THE SYNTAX AND PRAGMATICS OF SUBJECT AND OBJECT POSITION IN MODERN GREEK

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Abstract

This thesis investigates word order variation in Modern Greek (MG), and in particular, the order of subject, verb and object in declarative clauses. Unlike English, a simple Greek declarative clause consisting of a verb and its nominal subject and object can be rendered in all six logically possible combinations: VSO, VOS, SVO, OVS, SOV, OSV. The study seeks to account for certain issues - largely underexplored within existing accounts of Greek word order - such as the respective burden borne by syntax, morphology and pragmatics in MG clausal structure and order, and the markedness associated with each of the six orders.

A working assumption that this thesis adopts is that an adequate exploration of word order will have to incorporate insights from a variety of typological, formal, functional and cognitive perspectives in order to unfold the complex array of interdependent factors that relate to word order variation (Siewierska 1988: 266). Chapter 1 sets out the aim, outlines the research topic and offers an overview of the thesis. Chapter 2 details the issue of configurational clause structure with special reference to Greek and argues that a flat clause structure is to be preferred to a configurational one. Chapter 3 proposes a dependency-based clause structure consisting just of a verbal stem plus subject and object markers, and looks at some of the implications of the hypothesized structure. Chapter 4 argues for the concept of grammatical preference principle, as a means of accounting for certain markedness patterns associated with each of the six word orders. Two such principles are proposed which are argued to be part of Greek grammar, though influenced, perhaps by processing factors. Chapter 5 discusses the relation between linear order and pragmatic effects through a body of contextualized (spoken) data provided in an appendix.
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Στούς γονείς μου και
εις μνήμην Δήμητρος Μπιρμπίλη (1902-1992)
Πολλά τά δεινά κούδέν ἀνθρώπου δεινότερον πέλει τοῦτο... καὶ φθέγμα καὶ ἀνεμόεν φρόνημα... ἐδιδάξατο.

Σοφοκλέους Αντιγόνη, στίχ. 333, 353-4, Lipsiae: Teubner.
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Introduction

1.0 Aim and scope

The aim of this thesis is to investigate word order variation in Modern Greek (MG henceforth), and in particular, the order of subject, verb and object in MG declarative clauses. As is well-known, MG, unlike English, exhibits a great flexibility with respect to word order (Horrocks 1983, Philippaki 1985, 1987, Joseph and Philippaki 1987, among others). A system of rich nominal inflexion allows syntactic relations among clausal elements to be identified without being placed in fixed positions. Thus, for example, a simple declarative clause consisting of a verb and its nominal subject and object can be rendered in all six logically possible combinations, as illustrated in (1) below:

(1) (a) Latrevi ton iperealismo i Antigoni. VOS
    adore-3s [the surrealism]acc [the Antigoni]nom
    'Antigone adores Surrealism.'
(b) Latrevi i Antigoni ton iperealismo. VSO
(c) I Antigoni latrevi ton iperealismo. SVO
(d) Ton iperealismo latrevi i Antigoni. OVS
(e) I Antigoni ton iperealismo latrevi. SOV
(f) Ton iperealismo i Antigoni latrevi. OSV

(1a-f) are truth-conditionally, though not pragmatically, equivalent (Tzanidaki 1993, 1994). Nor are the six orders regarded as being equally 'common' or 'natural'. Traditionally SVO (1c above) has been taken to be the most common order (Tzartzanos 1963, Tsompanakis 1994); consequently MG has been classified as a predominantly SVO language (Greenberg 1966, Lightfoot 1981, Tomlin 1986, Mackridge 1985).

The ordering flexibility illustrated in (1) above has been accounted for in a variety of ways, the majority of which are syntactic and have been put forward within
Government and Binding theory (GB) (Chomsky 1981). However, despite the number of existing accounts of MG word order, there remains a number of issues which so far have received little or no theoretical attention. I turn to these issues next. Before, I should, however, point out that a similar word order flexibility is displayed by more complex sentences than those considered so far. Such may be, for example, sentences containing a clausal object instead of a noun object, shown in italics in (2) below:

(2) I Klio theli na parun ta pedja ptichio.

[the Klio]nom want-3s to get-3pl [the children]nom [diploma]acc

‘Klio wants the children to get their diploma.’

Thus, apart from the word order flexibility which may obtain within the bounds of matrix clauses, there is a type of flexibility which concerns the interclausal order of constituents. That is to say, constituents belonging to the matrix or na-clause in (2) above may appear outside their respective clausal domains, as shown in (2’) below:

(2’) (a) Theli na parun ta pedja ptichio i Klio.
(b) I Klio theli ta pedja na parun ptichio.
(c) I Klio theli ptichio na parun ta pedja.
(d) I Klio theli ta pedja ptichio na parun.
(e) I Klio theli ptichio ta pedja na parun.
(f) I Klio ta pedja theli na parun ptichio.
(g) I Klio ptichio theli na parun ta pedja.
(h) I Klio ptichio ta pedja theli na parun.
(i) I Klio ta pedja ptichio theli na parun.
(j) Ptichio i Klio theli na parun ta pedja.
(k) Ta pedja i Klio theli na parun ptichio.
(l) Ta pedja ptichio i Klio theli na parun.

