can be treated on a par with object A-movement operations targeting the T domain attested across various languages. In what follows I discuss some major previous accounts on CD.

4.5 Some remarks on previous accounts

Recall from the discussion earlier in part 4 that despite the abundance of proposals dealing with the syntactic representation of CD that have been put forward in the last—at least—thirty years, it seems that they can be summarized by three main schemata. For the ease of the reader, I repeat these schemata below as (3.82), (3.83) and (3.84):

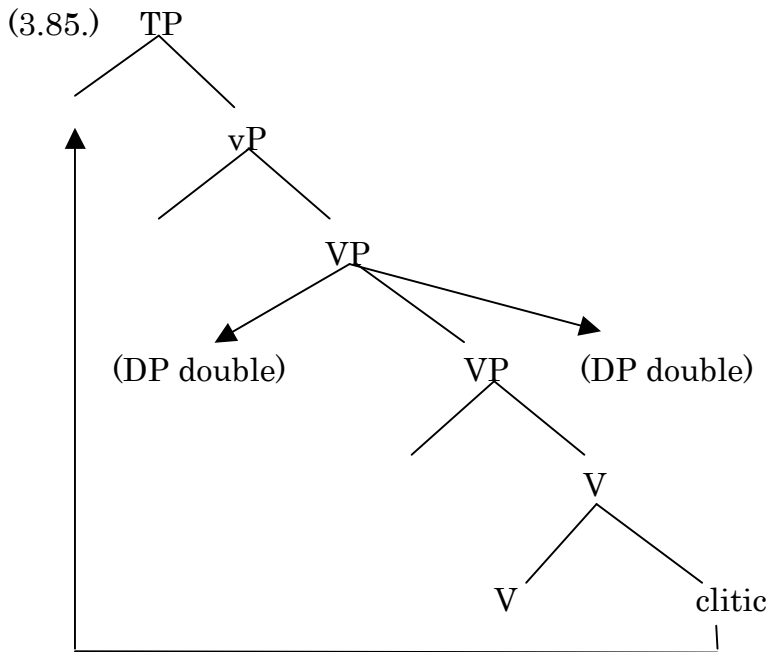
- (3.82.) *The Adjunction Analysis*



(3.83.) *The Functional Analysis*(3.84.) *The Split DP analysis*

The first schema reflects the early Kaynian (1975) view on cliticisation according to which clitics are generated as proper arguments in the postverbal domain from where they move higher up in the clause to incorporate onto a host due to their deficient phonological structure. While such analyses can account for cases of mere cliticization, they face quite severe problems in the light of data from doubling languages, where both a clitic and a full DP sharing a theta-role, case and ϕ -features show up at the same time. Things being so, Philippaki-Warbuton et al. (2004), building on the Kaynian view on cliticization, get to assume that while clitics are indeed generated as proper arguments, the doubled DPs in CD constructions have unavoidably a more peripheral status; in particular, after they first rule out the possibility that such DPs are right-dislocations (recall from the discussion

in part 3 that CD in Greek does not show any of the properties typically associated with right-dislocation), they assume that such doubled DPs are generated as typical adjuncts, the implication being that Greek has made a step towards polysynthesis/non-configurationality along the lines of Baker (1996): clitics (agreement morphemes) cannot co-occur with overt DPs in argument positions because clitics/agreement absorb Case. As a result, in polysynthetic languages overt DPs can only be licensed as adjuncts. The schema in (3.85) below illustrates Philippaki-Warbuton et al.'s view on clitic doubling in Greek:

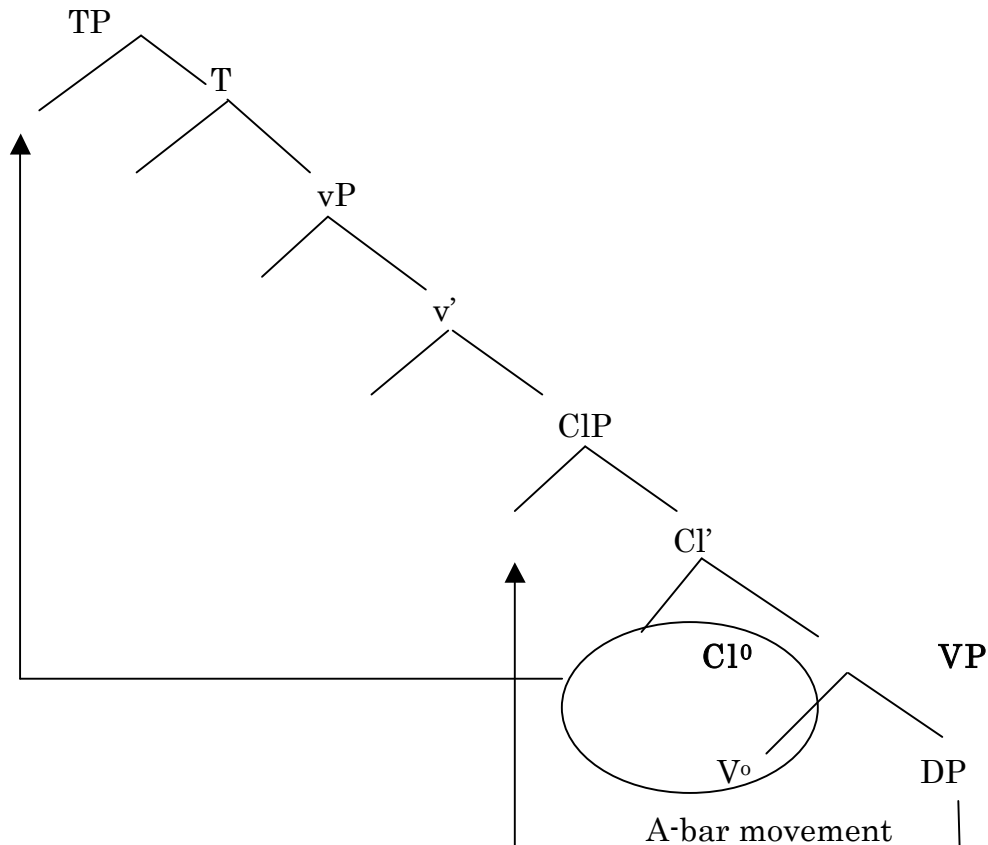


However, things in Greek cannot be like this. As I have shown earlier in part 3, doubled DPs can be extracted from the pre-verbal to the post-verbal domain, an indication against their alleged adjunct status; In the same spirit, they can also show up in environments that adjuncts are hardly tolerated across languages. Additionally, CD in Greek constitutes an optional phenomenon in sharp contrast with what happens in languages that invariably realize their arguments via morphemes. Regarding this, Alexiadou & Anagnostopoulou (2000a) building on VP-constituency rules and binding, convincingly argue

that doubling in Greek does not lead to non-configurationality of the type described in the lines of Baker (1996).

Another way of analyzing CD would be to adopt Sportiche's (1992/1996) influential analysis or some version of it (cf. Anagnostopoulou 1994, Alexiadou & Anagnostopoulou 1997, 2001, Manzini & Savoia 1999, Kallulli 2001, Tsakali 2006). According to these analyses the clitic never occupies an argument slot; rather, clitics are AGR-like functional heads which project their own maximal projection above VP within the functional clausal domain. Licensing between the clitic and the argument is established in a spec-head configuration after (covert) movement of the argument to the specifier of the functional projection headed by the clitic (a 'Clitic Voice' or 'Phrase' along the lines of Sportiche). The clitic attaches onto the verb and then they move as a unit (although Sportiche's analysis is opaque on this). The configuration is illustrated in (3.86):

(3.86.)



The greatest advantage of this account is that it bypasses the problems of the Kaynian-styled analyses, while it also unifies clitic constructions: in doubling constructions the DP object undergoes covert movement to [Spec,CIP]: When no DP associate is present, that is, in mere cliticization constructions, it is a *pro* that is generated in the object position and undergoes movement to [SpecCIP]. Moreover, it also unifies the mechanism that generates CD and object shift of the Germanic type; what minimally differentiates the two constructions is that in the latter case the clitic head is covert and the movement of the DP object is overt, whereas in the former case the clitic head is overt and the movement of the DP object is performed covertly.

As for the question regarding the trigger of such movement, Sportiche assumes that it must be a feature [+F] of the clitic head; if this particular feature or property is to be licensed in the corresponding XP, the licensing can only take place through an appropriate agreement relation i.e. in a Spec-head agreement configuration at LF. ('the clitic criterion'). Thus, the combination of an overt clitic with a covert (*pro*) XP yields mere cliticisation pattern that can be found in various languages; the combination of an overt clitic head and an overt XP yields CD, if the overt XP moves covertly and if the head is covert and the XP overt and moves overtly, we get scrambling effects of the Dutch type.

Nonetheless, despite its appeal, this analysis runs into some serious shortcomings, on theoretical and empirical grounds. In what follows I will highlight some of them. To begin with, the first problem has to do with the position and the nature of Sportiche's CIP: a clitic is assumed to head a maximal projection in the TP domain, which is optionally realized, as opposed to any other feature of the core functional domain. On the other hand, even if this was the case, it is not clear why such a projection (which according to

Sportiche licenses specificity) should be part of the core functional (TP/IP) domain alongside projections such as AspectP or TenseP, and how and why this projection with D-related features should select for a VP.

Another important aspect of this analysis is the implication that in the absence of a DP-double in clitic constructions the thematic properties of a verb and case are assigned to a *pro* in the canonical object position (which is expected to move to SpecCIP at LF). However, as it is convincingly shown by Papangeli (2000) there is no independent evidence that Greek can license *pro*-objects. All the tests that Rizzi (1986) applies in order to establish the idea that Italian allows for *pro*-objects turn out to be negative in Greek. In particular:

An empty object cannot act as a controller in Greek:

- (3.87.) a. *afto kani \emptyset na katalavun ti akolouthi
this makes SUBJ understand-3pl what follows
 “This makes to understand what follows”
- b. afto kani **tus anthropus** na katalavun ti akolouthi
this makes the people SUBJ understand-3pl what follows
 “This makes people understand what follows”
- c. afto **tus** kani (**tus anthropus**) na katalavun ti akolouthi
this them-CL makes the people-acc SUBJ understand-3p what follows
 “This makes/leads them to understand what follows”

Also, in Italian, a phonologically empty object is a potential antecedent for a reflexive. This is not the case in Greek:

(3.88.) a. *i kali musiki simfilioni Ø me ton eafto su
the good music reconciles with the self your
 “Good music reconciles --- with yourself”

b. i kali musiki **se** simfilioni me ton eafto su
the good music you-CL reconciles with the self your
 “Good music reconciles you with yourself”

Finally, a phonologically null object cannot be the subject of a secondary predicate in Greek, contrary to what happens in Italian:

a. *afti i musiki kani ... eftixismenus
this the music makes ... happy
 “This music renders/makes (i.e one/people) happy”

b. afti i musiki kani **tus anthropus** eftixismenus
this the music makes the people happy
 “This music renders/makes people happy”

c. afti i musiki **tus** kani (**tus anthropus**) eftixismenus
this the music them-CL makes the people happy
 “This music renders/makes people happy”

The strong ungrammaticality of the (a) examples above can be attributed to the fact that an internal complement of the verb remains unidentified. Sportiche-like analyses by generating a clitic within the TP domain can hardly account for such cases.

Another issue with Sportiche’s analysis, is that in order to account for the fact that a clitic and an XP never surface adjacent, he stipulates the ‘Doubly Filled

Voice Filter’ in resemblance to the ‘doubly filled COMP filter’ that bans the existence of two overt elements in CIP (i.e. the clitic and the DP). For the analysis I am pursuing here this ban follows quite straightforwardly: the structural requirement for A-movement is fulfilled by copying and moving part of the DP higher up in the tree, and as such, the DP itself has to remain in situ, since the EF (or generalized EPP feature) has been eliminated, as it exactly happens with subject licensing along the lines of Alexiadou & Anagnostopoulou (1998, 2001) (that is, since EPP is satisfied by the nominal morphology carried by the verb at T, subjects in Greek do not have to move at SpecTP).

Alexiadou & Anagnostopoulou (1997) build an analysis that by-and-large reflects Sportiche’s analysis. The main point of departure is that clitics in doubling constructions are overtly treated as nominal agreement morphemes, generated as part of the verbal morphology (or alternatively merged in AgrO). In this analysis, the clitic and the full DP form a non-trivial chain which is necessary for case checking of the DP⁶⁰. However, it is not exactly clear why clitics should be seen as agreement morphemes necessary for case reasons when Greek is not an Object Agreement language, and CD is by-and-large an optional phenomenon. Also, it is not exactly clear how agreement morphemes or an AgrO head can participate actively in syntactic dependencies of the sort examined in the previous section: Why for instance a doubled object can heal or destroy a syntactic dependency between a subject and object? With respect to this, even Alexiadou & Anagnostopoulou in subsequent work point out that clitics cannot be treated as agreement markers/morphemes:

“Our proposal treats clitics/agreement markers as a non-uniform syntactic category. [...] their status is different from a Case-theoretic point of view”. (Alexiadou & Anagnostopoulou 2000a:11)

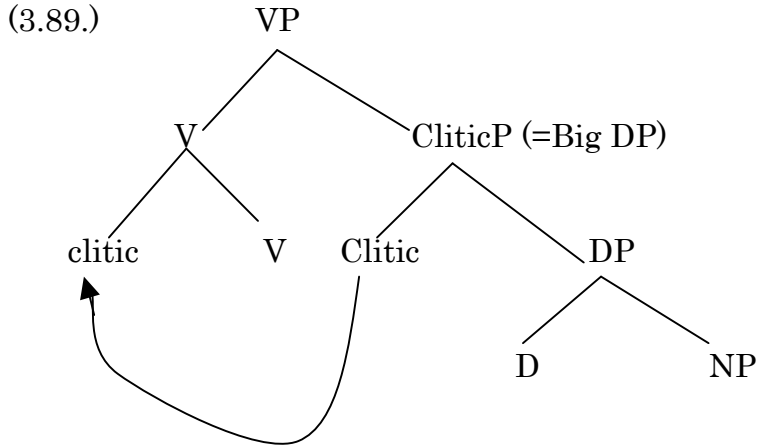
⁶⁰ For similar ideas implemented in a different way see also Poletto (2006) and Tsakali (2006).

For the analysis I have been sketching out, the aforementioned problems do not raise: First of all, the clitic is a formal reflection of features of an entity merged as a verb's complement, and therefore, it is enough to identify a pro object merged in the complement position, given that for—at least—the standard theory a pro is a grammatical category with null phonological content but with feature specification equal to that of overt categories. On the other hand, the analysis I put forward dispenses with the idea that doubling is a case-related configuration (contra Poletto 2006 and Tsakali 2006): for us, doubling is the equivalent of A-movement (at least of the sort exemplified in the languages examined earlier) as a structural mechanism that ensures that a DP object is interpreted higher than the position it was initially merged.

The third possible way of analyzing CD is to assume that actually the clitic and the DP object originate in a single maximal projection, a 'big DP' (cf. Torrego 1992, Uriagereka 1995, Papangeli 2000, Cecchetto 2000, Belletti 2004, Alexiadou et al. 2007). The main advantage of the analyses that exploit this configuration is that they can capture rather straightforwardly the fact that two items share the same θ -role and case. Note here that such analyses either attribute a functional status to the clitic (so that it is part of the functional domain of the DP) or treat it as a DP generated in the specifier position of that DP or as the head of that DP the specifier position occupied by the lexical DP. Here I will discuss, Papangeli's (2000) and Cecchetto's (2000) accounts.

Papangeli (2000), applying the BigDP idea on Greek, argues that in CD the clitic and its double form a single constituent, a ClP where the clitic occupies the head of this constituent and the DP constitutes its complement. Crucially, in this analysis, the clitic subsequently head-moves to the left of V (by some sort of incorporation) in order to satisfy its morpho-phonological requirements

and then as a unit with the verb to T due to overt V-to-T raising: This is shown in (3.89):



However, this account faces problems as well. Let me point out two of them. To begin with—as I have just shown—in CD constructions in Greek the clitic and its double are assumed to form a single constituent, a Clitic Phrase, where the clitic occupies the head of this constituent and the DP constitutes its complement. According to Papangeli, independent evidence favouring such a schema comes from the fact that in this language, full pronouns can select for DP complements; this is shown in (3.90):

- (3.90.) δε θιμαμε [aftin [tin kopela]]
not remember-1s this the girl
 “I don’t remember this girl”

In the utterance above the strong pronoun ‘aftin’ is the head, while the DP ‘tin kopela’ is its complement given that nothing can intervene between the two. Thus, according to Papangeli we should assume that the same relation holds between a clitic and its double, since weak pronouns are derivationally related to strong pronouns, despite the fact that this cannot be shown easily since the

clitic never surfaces adjacent to its double⁶¹. However, things cannot be like this since even a constituent [strong pronoun+DP] can be further preceded by a doubling clitic undermining Papangeli's suggestion. This is shown in (3.91) below:

- (3.91.) **tin** θimase aftin tin kopela ?
her-CL remember-2s that the girl
 "Do you remember that girl?"

On the other hand, for an analysis where a clitic does not enter the numeration as an independent D category, but it rather constitutes a re-spell out of certain features of a DP higher up in a given domain, these doubling patterns can be captured irrespective of the complexity and the internal structure of this DP.

Moreover, there is good evidence to believe that the incorporation or adjunction step illustrated in schema (3.89) above does not actually take place, and that the clitic performs movement to [SpecTP] independently. Here, I will briefly mention two points highlighted by Philippaki et al. (2004). First, consider the utterance in (3.92) below which involves doubling and a verb inflected for perfect tense.

- (3.92.) to exo yrapsi to yrama
it-CL have-1s written the letter
 "I have written the letter"

If the clitic satisfies (part of) the thematic grid of a verbal head and then incorporates onto it, we would expect that perfect tenses would be formed with the clitic attached to the verbal participle (since it is the participial head which

⁶¹ According to Papangeli the clitic head-adjoins to the Verb and then the complex cl+V head moves to T. However, as I will show shortly this cannot be the case; rather the clitic has to move to the T domain independently (in line with Philippaki-Warburton et al. 2004).

assigns a theta-role to the clitic and not the auxiliary), contrary to the fact (3.93a)⁶². Rather, the clitic appears adjacent to whatever (verbal) element reaches the T domain (3.93b)⁶³:

(3.93.) a. * *exo to yrapsi to yrama*
have-1s it-CL written the letter
 “I have written the letter”

b. ✓ *to exo yrapsi to yrama*
it-CL have-1s written the letter
 “I have written the letter”

The second relevant point has to do with the fact that while in Greek⁶⁴ clitics precede the verb in indicative and subjective, they follow the verb in the imperative mood and with gerundival forms:

(3.94.) a. *pies to!* (Imperative)
 “Drink it!”

b. *pinondas to* (Gerund)
 “Drinking it”

This asymmetry remains unaccounted if we assume that the clitic incorporates onto the verbal head, a process that should invariably result to a [clitic-V] linearization. On the other hand, Philippaki-Warburton et al. shows that this asymmetry is not problematic if we assume that the clitic moves independently

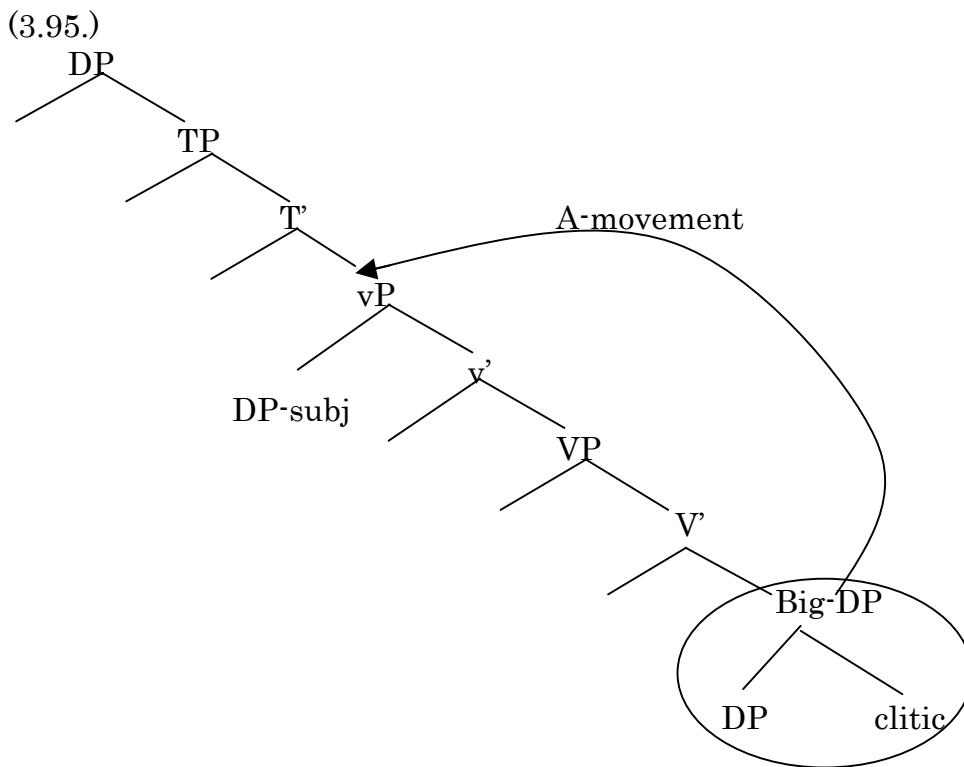
⁶² Note that data like this is problematic even for Alexiadou & Anagnostopoulou (1995) who take clitics to be agreement morphemes generated on the verb.

⁶³ Of course, a lot depends on the assumptions one makes about how perfect tenses are formed. For space reasons I cannot go into details here.

⁶⁴ In certain South-Eastern dialects (Dodecanese, Cypriot) clitics may follow the verb even with finite verbs. I leave this issue open for a future discussion.

to the T domain provided that the verb seems to move even higher to a MoodP⁶⁵ in order to check its imperative and gerundival morphology, thus leaving the clitic behind it.

Before I finish this section, let me refer briefly to another related analysis. Cecchetto (2000) proposes that CLLD in Italian involves A-bar movement of a DP out of a BigDP phrase, despite the fact that Italian lacks CD linearizations (for reasons that are not totally clear, cf. also Dobrovie-Sorin 1990, Belletti 2004, Tsakali 2006 among others), after the BigDP has A-moved to a position below TP and above vP from where the clitic (somehow) incorporates onto the verb in T. This is shown in (3.95):



Although I am not going into details—since I will come back to this configuration in the following chapter—I assume that it cannot capture Greek

⁶⁵ It is unclear whether MoodP is part of the core functional domain or not. Philippaki-Warbuton & Spyropoulos (1999) opt for this option, while for Roussou (2000) it is part of the CP domain (adopting some version of Rizzi's (1997) articulated CP domain hypothesis).

CD properly for two main reasons. First, on the empirical side, the problem is that— even if we assume that the analysis I offered in Chapter 2 is not on the right track and that Greek VOS is due to mere shift of the DP object to a position higher than the subject, it would still not be able to account for [cIVSO] linear orders, given that the BigDP containing the object would move to a position past the subject in [Spec.vP]:

(3.96.) a. afu tin filise o Aris ti Maria me pathos (cIVSO)
after her-CL kissed the Ares the Maria with passion
 “After Ares kissed Maria with passion”

b. ðen tin elise o Aris tin askisi akoma (cIVSO)
not it-cl solved the Ares the exercise yet
 “Ares hasn’t solved the exercise yet”

Another issue with such accounts has to do with the assumption that the clitic is the head of that BigDP, whereas the full DP is the specifier, the idea being that it ‘defines’ lexically the pronominal head. However, while this could in principle hold with doubling of lexical DPs, it is not exactly clear how this ‘specification’ applies in cases where the doubled DP is a full pronoun: For example, in what way would the first and second person clitic pronouns be specified or defined by the full first and second person pronouns respectively in (3.97) below?

(3.97) a. me kseris emena b. sas ektimai esas poli
me-cl know-2s me you-cl appreciate-3s you a lot
 “You know me” “S/he appreciates you (pl.) a lot”

In addition to that—on a theoretical level this time—such an analysis contradicts the independently motivated observation that DPs in Greek CD occur in-situ (see Alexiadou & Anagnostopoulou’s 2000a).

5. Summary

In this Chapter, extending previous work by Anagnostopoulou, I argued that the syntax of CD does not involve two distinct D categories that enter the numeration; rather, the doubling clitic is a mere re-spell out of features already present to a lexical DP merged as a verb’s internal argument. I also showed that spell out of a clitic at [SpecTP] is driven by some optional object-related edge feature in the T head. Finally, I argued that doubling in Greek is a case of A-movement. In what follows in Chapter 4, I will deal with syntactic operations targeting the left-periphery of the clause.

Chapter 4

Non Verb-Initial Orders

1. Introduction

In the previous two chapters I dealt with aspects of verb-initial orders and with Clitic Doubling respectively. In this chapter, carrying on the discussion on the syntactic properties of various word orders in Greek, I will be dealing with a range of constructions targeting the left-periphery of the clause.

Anticipating the discussion, in the core of the analysis there will be two constructions that still resist a concrete syntactic description, namely, *Clitic Left Dislocation* (henceforth CLLD), and what is sometimes referred to in the literature as ‘Topicalisation’. With respect to this, my aim here is twofold: on the one hand, to present new evidence that will shed more light towards a syntactic analysis, whereas on the other hand, to reconcile with certain—as I believe—erroneous assumptions found in the literature.

CLLD, a construction particularly common in Greek, Romance and Semitic languages, involves the preposing of a constituent that is canonically

associated with a post-verbal base position to a position above the TP domain. When the dislocated phrase is the direct or indirect object⁶⁶, it is coindexed with a pronominal clitic occurring within the TP domain with which it obligatorily agrees in φ -features (person, number and gender) and case. At a discourse level the dislocated phrase is construed as a sentential topic⁶⁷. The construction is illustrated below, with first, second and third person clitics respectively:

- (4.1.) to aftokinito to eplina (CLLD)
 the car-acc-n-s it-acc-n-s-CL washed-1s
 ‘The car, I washed it’

⁶⁶ In congruence with Chapter 3, I am leaving the discussion of CLLDed indirect objects (and genitive/dative clitics) aside (i). I will also not be discussing fronting of adjuncts (ii) and bare plurals (iii):

- (i) tis Marias den tis exo pi psemata pote
 to-the Maria not her-cl-Dat. have-1s said lies never
 “Maria I have never lied to”
- (ii) sto trapezi afisa ta klišia
 at-the table left.1s the keys
 “On the table I left the keys”
- (iii) mila ayorase o Nikos
 apples bought the Nikos
 “Apples, Nick bough”

As far as (ii) and (iii) are concerned, Greek does not have adjunct clitics, or even indefinite clitics. While these constructions do not allow for a clitic to be coindexed with the dislocated constituent, they do appear to be subject to the same discourse licensing and syntactic constraints as CLLD objects observed (Tsimpli 1995, Iatridou 1995, Alexiadou & Anagnostopoulou 1998); nevertheless, the clearest cases of CLLD, that is, those involving definite objects, will be the focus of this Chapter.

⁶⁷ At this point let me point out that I use the term ‘topic’ as a umbrella-term, in the sense that it should be taken as indicative of several ‘Topic’ functions such as new information/shifting topics, contrastive topics, continuing topics or just familiar-given topics (see Neeleman & van de Koot 2007 2008, Frascarelli & Hinterhölzl 2007, Bianchi & Frascarelli 2010 among many others). I will come back to this later on in Chapter 6.

(4.5) mas ektimai emas poli (CD)
us-CL appreciates-3s us much
 “S/he appreciates us a lot”

(4.6) ðe se iðame esena ekso (CD)
not you-CL saw-1pl you out
 “You, we didn’t see you outside”

The second construction that will be central in the discussion is what is referred to in the literature as ‘Topicalisation’. Nonetheless, for the purposes of this Chapter I will be using the term (non-focal) Left Dislocation (LD) to refer to this construction in Greek since CLLDed objects are also interpreted as topics. Therefore, the reader should bear in mind that the label ‘LD’ here is used exclusively to refer to this kind of non-focal fronting. In Chapter 6 that I will be dealing with the interpretive discrepancies between CLLD and LD I will propose a new name for the latter construction.

The puzzle that this particular construction poses is the following: while this construction is particularly common in languages like English (4.7), it is totally absent in languages like Italian and Spanish (4.8-4.9) where the dislocated object must obligatorily be taken up by a clitic (see Cinque 1990, Rizzi 1997) when it is not interpreted as a focus. In other words, every time a fronted object is not interpreted as focus in these languages, it has to show up as CLLD. The examples in (4.8) and (4.9) illustrate this:

(4.7) the steak I ate (English)

(4.8) la bistecca *(la) ho mangiato (Italian)
the steak it-cl have-1s eaten

‘The steak, I ate it’

(4.9.) el filete *(lo) comì (Spanish)

the steak it-cl ate-1s

‘The steak, I ate’

Until the late nineties there had been a—primarily tacit— consensus in the literature that Greek patterned with Italian and Spanish in this respect. For the sake of the argument, Tsiplakou (1998) assumes that LD is not available in Greek, an observation which at first sight seems correct when examining utterances like the one in (4.10), where omission of the clitic renders the utterance ungrammatical (i.e. under the intended non-focal reading):

(4.10.) tin brizola *(tin) efaya

the steak it.cl ate-1s

‘The steak, I ate’

As a consequence, while CLLD in Greek had been in the focus of the linguistic research for more than three decades, LD (that is, English-type topicalisation) had barely been discussed. Nonetheless, during the last decade several researchers have pointed out that this assumption is actually too strong (see Alexopoulou & Kolliakou 2002, Roussou & Tsimpli 2006, Gryllia 2009), as the grammaticality of the utterance in (4.11) indicates: a non-focal fronted object is possible to occur without being doubled by a clitic, that is, in a CLLDed fashion:

(4.11.) ton proθipuryo θa sinodefsi o ipuryos Aminas

the prime minister-acc will accompany the mininter-nom defence-gen

‘The prime-minster, the minister of Defence will accompany’

In the light of these observations the current chapter has (at least) three main objectives:

(i) First, to give an answer to the long-standing issue concerning the mechanism that yields CLLD at least in a language like Greek. In order to do so, I will present and discuss certain well-cited properties of the construction, while I will also present some new evidence. Anticipating the discussion, I will argue that the mixed (i.e. A-/base generation A-bar properties) properties that CLLDed objects display is due to that CLLD involves two distinct processes, namely a step of A-movement spelt out as CD, followed by A-bar movement of the postverbal complement to the left periphery of the clause.

(ii) Second, to investigate the syntactic properties and the environments that LD occurs, and account for its differences when compared to CLLD. As far as the syntax per se is concerned, I will argue that LD is due to mere A-bar movement and that what minimally differentiates it from CLLD is reducible to syntax. I will postpone the discussion on the factors that regulate the distribution of CLLDed and LDed objects (or in other words, the presence/absence of the clitic in non focal constructions) until Chapter 6 where aspects of the syntax-C/I interface will be discussed.

(iii) Third, to examine where exactly CLLD and LD fit within the broader spectrum of operations targeting the left periphery, which also involves configurations such as Focus Movement, Wh-Movement and Hanging Topic Dislocations, and what they can say about the nature of similar constructions universally.

The chapter is organized as follows: In section 1.1, before I present the core idea behind the analysis of CLLD as a double-step operation in part 2.1, I very briefly introduce some facts about the left-periphery in Greek. In sections 2.2

and 2.3 I discuss CLLD's A- and A-bar properties comparing it with other types of constructions targeting the left periphery. In section 2.4 I present and discuss some aspects of the existing literature. In section 3 I draw attention to the syntactic properties of LD. Section 4 summarizes the discussion.

1.1 A note on the Greek Left-Periphery

Although there is no general agreement about the exact composition and properties of the CP domain in Greek, in what follows I will briefly present Roussou's (2000) contribution which I will adopt (and eventually adapt later on) as the most descriptively powerful.

Roussou (2000), building on Rizzi (1997), provides the most articulated structure of the C domain of the Greek clause. In particular, in her analysis there are three distinct C heads. The highest C head accommodates elements that indicate pure subordination (i.e. factive complements), the middle C head reveals clause-typing properties (i.e. embedded declaratives, interrogatives etc. and has operator-like properties), while the lowest C head is reserved for elements that indicate modality i.e. particles such as the future marker 'θa', the subjunctive marker 'na', and the hortative 'as'; nonetheless, 'na' and 'as' eventually move to the middle C head, since they also have clause-typing properties⁶⁸⁶⁹. This movement is also supported by the fact that they precede

⁶⁸Subordination and clause-typing C heads correspond to a split version of Rizzi's (1997) 'Force' head whereas Rizzi's 'Finiteness' corresponds to the lowest 'modal' C in Roussou's analysis.

⁶⁹ The modal C head hosts also gerundival and imperative morphology, that is, verbal forms with a strong modal reading (in other words, gerunds and imperatives end up in the CP domain and not in the TP domain as it happens with indicative (and subjunctive) morphology). As observed by Roussou, evidence that gerunds and imperatives occupy the head of the lower C comes from the fact that gerunds (i) and imperatives (ii) appear in complementary distribution with the modal particles:

(i) *na/as/θa troy-ondas (ii) *na/as/θa fa-e

the negator ‘min’ that heads the NegP located between the two lower C heads⁷⁰. Schematically, Roussou’s (2000) articulated CP domain is illustrated in (4.12) below:

(4.12.) [CP pu [CP_{OP} oti/an/na/as [NEG den/mi(n) [CP_M θa/t_{na}/t_{as}[CIP]]]]]

In addition to these three CPs and the NegP, building on dislocation phenomena of the sort shown in (4.13) and (4.14) below, Roussou further assumes the existence of a separate TopicP and FocusP between the highest and the middle C heads accommodating topic and focus interpretations respectively, in the spirit of Rizzi (1997):

(4.13.) pistevo (to AFTOKINITO) na (*to AFTOKINITO) pulise (FOC)
believe-1s (the car) SUBJ (the car) sold-3s
 ‘The CAR I believe him to have sold’

(4.14.) pistevo (to aftokinito) na (*to aftokinito) to pulise (TOP)
believe-1s (the car) SUBJ (the car) it-CL sold-3s
 ‘The car, I believe he has sold’

The fact that a topicalised or focalized object DP cannot appear lower than the subjunctive marker which occurs in the middle C head (C_{OP}) is taken as an indication that TopP and FocP should occur between the highest two C heads.

eating

eat-2s

⁷⁰ Greek has two negation heads, ‘den’ and ‘min’ with distinct selectional properties: in a nutshell, while ‘den’ selects for verbs in indicative mood, ‘min’ shows up in subjunctive and modal contexts. As such researchers as Drachman (1994), has assumed that there are two distinct NegPs one higher and one lower than MoodP (i.e. the equivalent to Roussou’s (2000) CM) as in (i):

(i) NegP den MoodP na/tha NegP

According to Roussou data like these in (4.15) and (4.16) where the focus and the topic can appear on the left of the complementizer ‘oti’ (the middle C head) suggest that the complementizer has moved to the highest C.