1See, for example, Drachman (1985), Philippaki (1987), Catsimali (1990), Tsimpli (1990), Agouraki (1993), Horrocks (1992, 1994). In addition, Philippaki (1985) handles Greek word order variation by employing the Praguian notion of Functional Sentence Perspective (FSP) (Matthesius 1928), Laskaratou (1984, 1989) has offered an account in terms of Dik’s Functional Grammar (Dik 1980) and Horrocks (1983) has proposed a GPSG analysis.
Thus, in (2'a) above, the matrix subject ‘i Klio’ is right-moved to the end of the na-clause. More interestingly perhaps, the subordinate noun subject and/or object can move immediately before the complementizer ‘na’ (to) (2'b, c, d, e), or before the matrix verb (2'f-m). Finally, as shown in (2'n-p), it is also possible that the na-clause is fronted with the subordinate object or the matrix subject being shifted to the end; admittedly though, not all ordering patterns in (2') above share the same intonational profile let alone the same degree of processing ease and ‘stylistic correctness’. What is more, interesting though the order of the complex sentences in (2’) may be, it has to be said that such sentences are very rare indeed given that subject and object in Greek tend to be morphologically encoded, as will be argued in chapter 3; it is this use of morphology which renders the appearance of nominal subjects and objects in sentences such as in (2’) above very infrequent and marginal. As a last point, it should be stressed that, although I shall occasionally refer to and discuss word order patterns exhibited by such more complex sentences, the main focus of this thesis is the ordering flexibility of simple declarative clauses and a number of related issues to which I turn below.

1.1 Research questions

As I pointed out above, MG has a rich system of nominal inflexion. Apart from that, MG also has a rich verbal morphology. More specifically, the Greek verb with its subject and object markers allows for the identification of the respective grammatical relations (GRs), thus rendering the employment of full nominal subject and object notably rare. One issue which, thus, needs to be addressed is the respective burden borne by syntax, morphology and pragmatics in MG word order. More specifically, the following questions should be addressed and given an answer:
• given the rich verbal morphology of MG, why do full subject and object NPs need to occur at all?
• why is it that some of the six orders in (1) above, can be described, at least in a pretheoretical sense, as more 'common' or 'usual', as reflected not only by native speakers' judgements, but also in available statistics?
• why is it that the less usual of the six orders do occur at all?

In the chapters that follow I shall address in detail these issues and I shall propose an account for them.

1.2 Data and methodology

Methodologically, this thesis is a corpus-based study insofar as most of its illustrative material is taken from a corpus of mainly spoken data - of the standard Modern Greek variety - which I recorded during the course of my research. The database is representative of varying degrees of spontaneity and formality and, overall, it consists of 725 declarative clauses containing a transitive verb and its subject and object arguments. In particular, 171 clauses have been extracted from a phone-conversation, 108 from a three-person conversation (secretly-recorded), 136 from various TV/radio bulletins and programs, 158 from a novel and, finally 152 from various other spoken and written sources such as newspapers, magazines, novels, conversations, etc. A representative sample of the clauses displaying the six orders illustrated by (1) above is to be found in the Appendix at the end of this thesis. The data were collected and used with the following purposes in mind:

• they provide evidence for the hypotheses and analyses proposed;
• they reveal as wide a range as possible of the six order types shown in (1) above;
• contextualized as they are, the data in question offer us a useful source for investigating some of the pragmatic factors which might be at work in Greek clause structure and word order.
As far as I am aware, similar corpus-based studies of Greek word order are far from common, the one exception being Laskaratou's useful statistical study (Laskaratou 1984, 1989, 1994). Laskaratou's corpus, however, is written, and as a result many interesting properties of impromptu spoken data remain hidden. The present thesis, therefore, both in the domain of its inquiry, outlined in the previous section, and in its spoken-oriented database aims at contributing to this underexplored area of research in Modern Greek.

Naturally, as I shall detail in the chapters to follow, many of the issues I raise may also be relevant to more general cross-linguistic research, especially that relating to so-called 'free' or 'flexible' word order languages.

Finally, in spite of the corpus-based approach of this thesis, the ultimate goals of my work remain theoretical; I shall seek not only to describe the phenomenon in question but also to provide a principled explanation for why things are as they are, the key working assumption being that word order is such a highly complex phenomenon that any monodimensional approach is bound to fail to capture some aspects of this complexity. As Siewierska (1988: 266) concludes, word order phenomena should incorporate insights from a variety of typological, functional and formal studies since "...only an investigation of order that draws on each of these perspectives can hope to reflect the complex nature of the factors that need to be invoked in a cross-linguistic account of linearization." In what remains I shall briefly summarize the discussion of each chapter.

1.3 Organization of the thesis

The thesis is structured as follows: Chapter 2 discusses a key issue in syntactic theory, namely the branching configurational X-bar Structure adopted in many theories, and its implications for MG clause structure and word order. I specifically look at two types of accounts of MG word order, a configurational account offered by Tsimpli (1990) and a partly 'flat' account proposed by Catsimali (1990) and also Horrocks (1994). Given that

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2 According to Holman (1976 cited in Andersen 1983), the form and function of word order in spoken language differs from the form and function of word order in written language.
these two types of account represent a distinction between a fully configurational and a 'flatter' approach to the Greek clause, it follows that a critical evaluation of them may allow us to examine the extent to which a configurational approach fits the empirical data, and also, it sets a valuable context with which my alternative dependency-based approach could be compared. In particular, I argue that a number of assumptions and predictions of Tsimpli's account seem problematic, especially in the light of a series of areas of Greek syntax where a configurational approach would fail to accommodate the empirical facts of the language. Evidence in favor of this argument comes from the lack of subject-object asymmetries in a variety of MG grammar. In addition, I argue that the 'flatter' accounts for Greek, proposed by Catsimali (1990) and Horrocks (1994) incorporate a well-founded insight. Yet, they rely on machinery which current linguistic theorizing (Chomsky 1992, 1993, 1994, 1995, Chomsky and Lasnik 1993, Kayne 1993) seems to reject. The overall conclusion is that the branching configurational structure is inappropriate to a description of MG word order and that any account of MG word order should not only appeal to a formal system of generating the various word orders, but should also view the phenomenon in any other morphological, pragmatic, etc. perspective that may bear on its explanation.

Chapter 3 lays the foundations of an account of Greek word order based on Hudson's Word-Grammar theory (Hudson 1984, 1990), and in particular, his theory of Dependency syntax. The main focus of the chapter concerns the respective burden borne by morphology, syntax and indeed pragmatics in the Greek clause. It is argued that clause structure in Greek consists just of a verbal stem plus a subject and object marker. In addition, it is claimed that full subject and object NPs construable with these markers are merely adjuncts, their appearance in the clause being pragmatically triggered. It is furthermore argued that not only is this hypothesis in line with current theorizing on other 'free' word order languages, but also it may have implications for some key areas of Greek grammar including subject raising, non-overt and pleonastic subjects and clitic constructions.

Chapter 4 discusses the positional variation of subject and object nominals in the Greek clause, and in particular, the issue of markedness associated with each of the six orders, shown in (1) in section 1.0 above. I argue that as far as subject NPs are
concerned, they are merely adjuncts construed as being coreferential with the subject inflection on the verb. Hence their order both in relation to the verb (SV, VS) and to object (SO, OS) is syntactically free. However, following various typological studies on word order, I argue that as far as object nominals are concerned, their position in relation to the verb is crucial for setting the default head parameter in a language; I argue that only object NPs have the potential to function as proper arguments in Greek, since, unlike subject suffixes, object clitics are optional under certain circumstances.

Furthermore, it is claimed that a full nominal object tends to occur without an object clitic when it assumes the focal role which accords with the cross-linguistically high correlation between objecthood and focushood (Siewierska 1988, 1991). Unlike other theories of focus, however (Tsimpli 1990, 1995), which seem to imply a unitary concept of object-focus, I claim that MG uses the order of a full object NP in relation to the verb (VO, OV) to denote two distinct kinds of focus, i.e. new focus (VO) and contrastive/emphatic focus (OV), following Dik’s distinction (Dik et al. 1981, Dik 1989).

In addition, it is claimed that word order patterns in MG, as reflected by both native speakers’ intuitions and statistical evidence, could be accounted for by reference to the concept of ‘grammatical preference principle’, following Jackendoff (1988). Two grammatical preference principles (PPs) are hypothesized as being part of Greek grammar, although it could be argued that they ultimately arise from processing-related factors. It is argued that both these grammatical principles offer a means of explaining the markedness associated with certain orders in MG and that both their preferential and processing-motivated nature is supported by empirical and available experimental evidence.

Chapter 5 deals with the question of why it is that the less common of the possible orders do occur at all. In the first part, I overview some central theoretical issues in relation to word order variation in general, with special reference to topicality, focality, linearization hierarchies and processing-based explanations of word order. Particular reference is made to Sperber and Wilson’s (1986) relevance-theoretic account of word order variation and the issue of linear order as a means of establishing relevance in communication. In the second part, I examine the pragmatic effects achieved by overriding each of the two postulated preference principles, illustrating and exemplifying
the discussion by means of contextualized and mainly spoken data. As far as overriding the default verb-before-object grammatical preference principle is concerned, I show that the preverbal order of a nominal object in relation to the verb is used as a means of marking contrastive/emphatic focus (OV). Finally, with respect to overriding the second non-open-dependency grammatical preference principle, I propose that its overriding is associated with further effects on the subject and object open dependents. This overriding also gives the speaker a means of allocating back- and foreground parts of the utterance in a way which affects the pragmatic interpretation of the utterance.
2 Configurationality and Greek clause structure

2.0 Introduction

In this chapter I outline the issue of configurationality, with particular reference to Greek clause structure and word order. It should, however, be stressed that what follows is not meant to be a thorough and exhaustive survey of all the questions related to configurationality for which there already exist a number of primary sources (Chomsky 1981, Hale 1982, 1983). Rather, my overview of these issues is intended as an exploration of the theoretical background for various accounts of Greek clause structure and word order, so that a better evaluation of these accounts can be given.

In particular, I look at two of these accounts, Tsimpi (1990) and Catsimali (1990) though references to some other accounts are also made (Philippaki 1987, Horrocks 1994, among others). I chose to focus upon these two accounts, because they are representative of the distinction/controversy between a configurational and a non-configurational approach to Greek clause structure. A critical look at these two accounts is, I think, valuable in two ways: (i) it sets a useful context against which my alternative account (see ch.3) could be compared and evaluated; (ii) it allows us to examine the extent to which a configurational account of Greek clause structure is independently motivated, not an altogether uncontroversial issue.

The chapter is organized as follows: Section 2.1 offers an overview of configurationality. Section 2.2 outlines the theory of movement with particular reference to so-called stylistic movement. Section 2.3 presents the issue of the configurationality parameter. Sections 2.4 and 2.5 present and critically evaluate a fully-configurational and two flat accounts of Greek clause structure and word order. Section 2.6 highlights two problems for the proposed flat accounts. Section 2.7 concludes the discussion.
2.1 Configurationality: background

The term **configurationality** refers to a mode of formally representing syntactic structure. At the core of this formalism is the X-bar schema, shown in (1) below, which illustrates the sort of layered binary branching configuration assumed in GB and its predecessors (Chomsky 1970, Jackendoff 1977):

(1) \[ \text{XP} \quad \text{spec} \quad \text{X'} \quad \text{comp} \quad \text{X} \]

This schema regulates the phrase structure component of the grammar in - what has been traditionally called - an endocentric fashion. That is, all phrases are headed by a zero bar category X. Furthermore, two levels of projection are distinguished: an intermediate X' level which is formed by the combination of the head X and its complement, and a maximal XP level which contains a combination of the intermediate X' level and its specifier. Both the specifier and complement of the head are determined to be maximal phrases (XPs) by a condition of Modifier Maximality (Jackendoff 1977). Finally, X may be either a lexical category, i.e. noun, verb, adjective, preposition, or it may be a functional category such as complementizer, inflection, etc.