(4.15.) nomizo (to AFTOKINITO) oti (to AFTOKINITO) pulise (FOC)
think-1s the car that the car sold-3s
 ‘I think s/he sold the CAR’

(4.16.) nomizo (to aftokinito) oti (to aftokinito) to pulise (TOP)
think-1s the car that the car it-CL sold-3s
 ‘I think s/he sold the CAR’

Thus the C domain in Roussou’s analysis is supposed to have the following full structure:

(4.17.) [CP pu/(oti) [TopP/FocP [CP_{OP} (oti)/an/na/as [NEG den/mi(n) [CP_M
 θ_a/t_{na}/t_{as}[CIP]]]]]]

Anticipating the discussion in Chapters 5 & 6, I assume that a Topic and a Focus projection interpolating between the highest C head and the middle one constitutes an unnecessary addition in the computational system⁷¹. As I will show, our system dispenses with any type of displacement in narrow syntax triggered for the satisfaction of discourse-related features (e.g. topic, focus, etc.) or for the overall accommodation of discourse functions. Rather I will argue that Topic and Focus movement (as well as other types of fronting) in Greek occur in order to satisfy requirements that little have to do with discourse functions and strict pragmatic conditions.

⁷¹ In subsequent work, Roussou (see Roussou & Tsimpli 2006) questions the necessity of such projections in the CP domain too. See also Sifaki (2003) and Haidou (2004/2006).

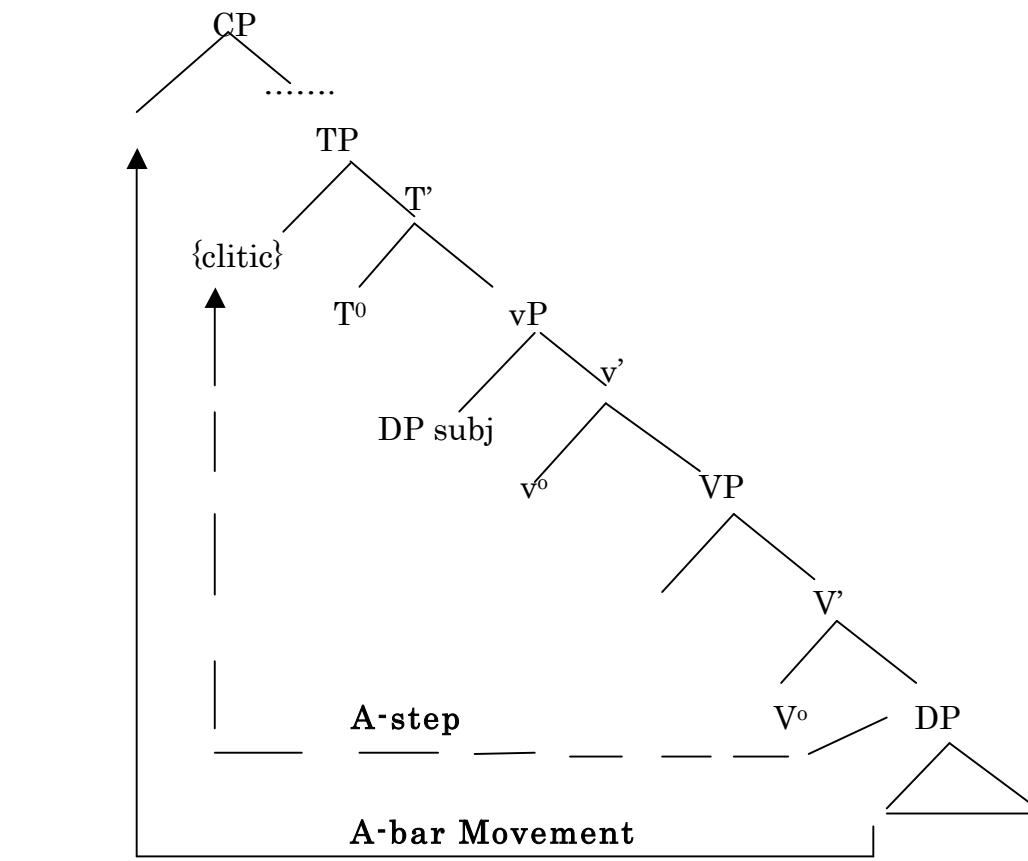
Given this, let me now come to one of the core issues of our discussion, namely the syntax of CLLD.

2. The Syntax of CLLD

2.1 The current proposal

Building on the striking syntactic properties the two constructions have in common⁷², I assume that CLLD and CD (at least) in Greek are two sides of the same coin, in the sense that both constructions involve a common A-step in their derivation. In other words, I assume that CD is the construction which underlies CLLD; what differentiates the two constructions is that with CLLD the post-verbal DP is moved to the CP domain by application of A-bar movement. Configurationally this is shown in (4.18) below:

(4.18.) Clitic Left Dislocation



⁷² Beyond the striking interpretational and phonological properties CLLDed and CDed objects share. I will come back to this issue in Chapter 6.

As I have shown in the previous chapter, accusative clitics in Greek are the overt re-spell out of the nominal ϕ -features, case and a categorial feature D of a DP object occurring in its canonical thematic position; these features are copied and moved to the external specifier of the T head, where they are eventually spelt-out as a clitic. As I have shown in detail, the operation is similar to A-scrambling of objects in that position found in many languages, and as such it has A-properties. In this light, I assume that the syntactic properties of CLLD essentially constitute a combination of the syntactic properties of CD plus the properties of unbounded A-bar movement to left-periphery of the clause. In what follows in 2.2 and 2.3., I will show that such a hypothesis can account rather straightforwardly for the mixed properties of CLLD.

2.2 The A-bar properties

To begin with, CLLD can involve long-distance extraction (4.19a), as it happens with well-received cases of A-bar dislocations such as focus movement (henceforth FM) and Wh-movement (henceforth WhM)

(4.19.) a. to aftokinito ipe oti to epline xtes (CLLD)

the car said-3s that it-CL washed-3s yesterday

“The car, he said that he washed it yesterday”

b. to AFTOKINITO ipe oti epline xtes (FM)

the car said-3s that washed-3s yesterday

“The CAR he said that he washed yesterday”

c. ti ipe oti epline xtes (WhM)

what said-3s that washed-3s yesterday

“What did he say that he washed yesterday?”

Another, property of CLLD is that a CLLDed phrase may appear to the left of an indirect question without posing any particular problem for the matrix verb to select the lower clause (4.20a), while it also does not create islands for extraction (4.20b):

(4.20.) a. rotisa to aftokinito an theli kanis na to plini
asked-1s the car if want-3s anyone SUBJ it-CL wash-3s
 “The car I asked whether anyone wants to wash it”

b. pios pistevis oti to aftokinito tha to eplene kalitera?
 who believe-2s that the car would it-CL wash-3g better
 “Who do believe the car would wash better?”

Although these two distributional properties may come as a surprise at first sight since these are not properties typical of (A-bar) movement, as Alexopoulou & Kolliakou (2002) point out, Focus Movement in Greek behaves alike:

(4.21.) rotisa to AFTOKINITO an theli kanis na plini (FM)
asked-1s the car whether want-3s anyone SUBJ wash-3s
 “The CAR I asked whether anyone wants to wash”

Another property of CLLD is that it is sensitive to strong islands. The utterances below illustrate CLLD out of a relative-clause (4.22a), an adjunct clause (4.22b), and a complex noun phrase (4.22c):

(4.22.) a. *tin erotisi ynorisame [ton andra [pu tin ekane]]
the question met-1pl the man that it-CL made-3sg
 “The question we met the man who made it”

b. *to vivlio elisa tis askisis [afu to diavasa olo]
the book solved-1s the exercises after it-CL read-1s all
 “The book, I solved the exercises after I read it all”

c. ?*ton Ari mas eðose i Maria [tin pliroforia [oti ton sinelavan]]
the Ares to-us gave the Maria the info that him-CL arrested-3p
 “Ares, Maria gave us the information that they arrested him”

Despite the sensitivity to strong islands exhibited above, CLLD is not sensitive to weak islands (see also Tsimpli 1990, 1995). This is shown below with *wh*-islands (4.23a), factive islands⁷³ (4.23b) and negation islands (4.23c):

(4.23.) a. ta xrimata ðe ðimame [se pio sirtari ta evala]
the money not remember-1s in which drawer it-cl put-1s
 “The money I don’t remember in which drawer I put it”

b. ti Maria xeromaste [pu tin ayapane oli]
the Maria-acc be-happy-1pl that her-CL love all-nom
 “Mary we are happy that they all love her”

c. to fajito [ðe nomizo oti to majirepse o Aris]
the food not think-1sg that it-CL cooked the Ares

⁷³ Greek actually has two types of factive islands: those introduced by the complementiser *oti*, and those introduced by the complementizer *pu*. *Oti*-factives pattern like English factives, in other words, they permit the extraction of D-linked arguments (and marginally permit the extraction of non-D linked arguments) while prohibiting extraction of adjuncts. Varlokosta (1994) provides evidence that *pu*-factives, on the other hand, do not permit extraction of (any) arguments or adjuncts and therefore should be considered strong islands. However, judgments from my own informants and arguments in Anagnostopoulou (1997) suggest that this characterization of *pu*-factives is not entirely accurate, and that they do indeed pattern with *wh*- and other weak islands in permitting the extraction of D-linked arguments (and prohibiting the extraction of non-D linked arguments).

“The food I don’t think that Ares cooked it”

As far as the sensitivity to strong islands is concerned, CLLD seems to behave like typical cases of A-bar movement in Greek. For instance, the utterances below show that extraction of a wh- (4.24a) or focus constituent (4.24b) out of strong islands induces ungrammaticality:

(4.24.) a. *pio vivlio₁ θavmazi o Aris [ton andra pu eyrapse?] (WhM)

which book admires the Ares the man that wrote-3s

“Which book does Ares admire the man who wrote?”

b. *KOLPA endiposiase o kloun ta peδia [kanondas] (FM)

tricks impressed the clown-nom the kids doing

“TRICKS the clown impressed the kids doing”

Nonetheless, the situation is a bit more obscure with weak-islands. According to the literature, wh-extraction out of weak-islands is in principle illicit:

(4.25.) a. *?pion rotises [pote ide o Aris ?] (WhM)

whom asked-2s when saw the Ares-nom

“Whom did you ask when Ares saw?”

b. *? pion [δen nomizis oti sinandise i Maria]? (WhM)

whom not think-2s that met the Maria-nom

“Whom don’t you think Maria met?”

Nonetheless, extraction becomes legitimate when the dislocated wh-constituent is D-Linked (see Anagnostopoulou 1994, Androulakis 1998):

(4.26.) a. pio vivlio anarotiθikes [an exi diavasi o Janis ?]

which book wondered-2s whether has read the John

“Which book did you wonder whether John has read?”

b.? pio apo ta vivlia [ðe nomizis oti ðiavase i Maria ?]

which of the books not think-2s that read the Maria

“Which of the books don’t you think that Maria read?”

Summarizing the discussion, A-bar movement in Greek is prohibited out of strong islands invariably, while it is permitted for D-linked arguments originating within weak islands. That CLLD is not sensitive to weak islands is not unexpected if such constructions involve A-bar movement. In the examples of wh-movement above, it was shown that extraction of D-linked constituents from weak islands is allowed, although extraction of non D-linked items is rather degraded. Since all dislocated constituents in CLLD are required to be D-linked⁷⁴ (along the lines of Pesetsky 1987), whatever accounts for the grammaticality of wh-movement extraction out of the weak island in examples above, may also explain the grammaticality of CLLD in similar environments.

Another property typically associated with A-bar movement is ‘connectivity’ effects. Connectivity effects arise when conditions of the grammar apply to the dislocated constituent in its base position, rather than its surface position. One means of ascertaining where a dislocated DP is interpreted is by looking at sentences where its location is crucial for determining whether binding conditions are satisfied.

CLLD is subject to such effects. For the sake of the argument, consider the following case. According to Principle A of Binding, an anaphor must be locally bound. In (4.27a) and (4.27b) below, the utterances are grammatical in spite of the anaphors not being bound by “Aris” in the surface structure.

⁷⁴ Recall that CLLDed objects function as topics, and as such, they are—by default— D-linked. I will come back to this issue in Chapter 6.

The preposed phrases must therefore be interpreted in their base position, where they are c-commanded by “Aris” and the anaphor⁷⁵ is properly bound.

(4.27.) a. [ti fotoyrafia [tu eaftu tu₁]]₂ tin eðose o Aris₁ e₂ sti Maria
the picture of-the self his it-CL gave the Ares to-the Maria
 “The picture of himself, Ares gave it to Mary”

b. [ton eafto tu₁] ₂ ðen ton ektima o Aris₁ e₂ kaθolu
the self his not him-CL appreciates the Ares at all
 “Himself, Ares doesn’t appreciate at all”

In this respect, CLLD behaves—as expected—exactly as focus- (4.28b) and wh-dislocated DPs (4.28a):

(4.28.) a. [pia fotoyrafia [tu eaftu tu₁]]₂ eðose o Aris₁ e₂ sti Maria?
which picture of-the self his gave the Ares.nom to-the Maria
 “Which picture of himself, did John give to Mary?”

b. [ton EAFTO tu₁] ₂ ðen ektima o Aris₁ e₂
the self his not appreciates the Ares.nom
 “HIMSELF Ares doesn’t appreciate”

In addition to the Principle A effects observed above, CLLD also exhibits connectivity effects that arise due to Principle C. In (4.29), a Principle C

⁷⁵ Recall from Chapter 2 that morphologically the Greek reflexive pronoun is a complex noun phrase, consisting of the noun “o eaftos” (“the self”) inflected for case (nominative, accusative or genitive) plus a possessive clitic pronoun in genitive. According to Iatridou (1988) co-indexation and thus binding is established between the antecedent and the pronominal element. Anagnostopoulou & Everaert (1999), on the other hand, argue that it is the whole NP and not just the possessor that constructs the anaphoric element: within the reflexivity framework it is the SELF element that reflexivizes the predicate.

violation arises as the dislocated constituent containing the R-expression “Ari” is interpreted in its base position, from where a ‘pro’ in [SpecvP] can bind it⁷⁶:

- (4.29.) a. *[tin kopela [tu Ari₁]]₂ tin sinoðepse pro₁ sto parti
the girlfriend of-the Ares her-CL escorted-3s to-the party
 “Ares’ girlfriend he escorted her to the party’

Once again, CLLD shows exactly the same behaviour as Wh- (4.30a) and Focus-Movement (4.30b):

- (4.30.) a. *[pia fotoyrafia [tu Ari₁]]₂ ðen iðe pro₁ e₂ akomi?
which picture of-the Ares not saw-3s yet
 “Which picture of Ares hasn’t he seen yet”

- b. *[tin kopela tu ARI₁] sinoðepse pro₁ sto parti
the girlfriend of-the Ares escorted-3s to-the party
 ‘ARES’ girlfriend he escorted to the party’

Finally, CLLD also allows for the dislocated element to be bound by a quantified phrase, despite the fact that the CLLDed phrase occurs in a position that the quantifier phrase does not scope over⁷⁷ in the surface structure⁷⁸, an indication that the fronted object reconstructs to its base position.

⁷⁶ Note that while the occurrence of a lexical pronominal subject gives somewhat better results, the dependency is still problematic:

- (i) ??[tin kopela [tu Ari₁]]₂ tin sinoðepse aftos sto parti
the girlfriend of-the Ares her-CL escorted.3s he/that one to-the party
 “Ares’ girlfriend he escorted her to the party”

⁷⁷ Recall from the discussion in Chapter 2 that we have good evidence to believe that such variable binding readings in Greek are controlled by scope rather by c-command.

⁷⁸ With respect to this, one could argue that the dependency is actually established because the quantified phrase moves at the LF. However, this does not seem to be the case since in examples involving CLLDed indefinites the indefinite obligatorily takes wide scope; in other words, the universally quantified subject fails to scope over the indefinite. This is illustrated in (i) below:

(4.31.) a. [tus filus tu₁]₂ tus sinandise kaθe peði₁ e₂ sto parko
the friends his them-CL met every child.nom at-the park
 “His friends, every child met them at the park”

b. [to misθo tu₁]₂ θa ton pari kaθe eryatis₁ e₂ apo tin trapeza.
the salary his will it-CL take every worker.nom from the bank
 “His salary every worker will take from the bank”

Yet again, CLLD patterns exactly like other configurations involving A-bar movement:

(4.32.) a. [pion₁]₂ sinandise kaθe peði₁ e₂ sto parko (WhM)
who met every child at-the park
 “Who did every child meet at the park?”

b. [TO MISΘO TU₁]₂ θa pari kaθe eryatis₁ e₂ apo tin trapeza. (FM)
the salary his will take every worker from the bank
 “HIS SALARY every worker will be taking it from the bank”

A last instance of connectivity has to do with “case-connectedness”: the left dislocated phrase in CLLD obligatorily agrees in features with the doubling clitic in the TP domain. Although this observation does not offer any direct help, it becomes useful when compared to the properties of another dislocation construction available in Greek, namely Hanging Topic Left Dislocation⁷⁹

-
- (i) ena komati to epekse kaθe pianistas
a piece it-CL played-3s every pianist
 “There is a piece such that every pianist played it”
 existential>universal , ?*universal>existential

⁷⁹ HTLDED phrases can only show up in root contexts, and be linked to a tonic pronoun/epithet within TP, while they do not obey strong island constraint and there is a very marked

(henceforth HTLD) for which there is a general consensus that it involves base-generation: in HTLD the dislocated phrase can also be in nominative case despite the fact that the resumptive clitic is clearly marked with accusative case (4.33); in CLLD this is illicit (4.34):

(4.33.) *o Aris/ ton Ari..., ton iðame sto ðeatro to vlaka* (HTLD)
the Ares-Nom/Acc him-CL saw-1pl at-the theatre the idiot
 “Ares....we had seen that idiot at the theatre the other day”

(4.34.) **o Aris ton ektimo* (CLLD)
the Aris.nom him-CL appreciate-1s
 “Ares I appreciate him”

Summarizing the discussion, I have shown that in accordance to the syntactic configuration I presented in 2.1, CLLD involves A-bar movement of the direct object. In this respect, CLLD behaves just like Wh- and Focus-dislocations. Sensitivity to strong islands, anaphoric & pronominal binding, Principle C effects, and several distributional properties support such an analysis. In what follows, I will discuss the properties that set this construction apart when compared to WhM and FM. In line with the anticipated analysis, I will attribute this to that CLLD also involves an A-step in the form of CD.

intonational break between the dislocated phrase and the rest of the utterance. I will come back to this later on in this Chapter. For a detailed analysis of the phenomenon see among others Anagnostopoulou (1997) for Greek, Belletti (2004) for Italian, Suñer (2006) for Spanish.

2.3 The A-properties and an explanation

2.3.1 Doubling

To begin with, the most evident formal discrepancy of CLLD is that the DP object is doubled by a pronominal element in the TP domain with which it obligatorily co-refers and agrees in φ -features and case; Moreover, omission of the clitic—at least in cases like the one in (4.35)—gives rise to ungrammaticality.

- (4.35.) a. to ‘Avatar’ *(to) iða (CLLD)
 the Avatar it-CL watched-1s
 “Avatar, I watched it”

In sharp contrast, such doubling is illicit with typical cases of A-bar movement:

- (4.36.) a. to ‘AVATAR’ *(to) iða (FM)
 the Avatar it-cl watched-1s
 “AVATAR I watched”
- b. pia tenia *(tin) iðes? (WhM)
 which movie it-CL watched-2s
 “Which movie did you watch?”

In this light, a major question that has naturally attracted attention is the following: If CLLD involves A-bar movement as is the case with Wh- and Focus-dislocations, then in what aspect do these constructions differ so that on the one hand CLLD involves a clitic, while on the other, Wh- and Focus dislocations do not?

In the remainder of this subsection as well as in the following two, I will argue that the peculiar behavior that CLLD shows when compared to other cases of A-bar movement can be reduced to that A-bar movement in the case of CLLD

involves also A-movement at [SpecTP], formally realized as CD. The distributional relation between CLLD and CD in Greek is illustrated by the examples from (4.37) to (4.39) for third, second, and first person clitics respectively:

(4.37.) a. tin askisi den ti vrike efkoli (CLLD)

the exercise not it-CL found-3s easy

“The exercise s/he didn’t find it easy”

b. KANIS den tin vrike tin askisi efkoli (CD)

no one not it-CL found the exercise efkoli

“NOONE found the exercise easy”

(4.38.) a. esena se ektimai? (CLLD)

you you-CL appreciate-3s?

“You, does s/he appreciate you?”

b. se ektimai esena? (CD)

you-CL appreciate-3s you

“Does s/he appreciate you?”

(4.39.) a. emena me kseris kala (CLLD)

me me-CL know-2s well

“Me, you know me well”

b. me kseris emena kala (CD)

me-CL know-2s me well

“You know me well”

On the other hand, the fact that Wh- and Focus-Movement typically resist association with doubling clitics can be similarly attributed to the reversed structural condition, namely the fact that these constructions lack that A-step in their derivation. Now, as far as the trigger for this A-step is concerned, in line with what I have argued in Chapter 3 and earlier in this Chapter, I assume that it fulfills a structural requirement for predication, whereby a DP object merged as a complement can be re-merged as external to the head it has been selected by. In that sense, one could say that object is re-merged in the way that subjects merge in relation to a verbal head and the functional domain of the clause. On an IS level, this line of argumentation also dispenses with the idea that clitics in doubling environments formally mark a DP as specific, old/presuppositional or anaphoric; rather, as I will show in Chapter 6, clitics mark a DP as a [topic] and the aforementioned readings merely arise as reflections or epiphenomena of a category having been marked as a topic. In what follows, let me also briefly show why association with a clitic cannot be reduced to lexical semantics, an idea that has been exploited by several researchers; rather, doubling marks an A-step in the syntax (or possibly the syntax-semantics interface).

Lasnik & Stowell (1991)⁸⁰ building their analysis mainly on WCO asymmetries distinguish two sub-types of A-bar movement, namely A-bar Quantificational Movement—in which case the Operator is a true quantifier that operates over sets with members and binds a variable (4.40a)—and A-bar non-Quantificational movement, in which case the (Null) Operator is not a quantifier and binds a null epithet (4.40b)⁸¹.

⁸⁰ For related ideas see also May (1977), Rizzi (1995), Kiss (1995) among others.

⁸¹ This corresponds to Kiss' (1995) distinction between Operator Movement and NP-movement respectively.

(4.40.) a. Who₁ do you admire t₁?

A-bar Quantificational

b. This professor₁ NO₁ I admire e₁

A-bar Non-Quantificational/Anaphoric

Given this analysis, researchers as Iatridou (1995), Anagnostopoulou (1994) and Tsimpli (1995, 1998) have attempted to treat the clitic in CLLD as an overt spell out of Lasnik & Stowell's (1991) anaphoric/non-quantificational operator that binds a null epithet which does not qualify as a variable (4.40b above):

(4.41.) *afton ton kaθijiti₁ NO: ton₁ ektimame e₁ oli*
this the professor him-CL appreciate-1pl all
 "This professor we all love him"

Nonetheless, beyond the fact that such an analysis unavoidably assigns to the dislocated direct object the status of a base-generated adjunct (despite the fact that it clearly shows A-bar movement properties as we saw earlier) it faces three further major shortcomings. First, consider the following case in (4.42):

(4.42.) A: What's this noise in the street? It looks like something serious is
 going on...

B.: *Ba tipota; kapion (ton) kiniyane kati skilia...*
nah, nothing; somebody.acc him-CL chase-3pl some dogs.nom
 "Naah, nothing; someone some dogs are chasing"
 (Someone is being chased by some dogs)

In the utterance above the bare existential quantifier 'someone' may appear dislocated in the left periphery either doubled by a clitic or bare without any

severe impact on the semantics on the utterance; in other words, the propositional content of the utterance remains unaffected—irrespective of whether a clitic shows up or not—and it by-and-large corresponds to the passive paraphrase ‘Someone is being chased by some dogs’⁸². What this means is that an account that virtually relies on the distinction between quantificational vs. non-quantificational operators, and variables vs. null epithets, would have to assume quantification and a variable in the case that ‘someone’ appears cliticless, and non-quantification and a null epithet in the case that ‘someone’ is associated with a clitic is an utterance where both options are possible without any (evident at least) difference in the semantic properties of the existential quantifier.

In a similar vein, consider now the utterance in (4.11) repeated below as (4.43):

- (4.43.) ton proθipuryo ton sinoðefse o ipuryos aminos
 the prime minister-acc him-CL accompanied the minister of-defence
 “The prime-minster, the minister of Defence accompanied him”

The utterance in (4.43) differs from the one in (4.42) in that the dislocated category is a referential expression which is interpreted as a topic at the discourse level. What this means is that we would be justified to assume that the construction is of [-Quantificational] nature, if the clitic is a non-quantificational/anaphoric operator. The problem however, is that the CLLDed object above can also occur in an LDed fashion, that is, without the clitic:

- (4.44.) ton proθipuryo sinoðefse o ipuryos aminos
 the prime minister-acc accompanied the minister of defence-nom
 “The prime-minster, the minister of Defence accompanied”

⁸² Of course, I am not implying here that there is no difference at all. Nonetheless, that difference cannot be due to the distinction between quantificational vs. non-quantificational/anaphoric reading along Lasnik & Stowell’s lines.

Then the following question arises: So, if the clitic is the overt spell out of a null operator that binds a null epithet, while in other types of A-bar movement the moved category is a quantificational operator, does this mean that in (4.44) the LD object ‘the prime-minister’ interpreted as ground material is a quantificational operator that binds a variable? It easily becomes evident that this cannot be the case.

To summarize the discussion, in this subsection I have argued that the clitic that sets CLLD apart from other instantiations of A-bar movement such as focus- and wh-movement is due to that the former construction involves an A-step in the form of CD. I have also assumed—in line with what has been said earlier in Chapter 3—that this has to do with predication—as a syntax-semantics interface condition—according to which an object is re-merged as external to the functional and the thematic domains in an A-position (i.e. a step of ‘subjectivization’). Focus- and wh-material (either moved or in-situ)—typically⁸³—lack this step presumably because the semantics of focusing and question formation is incompatible with that interface condition.

2.3.2 Anaphoric and Pronominal Binding

If the analysis I have been sketching out is correct, namely that CLLD involves an extra step in its derivation, that is, an A-step in the form of CD (or, in other words, that CLLD is derived from CD), then we should expect binding asymmetries between CLLDed on the one hand, and Wh- and Focus fronted objects on the other. In what follows I will show that the prediction is indeed born out. Furthermore, I will show how the current analysis can account for these asymmetries.

⁸³ Note here that although foci and wh-elements in questions typically resist doubling, in some cases doubling is permissible or even required. I refer the reader to Androulakis (1998) and Alexopoulou (2008)—among others—, although I assume that the syntactic analyses pursued by these researchers are not on the right track. I leave this issue open for a future discussion.

To begin with consider the following cases in (4.45)⁸⁴:

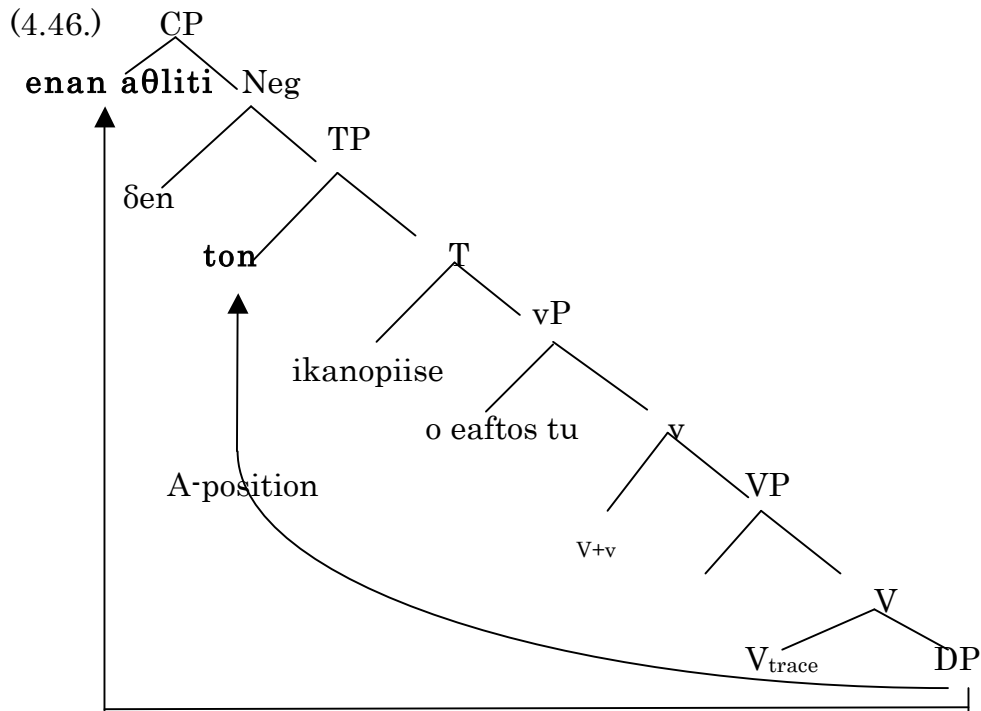
- (4.45.) a. enan aθliti₁ δen ton ikanopiise [o eaftos tu]₁ (CLLD)
an athlete.acc not him-CL satisfied the self his.nom
 “Some athlete, his ‘self’ didn’t satisfy”
 (Some athlete wasn’t satisfied by his ‘self’)

- b. ?*enan AθLITI₁ δen ikanopiise [o eaftos tu]₁ (FM)
an athlete.acc not satisfied the self his.nom
 “Some ATHLETE his ‘self’ didn’t satisfy”
 (Some ATHLETE wasn’t satisfied by his ‘self’)

Both utterances above involve a postverbal reflexive subject and an indefinite fronted object; crucially, however, the utterance is licit only with CLLD where the fronted object is taken up by a clitic. If it is true that CLLD involves an A-step in the form of CD and also that A-bar movement does not feed anaphoric binding then the contrast above is not unexpected: In (4.45b) focus movement cannot create new binding possibilities, that is, the fronted object cannot bind the reflexive since it occupies an A-bar position. On the other hand, the reflexive subject in (4.45a) is bound by the clitic at [SpecTP] which is an A-position, and it thus feeds binding. This is shown schematically in (4.46):

⁸⁴ This asymmetrical behaviour is persistent even with utterances where the indefinite DP has a ‘generic’ reading (see also Alexopoulou 2008):

- (i) enan teliomani₁ δen ton ikanopii [o eaftos tu]₁ (CLLD)
one/a perfectionist.acc not him-CL satisfies the self his.nom
 “A (i.e. any) perfectionist is hardly ever satisfied by his ‘self’”
- (ii) ?*enan TELIOMANI₁ δen ikanopii [o eaftos tu]₁ (FM)
one/a perfectionist.acc not satisfies the self his.nom
 “A (i.e. any) PERFECTIONIST is hardly ever satisfied by his ‘self’”



Naturally—as we have already seen in Chapters 2 and 3—the same binding asymmetry is also attested between doubled and non-doubled objects occurring in the postverbal domain. As a reminder to the reader, in both VSO and VOS orders the object cannot bind properly a reflexive subject due to lack of c-command, since in VSO the object is generated lower than the subject, whereas in VOS this is because the pied-piped object does not c-command the subject after v' -to-T movement. In either case, however, CD fixes the anomaly:

(4.47.) $\delta\epsilon\eta$ ^{*(to)} *ikanopiise* [o eaftos tu]₁ *ena* $\rho\epsilon\delta i_1$ (VSO)
not him-CL satisfied the self his.nom a/one guy.acc
 “Some guy was not satisfied by his ‘self’”

(4.48.) $\delta\epsilon\eta$ ^{*(to)} *ikanopiise* *ena* $\rho\epsilon\delta i_1$ [o eaftos tu]₁ (VOS)
not him-CL satisfied a/one child.acc the self his.nom
 “Some guy was not satisfied by his ‘self’”

To summarize the discussion, so far I have shown that CLLD’s peculiarities are reducible to that it involves an A-step in the form of CD which feeds anaphoric binding. In what follows I will carry on in the same spirit discussing pronominal binding.

To begin with, consider the following cases below:

(4.49.) a. ?*KAΘE_(x) kopela sinodefse to ayori tis_(x) (FM)
every girl.acc escorted the boyfriend her.nom
 ‘EVERY girl was escorted by her own boyfriend’

b. kaθe kopela_(x) ti sinoδefse to ayori tis_(x) (CLLD)
every girl.acc her-CL escorted the boyfriend her.nom
 ‘Every girl was escorted by her own boyfriend’

The utterance in (4.49a) is ungrammatical under the intended variable pronominal reading since the universally quantified object ‘every girl’ in focus cannot bind the pronominal contained lower in the subject from an A-bar position, since A-bar movement does not feed binding⁸⁵. In sharp contrast, however, the utterance in (4.49b) is unproblematic: if we are correct in that CLLD involves a step of A-movement—in the shape of CD—then the clitic from [Spec.TP] c-commands and binds the pronominal contained in the subject, facilitating the intended bound variable reading.

Note here that the healing effect in (4.49b) above cannot be simply attributed to some contrast between focus vs. non-focus readings. This is supported by the

⁸⁵ Note that the result is the same even when the focus object occurs in situ, either because the object cannot c-command the pronoun contained into the subject or because the quantified object A-bar binds the pronoun after it has moved to the CP at LF:

(i) ?*sinodefse_(x) to ayori tis_(x) KAΘE kopela
escorted the boyfriend her.nom every girl.acc
 ‘EVERY girl was escorted by her own boyfriend’

fact that variable binding becomes unproblematic when the fronted universal quantifier is doubled by a clitic (see 4.50) despite the fact that—as we have seen—focus constructions typically resist doubling. Thus, in such cases, doubling can be seen as a ‘last resort’ strategy (see also Keller & Alexopoulou 2001):

- (4.50.) a. KAΘE kopela_(x) tin sinoðefse to aʝori tis_(x) (FM)
every girl her-CL escorted the boyfriend her.nom
 “EVERY girl her boyfriend escorted her”
 (EVERY girl was escorted by her own boyfriend)

Not surprisingly, the situation is identical even with mere CD: the variable binding reading is possible only when the in-situ universally quantified object is doubled by a clitic that from [SpecTP] c-commands the pronominal contained into the subject:

- (4.51.) a. ^{??}(tin) sinoðefse to aʝori tis kaθe kopela (VSO)
(her-cl) escorted the boyfriend her.nom every girl.acc
 “Every girl was escorted by her own boyfriend”

Summarizing the discussion, I have shown that CLLD feeds anaphoric and pronominal binding, properties that are not typical of A-bar movement. In line with what I have argued in Chapter 3, I have attributed this peculiarity of CLLD to that it involves an A-step in its derivation in the form of CD. The result of this is that the same nominal category occurs both in the CP domain (the CLLDed DP) and the T domain along the lines described in the previous Chapter. In the same spirit, in what follows I will show that the rest of CLLD’s discrepancies can be merely reduced to that A-step.

2.3.3 Weak Crossover

A well-cited property of CLLD—that has rendered its description problematic—is that it is not subject to WCO effects that typically occur with A-bar movement. To illustrate this, consider the following asymmetries in (4.52):

- (4.52.) a. ?*pion₁ efere sto parti o aδerfos tu₁? (WhM)
who-acc brought to-the party the brother- his.nom
 ‘Who did his brother bring to the party?’
- b. ?*[mono ENAN₁] efere sto parti o aδerfos tu₁ (FM)
only one brought to-the party the brother his.nom
 ‘Only ONE (person) his brother brought to the party’
- c. [kapon₁] ton efere sto parti o aδerfos tu₁ (CLLD)
someone.acc him-CL brought to-the party the brother his.nom
 ‘Someone his brother brought to the party’

In what follows I will show that this discrepancy of CLLD is due to that it involves A-movement in the shape of CD. In other words, I will argue that in environments where the expected WCO effects get overridden this is because there is an A-step in the syntax.