Sentential structure is then built by intertwining blocks of this general X-bar schema. (2) below illustrates the basic clause structure headed by a transitive verb, with certain details omitted for the time being:

(2) \[ \text{CP} \quad \text{spec} \quad \text{C'} \quad \text{C} \quad \text{IP} \quad \text{spec} \quad \text{I'} \quad \text{VP} \quad \text{I} \quad \text{V'} \quad \text{NP} \quad \text{V} \quad \text{NP} \]
Thus, a number of functional projections such as CP, IP are associated with the lexical projection of the verb. Note that at the core of both the functional and the lexical projections are constituents such as V, I, etc, that is, linguistic units which form part of these larger constructions. The occurrence of some of these constituents in the sentence is licensed by certain structural conditions. For example, the appearance of NPs (or DPs following Abney 1987) in a sentence is licensed by Case-assignment. Case is a structural relationship, defined in terms of government by a head. Thus the object complement, in (2) above, is Case-marked under lexical government by the verb. On the other hand, the subject NP in the [spec, IP] gets its nominative case under government by the functional head I.

The configurational approach outlined above has two significant implications as far as word order is concerned. In the first place, it makes possible the expression of abstract geometrical relations such as government, c-command, etc. The relevance of these relations to word order comes from the fact that entering and satisfying these relations is, often, what determines the position of a unit in the phrase structure. Thus, in (2) above, as seen, the subject NP, satisfying the condition of government within its IP, is licensed to occur in that position, whereas failure of the subject to do so in (3) below prompts its further movement to the matrix [spec, IP], at which it can enter into a government relation with the matrix head I.

(3) [IP Peter [I' seems [IP e to be clever]]]

Secondly, the X-bar structure, as shown above, may refer to distinct structural positions such as complements and specifiers for which general ordering principles can be predicated. For instance, from (2) above it could be said that all specifiers uniformly precede their heads while all complements uniformly follow their heads. In addition, the order of specifiers and complements in relation to their head may be parametrized so that cross-linguistic differences in terms of word order can be accommodated. Note, however, that the X-bar schema in (1) bears an in-built limitation on the type of order it potentially sanctions. This is so since the constituency of the intermediate projection necessitates that the two units it directly dominates, i.e. X and its complement cannot be
interrupted by the specifier. Thus, out of six logically possible orderings of specifier, head and complement only four are possible. These are illustrated in (4):

(4)  
(a) \[ \text{XP} \quad \text{spec} \quad X' \quad \text{comp} \quad X \]
spec before head, comp after head
(b) \[ \text{XP} \quad \text{spec} \quad X' \quad \text{comp} \quad X \]
spec before head, comp before head
(c) \[ \text{XP} \quad X' \quad \text{spec} \quad \text{comp} \quad X \]
spec after head, comp after head
(d) \[ \text{XP} \quad X' \quad \text{spec} \quad \text{comp} \quad X \]
spec after head, comp before head

Assuming that X stands for verb, spec stands for subject and comp stands for object (4a, b, c, d) could be translated into SVO, SOV, VOS and OVS orders respectively. This fourfold typology would then be predicted to be potentially available to the grammar. To account for languages with VSO or OSV orders, the X-bar system will have to be supplemented by some other mechanism such as movement. Various areas of the grammar of the language in question will determine which of these potential schemas will be instantiated as the D-structure representation, from which the surface orders would be, consequently, derived by means of a theory of movement to which I now turn.

2.2 Word order and the theory of movement

In the configurational model outlined above, movement is heavily involved in the description of word order cross-linguistically. Surface order is often seen to be the result of a transformational operation, called move-\( \alpha \), which maps D-structure representations onto S-structures. According to Chomsky (1986b) there exist two types of movement, namely adjunction and substitution; adjunction affects either maximal categories (XPs) or zero ones (X°s) which are adjoined to any category of the same type (referred to also as XP-to-XP, and head-to-head movement), though adjunction to arguments is banned
Heavy NP-shift and V-to-I movement are two examples of adjunction to an XP and to a head respectively. The configurations in (5a, b) below illustrate the relevant structures:

\[
(5) \quad \begin{array}{c}
\text{(a)} \\
\text{XP} \\
\text{XP} \\
\text{X'} \\
\text{X} \\
\text{YP} \\
\text{YP} \\
\hline
\text{(b)} \\
\text{XP} \\
\text{spec} \\
\text{X'} \\
\text{X} \\
\text{spec} \\
\text{Y} \\
\text{YP} \\
\text{YP} \\
\end{array}
\]

Substitution, on the other hand, involves movement of an XP or X₀ to an empty specifier or head position respectively. Wh-movement and I-to-C movement are instances of these two forms of substitution respectively. The two types of this operation are schematized in (6a, b):

\[
(6) \quad \begin{array}{c}
\text{(a)} \\
\text{XP} \\
\text{spec} \\
\text{X'} \\
\text{X} \\
\text{spec} \\
\text{Y} \\
\text{YP} \\
\text{YP} \\
\hline
\text{(b)} \\
\text{XP} \\
\text{spec} \\
\text{X'} \\
\text{X} \\
\text{spec} \\
\text{Y} \\
\text{YP} \\
\text{YP} \\
\end{array}
\]

2.2.1 Scrambling

Movement, in the form of substitution and adjunction, is also employed in accounts of word order variation within the same language. In these cases, one of the orders shown in (5) is hypothesized at the D-structure level of the grammar which is transformationally mapped onto an S-structure order. Further movement, called scrambling or stylistic movement accounts for any alternative orders although the level of grammar at which this movement takes place is controversial, as is its existence. Thus, arguments have been advanced for scrambling as an instance of syntactic movement taking place between D-
and S-Structure (Mahajan 1990). Alternatively, scrambling has been proposed to be a phonetic operation occurring between S-structure and phonetic form (Koster 1978: 232, Rochemont 1978, cited in Haegeman 1991: 547), assuming a so-called T-model of grammar.

More importantly, apart from the aforementioned controversy surrounding the syntactic or phonetic nature of the operation in question, scrambling itself has been criticized as a rather inadequate way of approaching word order variation (Ross 1967, Hale 1982, Huang 1982, ch.3, Horvath 1986). The details of this criticism need not concern us here. It should, however, be briefly stressed that there seem to be three main objections to a scrambling approach to so-called free word order phenomena. Firstly, this type of movement is different from the structurally-motivated operation of move-\(a\). Stylistic movement is not structurally motivated, e. g. by Case. In Ross's words (ibid: 52-53): "... rules like [these] are so different from other syntactic rules that have been studied in the generative grammar that any attempt to make them superficially resemble other transformations is misguided and misleading. They are formally so different from previously encountered rules that the theory of language must be changed somehow so that scrambling can be placed in a different component from other syntactic rules, thereby reflecting the difference I have been discussing."

Secondly, the mechanism of scrambling has been shown to be rather stipulative and unconstrained. Consequently, its theoretical value is reduced by the fact that it makes rather few real predictions about the languages it is applied to (Hale 1981). Finally, as Hale (1983) has pointed out, the scrambling approach fails to account for a number of typological properties exhibited by free word order languages, in that it merely addresses one dimension of them, i.e. word order. This is not necessarily the most criterial. Thus, properties such as the use of discontinuous expressions, frequent pronoun drop, lack of NP-movement, absence of pleonastics, complex verb-words, etc. (Hale 1982: 86) often associated with this family of languages remain unpredicted and unaccounted for.

These problems with scrambling have in fact led to the formulation of a different approach; the recognition of a distinction between two types of languages, namely configurational and non-configurational (Chomsky 1981, Hale 1981, 1982, 1983) to
which I turn briefly in the next section.

2.3 The configurationality parameter

Hale (1982) has proposed that in addition to the X-bar schema outlined in section 2.1 another schema be made operational by Universal Grammar, shown in (7) (ibid: 88) (ellipses represent the positions of potential specifiers and complements):

(7) \[ X \rightarrow \ldots X \ldots \]

Single-bar languages of this type, in contrast with the so-called configurational languages, would be characterized by a much greater 'looseness' in grammatical layout. For one thing, theta-role assignment is handled lexically in these languages and Case is not structurally assigned. Rather it is inherent, i.e. the result of the word-formation process.

In passing, it is worth-noting that the representation in (7) above can be easily translatable as in (8) below:

(8) \[ X' \rightarrow \ldots X \ldots \]

The schema in (8) licenses dependency relations between the head of the clause and its specifier and complement with no need for hierarchical organization of the clause. The one-bar projection could be then seen as 'derived' by the concatenation of a head with its spec and comp categories. I will return to these dependency relations in chapter 3.

Configurationality, therefore, is interpreted as a universally available parametrized principle of grammar which is positively set in some languages and negatively in some others. This is Hale's Configurationality Parameter. In Hale (1983) this principle is stated on the basis of the Projection Principle. In configurational languages, the projection principle holds at both phonetic and logical forms whereas in the non-configurational languages, the projection principle holds of logical form alone (ibid: 26).
Although current linguistic thinking (Kayne 1993, Chomsky 1993, 1994, 1995) appears to render the above distinction meaningless for reasons which will become apparent later on, the distinction has induced interesting work in the field of description and explanation of free word order languages. Greek clause structure and word order, which is the object study of this thesis is a case at hand. Thus a number of proposals have been put forward ranging from strict configurational to more 'flat' accounts. The next sections present and critically evaluate some of them.

2.4 A configurational account of Greek clause structure

This section concentrates on Tsimpli's (1990) configurationally-based account of Greek word order. The discussion in each subsection is organized in a two-stage format: first I present Tsimpli's proposed structure for each order and then I evaluate her proposal.

2.4.1 VSO as the basic order

According to Tsimpli (1990) the basic word order of MG is VSO. However she also claims that the underlying (D-structure) order in Greek is SVO, from which VSO is derived by the application of move-α. Consider (9) below:

(9) CP
     /   
spec C'  C
     /     
     spec TP
     /       
     spec T
     /       
     spec AGRP
     /  
AGR  AGR'  VP
     /     
NP  VP  V'  NP
     /     
thauerzaj o Petrosi t'j
adore-3s [the Peter]nom  
[the Helen]acc
The configuration in (9) assumes the split-INFL hypothesis (Pollock 1989, Chomsky 1988, Ouhalla 1988) according to which AGR and T project and head their own maximal projections. The subject is generated VP-internally, at D-structure, following the so-called VP-internal hypothesis (Sportiche 1988, Larson 1988, Fukui and Speas 1986, Kitawa 1986, Diesing 1990, Koopman and Sportiche 1991). Moreover, all movement operations respect successive-cyclicity in the sense that no movement crosses more than one barrier and all the traces are properly governed in accordance with the Empty Category Principle (ECP).