Recall from our discussion earlier in this chapter that according to Lasnik & Stowell (1991) WCO violations occur when a DP containing a pronoun coindexed with the moved phrase intervenes between the surface position of the moved element and its base position, provided that the moved element is [+Quantificational]; only [+Quantificational] elements give rise to WCO violations (4.53a),

(4.53.) a. *Who₁ does his₁ professor admire?

A-bar Quantificational

b. John₁ his₁ professor admire

A-bar Non-Quantificational/Anaphoric

Falco (2007) adopts and adapts this analysis: building on asymmetries like the one between (4.54a) and (4.54b) below

(4.54.) a. *[Who the hell]₁ do his₁ students admire t₁?

—D-Linked/—Specific

b. ?[Which famous professor]₁ do his₁ students admire t₁?

+D-Linked/+Specific

he proposes that WCO effects arise only with a subset of quantificational operators, namely with those that are interpreted as [-Specific] a la Enç (1991)⁸⁶: for instance, when a wh-question asks for answers in which the entities that replace the wh-phrase are drawn from a set that is presumed to be salient both to the speaker and hearer, then that wh-phrase is meant as [+Specific]. According to this view all definite expressions (nouns, pronouns, definite descriptions and demonstrative DPs) are interpreted as specific; indefinites on the other hand can be either specific or non-specific. Now in this light, consider the examples below:

(4.55.) a. *?pion ynosto trayuðisti₁ minise o aðerfos tu₁ ? (WhM)

what famous singer.acc sued the brother his.nom

“Which famous singer did his brother sue?”

⁸⁶ Enç (1991: fn.8) explicitly states that her notion of specificity constitutes a semantic formalization of Pesetsky’s (1987) D-Linking.

- b. ??mono ENA apo ta peðia₁ efere sto parti o aðerfos tu₁ (FM)
only one of the kids brought to-the party the brother his.nom
 ‘Only ONE of the kids his brother brought to the party’

The ungrammaticality of the utterances above is due to a typical WCO violation. Interestingly however, it seems that WCO effects do not cease to exist even when the *wh*-phrase can clearly be treated as D-Linked/Specific along the lines of Stowell & Lasnik (1991) and Falco (2007): (4.55a) is on a par with the English example in (4.54b), while in (4.55b) the numeral in focus is accompanied by the partitive PP modifier ‘of the kids’. Quite problematically for these analyses that rely on notions such as D-linking, Specificity or Quantification, the utterances above still induce WCO effects, exactly as their ‘non-specific’ or ‘non-linked’ counterparts in (4.52) earlier did. Rather, it seems that what overrides WCO in such cases in Greek is doubling⁸⁷; indeed, the problematic cases in (4.52a & b) turn out being grammatical when a doubling clitic shows up in [SpecTP]:

- (4.56.) a. pio peði₁ to efere sto parti o aðerfos tu₁? (WhM)
which kid him-CL brought to-the party the brother- his.nom
 ‘Who did his brother bring to the party?’
- b. [mono ENAN₁] ton efere sto parti o aðerfos tu₁ (FM)
only one him-CL brought to-the party the brother his.nom
 ‘Only ONE (person) his brother brought to the party’

The same is true for the problematic cases in (4.55) above:

- (4.57.) a. pion ynosto trayuðisti₁ ton minise o aðerfos tu₁ (WhM)
what famous singer.acc him-CL sued the brother his.nom

⁸⁷ See also Alexopoulou (1999), Keller & Alexopoulou (2001), Alexopoulou (2008) for similar observations.

“Which famous singer did his brother sue?”

(Which famous singer was sued by his own brother?)

- b. mono ENA apo ta peŋia₁ to efere sto parti o aŋerfos tu₁ (FM)
only one of the kids him-CL brought to-the party the brother his.nom
 ‘Only ONE of the kids his brother brought to the party’
 (Only ONE of the kids was brought to the party by his own brother)

Coming now to CLLD, in the same spirit, I will argue that the lack of WCO effects is due to that it involves an A-step in its derivation, that is, CD. To put it in a different way, I will argue that WCO effects in CLLD cease to exist not because the CLLDed is interpreted as specific along the lines described above, but because there is an A-step in the syntax in the form of doubling. Consider first the following cases:

- (4.58.) a. ?ena apo ta peŋia efere sto parti o aŋerfos tu₁
one of the kids-acc brought to-the party the brother-nom his
 ‘Some kid was brought to the party by his own brother’
- b. ?enan perastiko₁ ŋangose o skilos tu₁
one/a passer-by.acc bit the dog his.nom
 ‘Some passer-by was bitten by his own dog’

In the utterances above which involve LD of a quantifier or quantified phrase the typical WCO effects arise. In sharp contrast, when the dislocated objects occur in a CLLDed fashion, that is doubled by a clitic lower in the structure, such effects are not any longer perceived and the intended interpretation becomes possible. This is shown below:

(4.59.) a. ena apo ta pe8ia to efere sto parti o aderfos tu₁
one of the kids-acc him-CL brought to-the party the brother-nom his
 “Some kid was brought to the party by his own brother”

b. enan perastiko₁ ton 8angose o skilos tu₁
one/a passer-by.acc him-CL bit the dog his.nom
 ‘Some passer-by was bitten by his own dog’

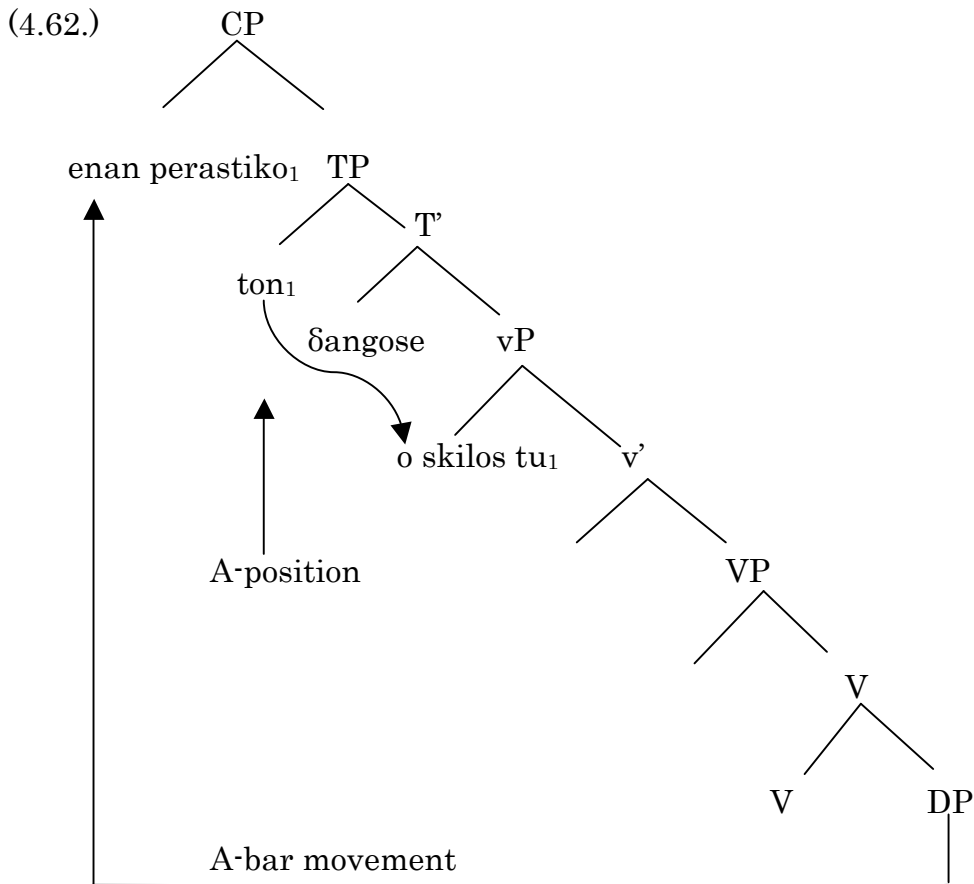
Interestingly, we cannot retain the idea that WCO effects cease to exist when the quantified phrase is meant as D-Linked/Specific since, as the utterances in (4.58) show, even when this reading is there due to some modifier—or just contextually—WCO effects do not heal.

For these reasons, I would like to propose that WCO effects—at least in the cases I have been dealing with—cease to exist in the presence of an intermediate A-binder which in Greek surfaces as a clitic. In other words I propose that what overrides WCO in such constructions is an intermediate step in the derivation. The theoretical advantage of such a ‘structural’ account is that it unifies CLLD and CD, can account for the last resort properties of cliticization and doubling, while on the other hand, is in line with the traditional treatment of WCO effects as a ‘Bijection Principle’ violation a la Koopman & Sportiche (1982): an operator should A-bar bind exactly one variable and every variable should be A-bar bound by exactly one operator. Thus the ungrammaticality of utterances like the one in (4.60a) below is assumed to be because the BP is not complied with since both *his* and *t_i* are variables bound by the operator *who*. On the other hand, the bound variable reading for the pronoun is allowed in (b), since the intervening pronoun is locally A-bound by the trace of *who*; thus there is no Bijection Principle violation:

- (4.60.) a. *Who_i does his_i mother admire t_i ?
 b. Who_i t_i likes his_i mother?

In this light, consider now the syntactic representation of the utterance in (4.59b) repeated here as (4.61):

- (4.61.) enan perastiko₁ **ton** δangose o skilos tu₁
one/a passer-by.acc him-CL bit the dog his.nom
 ‘Some passer-by was bitten by his own dog’



Crucially, the clitic from an A-position, namely [Spec.TP], can locally bind the pronoun contained in the subject leaving the dislocated object DP (i.e. the existential quantifier) to bind only its own trace. Note here that for the

analysis I have been sketching out we do not need to stipulate an independent binding mechanism between the DP ‘someone’ and the doubling clitic since—if our analysis on CD is correct—the clitic is generated as a copy of the nominal features associated with that DP (that is, they bear they same referential index). Naturally, as I have already shown in Chapter 3, even when there is no A-bar movement to the left-periphery, WCO effects are overridden only in the presence of a doubling clitic in a CD fashion:

- (4.63.) *?(ton) δ angose o skilos tu enan perastiko
(him)-CL bit the dog his.nom a/one passer-by.acc
 ‘A passer-by was bitten by his own dog’

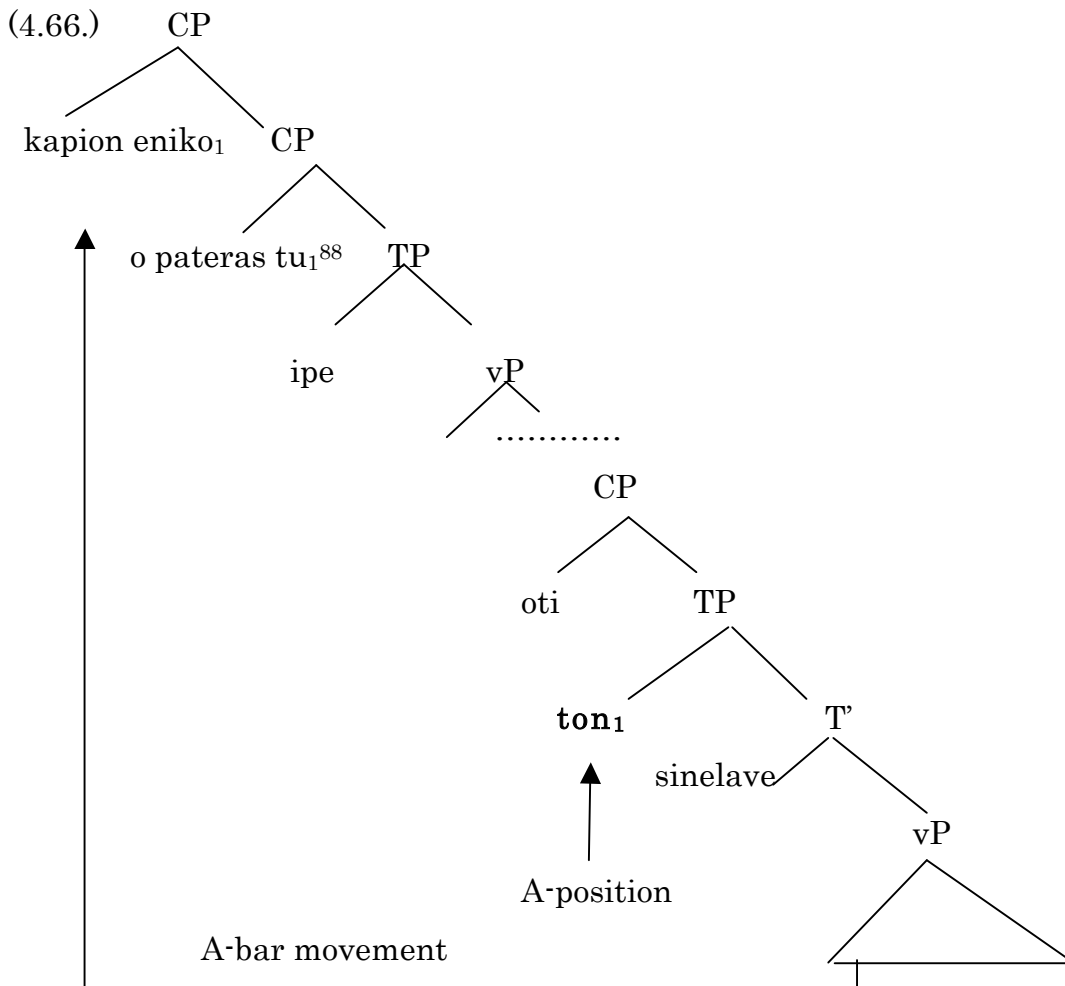
Interestingly, and in line with the spirit of the analysis of CLLD I have been sketching out, Sabel (2002) argues that wh-objects in German move to [Spec.CP] via an intermediate A-step to [Spec.TP] in cases where (expected) WCO effects do not arise contrary to what happens in English:

- (4.64.) a. [_{CP} Wen_i hat [_{TP} t_i [seine Mutter [_{VP} immer t_i geküßt]]]]?
who has his mother always kissed
 “Who did his mother always kiss?”
- b. * [_{CP} Who₀₁ does [_{TP} his₁ mother often kiss t_i]]?

Before I finish this subsection, let me point out an important prediction this analysis on CLLD makes: given that WCO effects are virtually obviated in the existence of an A-chain and more specifically by the fact that the pronominal contained in the subject is A-bound by the clitic in [Spec.TP], one should expect that when the A-bar moved DP crosses over a pronominal higher in the tree—being therefore out of the scope of the clitic—WCO effects should persist. Indeed, it seems that the prediction is born out:

- (4.65.) ??kasion eniko₁ o pateras tu₁ ipe oti ton sinelave i astinomia
some tenant.acc the father his said that him-cl arrested the police
 “Some tenant his father told us that the police arrested him”

The configuration is illustrated by the schema in (4.66):



Summarizing the discussion in this section, I have shown that CLLD differs from typical cases of A-bar movement in that it does not give rise to WCO. Furthermore, I have attributed this discrepancy to the fact that CLLD involves

⁸⁸ Recall that preverbal subjects in Greek are assumed to occur above TP, presumably in the CP domain. See also Chapter 6.

an A-scrambling step in the form of CD, a step that typical cases of Wh- & Focus Movement lack; however, even in these constructions doubling can heal WCO effects as a last resort mechanism.

2.3.4 Parasitic Gaps

Although judgments on data involving p-gaps are not uncontroversial in Greek, following Chomsky (1982), p-gaps are assumed to be licensed by the presence of an A-bar trace that does not c-command the p-gap site. The examples in (4.67), illustrating Wh- and focus dislocations respectively, show this (assuming that the adjunct clauses are either vP or VP adjuncts):

(4.67.) a. ?ti eplines prota [prin ksefluðisis e] (WH)

what-acc washed-2s first before eat-2s

“What did you wash first before eating?”

b. ?TO MILO eplina prota [prin ksefluðiso e] (FOC)

the apple washed-1s first before peel-1s

“THE APPLE I washed first before eating”

CLLD, however, patterns once again along the lines of A-movement constructions in that it fails to license p-gaps as it is exactly the case with CD (cf. Chapter 3): In (4.68) below, despite the fact that the base position of the dislocated constituent does not c-command the p-gap site, the p-gap is not licit:

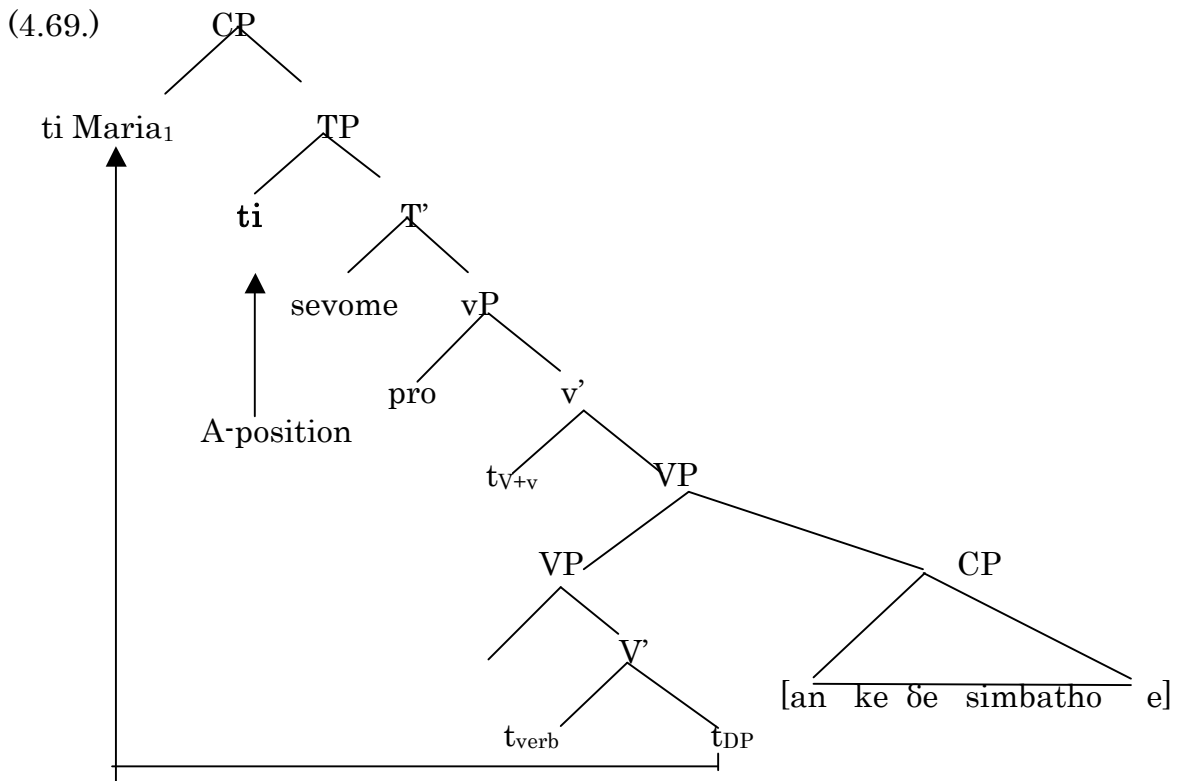
(4.68.) a. *to milo to eplina prota [prin ksefluðiso e] (CLLD)

the apple-acc it-CL washed-1s first before peel-1s

“The apple I washed it first before eating”

- b. **ti Maria tin sevome poli [an ke ðen simbatho e]* (CLLD)
the Maria her-CL respect-1s much if not like-1s
 “Maria I respect her a lot although I don’t like her”

Now, according to the analysis of CLLD I put forward earlier, the syntactic representation of the utterances in e.g. (4.68b) should be the one shown below in (4.69):



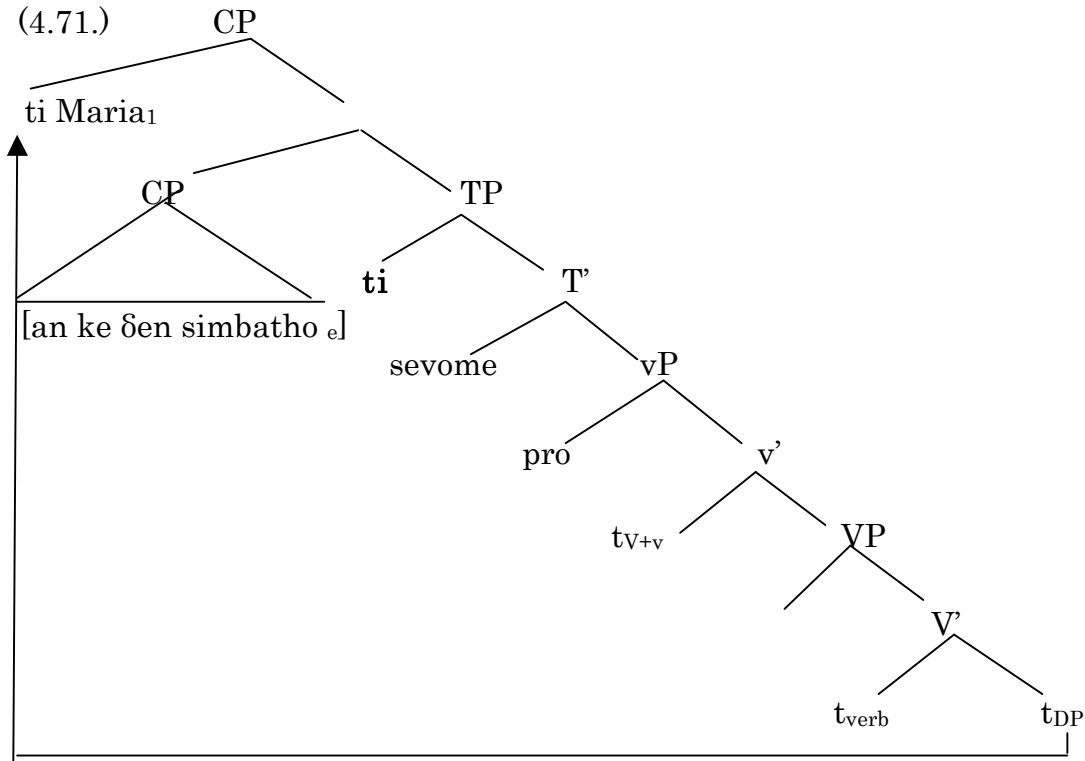
Examining the representation above, at first sight, it seems that our analysis makes the wrong predictions as far as p-gap licensing is concerned, since the p-gap licensing condition is met, namely there is an A-bar trace which does not c-command the p-gap site; yet the sentence is ungrammatical. Although I cannot give any conclusive explanation, I suspect that this is so because the A-bar trace contained in the DP is c-commanded by the clitic at [SpecTP] which is an A-position. Indeed, when the adjunct clause containing the gap surfaces

in a position which is not in the scope of the clitic the outcome is much more acceptable, if not completely grammatical, as we expect for A-bar movement.. Compare for instance the utterances in (4.68) with these in (4.70) below:

(4.70.) a. ?to milo [prin ksefluðiso e] prota to eplina (CLLD)
the apple before peel-1s first it-CL washed-1s
 “The apple I washed it first before eating”

b. ?ti Maria [an ke ðen simbatho e] tin sevome poli (CLLD)
the Maria if and not like-1s her-CL respect-1s much
 “Maria I respect her a lot although I don’t like her”

The configuration in (4.71) below is the syntactic representation of the utterance in (4.70b):



To sum up the discussion in section 2.3, I have argued that CLLD involves two

steps in the syntax, namely A-movement surfacing as clitic doubling and A-bar movement of the DP complement to the left periphery; its ‘deviant’ properties (as when compared to focus/wh-dislocations) are reducible exactly to that a clitic is generated in an A-position along the lines described in Chapter 3. In the following section I will present and discuss some existing analysis on CLLD.

2.4 The existing literature

2.4.1 Dissociating CLLD and CD

Cinque (1990) in his seminal work on A-bar movement puts forwards an analysis of CLLD in Italian according to which the dislocated phrase is base-generated in its surface position excluding thus the possibility that the dislocated category has reached the CP domain after movement from a CD underlying structure. The main argument towards this hypothesis is that while CLLD is a productive construction in Italian, the language lacks CD. In this light, subsequent analyses on CLLD in Greek (cf. Iatridou 1991/1995, Anagnostopoulou 1994, 1999, Tsimpli 1995, Spathas 2005, Tsakali 2006 among others) have adopted this argument, as evidence against a unified treatment of CLLD and CD despite the fact that Greek displays both constructions and the large amount of phonological, syntactic & interpretational properties these two constructions have in common. Furthermore, beyond this language-external argument for dissociating CLLD and CD, the Greek literature often cites a second argument as evidence against unification: Allegedly, the idea is that there are semantic classes of DPs that resist CD, but at the same time can occur in CLLD, such as indefinites.

To begin with, let me briefly discuss the external argument, namely the fact that there are languages with CLLD but no CD such as Italian. In essence, there are two non-conclusive ways through which we could account for this

asymmetry: on the one hand, one could retain a movement approach for CLLD and seek for a language internal factor that blocks CD surface linearizations in this language (e.g. PF, the way that language licenses its arguments generally, the internal structure of the clitics and their referential properties etc). Dobrovie-Sorin (1990:394) discussing Italian points out:

“[...] Unlike Romanian, Italian does not allow for clitic doubling of direct objects. In other words, Italian does not present any grammatical input for a movement transformation that would have CLLD as its output. But this does not mean that a movement analysis cannot be assumed: a movement analysis is accepted for passives, for instance, even though the input structures are ungrammatical”⁸⁹.

Ultimately, the other way of doing things would be to assume that CLLD does not in fact relate derivationally to CD in Italian (and in other Romance languages that do not display CD in their inventory), while it does in languages such as Rioplatense Spanish, Romanian, Greek, Albanian, Bulgarian etc. where CD is particularly productive, although such an assumption would lead to an uneconomical and non-attractive parameterization. Whatever the truth is, we can see why such an ‘external’ argument should be the basis for precluding the possibility that CD and CLLD in Greek are structurally related, disregarding the strong syntactic, phonological and interpretational evidence towards that idea.

Regarding now the second argument often cited in the literature, that is, the idea that indefinites cannot occur CDed whereas they can be CLLDed, I have two points to make here. On the one hand, this assumption is too strong: as the examples below show, indefinites and quantified material can occur in a CDed

⁸⁹ Cecchetto (2000) and Belletti (2004) have tacitly adopted this view too. They both analyze Italian CLLD as the product of movement out of an underlying CDed structure.

fashion without creating any particular problem:

(4.72.) a. A: I love your dog!

B: $\delta\epsilon$ jinete na min to ayapas **ena tetio skili!**
not can-3s SUBJ not it-CL love-2s a like-this dog
 “It is not possible not to love such a dog!”

b. I have got many students this year....

ala $\delta\epsilon$ xriazete na ton eksetaso **kaθena** ksexorista
but not need-3s SUBJ him-CL examine-1s each one separately
 “...but I don’t need to examine each of them separately”

c. ta vrikes **kati lefta** pu su ixa afisi sto trapezi?

them-CL found-2s some money that to-you had-1s left on-the table
 “Did you find some money that I had left on the table for you?”

d. δ iskola **ton** ikanopii o eaftos tu **enan efivo**
hardly him-CL satisfies the self his.nom a teenager-acc

‘A teenager is hardly ever satisfied by his ‘self’”

e. to angaliase i mana tu **kaθe peði**
him-CL hug the mother his-nom every child-acc

“His mother hugged every child”

(Each child was hugged by his own mother)

f. A: How are you progressing with the assignment?

B: me Ti pota $\delta\epsilon$ n boro na **ti** liso **mia askisi!**
with nothing not can-1s SUBJ it-CL solve an exercise

“There is no chance that I solve one (specific) exercise”

The second point I have to make here has to do with the fact that, while there is nothing in the narrow syntax that would ban doubling of indefinites—as the grammaticality of the utterances above suggests—at the same time however doubling of the same phrases in a CLLDed fashion, that is, when they occur in the preverbal domain, is perceived as a somewhat more ‘natural’ option⁹⁰. Although I cannot go into details, since this would take me far beyond the purposes of the current discussion, I would like to suggest that the reason for this, say, asymmetry has little to do with syntax; rather, it can be attributed to independent discourse or processing conditions: If we assume that clitics as pronominal forms are high accessibility markers—along the lines of Ariel (1990)—, that is, the referents they pick should already be activated in the discourse, whereas, on the other hand, indefinites typically convey new information, that is, their referents are meant as not yet activated by the time of utterance, this immediately explains why doubled indefinites are perceived as more natural in a CLLDed rather than in a CDed fashion. A CLLDed indefinite is introduced into the discourse and then the clitic that follows can look back into the immediate discourse for a referent; on the other hand, in CD processing or/and discourse accommodation becomes obscure, since the pronominal would have to look for a referent that has not yet been inserted into the discourse (i.e. that it is not yet activated in a hearer’s mind).

Things being so, and in line with what has been shown in Chapter 3 and earlier in this Chapter, I assume that there is no actual reason to assume that CLLD and CD in Greek are structurally unrelated, or—to put it in different terms—that CLLD cannot be derived from an underlying CD structure. In the light of this discussion, let me now discuss some accounts that assume that CLLD is due to base generation.

⁹⁰ Although this is not always true.

2.4.2 Base generation accounts

Cinque (1990) having a priori excluded the possibility that Italian CLLD is due to movement from a clitic doubled position since Italian lacks CD constructions altogether offers an analysis that attempts to account for what was later dubbed *Cinque's Paradox*: the fact that CLLD is sensitive to strong islands, despite the absence of A-bar movement. Because island effects are typically assumed to arise due to A-bar movement, Cinque proposes a new analysis of island effects, where they arise not because of movement, but rather due to chain formation. Thus, rather than being barriers to movement, islands are barriers to binding chain formation. In CLLD, the relationship between the dislocated constituent and its corresponding clitic and empty category is characterized as a base-generated chain. This chain is required in order to license the empty category corresponding to the dislocated element and thus avoid an ECP violation. Sensitivity to islands is therefore not strictly a property of constructions derived via A-bar movement, rather it is a property of constructions characterized by binding chains: a property both movement and base-generation share. And it is also argued that this is also true for connectivity effects.

Nonetheless, these assumptions seem very strong since it seems that there are cases which cannot be accounted for through Cinque's proposals. Hanging topics constitute such a case: Recall from the discussion earlier in this Chapter that these constructions, while superficially resembling CLLDed phrases, display radically different characteristics as far as sensitivity to islands and connectivity are concerned. In particular, hanging topics do not obey strong island restrictions (4.73), they can be marked with either nominative or accusative case (4.74), and anaphors and quantified material cannot show up as hanging topics (4.75) (see Anagnostopoulou 1997):

- (4.73.) a. ti Maria.... gnorisa proxtes ena pedi pu tin kseri kala
the Maria-acc met-1s the-other-day a guy that her-CL knows well
 “As for Maria....the other day I met a guy that knows her well”
- b. to vivlio...leo na liso prota kati askisis prin arxiso na to diavazo
the book will solve-1s first exercises before start-1s SUBJ it-cl read
 “The book... first I will solve some exercises before I start reading it”
- (4.74.) aftus tus opaδus/afti i opaði tu Olimbiaku... ðen tus andexo!
 “those Olympiakos’ fans (nom/acc)...I can’t stand them at all”
- (4.75.) a *oso jia to peði tis₁....to frondizi kaθe mana₁
as for the child-acc her it-CL takes-care every mother
 “As for her child.....every mother takes care of it”
- b. *o eaftos tu pu les... ðen ton prosexi o Aris kaθolu!
the ‘self’ his (nom) not him-cl takes-care the Ares at all
 “Himself, Ares doesn’t respect that-one at all!”

Note here, that the sentences in (4.73) are ungrammatical when uttered in a CLLD manner, while the sentences in (4.75) become fully grammatical when uttered in a CLLD manner. Thus, if island sensitivity and connectivity effects cannot distinguish between movement and base-generation, and if CLLD is due to base-generation, as it happens with hanging topics, we have no syntactic means by which we can distinguish the two constructions.

On the other hand, Cinque’s base-generation account virtually makes the wrong predictions even with WCO and p-gap licensing: despite the fact that CLLD typically does not license p-gaps and does not give rise to WCO effects, as I have shown in the previous section it behaves exactly along the lines of

Wh-movement and Focus movement in that it does license p-gaps and does give rise to WCO effects provided that the adjunct site containing the gap and the intervening pronoun respectively for the two constructions is generated out of the scope of the clitic.

Finally, Cinque's analysis fails to account for the fact that arguably a CLLDed phrase is interpreted in its base position when it comes to anaphoric and pronominal binding. Strikingly, such reconstruction and connectivity effects have been more recently treated as very crucial evidence favouring a movement analysis of CLLD in Italian (see Cecchetto 2000, Belletti 2004, 2005).

A subsequent analysis is offered in Iatridou (1991/1995). Under Iatridou's analysis of CLLD, the dislocated constituent originates in a position adjoined to the minimal CP containing the clitic. In cases of mono-clausal CLLD, this position is the surface position of the dislocated item. She calls this position "DL position" since the dislocated constituent is required to be d-linked.


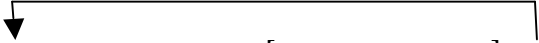
- (4.76.) [DL ti Maria [CP Ø [TP o Kostas [T tin ayapai [VP poli]]]]]
the Maria-acc the Kostas-nom her-CL loves a lot
 "Mary, Kostas loves her a lot"

Nonetheless, Iatridou departs from Cinque's analysis in that when the dislocated item corresponds to a clitic within an embedded CP, there is actual A-bar movement from the DL-base position to the DL-position adjoined to the matrix CP (4.77): According to this view, island effects arise when the preposed item moves from its position adjoined to the CP containing the clitic (within the island) to a position outside the island (adjoined to the matrix CP).

- (4.77.) [DL2 ti Maria [CP2 Ø [nomiza [DL t [CP1 oti [o Kostas tin ayapai poli]]]]]]

the Maria thought-1s that the Kostas her-CL loves a lot
 “Mary, I thought that Kostas loves her a lot”

Iatridou’s main argument for incorporating a step of movement in cases of non mono-clausal (i.e unbounded) CLLD constructions is virtually driven by p-gap licensing asymmetries as those I presented earlier in section 2.3.5:

- (4.78.) a.  *ti Maria ipe o Kostas t oti θa tin pandrefti, [xoris na ayapa e]
the Maria said the Kostas that will her-cl marry without SUBJ love-3s
 “Maria, Kostas said that will marry her without loving”
- b.  ?ti Maria ipe o Kostas [xoris na ayapa], t oti θa tin pandrefti
the Maria said the K. without SUBJ loves-3s that will her-cl marry

According to the argument, the sentence in (4.78a) is ungrammatical irrespective of whether the CLLDed DP occurs in the lower (i.e. by base-generation) position or it has been moved by A-movement to the matrix CP: in the former case, there would be no trace at all to licence the p-gap contained in the adjunct clause [which is supposed to modify the matrix verb], while in the latter case the trace that would be left behind would c-command the p-gap site. On the other hand, in (4.78b) where the p-gap site is generated higher licensing of the gap becomes possible, an indication favouring the existence of a (non c-commanding) A-bar trace.