According to this analysis, the basic status of VSO arises from the fact that this order is the product of just two obligatory movements, as may be seen in (9): the verb has to move to AGR and then to T, since by adjoining to these heads the verb may acquire its overt morphology. This movement clearly takes place across the subject, which originally occupies the [spec, VP] position and is moved up to [spec, AGRP], in order to be assigned Nominative Case by the AGR head. It is in this sense that Tsimpli claims [spec, AGRP] to be the canonical subject position in MG. Note, however, that such an account is problematic. Below I present some of these problems.

The first problem is the lack of independent evidence for both the D-structure and the derived VSO order in (9). In the first place, the D-structure SVG order seems to be simply assumed and no independent evidence is provided for it. Furthermore, there is no justification for why, say, the subject and object in Greek have to be hierarchically distinguished, especially given some evidence to the contrary, such as facts relating to ECP effects, subject-verb idioms, weak-crossover, binding, etc. (cf. Catsimali 1990, Horrocks 1994), to be examined in detail later.

Secondly, the idea that the subject obligatorily moves from [spec, VP] to [spec, AGRP] to be assigned Case, in parallel with English, would fail to account for the lack of pleonastics and raising - at least as a Case-driven operation - in MG. I shall return to these points later.

Thirdly, in a GB-based account such as Tsimpli's the verb has to raise to AGR to pick up the relevant features of number, person, etc. A mechanism known as spec-

---

The operation in question follows from what is referred to as Lasnik's Filter: "an affix must be lexically supported at or prior to the S-structure level" (Lasnik 1981). See also Baker (1988), Pesetsky (1989).
head licensing ensures that the subject, raised to [spec, AGRP], is only licensed to occur in this position provided that it shares the same agreement features with the inflectional head AGR. This accounts for subject-verb agreement phenomena, thus predicting the grammaticality and ungrammaticality of (10a, b) below respectively:

(10) (a) John loves linguistics.
    (b) *John love linguistics.

However, Greek displays some notable inconsistencies with regard to so-called subject-verb agreement which would be extremely difficult to accommodate within a purely syntactic account of subject-predicate formation. Consider (11) below:

(11) (a) O Petros pirane diamerisma.
     [the Peter]nom bought-3pl [flat]acc
     'Peter (and his family) got a flat'.
    (b) Enas enas irthane.
     one one came-3pl
     'They came one by one'.

In the examples above a singular constituent can optionally be the subject of a verb with plural agreement. Such a situation results in ungrammaticality in English, as shown in (10). By contrast, no ungrammaticality is induced by the lack of subject-verb agreement in the examples in (11) above. Thus, in (11a) 'o Petros' (Peter) is the third-singular subject of the third-person plural verb ‘pirane’, and in (11b) the singular pair ‘enas enas’ (each one) can also be the subject of the plural ‘irthane’ (came). Facts such as these coupled with a number of others, which will be detailed in section 2.5, have led some (Philippaki 1987, Catsimali 1990) to suggest that there is no subject position in the syntax. In their view, subject is encoded in verbal morphology, and the very presence of a full nominal subject in a Greek clause is purely optional and pragmatically-driven. I shall return to this issue later on.

Finally, there is a danger, I think, in saying that a given order of constituents is
'basic' just because it happens to fulfill certain theory-internal criteria. VSO is then said to be basic, as pointed out above, as it is derived by just two obligatory movements of the verb to [spec, AGRP] and [spec, TP]. However, the fact that VSO satisfies theory-internal principles does not automatically entail that it is basic. This is so especially since VSO is derived from a SVO D-structure with a hierarchical distinction between the subject and object positions in spite of the absence of subject-object asymmetries in Greek (see also section 2.5). In fact, VSO cannot be considered as any more basic than other orders in terms of many standard criteria such as frequency of occurrence, discourse content, or even ambiguity. The latter criterion has been suggested by Chomsky (1965) as a diagnostic of eliciting the 'basic' word order in languages exhibiting free word order, the point being that a particular word order is preferred in potentially ambiguous environments (see Hawkins 1983, Mithun 1987 for discussion).

In Greek, however, even sentences with ambiguous Case-marking are not exclusively associated with a particular order. Consider the examples in (12) below:

(12) (a) Agapoun ta koritsia ta agorja.
    love-3pl [the girls]nom/acc [the boys]nom/acc
    'The boys love the girls/The girls love the boys.'

(b) Idhan ta agorja ta koritsia.
    saw-3pl [the boys]acc/nom [the girls]nom/acc
    'The girls saw the boys/the boys saw the girls.'

(c) Ide to skili to tiflo agori.
    saw-3s [the dog]acc/nom [the blind boy]nom/acc
    'The blind boy saw the dog/the dog saw the blind boy.'

(d) Efage to agrimi to pedi.
    ate-3s [the wild animal]acc/nom [the child]nom/acc
    'The boy ate the wild animal/the wild animal ate the boy.'