While the rationale behind this argument is right and in line with what I have argued earlier, however, it is not unproblematic: Consider for instance the following cases discussed in 2.3.4:

- (4.79.) a. *to milo to eplina prota [prin ksefluðiso e]
the apple-acc it-CL washed-1s first before peel-1sg
 “The apple I washed it first before eating”

b. *ti Maria tin sevome poli [an ke den simbatho e]
the Maria her-CL respect-1s much if not like-1s
 “Maria I respect her a lot although I don’t like her”

(4.80.) a. to milo [prin ksefluðiso e] prota to eplina
the apple-acc before peel-1s first it-CL washed-1s
 “The apple I washed it first before eating”

b. ti Maria [an ke den simbatho e] tin sevome poli
the Maria-acc if and not like-1s her-CL respect-1s much
 “Maria I respect her a lot although I don’t like her”

As we can see, the pattern is identical even with mono-clausal CLLD, as the asymmetries between (4.79) and (4.80) suggest, and therefore CLLD should involve A-bar movement irrespective of whether we are dealing with mono-clausal or multi-clausal sentences.

Iatridou’s analysis further inherits some of Cinque’s problems: even if we assumed that sensitivity to islands could not indeed distinguish between movement and base-generation and that ungrammaticality was only due to the fact that binding chains would fail to be formed properly, we would not be in a position to account for the systematic reconstruction patterns that CLLD constructions are subject to and—vice versa—for their absence in constructions like HTLD, which uncontroversially involves base-generation.

Anagnostopoulou (1994, 1997) provides also a base-generation account along the lines of Cinque. Her analysis however involves covert A-bar movement to capture its island sensitivity. CLLD is analysed on a par with *Contrastive Left Dislocation*, a construction common in German and Dutch:

- (4.81.) Die man, **die** ken ik niet
that man, that-one know I not
 “That man, I don’t know him”

In contrastive left dislocation, the overt demonstrative pronoun ‘die’ appears to the immediate right of the preposed constituent. After outlining the pragmatic similarities between contrastive left dislocation and CLLD, Anagnostopoulou proposes that just as the overt demonstrative pronoun appears adjacent to the dislocated category, so does the clitic in CLLD after it moves at LF. Because LF movement is supposed to be subject to strong islands her analysis makes the correct predictions regarding Cinque’s paradox when it comes to island sensitivity. Anagnostopoulou also considers an alternative to her proposal outlined above (adopting and modifying Sportiche’s (1992/1996) analysis, cf. Chapter 3): in particular, it is proposed that the preposed element and clitic are base generated in their surface positions, and the gap associated with the dislocated element (its post-verbal base position) is assumed to contain a null operator, which moves at LF to be in a local relation with the dislocated constituent⁹¹. Thus in this case, it is the movement of this null operator that results in the observed island violations.

However, the analysis—in either form—is not unproblematic. On the one hand, it encounters problems in predicting the observed connectivity effects in CLLD constructions. While Anagnostopoulou acknowledges this shortcoming, she dismisses it, adopting –eventually—Cinque’s view that connectivity and reconstruction do not necessarily depend on movement, and may also be a property of chains involving base-generation. Nonetheless, such an analysis cannot still distinguish between HTLDed and CLLDed constituents: if in either case there is no actual movement but only base-generation, then how will we be able to account for the distinct syntactic properties the two

⁹¹ See also Tsimpli (1995) for a similar account.

constructions show? In the same spirit, Anagnostopoulou’s account—as all base-generation accounts do—denies the structural relation between CLLD and CD despite the amount of evidence at a syntactic, interpretational and phonological level that points towards the exact opposite conclusion.

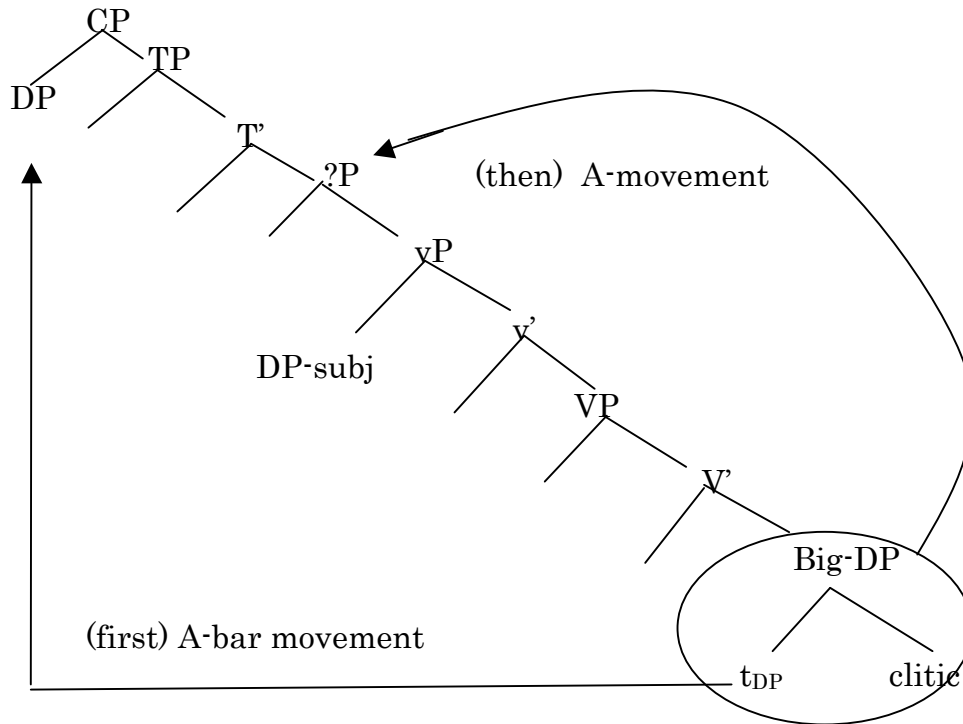
2.4.3 Movement Analyses

Unlike base-generation accounts, movement analyses advocate that CLLD is virtually due to A-bar movement along the lines of Wh-movement and Focus-movement associated however to a process lower in the derivation in the form of CD. Thus, the differences between these accounts and the analysis I have been sketching out differ only on how CD is implemented, and as such, I refer the reader to Chapter 3 where several problems such analyses face are discussed. Therefore, in what follows I will just limit the discussion in presenting and commenting the predictions that Cecchetto’s (2000) account on CLLD makes as being very close to the spirit of our implementation of CLLD.

Cecchetto (2000) argues that strong connectivity & reconstruction effects indeed constitute principal evidence against a base-generation analysis (cf. also Cecchetto & Chierchia 1999, Belletti 2004, 2005) of CLLD in Italian. Therefore, he puts forward an analysis according to which CLLD’s quirky nature is due to the fact that it involves both A- and A-bar movement: first he claims that the CLLDed DP and the doubling clitic are both generated in the canonical post-verbal position as a “Big DP” constituent (see Chapter 3) where the clitic is the head of the phrase and the double sits in the specifier position (for a different view cf. Belletti 2000, 2004 and Papangeli 2000 for Greek). After A-bar movement of the DP contained in the Big-DP to the left periphery, the Big-DP itself (containing now only the clitic and the DP trace) A-moves to a position above vP and below TP. Consequently, and with respect to the attested reconstruction effects, after A-bar movement has taken place, the only available position for the fronted DP to reconstruct would be the intermediate

position where the Big DP would have moved; because the latter movement is A-movement, there is no reconstruction for the Big-DP. Schematically this is illustrated below in (4.82):

(4.82.)



The reason that Cecchetto resorts to this kind of analysis where the CLLDed phrase reconstructs only halfway is supposed to be favored by asymmetries like these illustrated in the examples below:

(4.83.) a. *[L'opera prima di [uno scrittore₁]] pro₁ la scrive sempre (volentari)
the work first of a writer it-CL write-3s with-pleasure
 “The first work of a writer he always writes it with pleasure”
 (Cecchetto 2000:96)

b. *?[L'opera prima di [uno scrittore₁]] lui₁ la scrive sempre (volentari)
the work first of a writer he it-CL writes always with-pleasure
 “The first work of a writer he always writes it with pleasure”

(Cecchetto 2000:98)

- c. ?[L' opera prima di [uno scrittore₁]] [TP la scrive sempre [vP lui₁...
the work first of a writer it-CL writes always he
 “The first work of a writer he always writes it himself”

(Cecchetto 2000:97)

According to Cecchetto the ungrammaticality of the utterances in (4.83a&b) above is due to a typical Principle C violation: The CLLDed XP, being A-bar moved, is not interpreted in its surface position but in a position lower in the tree from where the referential expression is c-commanded by a co-indexed pronominal (overt or pro) subject. Nonetheless, in the existence of utterances like the one in (4.83c) where Principle C effects do not arise, he argues that the reconstruction site of CLLDed DPs is not the thematic post-verbal object position, but rather a position between TP and [Spec,vP], that is a position higher than the position that post-verbal subjects like the one in (4.83c) occupy in Italian, namely, the intermediate A-position where the Big DP containing the clitic and the DP trace moves.

Nonetheless, even if we assume that Cecchetto's analysis is on the right track, crucially—and in line with what I have argued in Chapter 3—the analysis cannot be retained as the configuration behind CLLD in Greek.

To begin with, Greek, unlike Italian, is a VSO language; what this means is that postverbal subjects in Greek can freely occur post-verbally at [Spec,vP] even when the subject is not meant as focus (see 4.84; for subject inversion as focus strategy in Italian see Belletti 2001 among others). This is shown in (4.84):

- (4.84.) sinandise o Kostas tin aðerfi tu (VSO)
met the Kostas-nom the sister-acc his
 “Kostas met his sister”

Now, in this light, consider the following three sentences which are similar to Cecchetto’s examples above in (4.83):

- (4.85.) a. *tin aðerfi [tu filu mu]₁ tin sinandise pro₁ sto parko
the sister of-the friend mine her-CL met he at-the park
 “My friend’s sister, he met her at the park”
- b. *tin aðerfi [tu filu mu]₁ tin sinandise aftos₁ sto parko
the sister of-the friend mine her-CL met he at-the park
 “My friend’s sister, he met her at the park”
- c. ??tin aðerfi [tu filu mu]₁ tin sinandise sto parko aftos₁
the sister of-the friend mine her-CL met at-the park he
 “My friend’s sister, he met her at the park himself”

Not surprisingly for the line of argumentation I follow, both (a) and (b) above are virtually ungrammatical in Greek, an indication that the dislocated category reconstructs all the way down to its thematic position from where the pronominal subject (either *pro* or a full pronoun) c-commands the referential expression in the object, giving rise to the expected Principle C effects. Note also that (c) where the post-verbal pronominal subject “*aftos*” occupies a stressed position (i.e. nuclear stress) and, thus, is interpreted as focus, is perceived slightly better. All in all, what this means regarding Cecchetto’s data from Italian is that the alleged asymmetry of the (c) examples in (4.83) and (4.85) above can solely be due to the altered semantics of the pronominal ‘*lui/aftos*’ and not due to pure syntactic asymmetries: in focus the pronoun is

interpreted deictically/emphatically rather than anaphorically or as a mere subject pronoun.

Moreover, if Cecchetto is correct—as I believe he is—in that reconstruction constitutes strong evidence favouring a movement analysis—then cases like the one below in (4.86) involving anaphoric binding further support the idea that at least in Greek there is no intermediate reconstruction, but rather the CLLDed phrase reconstructs all the way down to its thematic position:

- (4.86.) [tin kali plevra tu eaftu tu₁]₂ ðen tin exi diksi o Aris se kanenan
the good side of-the self his not it-CL has shown the Ares to nobody
 “The good site of himself Ares hasn’t shown to anybody yet”

Sentences like the one above strengthen the idea that the CLLDed phrase should reconstruct all the way down to its base position. Cecchetto who observes a similar behaviour with data from Italian undermining his analysis, proposes that this short-coming is only apparent: Following Giorgi & Longobardi (1991) he assumes that such phrases contain an implicit PRO subject and that it is this internal category that actually binds the anaphor regardless of the occurrence of reconstruction. However, even if that was the case, the grammaticality of sentences like the one in (4.87) could not be accounted for: to the best of my knowledge there is no analysis suggesting that the dislocated anaphor contains a PRO⁹²:

⁹² Note here that such dislocations are actually ungrammatical in Italian:

- (i) *se stesso Gianni crede di averlo favorito
himself Gianni thinks of having him-CL favoured

As Cecchetto (2000, ft:9) points out the ungrammaticality does not have to be ascribed to a Principle A violation, but could be attributed to a mismatch in nominal features between the clitic which is [-anaphor, +pronominal] and the dislocated phrase which is [+anaphor, -pronominal].

- (4.87.) [ton eaf̥to tu]₁, ðen ton frondizi o Aris₁ kaθolu
the self his not him-CL looks-after the Ares at all
 “Ares does not look after himself at all”

Similarly, even variable binding becomes problematic in an intermediate reconstruction analysis, unless we resort to some kind of QR operation that raises the subject above the CLLDed category:

- (4.88.) to misθo tu₁ θa ton pari kaθe eryatis₁ apo tin trapeza
the wage his will it-CL take every worker from the bank
 “His wage, every worker will take it from the bank”

Finally, Cecchetto’s analysis cannot be retained for an extra independent reason: As I have shown in Chapter 3 it cannot account for certain word orders in Greek: Given that Cecchetto’s analysis is assumed to unify CLLD and CD (despite the fact that CD is assumed not to surface in Italian for independent reasons) that means that CD in Greek would involve A-movement of the Big-DP to a position above vP and below TP; then the clitic would have to somehow cliticize onto the verb. However, if this would be the case, clVSO orders, that is, orders where doubled objects still occur lower than the subject at [Spec.vP] would remain unaccounted for.

3. (Non-Focal) Left Dislocation

Recall from the discussion in early sections in this Chapter that for decades Greek was considered as a language of the Italian type in that bare (i.e. cliticless) non-focal LD dislocation of objects in the left periphery was considered ungrammatical. However, several researchers in the last decade (cf. Alexopoulou & Kolliakou 2002, Roussou & Tsimpli 2006, Gryllia 2009) have

pointed out that the situation is not that absolute and that Greek also displays bare Left Dislocation of the English type (4.89):

(4.89.) Maria, John loves

However, none of these analyses has attempted a thorough description of the syntactic properties of the construction. In what follows, I will show that—rather expectedly—LD is due to mere A-bar movement to the CP domain, but I will postpone the discussion of its rather limited distribution until Chapter 6 where the syntax-C/I interface will be discussed.

To begin with, let me first illustrate the construction. LD is shown in (4.90) below:

- (4.90.) a. ton proθipuryo θa sinodefsi o ipuryos Aminas
 the prime minister.acc will accompany the minister-of-defence-nom
 ‘The prime-minster, the minister of Defence will accompany’
- b. ti Maria filise o Aris
 the Maria.acc kissed the Ares.nom
 ‘Maria, Aris kissed’

When it comes to the locality of movement (4.91), strong (4.92) and weak (4.93) islands, LD shows typical A-bar properties

- (4.91.) ti Maria mas ipe o Kostas oti pije t sto spiti tis o Ares
 the Maria.acc to-us said the Kostas.nom brought to-the home the Ares
 ‘Maria, Kostas said to us that Ares brought her to her house’

- (4.92.) a. *tin erotisi ynorisame [ton andra [pu ekane]]
 the question met-1pl the man that made-3s

“The question we met the man who made”

- b. *to vivlio elisa tis askisis [afu diavasa olo]
the book solved-1s the exercises after read-1s all

“The book, I solved the exercises after I read all”

- (4.93.) a. ti Maria xarika [pu telika sinoðepses esi]
the Maria.acc felt.happy-1s that finally escorted you.nom

‘I felt content that it was you who escorted Maria after all’

- b. ton xtesino ayona [ðen prepi na parakoluθisan ke poli]
the of-yesterday match not must SUBJ watched many

‘The match yesterday not many people must have watched’

What (4.91) illustrates is that LD instantiates a case of unbounded movement a property typical of CLLD and Wh- and Focus-dislocations in Greek. In the same spirit, as far as sensitivity to islands is concerned, LD displays an identical to CLLD relation: LD out of strong islands is impossible (4.92a shows extraction out of a complex DP, while 4.92b shows extraction out of an adjunct clause), while extraction out of weak islands is rather unproblematic (4.93a shows extraction out of a factive island, while 4.93b shows extraction out of a negation island).

Coming now to anaphoric and pronominal binding consider the following cases:

- (4.94.) a. [ton eaftu tu]₁ katiyorise o Aris₁
the self his.acc accused the Ares.nom

‘It was Ares who accused himself’

- b. *simera* [ton eafto tis]₁ θa mas parusiasi i Eleni₁
today the self her.acc will to-us present the Helen.nom
 ‘Today, it’s Helen’s turn to present herself to us’

- (4.95.) a. ??DISKOLA ton Ari₁ ikanopii [o eaftos tu]₁
hardly the Ares satisfies the self his
 ‘Hardly Ares is ever satisfied by his ‘self’

- b. ??DISKOLA enan efivo₁ ikanopii [o eaftos tu]₁
hardly one/a teenager satisfies the self his
 ‘Hardly ever a teenager is satisfied by his ‘self’

- (4.96.) a. ??DISKOLA ikanopii [o eaftos tu]₁ ton Ari₁
hardly satisfies the self his the Ares
 ‘Hardly Ares is ever satisfied by his ‘self’

- b. ??DISKOLA ikanopii [o eaftos tu]₁ enan efivo₁
hardly satisfies the self his one/a teenager
 ‘Hardly ever a teenager is satisfied by his ‘self’

In (4.94) the anaphor objects can occur in the left periphery without the Principle A of Binding being violated, an indication that the dislocated objects reconstruct to their base position from where the referential subject can properly bind the anaphors. As I have already shown in previous sections in this Chapter this reconstruction for binding is characteristic of a whole class of constructions involving A-bar movement. On the contrary, the examples in (4.95) show that the LDED referential objects cannot properly bind the reflexive subjects from an A-bar position, since A-bar movement does not feed binding. Indeed the utterances in (4.96) show that the object cannot bind the reflexive subject even when left in-situ arguably due to lack of c-command.

Similar observations—supporting the A-bar status of LDed objects—can be made on the basis of evidence from variable binding. For instance consider the following cases:

- (4.97.) a. *STO PARKO kaθe kopela_(x) sinandise o pateras tis_(x)
at-the park every girl.acc met the her father .nom
 “It was at the park that each girl was met by her own father”
- b. *STO PARKO sinandise o pateras tis_(x) kaθe kopela_(x)
at-the park met the her father.nom every girl
 “It was at the park that each girl was met by her own father”

As earlier with anaphoric binding, pronouns contained in LDed objects cannot function as variables bound by a quantified postverbal subject, another indication that the LDed object occurs in A-bar position, since binding cannot be fed (4.97). Moreover, the situation is revealing with WCO effects: as expected, LD gives rise to WCO as it happens with focus and wh-dislocations. This is illustrated below in (4.98):

- (4.98.) a. ?* enan aynosto₁ efere sto parti o pateras tu₁ (LD)
a stranger.acc brought to-the party the father his.nom
 “Some stranger was brought to the party by his father”
- b. ?*kapon₁ kiniyai o skilos tu₁ (LD)
someone-acc is-chasing the dog-nom his
 “His dog is chasing someone”

The next piece of evidence in favour of the A-bar status of the dislocated objects in LD comes from the fact that they obligatorily reconstruct for scope, a property typical of A-bar movement. For the sake of the argument, consider the following cases where the LDed phrase fails to take wide scope:

(4.99.) a. mia askisi elise kaθe ipopsifios
some exercise.acc solved every candidate.nom
 ‘Every candidate solved an exercise’

b. enan filo efere kathe pedi
one/a friend.acc brought.3sg every kid.nom
 ‘Every kid brought a friend’

c. duo pedia exi kaθe ikogenia se afto to xorio
two kids.acc has every family in this the village
 ‘Every family in this village has two kids’

In all the examples above where the LDED DPs are indefinites and quantified phrases the only available reading is the one where the universally quantified postverbal subject scopes over the object; in other words, the fronted object obligatorily takes narrow scope, a strong indication that it obligatorily lowers to its base position, a property typical of A-bar movement⁹³.

The last piece of evidence supporting the idea that LD is due to A-bar movement comes from the field of parasitic-gap licensing:

(4.100.) a. kapion ipe o Aris oti efere [gia na dume]
someone.acc said the Ares that brought-3s so that see.1pl

⁹³ Note here that such obligatory narrow scope for fronted objects cannot be due to some kind of obligatory QR of the universally quantified subject at LF since the same subject in the same surface position fail to take wide scope over a fronted object in CLLD, an indication that the utterance’s scopal properties are due to the interpretation of the indefinite/the existence of the clitic:

(i) enan fititi ton eksetase kaθe kaθijitis (obligatorily universal > existential)
one/a student.acc him-CL examined every professor.nom
 ‘One student is such that every professor examined him’

‘Someone Aris said he brought someone so that we see’

- b. *kapiŋ ipe o Aris oti ton efere [gia na dume]
someone.acc said-3s the Ar. that him-CL brought-3s so that see.1pl

‘Someone Aris said he brogth him so that we see’

Unlike CLLD (4.100b)—that as we have seen cannot license p-gaps when the clitic (A-binder) scopes over the p-gap site—it seems that in LD such gaps are licensed, an extra indication favouring the existence of a (non c-commanding) A-bar trace.

4. Summary

In this Chapter I examined the syntactic properties of a range of constructions targeting the preverbal domain, the epicentre of our examination being CLLD and (non-focal) LD. Regarding the former construction, I showed that its mixed syntactic properties can be straightforwardly accounted for by assuming that it involves A-bar movement mediated by an A-step in the form of CD. With respect to this, and in line with what has been shown in the previous Chapter, I showed that CLLD and CD are indeed structurally related. As for LD, I showed that the construction displays mere A-bar movement, and that what minimally differentiates it from CLLD is the absence of that A-step in its syntax.

After having exposed several configurational aspects of word order variation in Greek, in the following two Chapters I shift attention again to information structure and the discourse configurational properties of the language.

Chapter 5

Integrating IS theory into the Grammar

1. Introduction

Recall from the discussion in Chapter 1 that despite the dichotomy between configurational vs. non-configurational or discourse-configurational languages, all languages are discourse configurational to a bigger or lesser extent, since all languages seem to allow syntactic rearrangements for accommodating different kinds of interpretations. As such, a given linguistic object is said to be subject to different IS partitionings, a term which since Halliday (1967) has been used to refer to the linguistic encoding of notions such as focus, topic, old information, new information etc. which are used to describe the information flow within a speech act.

With respect to this, the question that arises is twofold: By what means do languages formally mark these IS-related categories, and how information structure theory can be integrated in the generative grammar? As far as the first question is concerned, we have already seen that word order, phonology and morphology or a combination of these means are used cross-linguistically although languages differ in the extent to which each strategy is used. For instance, foregrounded or focused elements are often only prosodically highlighted as in languages like English:

- (5.1.) A: What did Ares bring to the party?
 B. He brought a VODKA to the party

Hungarian in contrast is a language which is often described as having a designated syntactic position for a specific kind of focus—the identificational focus. This focus type is then possible only in the immediate preverbal position. This is illustrated in (5.2):

- (5.2.) Mari [egy kalapot] nézett ki magának
Mary a hat.ACC picked out herself.DAT
 “It was a hat that Mary picked for herself”

Similarly, topics are also realized in sentence-initial position and form a separate intonational phrase:

- (5.3.) A: What about the book?
 B: The book, I read it

In Romance languages, topics can also be realized at the right periphery of the sentence (5.4):

- (5.4.) Non riesco a darmela da sola, la conferma

not can-1s to give-to-me.CL-it.CL alone the check
 “I cannot make this check on my own”

(from Frascarelli & Hinterhölzl 2007)

Some languages use still other means of topic and focus marking. In Japanese and Korean, for instance, morphology is responsible for signalling the topic and focus status of constituents. In the Japanese example below the particle ‘wa’ functions as topic marker and the particle ‘ga’ as focus marker⁹⁴:

(5.5.) [Jono hon wa] [John ga] yonda
the book TOP John FOC reads
 “The book JOHN reads”

As far as the question concerning the integration of the IS theory into the core grammar, the answer is far more multidimensional and complicated. There are many different ways to combine IS-related notions and grammar. In multi-level models of grammar, such as Lexical Functional Grammar, IS can easily be integrated as a separate level. This level is then matched with other levels like argument structure and phonological structure. Erteschik-Shir (2007) compactly sketches the various models of grammar and how they could incorporate IS. Within the recent generative research on information structure, meaning and form, three central approaches can be identified: (a) the syntactic-o-centric ‘formal’ approach; (b) the phonological or prosody-based accounts, and (c) the interpretive accounts. In what follows I will provide an overview of some of these theories. In Chapter 6 I will argue that none of these theories—as they currently stand—can fully account for word order permutations in Greek, and a new approach of information packaging will be proposed.

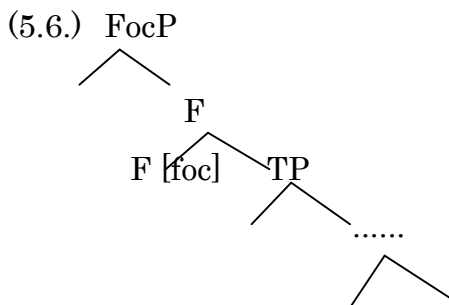
⁹⁴ Note here that there is no unanimity on whether these particles truly mark discourse functions. For more details I refer the reader to Kuroda (1972, 1992, 2005) and Vermeulen (2007, 2008).

2. The Formal view

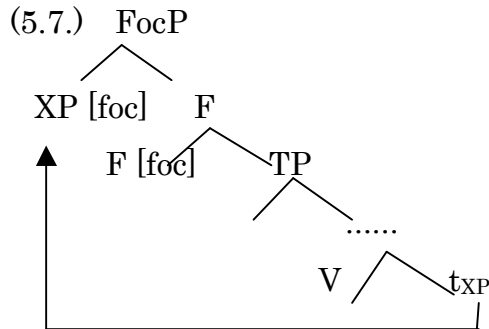
2.1 The Cartographic model

The so-called Cartographic model traces its genesis back to the seminal work of Rizzi (1997) (see also Ouhala 1994, Brody 1990, 1995). In this model a certain interpretation is realized as a projection in the left periphery of the sentence, the extended CP domain. Rizzi proposed two topic projections (TopP) and a focus projection (FocP), but later works have proposed even more fine-grained distinctions and projections related to pragmatic interpretation (cf. Belletti 2004, 2005, Frascarelli 2004, Beninca & Poletto 2004, Kiss 2008 among many others). In this way, an explicit map is formed of the projections in the left periphery of the clause. The idea is that an element only receives an interpretation when it is in the ‘correct’ position, that is, when it has checked the features of the relevant head and moved to the specifier of that position.

For example, a focused element can only receive this focus interpretation when some non-interpretable focus feature of the Focus head is checked and the focused element has moved to the specifier of FocP. This implies that lexical items do not only have phi-features such as person and number, but can also receive an extra feature such as [foc] for focus or [top] for topic readings. The head of the TopP or FocP has a non-interpretable feature [foc] or [top] and then probes down to find an item with matching features. The features are checked and the goal moves to its surface position:



V XP [foc]



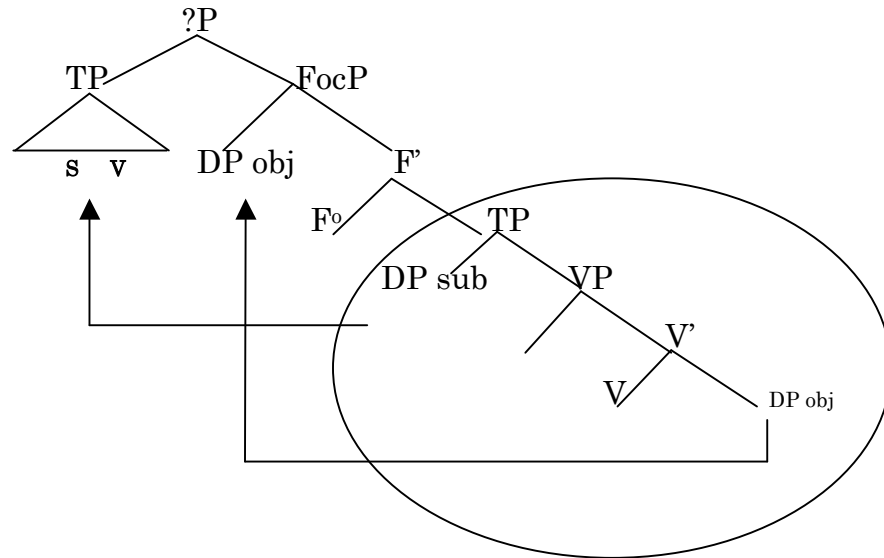
A major characteristic of the cartographic approaches is that they heavily exploit a remarkable feature of the syntactic analysis of the 90s, that is ‘remnant movement’, that is, internal merge of a constituent containing a trace (see Kayne 1998, 1999, Nilsen 2003). The cartographic trend found a useful tool in remnant movement because it allowed them to relocate larger chunks in order to derive the cartographic tree hypothesis. In order to see how this works, consider the following case which involves a SVO order where the object is interpreted as a focus:

(5.8.) A: John ate a pear

B: No, he didn’t; he ate an APPLE after all

Now, given that the DP ‘an apple’ is interpreted as a contrastive-corrective focus, for the cartographic trend the DP apple has already moved to [SpecFocP] where this particular interpretation is licensed, while the TP containing the subject, the verb and the trace of the object, has also performed movement to a position above the FocusP. The idea is shown in (5.9) below (simplified):

(5.9.)



Despite the fact that this analysis has been extensively applied to the syntax and IS in many European (mainly) languages, there are however some problematic aspects that make this model less attractive (for a comprehensive overview of the arguments against feature based approaches see Neeleman & Reinhart 1998, Neeleman & Szendrői 2004, Szendrői 2001, Reinhart 2006 among others)

First, adding features to lexical elements after these have been retrieved from the lexicon violates Chomsky's 'Inclusiveness Principle' according to which all the features in the syntactic derivation must be derivable from its lexical units:

'A perfect language should meet the criterion of Inclusiveness: any structure formed by the computation {...} is constituted of elements already present in the lexical items selected for N [numeration]; no

new objects are added in the course of the computation apart from rearrangements of lexical properties' (Chomsky 1995:228)

Unlike φ -features which are inherited properties of each lexical item, a focus or a topic or any other discourse-related feature is not always a property of the lexical item. These features have to be added after a lexical item has been retrieved from the lexicon, and the information added by the features is thus not linked to a lexical entry.

A second weakness of the Cartographic approach is related to the fundamental interpretational problem of discourse features, namely that notions such as 'topic' and 'focus' are relational (see Jackendoff 1972, Lambrecht 1994, Slioussar 2007), but a feature on a syntactic element is not. If a constituent is focused, then the rest of the utterance is backgrounded, and in the same way a constituent is never a topic by itself but always a 'topic of' a proposition. Topic and focus encode the information structure of two parts in a sentence relative to each other. It will thus always be problematic to label a syntactic element 'topic' depending on the checking of a feature but independent of the rest of the sentence or context. The relational nature of topic and focus is easier to implement in a linguistic theory if these or similar notions are understood as relational notions rather than strict syntactic features.

Another problematic point for such analyses is that at least the notion 'focus' is not restricted to lexical items, but can well be related to smaller pieces of information, such as morphemes, or to larger chunks (phrases, sentences). For instance in the example below in (5.10) from Greek, the focus interpretation affects only some portion of the verb, namely the agreement affix:

(5.10.) A: θa pao
 will go-1s

“I will go”

B: θa pa-ME
 will go-1pl
 “WE will go”

In the same spirit in (5.11), while focus is signaled through stress prominence only on the subject DP, the focus interpretation affects the entire TP:

- (5.11.) A: What’s this noise?
 B: [Pernai ap’ ekso ena TRENO]
Pass-3sg from outside a train
 “A train is passing by outside”

With respect to this last observation, Neeleman & Szendrői (2004:149) introduce so-called ‘superman sentences’ or ‘nested focus’ constructions. Their crucial example is given in (5.12) below. They invite the reader to imagine that a father comes home from work and finds the mother in obvious distress. Then the following conversation takes place:

- (5.12.) Father: What happened?
 Mother: When I came home, rather than doing his homework
 [IP Johnny was [VP reading [DP SUPERMAN] to some kid]]

Neeleman and Szendrői argue that the mother’s reply above contains a contrastive focus inside an all-focus sentence. The VP [reading Superman to some kid] is contrasted with [doing his homework], while the DP [Superman] implies the contrast with ‘decent books’. At the same time, the utterance has

the IP focus because it is a felicitous answer to the father's question. Nested foci are problematic for cartographic theories.

3. Prosodic Models

As we have seen, most grammar models consist of the same three indispensable components: the computational system, and the two interfaces, namely PF (namely with the sensory-motor apparatus) and LF (with the conceptual-intentional systems). In the standard generative model, the computational system is the minimalist syntax, which includes a bare minimum of absolutely necessary operations. Prosody belongs to the PF interface where syntactic structures receive a phonological interpretation. Hence there is no prosodic encoding in this model. As Slioussar (2007:68) puts it: "The PF interface is like a CD player that is designed to convert the information on the disk into music according to a fixed algorithm. Thus, prosodic structures can be part of a very complex conversion process, but essentially, they are derivative, 'read off' from the syntactic structure".

The correctness of this view is disputed though because some IS notions which have overt reflections on the grammar appear to be encoded by prosodic means. For instance, focus is by-and-large associated with the main stress of the sentence, topic with a special intonation contour (e.g. the so-called 'A-accent' in English contrastive topics etc), and givenness is usually marked by absence of stress etc. Feature based IS theories provide a way to implement it: Every feature contains instructions for pronunciation. F(oc), Top, Ground and other IS features can have prosodic instructions.

Reinhart (1995) introduces the so-called 'interface strategies' linking directly the computational system and the PF. In what follows I will present two major

configurational models of this type, namely, Neeleman & Reinhart (1998) and Szendrői (2001).

3.1 Neeleman & Reinhart (1998)

The theory of Neeleman & Reinhart (1998) deals by-and-large with focus. In this frame, the notion of ‘focus set’ is central. Reinhart (2006:139) defines focus set as follows: “The focus set of a derivation D includes all and only the constituents that contain the main stress of D”. The actual focus of the sentence is chosen from this set at the discourse interface. For example, an SVO English sentence with a default stress pattern (stress assigned on the object) has as focus set {IP, VP, DP} and the actual focus of the sentence is chosen from that set according to the context the sentence shows up in. This is shown in (5.13) below, where focused constituents are embraced into square brackets:

(5.13.) a. A: What’s this noise?

B: [_{FOC} My neighbour is building a DESK]

b. A: What’s your neighbour doing?

B: My neighbour [_{FOC} is building a DESK]

c. A: What’s your neighbour building?

B: My neighbour is building [_{FOC} a DESK]

(Neeleman & Reinhart 1998:333)

The sentences above have a neutral stress pattern (which for English is roughly assignment of main sentential stress to the rightmost constituent—see Chomsky & Halle 1968 among others). However, the sentential stress can be

relocated and as a result a constituent that initially was not in the focus set can be focused. The stressed subject in (5.14) can serve as an example:

(5.14.) A: Who is building a desk?

B: [_{FOC} My NEIGHBOUR] is building a desk

According to the researchers what is perceived as stress shift in (5.14) is actually the result of two distinct prosodic operations: stress strengthening and destressing.⁹⁵ The former adds stress to an element that otherwise does not bear (main) stress. As a result, it is not in the focus set of the sentence. The latter removes stress from an element that bears main stress. At the interface, this operation is associated with ‘D-Linking’. A DP is de-stressed if and only if it is D-linked to an accessible discourse entity. That the two notions are distinct is illustrated by the following examples, where only destressing takes place but not stress strengthening in the first case—pronouns are typically used anaphorically, so their marked pronunciation is de-stressed, while in the second case there is stress strengthening but not anaphoric destressing since the DP ‘cars’ bears secondary stress (which is the original main stress):

(5.15.) a. Max SAW her

b. Only MAX can afford buying CARS

Crucially for the theory, stress strengthening is consistently treated as an uneconomical operation. Such operations cannot be used unless it is the only way to satisfy an interface condition. Thus, stress strengthening can be applied only if it gives rise to new interpretation at the interface i.e. derives foci not already in the focus set. Consider the sentence in (5.15b). According to the rule above, its focus set is {IP, DP}. However, the IP focus set is excluded because it

⁹⁵ Neeleman & Reinhart (1998) assumed that destressing applies before the application of default stress assignment. Reinhart (2006) treats destressing as a local operation, while application of NSR applies ‘globally’ (to the whole sentence), so no precedence relation needs to be postulated.

was available without stress strengthening. As a result (5.15b) is inappropriate in the context of (5.16) but not of (5.17):

(5.16.) What's the situation?

(5.17.) Who can afford buying cars?

Several authors (cf. Zubizarreta 1998) introduce the notion of 'marked stress', which is intrinsically different from the one assigned by NSR, and associate it with a special type of focus (so called emphatic or contrastive focus that does not project). Reinhart (1995, 2006) argues that stresses and foci are the same (see also Haidou 2006). Markedness (and its effects such as lack of focus projection) should be defined through the presence of an uneconomical operation. The operation of destressing is also optional, but it is not assumed to trigger reference set computation. Therefore, destressing does not affect focus.

Neeleman & Reinhart (1998) use their IS theory to analyze Dutch object shift, a variety of scrambling found in several Germanic languages. In Dutch, objects can be freely separated from the verb by adverbial material as in (5.18):

(5.18.) a. ...dat Jan langzaam het BOEK las (SAdvOV)

that Jan slowly the book reads

b. ...dat Jan het book langzaam LAS (SOAdvV)

(Neeleman & Reinhart 1998)

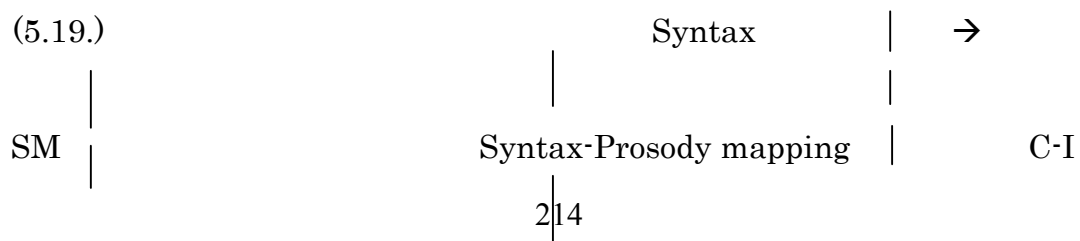
According to Neeleman & Reinhart, the scrambled object in (5.18b) is interpreted as D-linked. Usually only definite DPs can scramble. Scrambled indefinites are either generic or specific. The rule stated earlier associated D-linkedness with destressing and indeed the object bears main stress in (5.18a) but not in (5.18b). Before discussing the stress pattern in the scrambled utterance, let me analyse it in the unscrambled one. It is well known that both

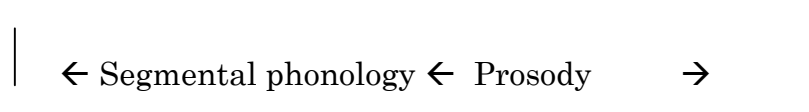
in VO and OV languages the neutral main stress goes to the object. Initially, this pattern was accounted for by a parameter, but Cinque (1993) suggested a more elegant explanation: the main stress goes to the most embedded constituent in both types of languages. The depth of embedding in the case of sisters is determined by the direction of selection (i.e. by the right-branching or left-branching structure of the language). Neeleman and Reinhart’s model allows for right-branching structures, so they use it to explain the stress pattern in (5.18a) and in (5.18b). In the former case, the object is the most embedded constituent, so it receives the main stress. In the latter case, the adverb is an adjunct so the verb receives the main stress. Thus, scrambling is associated with destressing, which results in D-linkedness.

Neeleman & Reinhart (1998:309) believe that in this case different word orders are base-generated and the choice between them is ‘made [...] at the PF interface’.. They argue that base-generation is possible because adverbs are adjuncts, which do not alter the label and do not change the theta-grid of the verb. Consequently, since order does not play a role in the computational system and is imposed by PF procedures the object can be merged to the verb before and after the adverb. Given that Neeleman & Reinhart include prosody in their model through interface strategies, base-generation is a more advantageous option for them than syntactic movement.

3.2 Szendrői (2001)

Szendrői (2001) develops Reinhart & Neeleman’s theory to propose a crosslinguistic focus typology. The architecture of the grammar in her model differs from theirs.





(Szendrői 2001:26)

Szendrői assumes that the grammar has (at least) two independently built representations, a prosodic and a syntactic one. The prosodic level is connected to the syntactic one by mapping principles. At the prosodic level, the phonological features of the lexical items are grouped into prosodic words, then into phonological phrases and finally into an intonational phrase. The model is representational: 'both syntax and prosody are taken to be single representations, rather than series of representations connected by a derivation (2001:26).

Szendrői believes that IS notions are in general encoded prosodically and introduces the pragmatics-prosody correspondence hypothesis:

“Thus it seems that many pragmatic notions that relate to the information status of a given element (such as topic, focus, discourse-linked) share the property of being marked by prosodic phonological means. Let me formulate this generalization as a hypothetical universal. The prosody of an element partially (or fully) determines the information status of the element in the discourse.”

(Szendrői 2001:124)

Szendrői adopts Neeleman & Reinhart's (1998) definition of focus set and their generalization about D-linkedness. If a constituent that initially was not in the focus set needs to be focused, three strategies are available. The first strategy is prosodic: the main stress can be relocated on this constituent, as in Neeleman and Reinhart's model. The second one is syntactic: syntactic movement can be used to put this constituent in the position where the main stress will be assigned to it by the default stress rule (NSR). The third strategy

is neither prosodic nor syntactic, and it is named ‘misaligned mapping’. In the unmarked case the right edge of the Intonational Phrase is aligned with the right edge of the clause (that is the right edge of the rightmost phonological phrase). However, it can be aligned with the right edge of a non-final phonological phrase. In this case, the second phonological phrase would be the last one included in the IntP, while the final phonological phrase would remain free, that is, not integrated in the intonational phrase. The free phonological phrase becomes extrametrical and consequently receives no stress, so the main stress would go to the final word in the last phonological phrase included within IntP) The same three strategies are available for independent anaphoric destressing: prosodic destressing, syntactic movement out of the position where the main stress is assigned by the NSP and misaligned mapping.

The essence of the typology is that different strategies are used in different languages. Szendrői relies on Optimality theory and regards all operations involved as optional and subject to economy. She introduces a system of constraints, PROSODY, SYNTAX and MAP (to be precise these are groups of constraints but for the sake of brevity I cannot go into details here; the reader is referred to Szendrői 2001). Each optional operation violates one of these constraints (prosodic stress shift and destressing violate PROSODY etc. Constraints are ranked differently in different languages, which derive the crosslinguistic diversity in encoding focus and D-linkedness. In English it is more economical to violate PROSODY than MAP or SYNTAX. So English uses prosodic strengthening and destressing to encode focus and D-linkedness. In languages like Italian MAP is violated most easily, SYNTAX comes next and prosody is the last. This constraint ranking is used to account for the complex system of focus encoding in Italian (it has sentence initial, sentence medial and sentence final foci) and for its encoding of D-linkedness. In brief, Italian resorts to misaligned mapping or to syntactic movement, but never uses stress shift and destressing.

The two other important constraints (that are part of the PROSODY in her system) are RAS and LAS. LAS (=left-align stress) requires to mark the leftmost phonological work in a phonological phrase by phrasal stress and the leftmost phonological phrase in the intonational phrase by main stress. On the contrary, RAS requires the stress to be right-aligned. LAS is more easily violated than RAS in English and Italian, so the stress is right-peripheral there. In Hungarian the situation is the opposite, so the stress is left-peripheral (sentences start with extrametrical topics or directly with the focus).

The main difference between Szendrői's (2001) model and the model of Neeleman & Reinhart (1998) has to do with the place of the prosody in the grammar. In brief, prosodic encoding is impossible in the canonical generative model. The only option to introduce prosody in the theory is by means of interface strategies, as Reinhart and Neeleman do. Let's see how this is supposed to work: Evidently, all sentences have a main stress. At the SM interface the NSR ascribes it to the syntactic structure. Although the position of the stress is predictable (default prosody is considered so far), it is independent from syntax in the following sense. There are no instructions in syntax to generate the stress (it is generated as part of the phonological interpretation that makes the sentence pronounceable). The systems of use capitalize on this independently defined property of sentences in the following way. An interface strategy is stated according to which a given sentence can be felicitously used in any context where the intended focus of this sentence corresponds to a constituent containing the main stress. Thus focus is not encoded in the grammar (there is no prosodic encoding in the model). Rather, the interface strategy allows us to use certain structures in some contexts but not in others. If and only if the intended focus of the sentence does not correspond to any constituents containing the main stress, it is possible to shift the stress. Szendrői's IS model (2001) on the other hand is based on two independent structural representations, two different trees that are visible at

the C-I interface (note here that Neeleman & Reinhart do not explain how the C-I systems interface with stress assignment and stress shift operations), while the SM interface works with the linear string of sounds, derived from the prosodic representation by the phonological and phonetic module(s). Crucially, the syntactic and prosodic representations are built independently in Szendrői's model. Analyzing a system with two independent structures (with a reference to Jackendoff 1997), Reinhart (2006) terms it 'the least user-friendly' because each sentence requires processing two independent derivations and computing their links.

4. Interpretive Models

The main characteristic of these models is that they dispense with the use of special features, while they seek to account for discourse-induced word order alternations through mapping principles between the syntax and the information structure, which is not rarely treated as an independent level of representation with its own internal organization and structure. In what follows I will sketch two recent models of this sort, namely Neeleman & van de Koot's (2007) templatic model and Slioussar's (2007) relational model.

4.1 Neeleman & van de Koot's (2007) Templatic Model

Neeleman & van de Koot's (2007, 2008) main working hypothesis is to show that discourse functions such as topic, focus and discourse-givenness show much more flexible distributional properties than Cartography implies, and on the other hand, that cartographic accounts cannot (at least in a straightforward manner) account for restrictions that arise when topics and foci co-occur in an utterance. The language they apply their working hypothesis on is mainly Dutch. In a nutshell the main idea is that notions like topic, focus, D-linkedness are building blocks of an independent level of

representation, part of the Conceptual-Intentional interface. Possible word order rearrangements happen on the Syntax-CI interface, as a strategy that allows a transparent mapping on syntactic and information structural blocks. Let me explain what this means, first with focus and then with topic.

As far as focus is concerned⁹⁶, the idea is that it is associated with a background that identifies the set against which the focus is evaluated (see also Rooth 1992, Büring 1997, 2000) and that this background is not necessarily a syntactic constituent, but may be composed of different constituents. This is the case in the example below:

(5.20.) Mary bought a RED hat

In the same vein, a topic⁹⁷ is often assumed to be associated with a comment, and like a background, a comment is also not necessarily a syntactic constituent, but may be composed of different constituents. An example is given below, where the comment of the topic (doubly underlined) is ‘ λx . (he have x to Susan)’:

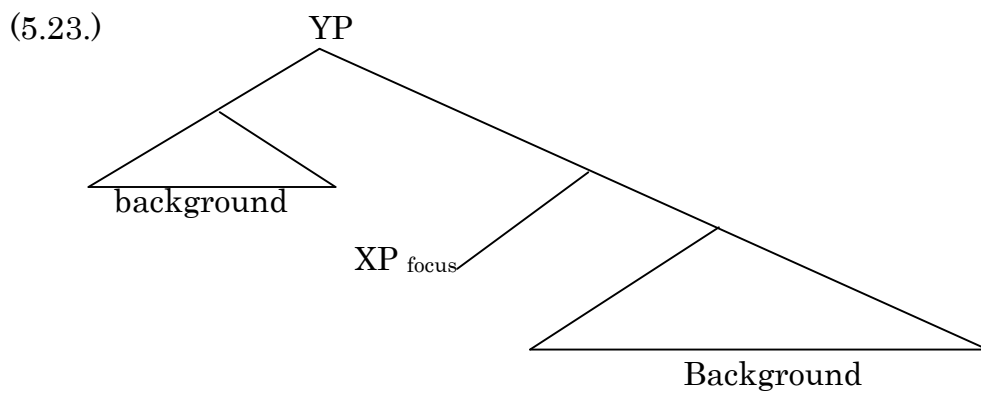
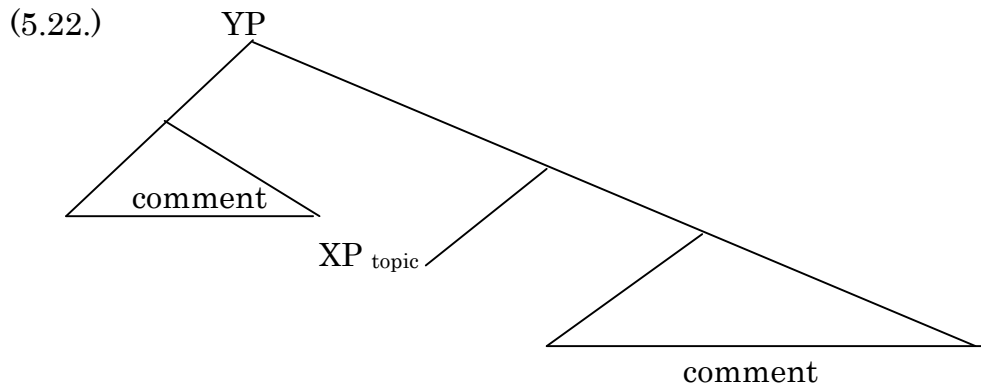
(5.21.) A: Do you know who John gave the book to?

B: I’m not sure, but he gave the record to Susan

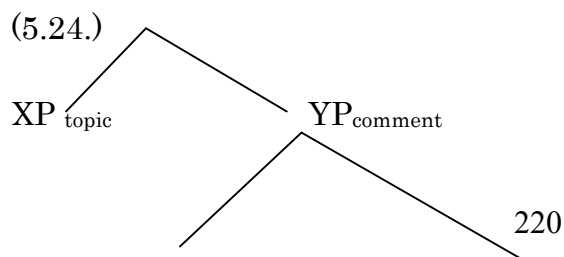
The representations in (5.22) and (5.23) illustrate this idea of discontinuity for focus and topic functions respectively:

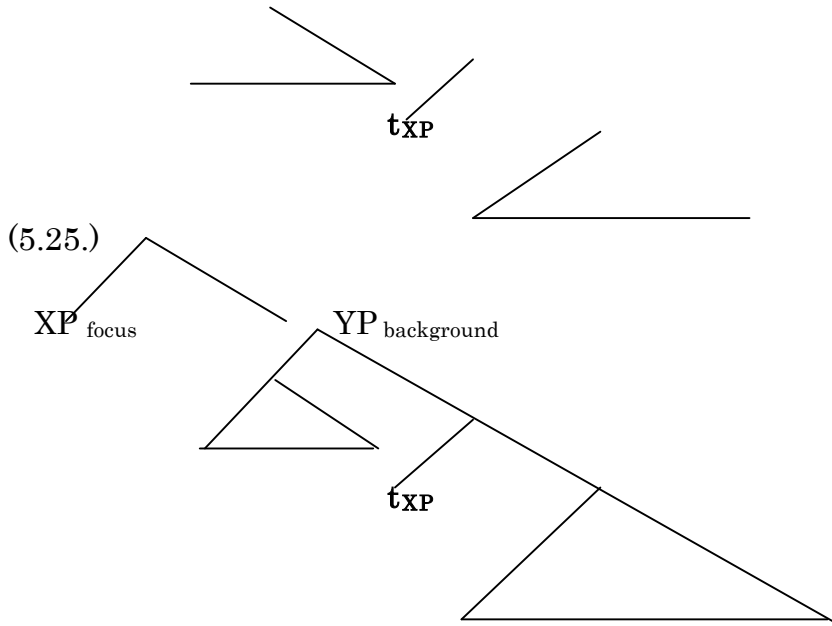
⁹⁶ Note that they reserve the notion focus for contrastive focus (only JOHN) and scalar focus (even JOHN); what unites these two types of focus is that they both involve selection from a contextually defined set of alternatives. In the case of contrastive focus, a subset is selected, often to the exclusion of other members of the original set. In the case of scalar focus, the set of alternatives is organized as an ordered set whose members vary in the degree to which some property is expected to hold or not)

⁹⁷ Similarly, they reserve the notion ‘topic’ for syntactic constituents that introduce a new discourse topic, narrow down the current discourse topic or maintain it by re-introducing it (this is Büring’s (1997) S-Topic). They thus exclude constituents that are simply discourse anaphoric. As they note, these constituents often refer to the current discourse topic but they cannot normally introduce a new discourse topic.



With respect to that, Neeleman & van de Koot argue that movement of topics and foci do not mark the discourse functions of these elements, but rather their comments and backgrounds. In other words, what movement of topic and focus achieve is to turn otherwise discontinuous comments or backgrounds into constituents, rather than to license their interpretation as ‘topic’ and ‘focus’. This is shown below in (5.24) and (5.25):





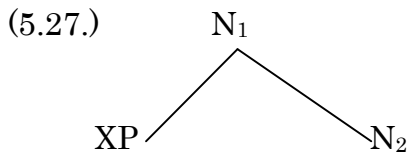
Thus, topic and focus movement will have a trigger if they match the structural description of one of the mapping rules in (5.26):⁹⁸

(5.26.) a. COMMENT MAPPING RULE

If XP in (5.27) is interpreted as topic, then interpret N_2 as comment

b. BACKGROUND MAPPING RULE

If XP in (5.27) is interpreted as focus, then interpret N_2 as background.



⁹⁸ As Neeleman & van de Koot (2007) note (ft.2) ‘the mapping rule that drives topic movement relies on the existence of comments. If Vallduvi (1992) and others are correct in rejecting this notion, then an alternative formation of the mapping rule is required, presumably one that links topic marking to movement across a focus or out of the background of a focus. The choice is an empirical one and our initial survey of the data suggests that the mapping rule as it stands IS preferable’.

After Neeleman & van de Koot have presented their main working hypothesis, they go into a detailed comparison of this Templatic hypothesis and Cartography, highlighting the predictions their analysis makes and the problems that Cartography encounters. There are three major predictions.

The first prediction has to do with the fact that only contrastive/exhaustive/corrective foci can move, simply because movement does not identify the focused constituent itself but rather its background. Thus, new-information foci cannot move because they lack a background, as it does not involve selection of a subset out of a set of alternatives (in line with Kiss 1998 who shows that new information focus cannot move).

The second prediction of Neeleman & van de Koot's working hypothesis has to do with the optionality of such movement. Given that movement is not triggered by topic and focus-related reasons, but rather for them to formally mark a background and a comment, there is nothing in the narrow syntax that would be disobeyed if a focus or a topic remained in-situ.

A third set of predictions follows from the interaction of the mapping rules in (5.28) with a restriction on information structure. As has been widely acknowledged, topic-comment structures cannot be embedded in a background, but focus-background structures can be part of a comment. Thus, the information structure in (5.28a) is ruled out, while the information structure in 5.28b) is well-formed (see also Prince 1981, Reinhart 1981, 1995, Vallduvi 1992, Lambrecht 1994, and Hajicova et al. 1998):

- (5.28.) a. Topic [COMMENT FOCUS [BACKGROUND ...]]
 b. *FOCUS [BACKGROUND topic [COMMENT...]]

As Neeleman & van de Koot (2007) point out (5.28a,b) are information structures, and not syntactic configurations, and that given that the mapping between syntax and information structure is often not isomorphic, the ban on the embedding of topic-comment structures in backgrounds will not directly restrict syntactic structure. For instance, it does not follow from (5.28b) that topics cannot be preceded by foci. What the IS representations above mean is that if a constituent has been marked (via movement of the focus) as background, then it cannot contain a topic. On the other hand, when a constituent has been marked as comment (via movement of the topic) the comment may contain a focus. The full range of predictions is then as follows: As long as we are dealing with in-situ topics and foci, their relative order is free. However, things are different when movement comes into play. While a topic can move across a focused constituent (whether in situ or not), a focused constituent cannot move across a topic (whether in situ or not).

Dutch seems to verify their working hypothesis. For instance, in (5.29a) below while a topic-in-situ followed by focus-in-situ strategy is unproblematic, in (5.29b) where the focus has moved over the topic the utterance is infelicitous:

(5.29.) Hoe zit het met FRED? Wat heft HIJ gegeten?

“What about Fred? What did he eat?”

Nou, dat weet ik niet, maar...

“Well, I don’t know, but...”

a. ik geloof dat Wim alleen van de BONEN gegeten heft

I believe that Bill only from the beans eaten has

“I believe that Bill has eaten only from the beans”

b. # ik geloof dat [alleen van de BONEN] Wim t_{DP} gegeten heft

I believe that only from the beans Bill eaten has

(Neeleman & van de Koot 2007:8)

By contrast, an in-situ topic may follow an in-situ focus (5.30a) or move across it (5.30b):

(5.30.) Hoe zit het met de SOEP? Wie heft DIE gegeten?

“What about the soup? Who ate them?”

Nou, dat week ik niet, maar....

“Well, I don’t know but....”

a. ik geloof dat alleen WIM van de bonen gegeten heft

I believe that only Bill from the bins eaten has

b. ik geloof dat [PP van de bonen] alleen WIM_{DP} gegeten heft

I believe that from the beans only Bill eaten has

“I believe that only Bill has eaten from the bins”

(Neeleman & van de Koot 2007)

The other phenomenon that Neeleman & van de Koot (2007) attempt to give an explanation to is Dutch A-scrambling which can affect the way an argument is merged with an adverb. The core of their proposal regarding A-scrambling (either this is due to A-movement or base-generation, cf. Mahajan 1990, Zwart 1993, Neeleman 1994 among others) is similar to their analysis on A-bar scrambling (topic and focus movement): a more costly structure (i.e. a more ‘marked’ option) requires an interpretative license. In the case of A-scrambling that license is typically provided by a mapping rule that interprets scrambled DPs as discourse anaphoric:

(5.31.) DISCOURSE-ANAPHORICITY MAPPING RULE

Interpret a D in a marked position as discourse-anaphoric

As the researchers note (2007:17) “the conceptual basis of the mapping rule lies in two well-known processing advantages associated with early mention of old information. First, the earlier old information occurs in the sentence, the

easier it is to link it to the previous discourse. Second, new information is easier to integrate if the old information that facilitates contextualization has been processed. Since discourse-anaphoric DPs by definition represent old information, it is advantageous to place them in a position where they precede new information. Therefore, the mapping rule in (5.31) could be considered as a grammaticalization of this processing strategy.”

The examples in (5.32) and (5.33) illustrate this (discourse-anaphoricity marked through heavy underlying): In (5.33a) the DP object cannot occur higher than the adverb ‘morgen’ since the DP is meant as new information. In sharp contrast, in (5.32b) scrambling over the adverbial is licensed since the object is meant as new information:

(5.32.) Hoe zit het met je review van dat boek van Haegeman?

“How are you progressing with your review of that book by Haegeman?”

a. #Nou, ik denk dat ik morgen het boek van Haegeman ga lezen.

Well, I think that I tomorrow the book by Haegeman go read

b. Nou, ik denk dat ik het boek van Haegeman morgen ga lezen

Well, I think that I the book by Haegeman tomorrow go read

“Well, I think that I will read Haegeman’s book tomorrow”

(Neeleman & van de Koot 2007:2)

(5.33.) Hoe zit het met de voorbereidingen van je examen?

“How are you progressing with your exam preparations?”

a. #Nou, ik denk dat ik morgen het boek van Haegeman ga lezen

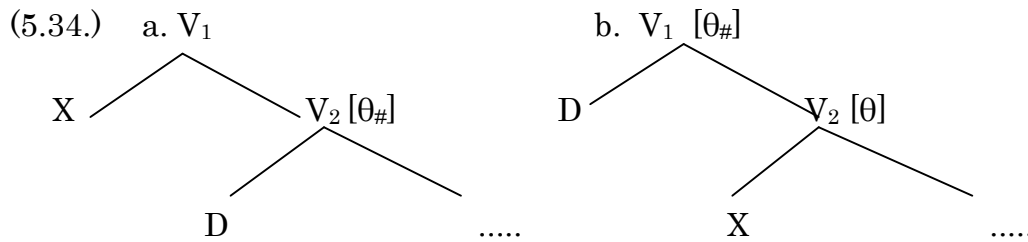
Well, I think that I tomorrow the book by Haegeman go read

“Well, I think that I will read Haegeman’s book tomorrow”

b. Nou, ik denk dat ik het boek van Haegeman morgen ga lezen

Well I think that I the book by Haegeman tomorrow go read

But what counts as a ‘marked’ position? For Neeleman & van de Koot (2007) this is related to theta-role saturation (see also Neeleman & van de Koot 2002). For concreteness, consider the following two schemata:



Given that they opt for a base-generation analysis, markedness has to do with a delayed saturation of a theta-role function ([θ]). Thus, while in (a) the theta-role is saturated low enough (saturation indicated by # mark), in (b) which represents the marked variant (the DP is generated higher than the adverbial X) the theta role function has to be copied one more node up until it meets the node that directly dominates D⁹⁹.

Summarizing the discussion in this section, Neeleman & van de Koot’s (2007) templatic hypothesis’s key is the idea on dissociation of interpretation and position in the tree: the mapping rules for both A- (discourse-anaphoricity) and A-bar scrambling (topic, focus) do not mention specific areas in the clausal hierarchy contrary to what happens with the Cartographic approaches on IS.

⁹⁹ As the researchers note, given that there is no general consensus in the literature about whether Dutch A-scrambling is due to A-movement or flexibility in the base component, markedness in terms of A-movement would mean a longer A-chain for the argument given that the adverb would attach lower.

4.2 Slioussar's (2007) Relational Model

The key idea in Slioussar's model is that the whole representation of a sentence is relevant in the combination of IS and grammar, in the sense that what receives an interpretation is not a particular element with an absolute feature, or a particular position, but rather the configuration that the syntax creates. Slioussar shows that earlier configurational models that were mainly based on prosody, suggesting that the position of the sentence stress influences or even determines word order, are very hard to apply to languages that do not use stress as a primary indication of focus or that do not have stress at all (cf. also van der Wal 2009). In a relational model that does not assume a direct influence of stress or prosody on the derivation, the IS is encoded in the final hierarchical relations between the constituents in a sentence. These relations are interpreted at the interfaces according to universal and language-specific conditions, constraints and/or rules.

According to Slioussar the IS categories that are relevant for the grammar (that is, the notions that languages formally mark) are accessibility and salience (see Chapter 1 for more details). And if these are the notions that the grammar needs, then—she suggests—two other notions frequently used in IS, namely topic and focus, can stay within the realm of pragmatics. The difference between accessibility and salience on the one hand, and topic and focus on the other hand, is that the former are properties or states of individual referents, and the latter are 'pragmatic relations established between these [referents] and the propositions in which they play the role of predicates or arguments' (Lambrecht 1994:49). Referents thus have a certain IS status, and on the basis of that status they can have a topic or focus relation

to the proposition. For example, a referent can be very accessible and may even be the most accessible of all concepts in the sentence. The grammar could encode this accessibility by putting the expression corresponding to that referent in a sentence initial position. The pragmatic relation of this referent to the proposition is then that of ‘topic’.

In a nutshell, in this model each concept has a value on the accessibility scale as well as the salience scale. These values are dependent on discourse representations and they change along with the development of the discourse. The discourse representations determine the status of each concept in the sentence. Whenever a sentence is uttered, the discourse representations are updated, and these new representations form the input for the next sentence. In this way the concepts corresponding to the linguistic elements in a sentence all have a specific value for accessibility and salience. The idea then is that the grammar can encode these values in the order of the linguistic elements, for example. The way syntax organizes these elements with respect to each other (the derivation) should be in accordance with the interface rules, which make reference to both hierarchical syntactic relations and the IS values. The interface rules thus restrict the grammatical derivations and interpretations, and function as a filter to derivations made in the syntax. The interface rule Slioussar (2007) proposes for Russian word order permutations is given below:

(5.35.) SLIOUSSAR’S INTERFACE RULE (RUSSIAN)

If X is (re)merged above Y, the discourse entity corresponding to X is at least as accessible and at most as salient as the one corresponding to Y. If there are no independent reasons to remerge X above Y, the discourse entity corresponding to X is more accessible and less salient than the one corresponding to Y.
(Slioussar 2007:35)

In order to see how her interface configurational model works, Slioussar uses double object constructions in Russian. In the non-scrambled word order SVIODO, the IO is at least as accessible and at most as salient as the DO. If the DO precedes the IO, as in the scrambled word order (SVDOIO), the DO must be more accessible and/or less salient. Since the movement of the DO over the IO is not related to agreement, it must be motivated by the need to obey the interface rule and have an effect on the interpretation (along the lines of Chomsky 2001, 2005, 2006). In (5.36) below the DO ‘bear cub’ is given in the context (provided between the brackets) and hence it is more accessible than the IO ‘the circus’. According to the rule, the element corresponding to the more accessible referent (DO) must precede the element corresponding to the less accessible and more salient referent (IO) which is indeed the case:

(5.36.) (And Umka(bear cub) ended up here by accident)

Sergej.Shojgu podaril medvezhobka cirku
Serjej.Shojgu-nom gave bear.cub.acc circus.dat
 “Sergey Shoygu presented the bear cub to the circus”

(Slioussar 2007: 183)

As Slioussar points out the prosodic account developed by Neeleman & Reinhart (1998) (see also Reinhart 2006) suggests that when the object scrambles (at least in Dutch and in related Germanic languages), it is interpreted as D-linked to an accessible discourse entity. However, in Russian examples (5.37) and (5.38) both indirect and direct objects are new and part of the focus:

(5.37.) a. Many misanthropes really love animals

b. Segodnja moj nachal’nik otdal svoj buterbrod golodnoj sobake!

today my boss-nom gave away his sandwich-acc hungry.dog-dat

“Today my boss gave away his sandwich to a hungry dog!”

(5.38.) A: What are you doing?

B: Pishu pis'mo mame

Write-1s letter.acc mom.dat

“I am writing a letter to my mom”

The result of Slioussar’s account is that notions such as D-anaphoricity, focus and topic (and other related categorical notions) are not seen now as part of the grammatical encoding; rather, they belong to the grammar-pragmatics interface. As far as focus is concerned, she prompts the reader to consider an SVO English sentence with the stress on the object. In Reinhart (1995, 2006), Neeleman & Reinhart (1998) and Szendrői’s (2001) models this and many other constructions are ambiguous with respect to their focus (in this one, the VP or the whole sentence can be focused). This ambiguity is captured by associating a focus set rather than a focus with every structure. The actual focus of the sentence is chosen from this set at the interface. As far as focus is not encoded in the grammar, this is unproblematic. However, if we turn to the grammatical notions, ambiguity is undesirable. As Slioussar suggests, no ambiguity arises with her model: The order of Merge in this ‘SVO’ sentence (reflected in its word order and stress pattern) unambiguously encodes that the object is at least as salient as the verb and the verb is at least as salient as the subject and that the object is at most as accessible as the subject. In a similar way, topic is equally a non-grammatical notion for Slioussar. Topicalisation and (other IS-related merge) is explained by relative accessibility in Slioussar’s model. More accessible and less salient constituents move over less accessible and more salient ones. The often-observed correlation between formally diverse topicalisation and pronominalisation is explained by the fact that pronouns encode highly accessible discourse entities at a lexical selection stage. As for the correlation with subjecthood, external arguments do

not need to go IS-related internal merge (i.e. movement) to be interpreted as the most accessible. She explains this through the assumption that they are on top of the accessibility hierarchy after external merge and agreement-driven internal merge. In that sense she argues that subjects can be seen as ‘default topics’ (see also Lambrecht 1994 on that).

Unlike the previous attempts in the IS literature, IS-related configurations are not due to the prosody but due to the syntax and interface notions. But what’s the role of the prosody? Slioussar comments on that: “to avoid any misunderstandings, let me stress from the very beginning that both components are crucial, not only syntactic structure. It is clearly not the case that a certain syntactic constituent receives a particular prosodic interpretation independently from the length of actual words or that no variation can be induced by the speech rate. The question is whether we need ANY OTHER information except for the lexical items, the syntactic apparatus and the interpretational rules at the phonological interface. Namely do we need any direct IS-related information and configuration which is not encoded in the syntax to derive the word order.” (2007:ft.69) She derives prosodic structure from syntactic structure.

On the technical side of such an approach, Slioussar takes Chomsky’s (2001, 2005, 2006) phase theory as a basis, but departs from it in several ways. One modification is in the ‘right position’ and interpretation of each element. According to Chomsky, the correct interpretation of each element at the interfaces is determined by the final position it reaches. In the cartographic approaches this is the fixed position in the hierarchy, but Slioussar stresses that in her model the correct position for a certain interpretation is the final position relative to other elements and not an absolute one. Although her model does not specifically depend on phase theory, Slioussar uses of its mechanisms for IS-related movement. Recall from the discussion in Chapter 1 and earlier in this Chapter that in order for elements to be moved to the edge

of a phase, all lexical items that enter the computation have an edge feature. Furthermore, the phase-heads v and C also have an EF^{100} . The EFs on the phase-heads are somehow special since they can attract constituents in the clause to their specifiers. Thus there are two kinds of EFs: those that can attract and those that cannot. The most important feature of EFs is that they do not involve feature matching which is why Slioussar's model uses EFs for the 'free' reordering: Any element can move to the specifier of an attracting head with an EF, as long as the interpretation at the interfaces is correct.

Concluding, reordering happens by means of movement, which could be brought about by EFs. IS-related movement and the resulting difference in word order cause interpretational effects, according to the interface rules. Unlike the features in the Cartographic model, the interface rule can encode relative notions. Crucially, the interpretation is not dependent on the position of the elements in the sentence but on the way they show up with respect to each other.

5. Summary

In this Chapter I presented some major analyses dealing with accommodation of IS theory into the minimalist grammar. In what follows in Chapter 6, I will put forward an alternative account of IS that takes into consideration not only pragmatic functions but also more abstract logico-semantic or conceptual schemata.

¹⁰⁰ Note here that Slioussar questions Chomsky's assumption that phase heads are only v^0 and C^0 ; in particular she assumes that at least for Russian VP seems to be a phase too, since objects in Russian can arguably move to some specifier of that projection.