(e) Efage to puli to koritsaki.
    ate-3s [the bird]acc/nom [little girl]nom/acc
    'The little girl ate the bird/the bird ate the little girl.'
In (12a-e) the nominative and accusative cases of the nouns are morphologically identical. None the less, the decisive criteria for which of the two neuter nouns is the subject and which is the object seem to have nothing to do with any fixed order, in this case VSO vs. VOS. In particular, the context, the intonation (in spoken language), the semantics of the verb as well as general knowledge appear to be operational in these cases. I distributed sentences (12a-e) to native speakers, non-linguists (cf. Labov 1975), and asked them to indicate who did the action to whom and who was the receiver in each sentence. (12a and b) were uniformly judged to be ambiguous between the two readings where the two neuter nouns may alternatively undertake the subject and object roles. In (12c and d), however, general knowledge (perhaps in the form of ready-made scripts or frames) seems to influence judgements. In (12c), for instance, the NP 'the blind boy' was taken as the object and 'the dog' as the subject since commonsense logic excludes a blind person from being capable of 'seeing'. In the same vein, in (12d) the NP 'the boy' was interpreted as the object and 'the wild animal' as the subject since there is easily available a scenario in which wild animals eat humans rather than the other way round. Similarly, in (12e) the first NP was interpreted as the object and the final one as the subject since again a scenario or schema in which humans eat birds can be easily instantiated whereas the reverse state of affairs is hardly obtainable unless in a strongly biased context.

2.4.2 SVO and VOS: topicalization as base-generated adjunction

In Tsimpli's theory, the subject, in both SVO and VOS orders does not occupy the canonical subject position ([spec, AGRP]), but occupies instead a clause-peripheral topic position. This is based-generated and right- or left-joined to the CP, as illustrated in (13) and (14) respectively:

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[^2]: See Barlett (1932), Schank and Abelson (1977).

[^3]: For a syntactic account of subject vs. topic see Rizzi (1982), Burzio (1986).

[^4]: See, however, Kayne (1993) for arguments against rightward adjunctions.
In both representations above the assumption is that due to the rich morphological agreement of MG a non-overt subject resumptive pronoun in the form of a pro can be licensed so as to satisfy theta-and case-assignment. This pro raises to [spec, AGRP] from [spec, VP] in the same way as an overt argument.
However, as far as SVO is concerned, the proposed structure seems problematic for a number of reasons: for one thing, assuming that SVO is generated the same way in matrix and embedded clauses, the outlined account would actually disallow SVO from occurring embedded in a complement clause, as in (15) below:

(15) I Eleni mu ipe \[cp oti o Petros agapia ti Maria\]

[The Eleni]nom me told that [the Petros]nom love-3s [the Maria]acc

'Helen told me that Peter loves Mary.'

(15) above is perfectly grammatical in Greek, even with no special stress on any of the constituents of the oti-clause. However, Tsimpli's account predicts that (15) shouldn't be possible and that the complementizer position, hosting 'oti' (that) would actually follow the embedded subject, adjoined to the right of CP, as illustrated in (16):

(16) I Eleni mu ipe \[^p o Petros \[n> oti agapia ti Maria\]\]

[The Eleni]nom me told [the Petros] nom that love-3s [the Maria]acc

One possible solution to this problem would be to seek recourse to what is known as recursive CP. According to this, the example in (15) above would require a representation such as (17). The CP to which the subject is adjoined is housed within another CP, which hosts the complementizer. This is represented in (17) below:

(17) verb \[^p [cp1 [c that [cp2 topic [cp3 0 [verb [.. ... ]]]]]]]

However, as I argued in Tzanidaki (1993), following Iatridou and Kroch (1992), CP-recursion is not a plausible hypothesis for MG. According to Iatridou, CP-recursion is theoretically and empirically motivated only in a group of languages which display a particular behavior with respect to v/2 order. In particular, the licensing of CP-recursion accounts for why embedded v/2 occurs in some environments but not in others. According to Iatridou, extending CP-recursion to languages other than these would unnecessarily introduce extra structure in their representation. This would not conform
to Chomsky’s ‘least-effort condition’ according to which “…both derivations and representations are required to be minimal…with no superfluous steps in derivations and no superfluous symbols in representations” (Chomsky 1991: 447). If that is so, then we cannot seek recourse for the recursive CP, empirically unmotivated in MG. If then a recursive CP analysis is not available to us then either the embedded SVO order would be impossible, or it would require a different derivation than the one proposed for matrix SVO.

Furthermore, no independent evidence is provided in Tsimpli’s analysis for subject topicalization as a base-generated adjunction to CP. Why, for example, cannot it be the product of movement? Generally, it has been argued that in some languages (Yiddish (Santorini 1989, Diesing 1990) and Icelandic (Rögnvaldsson and Thráinsson 1989)) topicalization is not adjunction to CP which requires the non-independently-motivated CP-recursion, but a product of movement to [SPEC, IP] as seen in (18):

(18) \[ \text{CP} \left[ c \left[ \text{IP} \text{TOPIC} \left[ \text{F VERB} \left[ \text{VP} \ldots t_1 \ldots \right] \right] \right] \right] \].

According to the latter the topicalized subject moves to [spec, IP] position. A similar analysis has been suggested by Philippaki (1987) for Greek.

In fact, both features that Tsimpli uses as distinctive of topicalization (vs. focusing), i.e. the existence of a pause after the topicalized element and its cooccurrence with a resumptive pronoun are the hallmarks of Left-Dislocation and not of topicalization. These, according to Ross (1967: 253-7), are two clearly distinct phenomena. The subjacency diagnostic (see 2.4.3 below) which she uses too to disprove topicalization as a movement process is similarly indicative of left-dislocated structures (Haegeman 1991: 213, 369).