Chapter 6

The Syntax-C/I Interface: IS Revisited

1. Preliminaries & Puzzles

Recall that for non-configurational languages, or in any case for languages whose word order is not as rigid as it is in languages like English, the relevant literature has always adopted the idea that different word orders typically reflect differences in the so-called information packaging, that is, in how information is presented, drawing usually attention to discourse notions (or functions) such as [topic] and [focus]—along the lines of Kiss (1998)—the idea being that word order is a structural means for expressing or accommodating such pragmatic notions (along phonology, most eminently).

In light of this, the question that arises is the following: how would such non-configurational aspects of natural language be accommodated in a strictly configurational model such as the current Generative Grammar? In Chapter 5 I presented a series of formal and non-formal ways of doing so, highlighting

positive and more debatable aspects of each of them. In what follows I would like to concentrate a bit more on some of them and the predictions they make regarding word order variation in Modern Greek.

First, in the so-called Cartographic model that traces its genesis back to the seminal work of Rizzi (1997) (see also Ouhala 1994, Brody 1990, 1995), a certain interpretation is realized as a projection in the left periphery of the sentence, the extended CP domain. Rizzi proposed two topic projections (TopP) and a focus projection (FocP), but later works have proposed even more fine-grained distinctions and projections related to pragmatic interpretation (cf. Belletti 2004, 2005, Frascarelli 2004, Beninca & Poletto 2004, Kiss 2007 among many others). In this way, an explicit map is formed of the projections in the left periphery of the clause.

For example, a focused element can only receive this focus interpretation when some non-interpretable focus feature of the Focus head is checked and the focused element has moved to the specifier of FocP. This implies that lexical items do not only have phi-features such as person and number, but can also receive an extra feature such as [foc] for focus or [top] for topic readings. The head of the TopP or FocP has a non-interpretable feature [foc] or [top] and then probes down to find an item with matching features. The features are checked and the goal moves to its surface position.

Within this formal trend, Chomsky (2005, 2006) proposes that all Merge operations are driven by features he calls ‘Edge Features’ (EFs)¹⁰¹. As such, EFs are claimed to be irreducible primitives of Universal Grammar. Chomsky maintains that EFs belong to the class of uninterpretable features, yet unlike other uninterpretable features, they are undeletable (up to the point of Transfer). Crucially, EFs are said to be present on all nodes/lexical items and must be satisfied at least once during the course of a convergent derivation by

¹⁰¹ Or ‘generalized EPP features.’

way of some variety of Merge. For Chomsky (2005, 2006) while there are two types of merge (i.e. EM & IM), there is only one species of EF. In his 2006 system, the fundamental difference between EM and IM reduces to a difference between phase heads and non-phase heads with regard to EFs. To be precise, EFs on non-phase heads are assumed to drive EM, while EFs on phase heads drive IM. Edge features of phase heads attract material to their specifiers, and the resulting movement is of the A-bar type. Otherwise, movement can only occur if it has interpretational effects, or as Chomsky (2005:7) puts it: “To a large extent, external merge yields generalized agreement structure, while internal merge yields discourse-related properties such as old information and specificity, along with scopal effects.”

The theoretical improvement of this system is that EF of phase-heads which trigger A-bar movement, are indiscriminate, that is, they can attract any goal in their search domain. This is possible because there is no feature matching (‘agreement’) with EFs. As such, the computational system generates syntactic structures freely.

Despite the fact that Chomsky abandons the idea of ‘discourse- related formal features, he still assumes that the final interpretation of the moved element depends on the position it eventually ends up in. In other words, the core idea is that an element only receives an interpretation when it is in the ‘correct’ position, that is, when it has checked the features of the relevant head and moved to the specifier of that position.

Now regarding this, while most word order analyses that rely on the idea of formal features such as those mentioned above have a good degree of descriptive adequacy, they are typically deprived of any explanatory power, especially when it comes to a language like Modern Greek where word order is strikingly flexible. The set of empirical data that follow pinpoints this issue.

To begin with consider the following case:

(6.1.) A: Ask Aris to join you to the party...

a. B: # δ ini [_{TOP} aftos] kati eksetasis simera (#VSO)

gives he some exam today

‘That one is taking some exam today’

b. B: [_{TOP} aftos] δ ini kati eksetasis simera.. (SVO)

he gives some exam today

If an item, say the subject ‘aftos’ in (6.1), interpreted as a topic, or whatsoever pragmatic category, needs to be show up in a distinct position in the derivation, the question that naturally arises is the following: Why should a topic interpretation be licensed through a distinct word order?: VSO above in (6.1a) is an unnatural option when the subject functions as a topic, whereas SVO in (6.1b) is unproblematic. One following a formal view could assume that this is so either because a topic-feature in CP-domain remains unchecked if the subject remains in situ within the vP domain or because the topic element does not reach the ‘right’ position in the left-periphery along the lines of Chomsky. Nonetheless, a closer examination of the data reveals that there is actually nothing ‘inherent’ to a certain position of the clause, undermining this view. Consider for instance the examples below:

(6.2.) A: I can’t give you my car. Why don’t you ask Ares?

B1: [_{TOP} aftos] δ en to δ ini to aftokinito tu me tipota!

he not it-CL give-3s the car his with nothing

‘That one wouldn’t give his car, no matter what...’

B2: to aftokinito tu δ en to δ ini [_{TOP} aftos] me tipota...

the car his not it-CL give-3s he with nothing

(6.3.) A: That municipal police is so overdoing it sometimes...

B: Yeah tell me about it...

B1: [TOP ton patera mu] ton grapsane 10 foRES fetos
the father mine him-CL fined-3pl 10 times this-year
 “My father they fined him 10 times year!”

B2: 10 foRES ton grapsane [TOP ton patera mu] fetos
10 times him-CL fined-3rdpl the father mine this-year

In (6.2) and (6.3) above a topic category (the pronoun ‘he’ in 6.2 and the DP ‘my father’ in (6.3) may appear either preverbally or postverbally without causing any particular problem, an indication that there is actually no structural—at least—limitations to the position that a topic-reading is realized within a clause. Apparently, these generalisations hold for all major discourse functions.

In (6.4) a canonical VSO order is perceived as a rather infelicitous option when the subject functions as [GROUND] and the object as a contrastive/corrective [FOCUS]:

(6.4.) A: Ares drank WHISKEY.

B: apokliete... #ipie [GRD o Aris] [FOC KRASI]! (#VSO)
no way... drank the Ares wine
 “No way! Ares drank WINE”

Nonetheless, this cannot be due to some structural limitation regarding the position where such discourse functions are licensed, since Greek is a language that without doubt allows for both ground information subjects and contrastively focused objects to occur either preverbally or postverbally:

- (6.5) A: It was WHISKEY that Ares drank...
 B: Apokliete! KRASI ipie o Aris (OVS)
no way! wine drank the Ares
 “No way! WINE Ares drank!”

- (6.6) A: It was WHISKEY that Ares drank... (SVO)
 B: Apokliete! o Aris ipie KRASI!
no way! the Ares drank WINE!
 “No way! Ares drank WINE!”

In the same spirit, a VOS order is also perceived as an unnatural option when the object is interpreted as ground and the subject as contrastive/corrective focus.

- (6.7) A: Only Ares drank wine...
 B: kanis laθos; #ipian [GRD krasi] [FOC OLI]! (#VOS)
You are wrong; drank wine all
 “They ALL drank wine!”

Yet again, this cannot be due to some cartographic ban, since Greek is a language that without any doubt allows for contrastively focused subjects and ground information objects to occur postverbally as well as preverbally:

- (6.8) A: Only Ares drank wine...
 B: kanis laθos; [GRD krasi] ipian [FOC OLI]! (OVS)
You are wrong; wine drank all
 “They ALL drank wine!”

- (6.9) A: Only Ares drank wine...
 B: kanis laθos; [FOC OLI] ipian [GRD krasi]! (SVO)
You are wrong; all drank wine

“They ALL drank wine!

What the above observations show is that information packaging or the licensing of discourse functions in Greek is quite flexible, in the sense that a given pragmatic effect/partitioning can be achieved via multiple distinct word orders (cf. also Alexopoulou 1999, Keller & Alexopoulou 2001) and that there are no predetermined specific positions in the left periphery that can exclusively license such interpretations, despite the fact that V-initial orders seem to be unnatural options when both the subject and the object perform such discourse functions (We will come back to this in section 3).

However, this being so, there is another compelling aspect for all IS theories, namely the trigger of such rearrangements in the syntax. The notion of economy underpinning the Minimalist Program implies that movement (or re-merge) cannot apply freely. On current standard assumptions External Merge cannot have a structural or morphological trigger. The only remaining possibility is that it is licensed by having an effect at one of the Interfaces, presumably the one between the syntax and the Conceptual-Intentional one. (or Information Structure if we assume the existence of an independent module responsible for discourse functions). But if a given language configures its syntax (i.e. word order) in a particular way in order for a certain interpretive effect to be licensed, say, for instance, {B,A}, then, what we would normally expect is that this is because the order {A,B} could not express the same information. However, this is problematic at least for a language like Greek. In the light of the empirical data presented earlier it easily becomes evident that discourse functions such as [topic], [focus] or [ground] are licensed both in-situ and ex-situ thus yielding a variety of word orders. This is also true for the so-called ‘broad’ focus. Consider the following set of data:

(6.10.) A: What happened in 1493?

B1: [_{NEW} o Kolomvos anakalipse tin Ameriki] (SVO)
the Columbus discovered the America.
 ‘Columbus discovered America’

B2: [_{NEW} anakalipse o Kolomvos tin Ameriki] (VSO)
discovered the Columbus the America

B3: [_{NEW} anakalipse tin Ameriki o Kolomvos] (VOS)
discovered the America the Columbus

The data above are problematic for analyses that build on the idea that a certain language, configures its word order in order for a certain pragmatic function or category to be licensed: In (6.10) the same interpretive effect, that is, (broad) [FOCUS], is licensed by three distinct word orders, namely, SVO, VSO and VOS respectively, since all three orders can be used in utterances answering all-new information seeking questions.

So, what—eventually—regulates word order in Greek? Or, what aspect of grammar do syntactic rearrangements have an impact on? Moreover, despite that flexibility, why are certain orders ruled out as infelicitous in certain contexts? In the remainder of this Chapter I will try to tackle these questions.

The organization of this Chapter is as follows: In section 2 building on Gécseg & Kiefer (2009) I introduce an alternative view on IS, namely one that does not rely exclusively on the pragmatic articulation of utterances. I also adopt and adapt Neeleman & van de Koot’s (2007, 2008) templatic hypothesis sketched out in the previous Chapter. In section 3 I show in detail how this applies in Greek highlighting some direct advantages. Section 4 extends the discussion.

In section 5 I shift attention to the interpretive effects of clitics in doubling environments, while I also discuss the interpretive discrepancies between CLLD and LD (i.e. non focal fronting; see Chapter 4). Section 6 summarizes the discussion in this Chapter.

2. Syntax & the C/I Interface Articulation

Anticipating the discussion, in what follows I will argue that word order in Greek is by-and-large regulated by a requirement for syntactic structures to correspond to independent articulations residing in the so-called Conceptual/Intentional (C/I) interface that is responsible for reasoning, planning, forming and expressing intentions, perceiving sentences in context, incorporating pragmatic consideration, world knowledge, computing conversational implicatures, etc. along the lines of Chomsky (1993, 1995, 2000), Jackendoff (1997) and Reinhart (2006). The basic idea is formulated below in (6.11):

(6.11.) **Syntax-C/I Correspondence Principle:**

Units of structure are aligned with units of Information Structure.

The core behind the Correspondence Principle in (6.11) is that displacement is the syntax—at least Internal Merge in Chomsky's (2005, 2006) terms— occurs for syntactic structures to be aligned with blocks of Information Structure. At this point, and before going into more detail let me briefly highlight a couple of important assumptions about the concept of Information Structure.

Following Neeleman & van de Koot (2007, 2008) (see Chapter 5) I assume that Information Structure (or the Information Component) is an independent system with its own primitive blocks or units and its own principled structure.

Thus functions such [topic], [focus], [ground] are units or building blocks of that level of representation. Furthermore, such functions are not absolute labels but rather holistic functions or dependencies: a category A is interpreted as a [topic] as long as some other category B is interpreted as a [comment]; and a category C is interpreted as [focus] as long as some other category D is interpreted as a [background]; and similarly, a category E is interpreted as [ground] as long as some other category F is interpreted as [new]. At a C/I interface level, topics precede comments, ground information precedes new information and foci precede backgrounds:

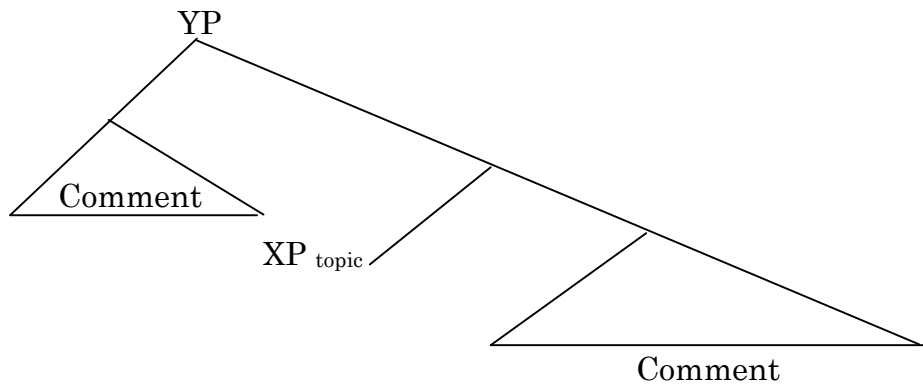
(6.12.) C/I Interface Packaging Rules

- a. [Topic] < [Comment]
- b. [Ground] < [New]
- c. [Focus] < [Background]

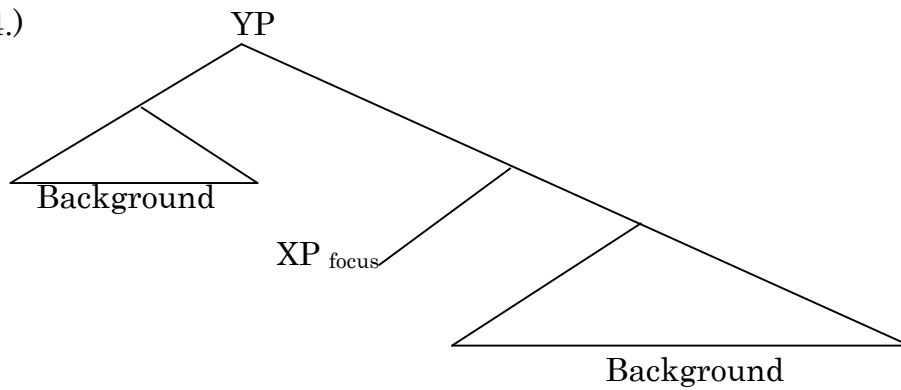
The conceptual basis for the C/I structure in (6.12a) lies in the intuitive assumption that we typically comment something after it has been inserted into the discourse rather the other way round. Similarly, the basis for the structure in (6.12b) lies in two-well known processing advantages associated with early mention of ground information: first, the earlier ground information occur in a sentence, the easier it is to link it to the previous discourse. Second, new information it is easier to integrate when the ground information has been processed. Since ground material by default represent more salient or more accessible information it is advantageous to be placed in a position where it precedes new information. Finally, regarding the C/I structure in (6.12c) it is justified by the independently motivated observation that at least contrastive/corrective or scalar foci are expressions that introduce a variant against an open proposition (i.e. the background) (see Rooth 1992, Büring 2001, 2003).

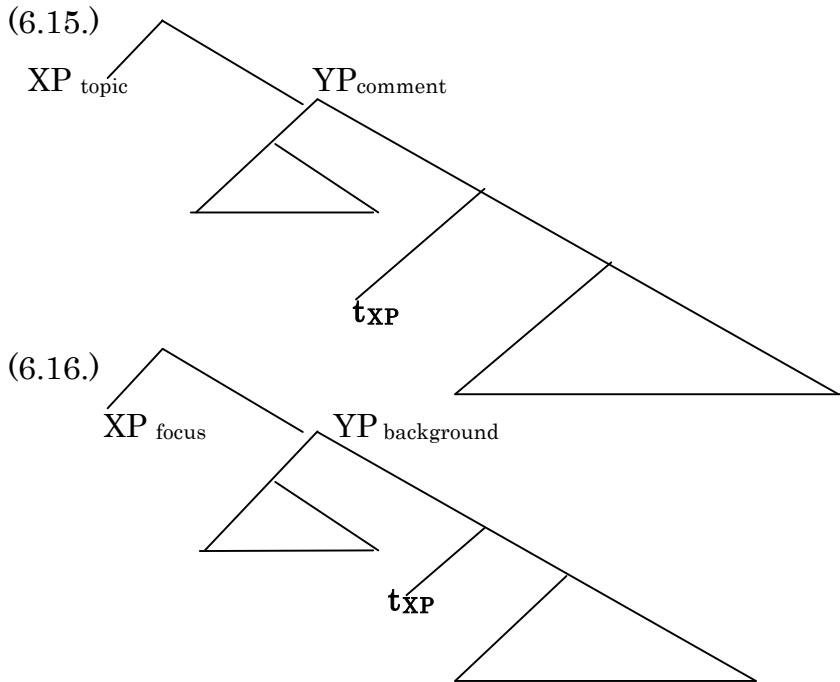
As a reminder to the reader, the core idea behind Neeleman and van de Koot's idea is that topic or focus movement does not occur for the topic or focus constituents to be licenced (contra formal accounts), but for non-continuous comments and backgrounds to be turned into syntactic constituents. Neeleman and van de Koot's idea is schematically illustrated below (see also Chapter 5):

(6.13.)



(6.14.)





Thus, movement of the topic object in (6.17) below does not occur for it to be marked or interpreted as a ‘topic’ but for it to mark its comment: prior to movement there is no syntactically marked comment (i.e. a topic’s complement) and the topic is contained within a constituent that functions as a comment. The same holds for focus movement (6.18):

(6.17.) A: What did Ares give to Maria?

B: Well, I don’t know about Maria but...

B1: [_{TOP} tis Elenis] tis eðose ena buketo triandafila [_{tis} Elenis]
the Helen-gen her-CL gave.3s a bucket roses-gen
 ‘Helen he gave her a bucket of roses’

(6.18.) A: Ares accompanied Maria.

B: kanis laθos; [_{FOC} tin ELENI] sinodepse o Aris [_{tin} ELENI]
make.2s mistake; the Helen accompanied the Ares
 ‘You are wrong; HELEN Aris accompanied’

In the light of data like these above, along the lines of Neeleman & van de Koot (2007, 2008) I assume that such displacements in the syntax occur so that there is a transparent mapping between blocks of syntactic structure and blocks of information structure. In other words, the reason that e.g. topics tend to appear displaced in the left periphery is for the interface condition in (6.12c) to be fulfilled¹⁰².

However, in the current analysis there are two important points of departure from the implementation of Neeleman & van de Koot (2007, 2008). The first point has to do with the assumption that beyond topics and foci also ground material can be displaced to the left periphery—at least in language like Greek—as the interface condition in (6.12b) suggests. The advantages of adopting two distinct rules/mappings regarding the distribution of non-focal material will be discussed in detail in the second half of this Chapter, where object fronting will be discussed.

The second point of departure from Neeleman & van de Koot—which actually constitutes departure from all major IS or discourse-configurationality theories—is the assumption that information packaging in natural language does not exclusively have to do with the accommodation of discourse functions and the pragmatic articulation of the clause, but it may well have to do with a more abstract articulation of logico-semantic or conceptual nature. With respect to this, following Gécseg & Kiefer (2009) (cf. also Fretheim & Gundel 2004 for related ideas) I will show that information flow in Greek is subject not

¹⁰² Regarding the technical way that such displacements occur, I would like to remain rather agnostic: One possibility is to assume that this happens at the Syntax-C/I Interface through mapping rules (along the lines of Neeleman and van de Koot 2008). Alternatively, one can allow for the narrow syntax to freely generate a range of word orders provided that there is some impact at the interface (the impact being that the relevant C/I interface rule is fulfilled and not Chomsky's 'right position' idea).

only to a pragmatic partitioning but also to a more abstract packaging. In other words, I will show that—not infrequently—word order in a language like Modern Greek is regulated by strategies that little have to do with the accommodation of strictly-pragmatic discourse functions.

In particular, regarding this last bit, I assume that word orders in Greek reflect two such logico-semantic articulations or strategies: non-verb-initial orders realize what I will be calling a ‘predicative’ mapping (PM), while verb initial orders realize what I will be calling a ‘non-predicative’ mapping (N-PM). The idea is that information—regardless the actual pragmatic packaging and discourse functions— can be presented in two formal ways each one corresponding to a distinct logico-semantic strategy. The first one (i.e. PM) involves recognition of an entity prior to predication, that is, recognition of a ‘logical subject’ for which a property is ascribed or denied through the logical predicate, leading into a formal partitioning of the utterance between a logical subject bit and a predicate, while the second one (i.e. N-PM) involves just recognition of a state of affairs or an ‘eventuality’ (along the lines of Gécseg & Kiefer 2009) where the recognition of any other entities is only relevant as long they are participants in that event or state of affairs. The formal outcome of that strategy is that the actual utterance is not broken down into two chunks of information as it happens with the PM articulation.

As far as the first strategy is concerned, the predicative mapping, I assume that is unambiguously realized in Greek as a non-Verb initial order:

(6.19.) A. Syntax—C/I Correspondence in Greek (Predicative Mapping)

A non-Verb Initial Order formally chunks an utterance Ω into a Logical Subject Σ and Logical Predicate Π .

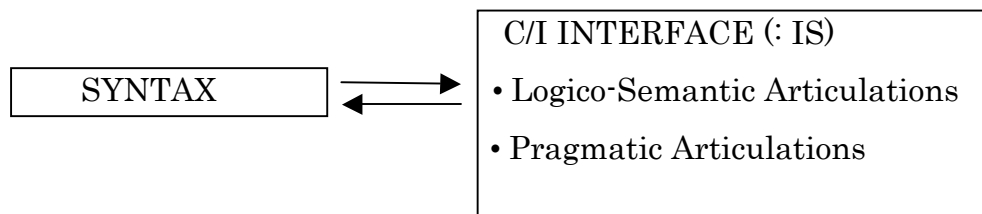
As far second logico-semantic strategy is concerned, the non-predicative mapping, I assume that it is unambiguously realized in Greek as a Verb-Initial Order:

B. Syntax—C/I Correspondence in Greek (Non-Predicative Mapping)

A Verb Initial Order does not involve recognition of an independent logical subject prior to predication. As such no formal chunking occurs.

It is important to point out that neither mapping conveys information about the actual pragmatic partitioning of an utterance, and the accommodation of discourse functions such as topic, focus, ground or new information. Recall, that the labels PM and N-PM represent the grammaticalisation of two interface strategies that belong to a more abstract level of information packaging. What this practically means is that for example an SVO or an OVS order can actually correspond to more than one pragmatic partitioning. And it goes without saying that the same is true even for a verb-initial order: a VSO linear output can virtually be subject to different information structures. Note here that—as we did before with the pragmatic articulation—displacement for satisfaction of such interface conditions can either be due to mapping rules connecting the syntax and the C/I module, or alternatively we can even allow the syntax to freely generate orders that may or may not fulfill a certain interface condition. The schema below summarizes the core of the current implementation regarding information packaging in Greek:

(6.20.)



If our hypothesis is on the right track, then I will argue that analyses that seek to account for word order permutations in Greek building exclusively on absolute pragmatic labels such [topic], [focus], [new], or [ground] need to be—at least—modified in a way that would allow incorporation of multiple levels of information packaging. In what follows I will highlight some of the direct advantages of this dual treatment of information structure.

3. Applying the analysis to Greek

In this section I discuss some major advantages of the analysis I have been sketching out. Anticipating the discussion I will show that word order in Greek by-and-large reflects multi-level IS packing strategies that reside in the C/I interface, reconciling various erroneous cartographic assumptions found in the relevant literature.

3.1 Non-Verb Initial Orders

The first advantage of the line of argumentation I will be following is that it allows us to account for certain problematic assumptions regarding the status of preverbal subjects in Greek. Recall from the discussion in Chapter 2, that according to a good portion of the literature (see Philippaki-Warburton 1985, 1987, Tsimpli 1990, 1995, Alexiadou & Anagnostopoulou 1998, Spyropoulos & Philippaki-Warburton 2001 *inter alia*) (non-focal) preverbal subjects have been invariably associated with topic readings and/or given/presupposed information (depending on how topichood is defined; I will come back to this shortly). Nonetheless, this generalization is too strong to be retained, since preverbal subjects do not have to be interpreted as topics and/or ground

information¹⁰³. For the sake of the argument, a SVO order can be used felicitously in contexts where the subject is part of a broad focus domain, that is, in contexts where the subject is neither meant to be pragmatically anchored to any previous discourse nor does it constitute a topic in terms of aboutness. The examples in (6.21) illustrate this:

(6.21.) a. A: What's this noise?

B: o jitonas ftiaxni mia apoθiki (SVO)
the neighbour makes a storage-room
 ‘The neighbour is building a storage room’

b. A: What happened in 1493?

B: o Kolomvos anakalipse tin Ameriki (SVO)
the Columbus discovered the America
 ‘Columbus discovered America’

This observation is further supported by the fact that preverbal subjects may not only be pragmatically unanchored to any previous discourse, but can also be taken up by indefinites and quantified material. For example, consider the following cases in (6.22):

(6.22.) a. A: Why is Ares angry?

B: kapios xtipise to aftokinito tu (SVO)
somebody crashed the car his
 ‘Somebody crashed his car’

b. Last night I didn't sleep very well....

¹⁰³ This observation is not new: researchers like Sifaki (2003), Haidou (2004), Roussou & Tsimpli (2006) have also pointed out the empirical problems of such a strong association. However, to the best of my knowledge there does not exist any principled account on the alternation between VSO/SVO, the restrictions etc.

...kati nixtopulia den stamatisan na traguðane (SVO)
some night-birds not stopped SUBJ sing.3pl
 ‘Some night birds wouldn’t stop singing all night’

c. A: What happened?

B: mia kiria ipoθimise sti mesi tu δromu (SV)
a/one lady fainted in-the middle of-the road
 ‘Some lady fainted in the middle of the road’

d. A: Ares is very reckless...

B: kaθe anθropos exi ta elatomata tu (SVO)
every person has the flaws his
 ‘Every person has their own flaws’

Even more revealingly, existentially quantified subjects can still appear in a preverbal position even when their reading is a non-specific one; for instance, in (6.22b) it is very unlikely that the speaker by uttering ‘some night-birds’ has a mental representation of the (particular) referents denoted by the quantified subject. Moreover, the subject qualifies as non-specific even if specificity is defined along the lines of Pesetsky (1987) and Enç (1991), that is, as selection out of a discourse prominent set of referents. In the same spirit, in both (6.22a) and (6.22c) speaker B, by placing ‘someone’ and ‘a lady’ in a preverbal position, does necessarily have an active representation of the referents these quantified phrases denote.

For the analysis I have been developing here these data can be accounted rather straightforwardly: SVO formally realizes a predicative mapping that involves recognition of an entity prior to predication, chunking the actual utterance into a logical subject-logical predicate partition. Thus, displacement of a DP subject from a vP internal position to a position above it (I will come back to the syntax of preverbal subjects very shortly) grammaticalizes this

logico-semantic or conceptual strategy of the interface without the subject having to be interpreted pragmatically as a topic or in fact any other pragmatic category. The schema below illustrates this:

- (6.23.) SVO
- [logical subject]-[logical predicate] *Log-semantic level of IS*
- [topic]-[comment] or
- [focus]-[background] or
- [ground]-[new] or
- none of the above
- Pragmatic level of IS*

Gécseg & Kiefer (2009), discussing the alleged topic status of preverbal subjects in Hungarian follow a similar line of argumentation: preverbal subjects in this language do not have to be topics, since the partition [topic-comment] and [logical subject-logical predicate] correspond to different levels of information partitioning. The topic of the sentence is a constituent denoting the individual(s) the sentence is about with respect to a particular context. This view is in accordance with the general constraint observed across languages that a topic referent must be familiar or at least accessible by means of contextual information. In contrast, a logical subject, (i.e. a preverbal subject) is simply the constituent denoting the individual(s) the logical predicate is about. The selecting of a logical subject corresponds to a particular strategy that does not necessarily depend on the particular context in which the sentence is uttered. A consequence of this relative contextual freedom is that a logical subject can even denote a brand new individual, that is, a referent completely unidentified both for the speaker and the hearer. Thus, while topic is a pragmatic notion corresponding to information already introduced in the discourse (or related to it), a logical subject is a syntactic-

semantic notion corresponding to a plain aboutness relation that is not dependent on previous discourse.

Gecseg & Kiefer (2009) propose that referentiality is in fact a necessary and sufficient condition for logical subjecthood (in the sense that a DP must be able to introduce a referent in the discourse), whereas a topic must not only be referential, but also be specific. A logical subject may be a definite, a specific indefinite or a non-specific indefinite expression. In the case of a PM with an logical subject that is a non-specific expression, the first step in the construction, prior to the predication itself, corresponds to the introduction of a new referent into the discourse; if the logical subject is a specific indefinite the first step is to introduce a referent that is selected out of an identified set; and in case the logical subject is a definite expression then it reflects the selection of a uniquely identifiable referent in order to predicate something about it. In this light, subjects that have been previously identified as topics in Hungarian are now treated as plain logical subjects. For instance, in (6.24) below the indefinite subjects which could pose significant problems to analyses treating them as ‘topics’, are unproblematic for an analysis which distinguishes two distinct levels of IS, a purely pragmatic one (topic-comment) and a purely logico-semantic one (categorical: logical subject-logical predicate):

(6.24.) a. Peter/valaki elvesztette a hitelkartyáját
Peter/somebody lost the credit card-his/her-acc
 ‘Peter/Somebody lost his/her credit card’

b. Mari/Egy gyerek lelepett as uttestre
Mary/a child down-stepped the driveway-on
 ‘Mary/A child stepped down on the driveway’

(Adopted from Gecseg & Kiefer 2009:598)

Before I proceed let me only briefly tackle one related issue, namely, the position of such preverbal indefinite subjects. Roussou & Tsimpli (2006) in their discussion of various word order patterns in Greek leave open the possibility that non-topical preverbal subjects in Greek and especially indefinites that lack a topic interpretation are actually licensed in a position lower than the CP domain, presumably at [Spec,TP]. However, I would like to show that this is not actually the case, and that such subjects are equally licensed at some projection within the CP domain.

First of all a SVO order with an indefinite or quantified subject is no more ‘neutral’ than any SVO order with a definite subject. Both types of SVO orders can be uttered out-of-the-blue, conveying all new information:

(6.25.) A: What’s going on outside? What’s this noise?

B1: *i Maria xtipise to aftokinito tis*
the Maria crashed the car her
 ‘Maria had her car crashed’

B2: *Kapios xtipise to aftokinito tu*
Somebody chashed the car his
 ‘Somebody has his car crashed’

Second if some classes of subjects—for some reason—would have to be closer to T occupying SpecTP giving rise to some kind of ‘canonical’ or ‘unmarked’ word order of the English type, then we would expect that these subjects could not be able to occur postverbally in SpecvP. However, the prediction is not borne out:

(6.26.) A: What is going on outside? What's this noise?

B: Xtipise kapios to aftokinito tu
crashed somebody the car his
 'Somebody had his car crashed'

Third, in terms of distribution, such subjects display exactly the distributional properties that definite DP subjects show. In particular they can be extracted in an unbounded fashion, a typical property of A-bar dependencies:

(6.27.) A: What happened?

B: Mia kiria ipe o Aris oti lipoθimise sti mesi tu δromu
a/some lady said the Ares that fainted in-the middle-of-the street
 'Some lady Ares said fainted in the middle of the street'

Last, non-topical preverbal subjects, either definites or indefinites, may precede negation and modal particles that according to Roussou (2000) head their own phrases in the CP region (see Chapter 4):

(6.28.) A: What's that noise outside?

B: Kapiro treno θa pernai...
Some train will be-passing
 'Some train will be passing by'
 (It should be that some train is passing by)

Now moving on, the next advantage of the IS analysis I have been sketching out here is that we can account for the otherwise unexpected fronting of subjects of unaccusative and unergative predicates. Such subjects typically occur in a post-verbal position in all-new information contexts where they are assigned the nuclear stress, not only in Greek (6.29a&b) but in many languages that allow for verb-subject inverted orders such as Italian (6.29c&d):

(6.29.) a. A: What's the problem? (Greek)

B: ponai o leMOS mu...

hurts the neck my

'My neck hurts'

b. A: What's that noise?

B: Xtipai to tiLEfono

rings the telephone

'The phone is ringing'

c. A: What's the problem? (Italian)

B: Mi fa male il COLlo

to-me makes bad the neck

'My neck hurts'

d. A: What's that noise?

B: Squila il teLEfono

rings the telephone

'The phone is ringing'

Strikingly enough in Greek, in the exact same contexts, such subject DPs can occur even preverbally, still bearing main pitch prominence, without the intended information structure effect being affected (i.e. all focus):

(6.30.) a. A: What's the problem?

B: o leMOS mu ponai...

the neck my hurts

'My neck hurts'

- b. A: What's that noise?
 B: to tiLEfono xtipai
the telephone rings
 'The phone is ringing'

Obviously, IS theories that rely exclusively on pragmatic functions such as topic and focus and the partitioning of an utterance into topic-comment or focus-background cannot account for such permutations. On the other hand, for the multi-level IS model I have sketching out in this Chapter such phenomena can be accounted for quite straightforwardly: A verb initial order that relates to a conceptual logico-semantic strategy where a speaker's attention is drawn to a state of affairs in which some participants may or may not be involved does not formally chunk an utterance into a logical subject-logical predicate. On the other hand the SV linear order constitutes a grammaticalisation of a predicative conceptual or cognitive strategy that involves recognition of a logical subject prior to predication thus chunking the utterance into two bits. Crucially, let me point out again that this is a more abstract level of information flow representation: in either case we are dealing with an all focus pragmatic effect that remains unaffected (as the felicity of both VS and SV orders suggests).

Before I proceed to the examination of V-initial orders and some common erroneous cartographic assumptions related to them, let me briefly tackle one possible complication.

3.1.1.1. A Subject-Object asymmetry

In the discussion in the previous sections I argued that VSO and SVO can both give rise to the same pragmatic effect, that is, all new focus interpretations. As such, I attributed their difference to the fact that the two word orders

constitute a formal realization of two distinct IS strategies of semantic, conceptual or even cognitive stock, namely a non-predicative and a predicative one respectively (that do not feed directly into pragmatic functions and how these are accommodated). The latter one formally chunks an utterance into two parts, namely a logical subject and a logical predicate, where the logical subject does not actually have to correspond to some discourse function such as topic, focus or ground. Regarding this, so far, I have dealt exclusively with fronted grammatical subjects, that is, with cases where the logical subject corresponded with the grammatical subject. The question that arises here is the following: Could a fronted object DP be also a plain logical subject? It seems that the answer is negative. Consider the following case:

(6.31.) A: What happened in 1493?

B1: anakalipse o Kolomvos tin Ameriki (VSO)

discovered the Columbus the America

‘Columbus discovered America’

B2: o Kolomvos anakalipse tin Ameriki (SVO)

the Columbus discovered the America

B3: #tin Ameriki anakalipse o Kolomvos (#OVS)

the America discovered the Columbus

What the utterances above show is that once the speaker has opted to go for a non-verb initial order, that is, a predicative mapping, the only possibility is to front the subject. Fronting of the DP object is banned (unless the object has some impact on the pragmatic articulation of the utterance, e.g. narrow focus, topic or ground information, which is not the case in that context). With respect to this asymmetry there is a question that raises here: Why is the OVS answer ruled out as infelicitous in such contexts? Anticipating the answer, I

assume that this has to do with some economy requirement related to locality and predication.

Suppose that non-predicative linear order [V DP1 DP2] must be ‘transformed’ into a predicative one. According to what has been said, this can be done in principle by re-merger of either DP to the preverbal domain. If this is the case, I assume that re-merger targets the category that is initially merged closer to the preverbal domain, that is, the DP subject. Alternatively (although intuitively it’s the same idea), one could argue that subjects are inherently the optimal candidates for such a task since even within the narrow computational component they are born as constituents external to the V-bar node that hosts the predicate. In other words, the interface (or non-configurational) effect of predication in which fronted subjects feed (that is, the conceptual chunking into a logical subject and logical predicate) actually matches with the strictly configurational properties of grammatical subjects in respect with the V-bar node and its content.

Nonetheless, it seems that in some cases entities other than subjects can fulfil this interface requirement leading into a predicative mapping for no obvious pragmatic reason. Consider the following cases below:

(6.32.) (phone conversation)

A: What are you doing?

B1: Vlepo tileORASI; esi?

see.1s television; You

B2: tileORASI vlepo; esi?

television see.1s; you

‘I am watching TV; you?’

(6.33.) A: Where is your brother?

B1: Potizi ton KIpo

waters.3s the garden

B2: ton KIpo potizi

the garden waters.3s

‘He’s watering the garden’

Strikingly, in the examples above the objects ‘TV’ and ‘the garden’ that normally appear in the canonical post-verbal position and bear the nuclear stress participating in all new-information corresponding utterances, can leave their base position for a position before the verb for no obvious pragmatic reason; they are neither topics, nor ground material or narrow (or contrastive/corrective/scalar) foci¹⁰⁴¹⁰⁵. For the IS analysis I have been sketching out that allows for information to be packaged not only strictly-pragmatically but even more abstractly on conceptual or logico-semantic or even cognitive grounds such cases can be explained through the assumption that a non-Verb initial order feeds the interface strategy according to which prior to predication there is recognition of an entity about which the predicate is meant to be about regardless the actual pragmatic function the fronted DP performs or the pragmatic partitioning of the utterance.

3.2 Verb initial orders

In line with what has been anticipated in the previous sections, I assume that verb-initial orders in Modern Greek formally realize what I named a non-predicative mapping. Recall that this mapping corresponds to a particular logico-semantic strategy or articulation which involves primarily the recognition of a state of affairs, an event. The existence of entities associated with an event is only indirectly entailed, in the sense that the speaker’s intention is directed toward the entity participating in the event, insofar as it

¹⁰⁴ Gryllia (2009) suggests that fronted foci in Greek constitute fronted discourse-topics. Although I cannot go into detail for space limitations, I assume that this cannot be the case. If discourse topics are expressions whose referents are what stretches of discourse larger than mere sentence are about (along the lines of van Dijk 1977 and Reinhart 1981), this cannot apply to the fronted DPs above, since in the absence of more discourse these DPs can still appear fronted in minimal discourse domains. I will come back to this in the second half of this Chapter.

¹⁰⁵ Note also the absence of overt subject DPs.

is a constituent of the event. As a result V-initial orders differ from non-Verb initial orders in that no formal chunking is established between a logical subject and a logical predicate; in other words, no logical subject is distinguished as an independent part of an utterance.

Given this, let me first draw attention to VSO. Recall from Chapter 2 that part of the argument in favour of VSO as being the canonical word order in Greek is that this order can be used as an answer to all-new-information seeking questions of the sort illustrated in (6.34) below:

(6.34.) a. A: Any news?

B: θ a afksisun i trapezes ta epitokia (VSO)
will raise the banks the interest-rates
 ‘The banks will raise the interest rates’

b. A: What happened in 1492?

B: anakalipse o Kolomvos tin Ameriki (VSO)
discovered the Columbus the America
 ‘Columbus discovered America’

Put in terms of focusing, the idea is that in these cases we are dealing with ‘broad focus domains’: the stress which is assigned to the syntactically most embedded element is able to ‘project,’ that is, to percolate to higher nodes up and thus give rise to all-new information interpretations (cf. Selkirk 1995, Neeleman & Reinhart 1998, Reinhart 2006 among others).

What complicates things, nonetheless, is the fact that even an SVO order can as well qualify as a felicitous answer to the same questions in (6.18) above (see also Alexopoulou 1999, Haidou 2004, Roussou and Tsimpli 2006). This is shown in (6.35) below:

(6.35.) a. A: Any news?

B: i trapezes θa afksisun ta epitokia (SVO)

the banks will raise the interest-rates

‘The banks will raise the interest rates’

b. A: What happened in 1492?

B: o Kolomvos anakalipse tin Ameriki (SVO)

the Columbus discovered the America

‘Columbus discovered America’

Given this, the question that naturally arises is the following: In what aspect(s) do the two orders differ, or—alternatively—, what regulates the selection of either order? Given that re-merging of a category XP need to have an impact on some of the interfaces, and provided that the alternation between VSO and SVO cannot be accounted for either in terms of differences in the propositional content (both variants are subject to exactly the same truth conditions) or on discourse grounds (they both realize a broad focus domain conveying exclusively all new information), in line with what has been anticipated I assume that VSO and SVO are the formal realization of two distinct IS strategies of logico-semantic/conceptual stock. As far as the former option is concerned, the speaker by uttering VSO draws attention to a state of affairs (a fact of ‘raising’ or a fact of ‘discovering’), whereas the referents denoted by the subject and the object are presented as necessary participants in this state or situation. In other words, there is no formal recognition of an entity as the logical subject prior to predication.

Given this, let me now touch upon some other issue and a related controversy. Recall from Chapter 2 that according to a good portion of the literature subjects in Greek show up postverbally when they constitute new information while they have to appear in the preverbal domain when they convey ground

or topical information (despite the fact that this constitutes a strong assumption as I showed in the previous part). Given this, consider now the following two utterances in (6.36) and (6.37):

(6.36.) a. A: Maria's son, although only 3 years old, knows the alphabet!

B: ine ta peðia paneksipna simera (#VS)

are the kids very-intelligent nowadays

'Kids are very-intelligent nowadays'

(6.37.) a. A: Did you learn anything interesting at school today?

B :#exun i ajelaðes tesera stomaxia; to ikseres? (#VSO)

have the cows four stomachs, it-CL knew.2s

'Cows have four stomachs; did you know it?'

Interestingly, in (6.36) and (6.37) the subjects 'kids' and 'cows' respectively, despite them being new information, cannot occur in a postverbal manner, contrary to what analyses based on the oldness/novelty of subject would predict. On the other hand, for the alternative IS analysis I have been sketching out that allows for the incorporation of a more abstract level of information packaging along the strictly pragmatic partitioning, this behaviour can be accounted for rather naturally on independent conceptual grounds: Following Carlson (1977) and Ladusaw (1994), I assume that the propositional content of the utterances above cannot be spelled-out syntactically in a non-predicative fashion since the predicates 'be' and 'have', used in environments with a 'generic' force like these above, qualify as 'Individual-Level predicates'; Individual-Level predicates semantically denote properties of individuals, that is, they are compatible only with a predicative mapping that formally chunks an utterance into a logical subject and logical predicate bit; in other words, they require the recognition of an entity prior to predication. Indeed, SVO can felicitously be used in both cases:

(6.38.) a. A: Maria's son, although only 3 years old, knows the alphabet!

B: ta peðia ine paneksipna simera (SV)

The kids are very-intelligent nowadays

'Kids are very intelligent nowadays'

(6.39.) a. A: What did you learn anything interesting today at school?

B: i ajelaðes exun tesera stomaxia; to ikseres? (SVO)

the cows have four stomachs, it-CL knew.2s

'Cows have four stomachs, did you know it?'

The second advantage of the line of argumentation I have been following regarding verb-initial orders is the fact that we can account for or even predict the felicity or infelicity of such orders in any given context. Regarding this, I have two points to make: On the one hand, it is not a coincidence that VSO orders in Greek are the preferred order in contexts and environments that no conceptual or chunking of the utterance is needed. As far as the former case is concerned I showed that a VSO order does constitute a felicitous order with Individual Level predicates since Individual Level predicates semantically denote properties of individuals, that is, they are in a way innately predicative and as such the push towards a mapping where a logical subject should be distinguished as distinct entity for which a logical predicate is ascribed on it as a property. As far the latter case is concerned, it is not a coincidence that VSO is the preferred order when no pragmatic chunking of the utterance is needed. Indeed, VSO seems to be the optimal option in environments that textual or contextual reasons do not push towards a pragmatic partitioning of the utterance into [topic-comment], [focus-background] or [ground-new]. All new information environments constitute such a case. Indeed, a closer examination of the contexts where VSO orders are used as felicitous answers verify this: VSO utterances typically show up in utterances that answer all new

information questions or in utterances that occur in contexts with a plain narrative or presentational flavour.

In light of this, one could argue that V-initial orders come into play as an ‘Elsewhere Principle’ effect: This principle was introduced into generative grammar by Kiparsky (1973), although it has a long history predating Chomskian linguistics. Overall, the idea is that in the existence of two competing rules, say R1 and R2 that have F1 and F2 as their respective structural representations, R1 blocks the application of R2 if F2 properly includes F1. What this means is that a more specific rule will have to apply blocking application of the more generic rule. Thus, if the more specific rule is the non-predicative strategy, that is, the strategy that does not involve formal chunking into a separate logical subject and a logical predicate, then application of the more generic predicative strategy is blocked—or in any case, application of the more-specific rule will have to take precedence. In other words—to put it less formally—if there is a way to chunk a sentence but it is not used, you therefore want the sentence not to be chunked. Therefore, a V-initial order surfaces as a natural order in environments where no need for such formal chunking exists (either on a strictly-pragmatic or a logico-semantic level).

On the other hand, a VSO order does not qualify as a natural order in contexts where some pragmatic partitioning should take place. To begin with consider the following case:

(6.40.) A: Ask Aris to join you to the party...

B1: # δ ini [TOP aftos] kati eksetasis simera (#VSO)

gives he some exam today

‘That one is taking some exam today’

B2: [TOP aftos] δ ini kati eksetasis simera.. (SVO)

he gives some exam today

Recall from the discussion in the introductory part of this Chapter that according to a large portion of the relevant literature, the contrast above is due to the cartographic assumption that supposedly topical subjects in Greek are licensed only in the preverbal domain. However, a closer examination of the data does not verify this hypothesis. Consider for instance the examples below:

(6.41.) A: I can't give you my car. Why don't you ask Ares?

B1: [TOP aftos] $\delta\epsilon\eta$ to $\delta\iota\eta\iota$ to aftokinito tu me tipota...
he not it-CL give-3s the car his with nothing
 'That one wouldn't give his car, no matter what...'

B2: to aftokinito tu $\delta\epsilon\eta$ to $\delta\iota\eta\iota$ [TOP aftos] me tipota...
the car his not it-CL give-3s he with nothing

In the light of the contrast between (6.40B1) and (6.41B2) I assume that the reason that the former one is perceived as infelicitous has little to do with the strong cartographic assumption that topical subjects are only licensed in a preverbal position; in the latter case such a subject still occurs postverbally without any particular problem. Thus, the reason that (6.40B1) is perceived as an unnatural option is due to an unsatisfied interface condition, in particular, the fact that the topic does not precede the comment. On the other hand, in (6.42B2) where two DPs function as topics, fulfilling the same interface requirement once by placing the DP object in a preverbal position according to relevant C/I rule, the topical subject can remain within the constituent that functions as the comment the dislocated category. Note of course that even the reverse situation is possible without creating any particular problem again: in (6.41B1) it is the topical subject that appears in the preverbal domain allowing the topical object to remain in a post-verbal position.

Similarly, consider the following case below:

(6.42.) A: Ares gave flowers to Maria.

B: kanis laθos; #eδose o Aris luluθia stin ELENI (#VSDOIO)
make.2s mistake; gave the Ares flowers to-the Eleni
 ‘You are wrong; Ares gave flowers to Helen’

Yet again a V-initial order in such a context looks as a rather unnatural option. A good portion of literature would assume that is so because old or ground information subjects or objects cannot be licensed in a post-verbal fashion (see for instance Alexiadou 1999 and references therein). Similarly, one could also assume that contrastive or corrective focus is not licensed in a clause-final position. Now consider the following cases below:

(6.43.) A: Ares gave flowers to Maria.

B: kanis laθos; o Aris eδose luluθia stin ELENI (SVDOIO)
make.2s mistake; the Ares gave flowers to-the Eleni
 ‘You are wrong; Ares gave flowers to Helen’

(6.44.) A: Ares gave flowers to Maria.

B: kanis laθos; luluθia eδose o Aris stin ELENI (DOVSIO)
make.2s mistake; flowers gave the Ares-to-the Eleni
 ‘You are wrong; Ares gave flowers to Helen’

(6.45.) A: Ares gave flowers to Maria.

B: kanis laθos; stin ELENI eδose o Aris luluθia (IOVSDO)
make.2s mistake; to-the Eleni gave the Ares flowers
 ‘You are wrong; Ares gave flowers to Helen’

What the B utterances from (6.43) to (6.45) indicate is that neither cartographic assumption is borne out: in both (6.44) and (6.45) the

contrastively/correctively focused indirect object occurs in situ in the postverbal domain; in (6.43) the ground information direct object appears also postverbally without any particular problem. The same is also true for the ground information subject in (6.44), whereas in (6.45) both the ground subject and the ground direct object appear after the verb. Therefore, I assume that the infelicity of the V-initial order in (6.42) has little to do with cartographic assumptions of the sort exposed earlier. Rather, the reason that this order is perceived as unnatural is that yet again several C/I interface requirements remain unsatisfied. In particular, a VSO order satisfies neither the double [ground-new] interface articulation, nor the [focus-background] articulation imposed by the discourse functions operating in that discourse stretch. Once either articulation is satisfied by a formal chunking of the utterance then the resulting non-Verb initial order in either form is perceived as an absolutely grammatical option: If the major partition of the utterance is that between focus and background, there is nothing that bans for ground material to be licensed within the background. And by fronting ground information so that we get a major ground-new partition there is nothing that bans focus to occur within the new-bit partition.

In the remainder of this section I will deal with the ‘problematic’ VOS order in Greek.

3.2.1 VOS revisited

In Chapter 2 it was mentioned that the relevant literature has always treated VOS (under a neutral stress pattern, that is, main prominence on the subject) as an order that invariably involves a subject in focus while the rest of the material is assumed to convey ground or even topical information (see Alexiadou 1999, 2006, Georgiades 2001, Philippaki-Warbuton 2001, Sifaki 2003, Haidou 2004/2006, and Georgiades & Sfakianaki 2004 among others). With respect to this, Haidou (2000), following a syntax-PF interface path, argues that the object in VOS constitutes invariably old information because

main clausal stress when carried by the subject cannot project at all, that is, percolate higher up giving rise to broad focus interpretations. As far as the generation of VOS is concerned, all the above mentioned researchers make use of different versions of the idea of ‘prosodically-motivated movement’ (p-movement) along the lines of Zubizarreta (1998): the object, from an underlying VSO structure, performs short movement to a position above the subject so that the main clausal stress is assigned to the syntactically most-embedded constituent, that is, the subject.

With respect to these ideas, I would like to make two points: First—something which has already been mentioned in Chapter 2—I assume that the idea of p-movement is empirically weak since virtually a VOS linear order constitutes a grammatical construction in Greek even in environments where the main stress is assigned to a constituent other than the subject: in (6.26) for instance main sentential stress is assigned to the indirect object DP that follows the VOS linearization. Similarly in (6.46) the main stress is carried by the DP object after application of some sort of destressing operation along the lines of Neeleman & Reinhart (1998) and Reinhart (2006):

(6.46.) A: What’s the problem?

B: [eðose ena ðoro o Aris sti MaRIa] ke i Eleni zilepse (VDOSIO)
gave a gift the Ares to-the Maria and the Helen got jealous
 ‘Ares gave a gift to Maria and Helen got jealous’

(6.47.) A: Ares is from a very wealthy family...

... exun eryoSTAsio i yonis tu (VOS)
have factory the parents his
 ‘His parents own a factory’

As such, the idea of p-movement should be abandoned for a subtler trigger. In Chapter 2 I proposed that VOS is due to a flexible strategy in the narrow computational component in Greek that allows an object to pied-pipe alongside the verb to the TP domain. In particular, I have argued that it is the v' node that performs movement to the TP domain instead of the mere verbal head (V^0+v^0) as it happens with VSO. As such, we do not (always) need to seek for a direct information packaging effect related to the VSO/VOS alternation: the alternation can essentially occur ‘freely’ in environments where there is no such trigger (e.g. in (6.46) where both VSO and VOS can be used as a felicitous answer to the preceding question). However, this does not mean that VSO and VOS are identical; I will come back to this shortly.

The second point I would like to touch upon has to do with the well-cited assumption that in VOS the object DP invariably constitutes ground or topical information. With respect to that, in what follows I will show that (a) VOS orders constitute a formal manifestation of the same IS articulation as VSO does; that is, it constitutes a grammaticalisation of the non-predicative mapping; that (b) DP objects in VOS do not have to be ground or topical information; and that (c) in environments where both VSO and VOS can be used ‘freely’ the alternation is regulated by ‘relative salience’ and/or ‘relative accessibility’ along the lines of Slioussar (2007). To begin with, consider the following utterances:

(6.48.) a. A: Any news today?

B: afksisan ta epitokia i trapezes (VOS)

raised the interest the banks

‘The banks raised the interest rates’

b. A: What happened in 1493?

B. anakalipse tin Ameriki o Kolomvos. (VOS)

discovered the America the Columbus

‘Columbus discovered America’

c. A: How are we going to play music at the party?

B: θa feri to stereofoniko tu o Aris (VOS)

will bring the stereo-system his the Ares

‘Ares will bring his stereo system’

All three B utterances above involve a VOS order which is perceived as a legitimate option in the discourse environments B utterances above are uttered (though somewhat marked as compared to VSO); in particular, all utterances constitute felicitous answers to all-new information seeking questions, that is, in environments that there is no link to previous discourse that could establish the given/presupposed status of the referents of the DP objects (and subjects). Moreover, the verb and object do not form any sort of idiomatic expression (an idea found in Holton et al. 1997). What this means is that, while I have no objection in considering the subject as focus or new information—as the rest of the literature does—I see no particular reason for considering the DP-object as ground or old material; after all, any ‘givenness reading’ on the object is only a by-product of the fact that main prominence is assigned—‘exceptionally’—to the subject.

The fact that such objects cannot be ground information is further supported by the fact that even indefinite and quantified objects can appear in a VOS order, that is, material that can hardly be perceived as old information: It is a common ground in the literature that lexical items tend to be inserted into the discourse as indefinite forms when their referents are not yet activated in a hearer’s mind (cf. Strawson 1964, Chafe 1976, Heim 1981, Ariel 1990, Diesing

1992, Lambrecht 1994, Büring 1997 inter alia). Consider for instance the following cases:

(6.49.) a. A: What is this noise?

B: tipota... xtizi mja apoθiki o jitonas. (VOS)

nothing... builds a storage room the neighbor

‘Nothing...the neighbor is building a storage room’

b. majirepsa tosa pragmata ala [den efaje tipota kanenas!] (VOS)

cooked-1s such things but not ate nothing nobody

‘I cooked so many things, but nobody has eaten anything’

Another strong piece of evidence against the ground information status of the DP objects in the cases under investigation comes from the fact that any attempt to left-dislocate these objects leads to infelicity, something which comes as a surprise if they truly convey old information since ground information objects in Greek typically occur in the CP domain (see Chapter 4 and the next part in this Chapter). However, OVS is altogether ruled out as inappropriate in such environments.

(6.50.) A: Any news today?

B: #ta epitokia afksisan i trapezes (#OVS)

the interests.acc raised the banks.nom

(6.51.) A: What happened in 1493?

B. #tin Ameriki anakalipse o Kolomvos (#OVS)

the America discovered the Columbus

(6.52.) A: What is this noise?

B. #mia apoθiki xtizi o jitonas (#OVS)

a storage room builds the neighbor

In the same spirit, a final piece of evidence against the ground status of the object in VOS comes from the field of morpho-syntax, and more particularly from clitic doubling. As we have already seen in Chapter 3, it is generally accepted that pronominal doubling in Greek marks the doubled DP as ground or presupposed material (I will come back to this in section 5 in this chapter). In that sense, along the lines of Lambrecht (1994), the idea is that doubling constitutes an instruction to the hearer that the referent of a lexical item is already activated in the discourse. Given this, and rather expectedly for the line of argumentation I follow, any attempt to double DP-objects in VOS in such contexts leads to strong infelicity:

(6.53.) a. A: what happened in 1493?

B: #tin anakalipse tin Ameriki Kolomvos. (cIVOS)
it-CL discovered the America the Columbus
 ‘Columbus discovered America’

b. A: How are we going to play music at the party?

B: #θa to feri to stereofoniko tu o Ari (cIVOS)
will it-CL bring the stereo-system his the Ares
 ‘Ares will bring his stereo system’

Thus, if clitic doubling is a formal device for signaling discourse givenness, the fact that in such cases the objects resist doubling offers extra evidence that they do not qualify as ground material.

Being so, while we have no problem to assume that in the cases examined so far VOS involves a subject construed as new information focus, there is no means by which the rest material, and especially the object, can be treated as given or presupposed. What practically this means is that VOS in the cases presented above constitutes a broad focus domain; indeed, in all the cases

examined so far VOS can invariably be substituted by the “canonical” VSO order with no severe impact on the perceived appropriateness/felicity.

In line with what has been argued in the previous section about VSO, I assume that VOS should be analyzed along the same lines. In particular, I assume that VOS also constitutes grammaticalisation of the non-predicative logico-semantic mapping and as such there is no formal chunking of the utterance between a logical subject and a logical predicate as distinct IS blocks. Conceptually, VOS—exactly like VSO— involves recognition of a mere state of affairs or eventuality to which some the subject referent and the object referent appear as necessary participants. As such, any ground or new reading of the referents/denotata of the participant DPs in a VOS order is only indirectly related to the choice of the particular order: the order constitutes a natural choice in contextual or situational environments where there is no need for a formal chunking of the utterance into two parts (along the lines described earlier for VSO). Reversely, the order constitutes an unnatural choice in cases where such the need for such a chunking is imposed by pragmatic or generally discourse factors.

3.2.2 VOS is marked

But if both VSO and VOS orders constitute a formal realization of the same C/I interface strategy—or, alternatively, if both orders have the same impact on the C/I interface—does this mean that they are totally equivalent? The answer to this question is negative. To begin with, recall that VOS is the result of pied-piping: it is not only the verbal head that moves to T—as it happens with VSO—but rather the *v'* node containing the verb and the object. As such, VOS is an ‘uneconomical’, ‘more marked’ option even within the syntax. Furthermore, VOS—in contexts like the one below in (6.54)—is a marked option in terms of phonology: the nuclear stress is assigned

‘exceptionally’ to the subject which ends up being the rightmost phonological word in the intonational phrase.

(6.54.) A: How are we going to play music in the party?

B1: θa feri o Aris to stereofoniko tu (VSO)
will bring the Ares the stereo system his
 ‘Ares will bring over his stereo system’

B2: θa feri to stereofoniko tu o Aris (VOS)
will bring the stereo system his the Ares
 ‘Ares will bring his stereo system’

But what regulates the alternation between VSO/VOS in a context like the one above (recall that in such contexts both orders are licit)? I assume that the alternation is related to a discourse strategy in which the speaker can go for a marked option in order to promote the subject as the information nucleus of an utterance that already contains new information in absolute terms. The strategy is speaker oriented: in (6.54) above the speaker can choose to go for the ‘marked’ VOS option for reasons that may have to do with his current viewpoint about the discourse or/and his assumptions about the mental representation of the referents of the DPs that are about to enter the discourse in a hearer’s mind. To put it along the lines of Slioussar (2007), the choice of a VOS order over a VSO one signals that the referent of the subject for contextual, situation or even psychological reasons is perceived as less activated/evoked than the object’s (or, reversely, that the object is more accessible than the subject), as such, it shows up in a marked fashion by which it will be highlighted and promoted after application of the default stress assignment rule.

Nonetheless, in absolute terms this does not mean that the object is ‘old’ information and/or that only the subject is ‘new information’. Put in terms of

(6.56.) A: Maria and Ares are on holiday and Ares lost his money...

B1: exi lefta i MaRIa... (VOS)

has money the Maria

“Maria has money...”

B2: #exi i Maria lefTA (#VSO)

has the Maria money

4. Extensions: The ‘Thetic’ vs. ‘Categorical’ dichotomy.

In the beginning of this Chapter I presented empirical data from Greek that pose significant problems on Cartographic analyses and in general on analyses that seek to account for various word order permutations and constraints through the idea that each pragmatic interpretation is licensed in a specific domain in the phrase marker. Furthermore, I showed that theories of discourse configurationality or information packaging that rely exclusively on the adaptation and description of strictly pragmatic notions such as focus, topic or ground similarly fail to account for a range of word order variation phenomena in Greek.

In this light I suggested that IS theories should also allow for the incorporation of more abstract information structure categories or mappings. In particular, building on asymmetries between V-initial and non-Verb initial orders in Greek I suggested that in word order in this language grammaticalizes two such abstract conceptual strategies: a predicative strategy and a non-predicative strategy. Alternatively—although intuitively the core idea is the same—one could allow for the syntax itself to evoke such permutations provided the attested impact on the interface. As far as this more abstract level of information packaging (and consequently its grammaticalisation as V-

initial and non-verb initial orders) it seems that it intuitively comes very close to the classical distinction between ‘categorical’ and ‘thetic’ judgments.

According to the philosophical theory of Brentano (1874/1924) and Marty (1918) sentences, apart from propositional meaning, also express ‘judgments’, that is, information about the relation of the entities they consist of with the physical world and the grid of relations between the denoted parts of that sentence (sentences and their constituent parts being physical objects). In particular, they assume that two types of judgments can be expressed by means of a (at least assertive) sentence: a ‘categorical’ judgment and a ‘thetic’ judgment. The idea is that a categorical judgment is defined as a ‘double’ or ‘complex’ cognitive act, which consists of two parts: the recognition of an entity, and the affirmation or denial of what is expressed by the predicate about that entity. In other words, in a categorical judgment an entity is selected (by asserting its existence) and then a property is either ascribed or denied to it:

(6.57.) Mein Bruder ist abgereist

‘My brother has left’

(SV)

The thetic judgment on the other hand is a logically ‘simple’ judgment consisting of the mere act of recognition or rejection of the content of a predicate that essentially registers a state of affairs without differentiating a subject and a predicate. In other words, in a thetic judgement, all that is asserted is an ‘event’, an ‘eventuality’, and the existence of entities associated with an event is only indirectly entailed. This is shown in (6.58) below:

(6.58.) Es regnet

‘It is raining’

According to the theory of Brentano and Marty such dichotomy is not formally reflected in languages as distinct word order patterns. Nonetheless,

researchers like Lambrecht (1994) have expressed the view that actually these abstract conceptual strategies are in some languages are spelt out as distinct word order patterns. However, for Lambrecht such schemata are eventually downgraded to distinct pragmatic strategies: in particular thethetic judgement is equated to a presentational or event-reporting discourse strategy, formally realized in some languages as V-initial orders, while the categorical judgment is equated to a topic-comment pragmatic partitioning. Although I cannot go in detail for space limitations, I assume that this is problematic for two direct reasons. On the one hand, even SV(O) orders (or even OV; see 6.32-6.33) can be used as a means of reporting events /introducing new entities into a discourse, while on the other hand an SVO order does not necessarily give rise to a topic-comment partition. As such, if the two mappings I have talked about, namely the predicational and the non-predicational one, can indeed be boiled down to the categorical vs. thetic dichotomy, I am retaining Gécseg & Kiefer's (2009) implementation, where there is no direct—at least—matching with pragmatic strategies¹⁰⁸.

In the remainder of this Chapter, I shift attention to the impact of doubling on the C/I interface and orders that involve preverbal objects.

¹⁰⁸ Regarding the resulting 'dual' treatment of IS, one strictly pragmatic and one logico-semantic, there is a question that arises: Could the pragmatic rules or templates [topic-comment], [focus-background] and [ground-new] that trigger topic, focus and ground information material displacement respectively boil down to the existence of the conceptual predicative strategy? Such a possibility does not look implausible: If the predicative mapping involves recognition of a logical subject prior to predication then one could assume that the trigger for focus, topic and ground material displacement does not have to be due to existence of three distinct pragmatic IS interface templates but instead to a conceptual necessity for a logical subject to be identified prior to predication. I am leaving this possibility open for a future discussion.

5. On Doubling¹⁰⁹, Topichood and Object Fronting

In Chapters 3 and 4 I argued that the two most productive doubling constructions in Greek, namely, CLLD and CD illustrated in (6.59a) and (6.59b) below are structurally related, in the sense that CLLD involves a step of CD in its derivation. It was also argued that what differentiates CLLD from CD is that CLLD involves further A-bar movement to the preverbal domain. In other words, it was shown that the syntactic properties of CLLD are deduced from the properties of CD plus the syntactic properties of A-bar movement.

(6.59.) a. *ti Maria den ti filise kanis* (CLLD)
the Maria not her-CL kissed no one
 ‘Maria, nobody kissed her’

b. *kanis den ti filise ti Maria* (CD)
no one not her-CL kissed the Maria
 ‘Nobody kissed Maria’

In what follows, in the same line of argumentation, I will show that the effect of doubling on the C/I interface (or what is more commonly referred to as ‘the licensing conditions’) is the same for both doubling constructions, that is, CLLD and CD, attempting a functional unification despite the well-attested view in the relevant literature that CLLDed and CDed DPs actually license different pragmatic effects. Anticipating the discussion, I will argue that doubling clitics invariably mark a DP as [Topic]. Towards the end of the Chapter I will discuss the interpretive discrepancies between CLLDed and (non-focal) LDed DPs:

¹⁰⁹ Note that throughout this section I will be using the term ‘Doubling’ to refer to the general strategy of doubling Greek has, irrespective of whether the doubled DP occurs dislocated in the left periphery (i.e. CLLD) or in the post-verbal domain (i.e. CD).

(6.60.) a. *ti Maria ti sinoðepse o Kostas* (OclVS)
the Maria her-CL accompanied the Kostas.nom
 ‘Maria Kostas accompanied her’

b. *ti Maria sinoðepse o Kostas* (OVS)
the Maria accompanied the Kostas
 ‘Maria Kostas accompanied’

The organization of this part is as follows: in 5.1 I sketch out the core aspects of the approach on doubling adopted in this thesis. In 5.2 I draw attention to some—apparently—problematic aspects for this functional unification. Finally, in section 5.3 I will offer a new approach regarding the interpretive discrepancy between CLLDed and non-focal LDed DPs.

5.1 Topichood: CLLD and CD

Although the situation is somewhat complicated due to the fact that the term ‘topic’ is used to describe many things in Greek linguistics (I will come back to this shortly), there has always been a consensus that dislocated-to-the-left-periphery doubled DPs are (sentential) ‘topics’, topichood being defined in terms of old or presupposed information (see Philippaki-Warbuton 1985, 1987, Tsimpli 1990). Thus in (6.61) below the CLLDed DP ‘*ti Maria*’ is a topic because it corresponds to the given part of the utterance it shows up.

(6.61.) A: Who kissed Mary?
 B: [*ti Maria*] *ti filise o Nikos* (CLLD)
the Maria her-CL kissed the Nick.nom
 ‘Maria, Nick kissed her’

However, this direct association of topichood with old information runs into problems since CLLDed DPs can sometimes introduce non discourse-active (not-evoked along the lines of Chafe 1976) referents. This is shown in the example below:

(6.62.) A: What's going on outside? What are all these voices?

B: [kaption perastiko] ton kiniyane kati skilia

some passer-by him-CL chase-3p some dogs

'Some passer-by is being chased by some dogs'

For reasons like this, Alexopoulou (1999) and Alexopoulou & Kolliakou (2002) propose instead that doubled DPs are 'links' along the lines of Vallduvi's (1990, 1992) 'information updating' view of discourse. In this light, a CLLDed DP acts as anchor for focus indicating the entity ('file-card) to which new information should be added, while its referent is either selected out of a discourse prominent set or is merely related to some discourse prominent entity, along the lines of Hendriks & Dekker's (1995) 'non-monotone anaphora'.

Although this analysis overcomes the problem related to discourse givenness, nonetheless, it has two major shortcomings. On the one hand, the CLLDed phrase, or rather its referent, in fact does not have to be selected out of a discourse prominent set or be related to some discourse prominent entity. For the sake of the argument, the CLLDed DP 'some passer-by' in (6.56) above seems to verify this, since it is neither selected out of discourse prominent set nor is related to any prominent discourse entity. On the other hand, this information updating function that CLLD is supposed to perform can be also achieved by means of mere LD¹¹⁰, in an environment where this dislocated phrase can also be meant as being related to some discourse prominent

¹¹⁰ Recall that I reserve the term LD and LDed here to refer to non-focal fronting and non-focal fronted DPs respectively. I refer the reader to the discussion of terminological issues explained in Chapter 4.

referent. This is shown below in (6.63), where the DP ‘the solution’ is clearly related to the discourse entity ‘the problem’ while it can also be said that it updates information since it introduces a new referent into the discourse (‘Aris’):

- (6.63.) A: To provlima ine panðiskolo
 The problem was very difficult
 B: praymati, ti lisi vrike mono o Aris... (LD)
indeed, the solution found only the Aris
 ‘It was only Nick that found the solution’

Given this, I assume that the term ‘link’ is empirically unmotivated, at least if preserved only for CLLDed DPs. Leaving CLLD aside for a moment, let me briefly deal with CD, illustrated below in (6.64):

- (6.64.) EGO ti filisa ti Maria (CD)
I her-CL kissed the Maria
 ‘It was me who kissed Maria’

Unfortunately, the literature of the last twenty years, although it sometimes points out the interpretive relation that CDed DPs have with CLLDed ones, has systematically avoided to use the term ‘topic’ (in whatever meaning the term has been used) for DPs occurring postverbally, partly as a consequence of the assumption that topics occur in a preverbal position in the CP domain, presumably heading some Topic phrase (see Kiss 1995, 1998, Tsimpli 1995, Rizzi 1997, Baltazani 1999, Belletti 2000, Roussou 2000 among many others). This being so, CDed DPs have been assigned various different interpretation labels such as ‘old information’, ‘specific information’, ‘prominent/familiar information’ (among others), therefore clitic doubling having essentially been treated as an ‘oldness’, ‘specificity’, or ‘prominence/familiarity’ marking

mechanism, respectively. Now, given this, and in line with what has been anticipated, I assume that doubling invariably marks a DP as a [Topic]. In this light, and before I go into more detail, let me highlight something important for the course of the discussion: In order to avoid confusion, from now on I will be using the term ‘topic’ in order to refer to a particular kind of discourse function—and not to any particular syntactic position.

Going back to the analysis, the ‘what about’ question coined as a test for topichood verifies this:

(6.65.) What about the book?

a. [to vivlio] to δiavasa
 the book it-CL read-1s
 “The book, I read it”

b. to δiavasa [to vivlio]
 it-CL read-1s the book

The immediate advantage of this analysis is that the effect of doubling is treated as one and the same irrespective of whether the doubled DP occurs preverbally (i.e. CLLD) or postverbally (i.e. CD)¹¹¹:

(6.66.) a. [_{TOP} tin Maria] ti filise o Kostas (CLLD)
the Maria her-CL kissed the Kostas
 ‘Mary, KOSTAS kissed her’

¹¹¹ I am not implying here that CLLD and CD should always enjoy the same degree of ‘naturalness’ or appropriateness in a given context, and/or that there are not discrepancies between them; after all we are dealing with two distinct constructions and the topic-comment interface rule I introduced in the previous part of this Chapter is fulfilled only by CLLD. What is crucial here is only the assumption that both CLLDed and CDed DPs function as topics. For more on the function ‘topic/topichood’, consider the discussion that follows.

- b. o Kostas ti filise [TOP ti Maria] (CD)
the Kostas her-CL kissed the Maria
“It was Kostas that kissed Mary”

But what is a topic after all? One of the most attractive and well-cited definitions of the pragmatic function [topic] is the one provided by Reinhart (1981), according to which an XP functions as topic when its referent/denotatum is meant to be ‘what a sentence is about’ in a given context. Under this definition then, the DP [the Maria] in (6.66) is a topic since its referent is perceived as the entity that the rest of the sentence is about. However, there are a couple of problematic aspects with this view that will make us to look for some other more subtle definition of topichood. The first problem has to do with the fact that under this definition of topichood we automatically lead ourselves to the commitment that all sentences should have only one topic. However, this is not the case. In (6.67) below it is absolutely plausible for someone to assume that the sentence is about ‘he’ and ‘his car’. Note also that in (6.62) the doubled DP ‘the car’ interpreted as a topic occurs in the postverbal domain without any impact on its interpretation:

(6.67.) A: I can’t give you my car. Why don’t you ask Ares?

B1: [TOP aftos] [TOP to aftokinito tu] den to sini me tipota...
he the car his not it-CL give-3s with nothing
 ‘That one wouldn’t give his car, no matter what...’

B2: [TOP to aftokinito tu] [TOP aftos] den to sini me tipota...
the car that-one.nom not it-CL gives with nothing

In the same spirit, if a topic was simply ‘what a sentence is about’, one could wonder why for instance a focused element cannot be doubled by a clitic in contexts where the referent of the focused item can easily be interpreted as the

element about which a sentence is uttered. However, it is a well known property of doubling in Greek that doubled DPs cannot bear focal stress (see Alexopoulou 1999, Keller & Alexopoulou 2001 and references there):

(6.68.) A: I am gonna wear this black shirt₁ tonight. What do you think?

B: AFTO₁ na (*to) valis; su pai poli.

this SUBJ it-CL put-2s; to-you suits-3s well

‘Yes, you should were that one; it suits you very well’

In this light, I assume that topichood is the pragmatic function under which the referent of a linguistic expression is understood as being in a particular pragmatic relation with a predicate, namely one where what is denoted by the verbal predicate is understood as a comment about that referent in a given context. For us topichood is the particular relation between two categories, say a DP and a verb, rather than an absolute ‘aboutness’ label on some category: a DP is a topic insofar the predicate is understood as a *comment* about that DP in a given context. It is only in this sense that doubling marks topichood.

(6.69.) *Topichood as a Holistic Function*

[[TOPIC]—[COMMENT]]

Furthermore, talking in terms of focusing, I take topic expressions to be essentially part of what Vallduvi (1990, 1992) calls ‘ground’, that is, the material upon which new information is added into the discourse (the ‘anchor’). Crucially, however, it is not that all ground DPs function as topics, while, on the other hand, topics are necessarily ground material (as we have seen doubled DPs cannot participate in utterances answering all-new information questions).

For the line of argumentation I follow, the fact that topics cannot be focused is simply because the function [topic]—as defined in (6.69) above—is essentially

the pragmatic counterpart of the pragmatic-semantic function [focus] which I take to be a function of ‘identification’ or ‘presentation’: if in topic-marking the communicative strategy is to make a comment or predicate something about some referent in a given context, in focusing the strategy is essentially to insert or re-insert some referent(s) into the discourse as the missing information in an open proposition (I refer the reader to Rooth 1992, Krifka 2001, Büring 2001 among others).

On the other hand, the fact that topics are necessarily part of the ground partition of an utterance can be rather straightforwardly accounted for by assuming that we typically comment things on after they have been first inserted into the discourse, or things that their referents are meant as salient/accessible enough (cf. Chafe 1976, 1987) either by them being physically present or situationally evoked by virtue of being e.g. related to some other discourse salient entity. In this light, I assume that notions like oldness, specificity, presupposition, familiarity and prominence, often put forward as possible interpretive effects of doubling, are only epiphenomenal, straightforwardly derived from properties of the pragmatic function [topic].

Now given these observations, let me consider some more cases that will further support the idea that doubling marks topichood and that virtually this can be done either in the preverbal or post-verbal domain (i.e. CLLD/CD respectively). To begin with consider the following case:

(6.70.) A: Tell me something impressive that you have done....

B: I once won a 40km Marathon.

A1: Siya to prama; ki eyo to kano [TOP afto] (CD)

not the thing; and I it-CL do-1s this

‘Big deal; Even I could do this’

A2: Siya to prama; [TOP afto] to kano ki eyo... (CLLD)
not the thing; this it-CL do-1s and I

In A1 and A2 the full pronoun ‘this’ appears doubled by a clitic in the postverbal and preverbal domain respectively. Note that the denotatum of the pronoun ‘this’ is ‘winning a 40km Marathon’ which has been introduced into the discourse as new information (focus) in the previous discourse. The speaker by marking a category as topic essentially marks that the predicate is understood as a ‘statement’ about the referent/denotatum of the category that is the topic.

Consider now the following case: Suppose that some individual walks into a dentist’s for some examination. When the patient opens his mouth for the first time the doctor utters (6.71):

- (6.71.) a. poses fores ti mera ta plenis [TOP ta δondia su]?
how-many times the day them-CL brush-2s the teeth yours
 ‘How many times per day do you brush your teeth?’
- b. [TOP ta δondia su] poses fores ti mera ta plenis?
the teeth yours how-many times the day them-CL brush-2s
 ‘How many times per day do you brush your teeth?’

In both utterances—that are perceived as absolutely felicitous in the context described above—the DP ‘your teeth’ appears doubled by a clitic—in a CDed fashion in (6.71a) and in a CLLDed fashion in (6.71b). The speaker by uttering (6.71a/b) picks out the referent of the linguistic expression ‘the teeth’ and asks something about that. Note here that unlike (6.70), the topic referent is ground material not because it has been inserted into the previous discourse; rather it is situationally evoked: a patient goes to a dentist to check his dental hygiene and this is knowledge shared by both the dentist and the patient. In a

similar way, the mother in the following communication exchange by uttering (6.72B1/B2) essentially asks something about the referent of the DP ‘your homework’. And yet again, the DP is evoked, that is situationally salient, because both interlocutors know that it is a rule that kids can go outside only when they have finished their homework:

(6.72.) A: Mum, I am going out, OK?

B1: ta ekanes [TOP ta maθimata su]?
them-CL did-2s the homeworks your
 ‘Have you done your homework?’

B2: [TOP ta maθimata su] ta ekanes?
the homeworks your them-CL did-2s
 ‘Have you done your homework?’

However, a linguistic expression—or rather its referent—does not always have to be evoked, that is, be salient in a given communication exchange in one or the other way, in order for it to be able to be used as a topic. Consider for instance the following two cases in (6.73) and (6.74):

(6.73.) A: that municipal police is so overdoing it sometimes...

B: Tell me about it!

B1: ...[TOP ton patera mu] ton grapsane 10 forES fetos
the father mine him-CL fined-3p 10 times this-year
 ‘My father they fined him 10 times this year!’

B2: ...10 forES ton grapsane [TOP ton patera mu] fetos
10 times him-CL fined-3p the father mine this-year

(6.74.) A: Our city has become very dangerous lately...

A1: [enan jitona mas] ton piasane jia narkotiKA tis proales...
one neighbour ours him-CL caught-3pl for drugs the other-day
 ‘Some neighbour of ours they arrested him for drugs the other day’

A2: tis proales ton piasane [enan jitona mas] jia narkotiKA...
the other-day him-CL caught-3pl one neighbor ours for drugs

Revealingly enough, there is no means by which the DPs ‘my father’ and ‘some neighbour’ can be seen as evoked, either textually or situationally or due to shared knowledge. Ultimately, they both introduce a new referent into the discourse something which is further supported by the fact that in the latter case the DP occurs in a non-definite fashion, an indication that its referent is virtually inactive by the time the sentence is uttered (cf. Chafe 1976, 1987, Lambrecht 1994, Slioussar 2007 among others). This being so, I assume that what justifies marking a category as a topic is not the category per se or/and its relation to the discourse or the shared knowledge between the interlocutors, but rather its relation to the predicate and how all this is relevant for the purposes of the context it shows up in; in line with what has been anticipated earlier, I take the topic function to be the holistic aboutness relation that holds between some entity and a predicate, rather than a descriptive label concerning some DP (or any other category).

This observation can also account for cases of (wh-) questions where the direct object has been marked as a topic without its referent being evoked in some way. The example in (6.75) illustrates this:

(6.75.) A: Dad, can I ask you something?

B: Go on...

A1: jiatı ta astra ta vlepume mono to vrađi?
why the stars them-CL see-1p only the night

‘Why do we see the stars only in the night?’

A2: *jiati ta vlepume ta astra mono to vraði?*
why them-CL see-1pl the stars only the night

Speaker A can actually utter either A1 or A2 out of the blue. In this example, the referent of the topic phrase ‘the stars’ is not evoked, textually or situationally. The only thing that is actually evoked in the speaker’s mind in order to ask this kind of question is his belief that stars can indeed only be seen during the night.

Summarizing the discussion, in this section I argued that (a) CLLDed and CDed DPs are invariably marked as topics, and that (b) topichood should be seen as a holistic function between some entity and a predicate: a topic is not simply what a sentence is about, but the pragmatic relation of aboutness between an entity and a predicate. In what follows I will try to tackle the question concerning the interpretive discrepancies between CLLD and (non-focal) LD.

5.2 Topic Fronting vs. Ground Fronting

In Chapter 4 it was mentioned that Greek has been assumed to be a language like Italian in that non-focal (definite) DPs objects are obligatorily doubled by a clitic when they show up dislocated in the left-periphery (see Tsipplakou 1998). At first sight examination of data like these below seems to verify this:

(6.76.) *ton Ari *(ton) iða*
 the Ares him-CL saw-1s
 ‘Ares, I saw him’

(6.77.) to aftokinito *(to) pliname xtes
the car it-CL washed-1p yesterday
 ‘The car we washed it yesterday’

However, as it has been also pointed out in Chapter 4, researchers like Alexopoulou (1999), Alexopoulou & Kolliakou (2002), Roussou & Tsimpli (2006) and ultimately Gryllia (2009) have convincingly argued in the light of examples like the one in (6.78) below that Greek allows for such DPs to occur undoubled:

(6.78.) Yesterday the State Theatre began its winter season with Erofilo by Hortatsis.
 [tin parastasi skinothetise o Karolos Koun.
the performance directed-3s the Karolos Koun
 ‘The performance Karolos Koun directed’.

(Adopted from Alexopoulou & Kolliakou 2002:196)

With respect to that, the question that arises is twofold: which are the conditions under which LD¹¹² becomes possible, and, what eventually differentiates LD from CLLD? In what follows I will try to answer this question. To anticipate, I will argue that the two types of dislocation reflect two distinct types of IS strategies. Before I present the current proposal, I will first discuss some existing alternatives.

5.2.1 The literature

Recall from the discussion in the previous section that according to Alexopoulou & Kolliakou (2002) CLLDed DPs are links along the lines of

¹¹² As a reminder to the reader, throughout this thesis I use the term LD for fronting of non-focal objects unlike CLLD which involves a doubling clitic.

Vallduvi (1990, 1992) that is, they indicate the entity (the ‘file-card’) where new information should be added and stored in an information-updating system of communication; in other words, links are part of the ground partition of the utterance upon which new information is added. The other core property of links is that their referent is supposed to be in a relation of non-monotone anaphora with some discourse entity—along the lines of Hendriks & Dekker (1995)—that essentially says that a link’s referent is either selected out of a discourse prominent set of entities, or is just related to some other discourse prominent entity (*subselectional* and *relational anaphora* in their terms). Crucially, Alexopoulou & Kolliakou’s (2002) claim is not only that CLLDed DPs are links but that linkhood in Greek is formally realized exclusively as CLLD, their conclusion being that LDED (‘topicalised’ in their terms) DPs cannot be links. However, this cannot be true; if linkhood is indeed ground information plus non-monotone anaphora we can—rather easily—find LDED DPs which are equally (a) ground—so they function as anchor for focus and information updating giving rise to focus domains smaller than the whole utterance— and which (b) furthermore stand in a relation of relational or sub-selectional anaphora with some discourse prominent entity or set of entities. For instance, consider the following cases:

(6.79.) A: That math problem was very difficult, wasn’t it?

B: praymati, na fandastis [ti lisi] vrike mono o Aris
indeed, SUBJ imagine-2s the solution found only the Ares
 ‘Indeed, the solution only Ares found’

(6.80.) A: Who escorted your friends to the party?

B: I don’t remember about everyone
 pandos [to Niko] nomizo oti sinoðefse i Maria...
though the Nick-acc think-1sg that escorted the Maria-nom
 ‘Nick, however, I think that Mary escorted’

In the examples above, the undoubled fronted DP objects ‘the solution’ and ‘Nick’ are ground information, functioning as anchor for new information (the subject in 6.79; the verb and the subject in 6.80). Moreover, the referents of the linguistics expressions ‘the solution’ and ‘Nick’ can also be said that they fulfill the non-monotone anaphora requirement for linkhood, since in (6.79) the fronted object is clearly related to the discourse salient DP ‘the problem’, whereas in (6.80) the object is meant as being selected out of a discourse salient set (i.e. the set of ‘your friends’). Thus, it seems that Alexopoulou & Kolliakous’ distinction between [+Link] and [-Link] for CLLDed and LDed DPs respectively cannot account for the interpretive discrepancy between CLLD and LD even if we assume that CLLDed DPs do indeed constitute ‘links’ along the lines of Vallduvi (1990,1992).

Another problem with Alexopoulou & Kolliakou’s account is that it does not really say anything about the conditions under which this kind of non-focal LD occurs. Recall from our discussion in Chapter 4 and earlier in this section, that this construction is less-productive than CLLD, in the sense that dislocation of the object DPs below is not just infelicitous, but is perceived as ungrammatical irrespective of the general discourse context it occurs in:

(6.81.) ton Ari *(ton) iða
 the Ares him-CL saw-1s
 ‘Ares, I saw him’

(6.82.) to aftokinito *(to) pliname
the car it-CL washed-1pl
 ‘The car we washed it’

(6.83.) tin kopela tu Ari *(ti) vrisko asximi
the girlfriend of-the Ares her-CL find-1s ugly
 ‘Ares’ girlfriend I find her ugly’

So, the question still remains unanswered: where does the difference—if any—between CLLDed and LDed DPs reside, or, alternatively, what minimally differentiates LD from CLLD? And while for CLLDed DPs I have shown that they constitute topics (see previous section), the question about LDed DPs is still open. Now, what about if LDed DPs realized some other kind of topic function than the one that CLLDed DPs do? Such a hypothesis is not unmotivated: several researchers have expressed the idea that there are different kinds of topics that do not necessarily behave alike with respect to each other, in terms of syntax, phonology and morphology (see Neeleman & van de Koot 2007, Vermeulen 2007, 2008, Frascarelli & Hinterhölzl 2007, Frascarelli & Bianchi 2009 among others). Let me adopt here Frascarelli & Hinterhölzl's (2007) tripartite distinction between *Aboutness/Shift* Topics, *Contrastive* Topics and *Given* Topics. For our case, in order to show that this fragmentation or specialization hypothesis is on the right track, it would suffice if we could show that there are interpretations that are exclusively realized via either CLLD or LD. However, the prediction is not borne out. It seems that all three kinds of Frascarelli & Hinterhölzl's (2007) interpretations or functions can be expressed by both means, that is, CLLD and LD. (6.84) illustrates this for CLLD, and (6.85) illustrates the same for LD:

(6.84.) **Clitic Left Dislocation**

a. *Aboutness/ Shift Function*

That math problem was very difficult...

.. [ti lisi] ðen ti vrike ute o Ares...

the solution not it-CL found nor the Ares

'The solution, not even Ares found it'

b. *Contrastive Function*

A: Who drank the whiskey? Nick?

B: I don't remember...

... pandos [tin votka] tin ipie siyura o Aris
though the vodka it-CL drank for-sure the Ares
 'However, the vodka ARES drank it'

c. *Givenness Function*

A: Who escorted Maria to your party?

B: [ti Maria] ti sinoðefse o Nikos
the Maria her-CL escorted the Nick
 "Mary Nick escorted her"

(6.85.) **Left Dislocation**a. *Aboutness/ Shift Function*

That math problem was very difficult, wasn't it?

praymati, na fandastis [ti lisi] vrike mono o Aris
indeed, SUBJ imagine-2s the solution found only the Ares
 'Indeed, the solution only Ares found'

b. *Contrastive Function*

A: Who drank the whiskey? Nick?

B: I don't remember...

... pandos [tin votka] ipie siyura o ARIS
though the vodka drank for-sure the Ares
 'However, the vodka ARES drank it'

c. *Givenness Function*

A: Who escorted Maria to your party?

B: [ti Maria] sinoðefse o Nikos, nomizo
the Maria escorted the Nick, I think
 'Mary NICK escorted, I think'

As becomes evident, this specialization hypothesis does not work either, and it thus has to be abandoned.

Last, but not least, let me refer to Gryllia's (2009) recent contribution which essentially follows a similar 'specialization' path. In a nutshell, the kernel of this account is that LDed and CLLDed DPs are topics 'of a different level'. In particular, in her analysis Gryllia exploits the idea that there are two different kinds of topics, topics of 'sentential level' (s-topics) and topics of 'the discourse level' (d-topics). An s-topic is supposed to be the expression whose referent a mere sentence is about, and is obligatorily fronted in the preverbal domain along the lines of Reinhart (1981), while a d-topic is the referent of some linguistic expression that appears to be the topic of a stretch of discourse that is larger than a simple sentence (cf. van Dijk 1977, Reinhart 1981). Gryllia uses the example below (originally from Alexopoulou & Kolliakou 2002) in order to illustrate the function of d-topic:

- (6.86.) a. In 1899, Uncle Vania was performed for the first time in Moscow
 b. o Stanislavski skinoθetise [D-TOP tin parastasi]
the Stanislavksi directed the performance
 'Stanislavski directed the performance'
 c. Afti ynorise meyalι epitixia
it met big success
 'It was a great success'

In the example above—according to Gryllia's analysis—the DP object [the performance] is meant to be a d-topic since the discourse continuation provided by the utterance in (c) is also about the referent of that DP. In what (6.87) below differs from (6.86) is that in the latter case the d-topic has moved to the preverbal domain:

- (6.87.) a. In 1899, Uncle Vania was performed for the first time in Moscow
 b. [D-TOP tin parastasi] skinoθetise o Stanislavski
the performance directed the performance
 ‘The performance, Stanislavski directed’
 c. Afti ynorise meyali epitixia
she know big success
 ‘It was a great success’

(Examples adopted and adapted from Gryllia 2009:70, 72)

In this light, Gryllia (2009) then puts forward her proposal which is summarized as follows:

[...] a preverbal object has to be taken up by a clitic in cases that it cannot be interpreted as a discourse-topic. (Gryllia 2009: 72)

Despite the appeal that such an analysis may have at first sight, it runs into serious problems, both on theoretical and empirical grounds. In what follows I will highlight only some of these. To begin with, if we scrutinize the core of the proposal given in above we will see that it ultimately makes three—at least—predictions. These predictions are as follows:

(6.88.) Predictions

- (i) a LDed DP has to be either a (fronted) d-topic, or a d-topic and an s-topic at the same time; that is, it cannot be a mere s-topic.
- (ii) a CLLDed DP is obligatorily an s-topic; if it were a d-topic too, it should occur cliticless.
- (iii) for a DP to be interpreted as an s-level topic only, it is has to show up in a CLLDed fashion.

In what follows, I will show that none of the aforementioned predictions is borne out by the data. Let me first show why (i) cannot be true. For the sake of the argument consider the following example:

- (6.89.) a. That damn math problem was very difficult
 b. [ti lisi] vrike mono o Aris , na fandastis...
the solution found only the Ares, SUBJ imagine-2s
 ‘Just imagine that the solution only Ares found’

According to (i) above, the fronted object in (b) must either be a mere fronted d-topic or an s-topic and a d-topic at the same time. However, this assumption is problematic. On the one hand, I cannot see how the DP ‘the solution’ can be a d-topic since by considering sentence (a) one would say that the d-topic is the ‘problem’ or ‘the degree of difficulty some problem had’. That the DP ‘the solution’ cannot be a d-topic is further supported by the fact that in (6.90) below sentence (c)—which functions as a discourse continuation in Gryllia’s terms—clearly shows that the d-topic is indeed ‘the problem’ and not the fronted DP ‘the solution’. Still, the fronted DP can show up undoubled, that is, in a LDed fashion:

- (6.90.) a. That damn math problem was very difficult
 b. [ti lisi] vrike mono o Aris , na fandastis...
the solution found only the Ares, SUBJ imagine-2sg
 ‘Just think that the solution only Ares found!’
 c. Pandos nomizo oti **to** ixa ksinandisi kapu...
 ‘And the thing is that I had come across **it** (=the problem) again..’

In the same spirit consider also the following discourse stretch in (6.91):

- (6.91.) a. The expected 100m race was held yesterday
 b. [Tin proti thesi] katelave o aθlitis apo tin Elaða

the first place occupied the athlete from the Greece

‘The first place the athlete from Greece won’

c. Prokite jia enan neo aθliti pu....

‘He’s a new athlete that...’

Applying Gryllia’s line of argumentation the LDed ‘the first place’ is the discourse topic. However, this cannot be the case: the d-topic of the first two sentences is ‘the 100m race’. When the continuation (c) is taken into consideration then it is rather obvious that the d-topic of the discourse stretch created by sentences (b) and (c) is ‘the athlete from Greece’. Still, the LDed DP is unproblematic.

Moving on, let me now show why the second of the aforementioned predictions is equally problematic. In order to do so, consider the following discourse stretch:

(6.92.) a. Ares has a natural talent in foreign languages

b. iðika ta aglika *(ta) milai san proti ylosa
especially the English it-CL speak-3s like first language
 English, especially, he speaks it like a first language

c. But OK, English is a relatively easy language of course...

Recall that, according to the second of the predictions above, an object is taken up by a clitic when it cannot be understood as a d-topic, that is, as the topic of a stretch larger than a mere sentence. In that sense, the fronted DP ‘English’ in (b) is also a d-topic since the discourse continuation provided by (c) is about the referent of that DP. However, not only CLLD is not banned, but actually in this particular example CLLD looks like the only option, despite the fact that the DP ‘English’ is a d-topic according to the definition of d-topichood Gryllia adheres to.

The third prediction is also not verified by the data. According to (iii) above for a DP to function as a mere s-topic it has to be taken up by a clitic; however, this cannot be the case. The example in (6.93) below illustrates this:

- (6.93.) a. Who escorted Eleni yesterday at the party?
 b. [tin aderfi tis] prepī na sinoðefse o Nikos...
 the sister her should SUBJ escorted-3s the Nick-nom
 ‘Her sister Nick should have escorted ...’
 c. ...As for Eleni, I don’t remember, sorry.

In clause (b) above the DP object ‘her sister’ shows up dislocated in a LDED fashion. According to Gryllia’s analysis one would expect that this is because that DP is meant to be the topic of the particular discourse stretch it appears in. However, considering (a) and (c) this does not look to be the case. Thus, the fronted DP in (b) is not the topic of the discourse; in other words, it can only be the topic of the sentence it occurs in, that is (b). But if a fronted topic is taken up by a clitic when it does not function as a d-topic, then yet again Gryllia’s account makes the wrong predictions: a DP can occur dislocated in the left periphery clitic-less, even when it clearly does not constitute a d-topic, that is, when it is a plain s-topic.

For the above exposed reasons then, I assume that the distinction between CLLD and LD cannot be captured through this sentence level and discourse level topichood. In what follows in 5.3.2 I will put forward an alternative account.

5.2.2 The Current View

Building on what has already been pointed out earlier about doubling, topics and topichood in this section, and about the syntax-C/I Interface in section 2, I assume that what minimally differentiates CLLDED and LDED DPs of the sort examined in the previous section is that only the former DPs are topics, while

the latter constitute merely (fronted) ground information, that is, material that function as anchor for new information. As such, I assume that LDed and CLLDed DPs satisfy different IS interface rules: In particular, CLLDed DPs chunk the utterance pragmatically into [topic-comment], whereas LDed DPs chunk the utterance pragmatically into [Ground-New Information].

Recall from the discussion earlier that the function ‘topic’ should not be seen as an absolute label of some category A; rather, it is the pragmatic relation of aboutness that this category stands in with a predicate verb B. In this light, I argued that a doubled DP is a topic because the predicate of the clause it shows up in is interpreted a comment about that DP. Given this, I assume that a LDed DP is not a topic, in the sense that, what follows it does not function as a comment about the dislocated category.

In order to see how exactly this works, let me go back to Alexopoulou & Kolliakou’s (2002) well-cited example which I repeat here as (6.94): (6.94a) involves a CLLDed object, while (6.94b) involves a LDed one:

(6.94.) The State Theatre began its winter season with Erofili by Hortatsis.

a. [tin parastasi] [COM tin skinothetise o Karolos Koun.]
the performance it-CL directed-3s the Karolos Koun
 ‘The performance Karolos Koun directed it’.

b [tin parastasi] [NEW skinothetise o Karolos Koun]
the performance directed-3s the Karolos Koun
 ‘The performance Karolos Koun directed’

(Adopted from Alexopoulou & Kolliakou 2002:196)

The speaker, by choosing to utter (a) above actually sees what the predicate denotes as a comment about the dislocated category; a property is ascribed on

that DP. As such, a clitic shows up. On the other hand, when the speaker utters (b) he does not see what follows the dislocated category as a comment about that category; rather, what follows simply conveys new information; in particular it introduces a new referent into the discourse, namely the director of the performance. Crucially, the dislocated DP does not qualify as a topic; rather it is fronted ground material upon which new information is added. Thus, in cases like these, information packaging is ultimately delivered by means of two different articulations. This is illustrated below in (6.95):

(6.95.) CLLD: [TOPIC] - [COMMENT]
 LD: [GROUND] - [NEW¹¹³]

In this light, regarding the controversy over the latter construction's name, I suggest that a name that captures both its syntactic and interpretational properties would be *Ground Fronting* or *Ground Dislocation* (GDL or GDL henceforth). Recall from the discussion in section 2 that the C/I articulations in (6.95) and the subsequent displacements in the overt syntax they may trigger are due to distinct conceptual bases: Topic fronting lies in the intuitive assumption that we typically comment something after it has been inserted into the discourse rather the other way round. On the other hand, ground fronting lies in two well known processing advantages associated with early mention of ground information: first, the earlier ground information occur in a sentence, the easier it is to link it to the previous discourse. Second, new information it is easier to integrate when the ground information has been processed. Since ground material by default represent more salient or more accessible information it is advantageous to be placed in a position where it precedes new information.

¹¹³ Alternatively one could assume that the complement of Ground is FOCUS instead of NEW information. I would like to remain agnostic regarding this, since the core idea remains rather intact either case is true.

The fact that in environments like that in (6.94) both strategies are in principle available is due to the fact that the two articulations are inherently related: recall from the discussion earlier that topics are ground information by default (an utterance with CLLD cannot answer an all-new information seeking question) and comments typically convey the part of utterance that is considered ‘new’ (or alternatively the one that contains focus); as such, both CLLDed and LDed DPs do not bear a prominent pitch accent (although I assume that there might be intonational discrepancies).

Despite the fact that the two strategies are inherently related and by-and-large interchangeable (for the reasons stated right above) and, as such, their functional specification can hardly be tested, nonetheless, there is some evidence favouring the idea that only what follows a CLLDed is a comment, and that ultimately that only CLLDed DPs are topics in the sense adopted in this thesis.

First, GRLD interacts with new information of focus more straightforwardly than CLLD does: what essentially happens with GRLD is that ground material—that is, information that is more salient or accessible for strict discourse, psychological or situational reasons—rolls back allowing new information to follow as the information nucleus of an utterance. Indeed, if we scrutinize over cases of GRLD this more direct relation with licensing of new information or focus is depicted in the interpretation. For the sake of the argument, while in (6.94a) the interpretation is “(As for) the performance, Karolos Koun directed”, (6.94b) involving a GRLDed DP is more naturally paraphrased as “The performance was directed by Karolos Koun” the role of the agent being highlighted.

A second piece of evidence that favours the idea that in GRLD there is no comment, and, ultimately, no topic, comes from a closer examination of discourse stretches like the one in (6.91) that I repeat here as (6.96):

- (6.96.) a. The expected 100m race was held yesterday
 b. tin proti θesi (#tin) katelave o aθlitis apo tin Elaða
the first place it-CL occupied the athlete from the Greece
 c. Prokite jia enan neo aθliti pu...
 ‘He’s a new athlete that...’

In (6.96b) CLLD looks as a rather unnatural option in that context. I assume that this is related to the fact that the reason that the speaker utters (b) is not to make a comment about ‘the first place’ but rather to present the entity that won that place after the race was held; (c) then naturally follows providing further details about the entity having been introduced into the discourse presented in by clause (b).

A final piece of evidence favouring the idea that we are actually dealing with two different strategies and that only with CLLD there is a topic-comment partition comes from the examination of cases like these illustrated below in (6.97) and (6.98):

(6.97.) A: What did you do with the book?

B: To vivlio *(to) ayorasa ...

The book it-CL bought-1s

‘The book I bought it’

B: tora prepι na to diavaso omos...

‘But now I have to read it...’

(6.98.) A: John’s mother is a very lovely lady...

B: afti ti jineka *(ti) θeoro spuδea..

That the woman consider-1sg great

A: OLI sti jitona tin ektimane

all in-the neighbourhood her-CL appreciate-3p

‘Everybody in the neighbourhood appreciates her’

In what the utterances above differ from those presented so far is that not only is LD disfavoured, but actually omission of the clitic leads to ungrammaticality. This should not come as a surprise for the line of argumentation I have been following: The reason for this is that—if we are right in that clitics mark a topic-comment pragmatic relation between an entity and a verbal predicate and that with GRLD what actually happens is that ground information rolls up leftwards in order for new referents to be introduced into the discourse—then in the absence of postverbal material, as it happens with the examples above then the only possible interpretation of the dislocated DP is that of a topic—or in other words the verb is necessarily interpreted as comment about that DP—and as such the clitic must necessarily be there.

6. Summary

In this Chapter I dealt with the syntax-C/I interface in Greek as far as word order is concerned. I argued that IS can refer to either pragmatic articulations or more abstract logico-semantic strategies. In this light I argued that Greek formally realizes via its word order two such strategies: a predicative and a non-predicative, the former surfacing as non-Verb initial orders and the latter one surfacing as verb-initial orders. It is only the predicative strategy that leads into a formal partition of the utterance between a logical subject and a logical predicate. In the next half of the Chapter, I dealt with the interpretive effects of doubling. In particular, I argued that doubling in Greek invariably marks a DP as a topic. Finally, I argued that non-focal left dislocated DPs in Greek are fronted ground material that serves an anchor for the introduction of new information into the discourse.

Chapter 7

Summary & Conclusions

My major aim in this thesis was to explore what regulates word order in Greek, a language with considerable flexibility in the way words are put together. For this purpose, in Chapter 1 I introduced the ‘classical’ distinction between configurational and non-configurational or discourse-configurational languages. I showed that languages cannot be only configurational and only discourse-configurational. As far as word order is concerned, it can be viewed as a linguistic means used to express both syntactic functions and discourse functions, where it is seldom the case that languages have their word order determined purely by syntactic principles or solely by discourse principles. All languages are somewhere on the continuum between these factors determining word order, reaching from high influence of discourse on one end of the continuum, to a high influence of syntax on the other. In this light, I devoted the first half of the thesis to an examination of the syntactic machinery in Greek, highlighting certain problematic or debated issues about the syntax of this language, while in the second half I dealt with the role of the discourse in word order variation. In particular:

In Chapter 2 I discussed some major aspects of the syntax of V-initial word orders in Greek insisting more on the properties of the ‘problematic’ VOS order. In respect with this, I argued that VOS minimally differs from VSO in that in VOS it is not the verbal head that moves to the TP domain—as it happens with VSO—but rather a larger constituent, arguably the *v*' node, as a case of pied-piping.

In Chapter 3 I dealt with pronominal clitics and I offered an alternative account on CD in Greek. In particular, I argued that CD does not involve two distinct D categories; rather, the doubling clitic is a mere re-spell out of features already present to a lexical DP merged as a verb's complement. I also showed that spell out of a clitic at [SpecTP] is driven by some optional EPP/EF feature of the T head that feeds predication. Finally, I argued that doubling in Greek should be seen as a parameterized version of object movement of the A-type.

In Chapter 4 I examined the syntactic properties of a range of constructions targeting the preverbal domain, the epicentre of the examination being CLLD and (non-focal) LD. Regarding the former construction, I showed that its mixed syntactic properties can be straightforwardly accounted for by assuming that it involves A-bar movement mediated by an A-step in the form of CD. In respect with this, and in line with what has been shown in the previous Chapter, I showed that CLLD and CD are indeed structurally related. As for LD, I showed that the construction displays mere A-bar movement characteristics and that what minimally differentiates it from CLLD is the absence of that A-step in syntax.

In Chapter 5 I shifted attention to information structure and I presented several models of intergrading discourse theory into the minimalist grammar. For the formal view, discourse functions and information structure properties are directly encoded in the narrow syntax via special features that trigger syntactic rearrangements. For the prosodic models, discourse functions are encoded as phonological properties and word order variation is the result of rules in the syntax-phonology interface. For the interpretive models, word order alternation occurs in order to facilitate a transparent mapping between continuous syntactic constituents and continuous blocks of the information structure.

In Chapter 6 I argued that IS can refer to either pragmatic articulations or more abstract logico-semantic strategies or both. In particular, I argued that Greek formally realizes via its word order two such conceptual strategies: a predicative and a non-predicative, the later formally realized as verb-initial orders, and the former one as non-verb initial orders. In this light, I argued that none of the current theories of discourse can fully account for word order in Greek if they do not allow for more abstract principles of the Conceptual-Intentional interface to be integrated into IS theories. Moreover, I argued that pragmatic articulations such as topic-comment, ground-new and possibly focus-background might actually reflect the predicative mapping, that is, partition of utterance into [entity]-[predicate]. In the next half of the Chapter, I dealt with the interpretive effects of doubling. In particular, I argued that doubling in Greek invariably marks a DP as the topic of a predicate verb, in the sense that what the verb denotes is meant as property or comment ascribed on the DP marked as topic. Finally, I argued that non-focal left dislocated DPs in Greek are fronted ground that serves an anchor for the introduction of new referents into the discourse.

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