Quite apart from the above problems, there are, I think, a variety of further problems raised by Tsimpli’s account of SVO and VOS. These concern the putative ‘topical’ nature of the subject in this account. Generally, the recognition of topic, and as we will see in section 2.4.3, of focus too as separate projections in the clause has led to a classification of this type of theory as discourse-configurational. The term is from Kiss (1995). According to Kiss, discourse-configurationality is a property of those
theories within the Chomskyan family which take topic and focus to be associated with structural positions in the clause.

However, the term is rather misleading, at least as far as discourse is concerned since despite the claimed discourse-configurational property, the outlined theory is essentially a sentence-based approach, which, as I shall argue in what follows, presents some rather interesting problems. To start with, confining myself to topic (see the discussion in 2.4.3 for focus), there exists a general definitional problem with respect to the postulated 'topic' status of pre- and post-verbal subjects in Greek declarative clauses. As we saw, according to this analysis, pre- and post-verbal subjects are represented as left- and right-adjoined topics respectively. No definition, however, is provided for the term of topic, which is, I think, a serious weakness, specially given the many various aspects this 'umbrella' term is associated with.

Traditionally, topic expresses an 'aboutness' relation between a discourse entity and a predication (Dik 1978). Tied to the notion of topic is the notion of 'given'. The latter, in its relational sense, depends on the degree of informativeness an item assumes in a discourse setting. As an example, consider the Greek data in (19) below:

(19) A: Pjos aghorase spiti;
who-nom bought house-acc
‘Who bought a house?’

B: O Petros (aghorase spiti).
[the Petros]nom (bought house-acc)
‘Peter (did).’

Thus, 'spiti' (=house) in B's answer above is topical insomuch as it is already given in the previous discourse. ‘O Petros’ (Peter), on the other hand, cannot qualify as topic here, and, in fact, it is the focus of the utterance insomuch as it is the most salient piece of information in the exchange above, i.e. the one which answers the question word 'pjos' (who) in A's utterance, in accordance with the standard operational test for focus assignment. Note, however, that according to Tsimpli’s account the preverbal subject in B’s utterance would have to be taken as a topic constituent, left-adjointed to the
predication, contrary to the facts. Therefore, the postulated categorical mapping between preverbal subject and topicality would fail to account for the focus status of the subject in (19) above. Although, undoubtedly, there exists a strong cross-linguistic correlation between subjecthood and topicality and objecthood and focality, any absolute grammatical equation of these concepts could not accommodate the observed diversions. In fact, according to Siewierska (1991), even in languages with morphological marking of topics such categorical correlations between, say, topics and subjects do not hold. In Japanese, for example, the topic particle ‘wa’ can also be used for coding contrastive foci (see Siewierska ibid: 164 for further discussion and examples).

Tsimpli’s account would face a similar problem with cases such as (20) below, where the informational content of the clause is all new:

(20) A:  Ti nea;
    what news
    ‘Any news?’
B:  O Petros agorazi diamerisma.
    [the Petros]nom is buying-3s flat
    ‘Peter is buying a flat.’

B’s utterance, rather than introducing a referent as a topic for a predicate, serves to establish the whole proposition as new. In this case, the topic/focus distinction does not apply, and these so-called thetic propositions are analysed as either representing a ‘broad focus’ or as having a pragmatic status which does not depend on the topic/focus distinction. Note that the outlined account of preverbal subject as left-adjointed topic would again falsely predict that the subject in (20) above is topical, contrary to the facts.

There is a further problem that a formal account of topicality would raise in the light of more recent approaches to topic (and focus), where the ‘aboutness’ relation as defined above seems to be replaced by a relation between the referent of a discourse

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3Siewierska (1991, ch. 6) offers a very illuminating discussion on the issue of topicality (and focality) and on the history of the term ‘thetic’ as opposed to ‘categorial’ in philosophy and linguistic theory. See also Kiss (1995) for references on the introduction of the distinction into generative grammar. According to Kiss whether a language encodes thetic and categorial propositions in a structurally distinct way is taken as criterion of topic-prominence (vs. subject-prominence) (Li & Thompson 1976, among others).
entity and the overall structure of the discourse rather than just the oncoming predication. In this view, topic ceases to be a sentence-based atomic and uniform entity, and it is rather perceived as a scalar utterance-based notion (Givón 1988, Sperber & Wilson 1986, among others). What matters in this perception of topic is not the relational sense of a topical element as given in a discourse setting but the so-called referential sense, which has to do with the cognitive status and degree of activation (Chafe 1987, Prince 1981) of the topical referent in the communicators’ mind. This new approach to topicality is partly reflected in the postulation of various distinct kinds of topic such as the one proposed by Dik (1989). I elaborate more on the issue in chapter 5.

All in all, the amount of artificiality involved in the context-free treatment of topic, makes very difficult, if not impossible, a proper evaluation of formal claims involving such categories. I think one has to agree with Givón that (1990b: 740) “...topicality is not a clause-dependent property of referents, but rather a discourse-dependent one. This is often masked by the fact that one can examine a well-coded clause out of context, and observe that its subject is more topical than its object,[ ...]. But such isolated clauses are only artifacts. What makes their participant topical is not the fact that they are grammatically coded as topical (subject, object) in the self-contained clause. Rather, they are so coded because they are topical across a certain span of multi-clausal discourse.”

2.4.3 OVS and the theory of focus

According to Tsimpli’s theory, OVS in Greek is taken to arise from the object’s moving to a Focus Phrase (FP), as defined by Brody (1989). According to Brody’s analysis, Focus (F) is postulated as an independent functional category which heads its own XP projection. In Brody’s account, the FP is optional, i.e, it occurs only within a sentence containing a focalised category. The FP is taken to dominate the VP shown in (21) below (adopted from Brody ibid: 207):

\[
\begin{align*}
\text{FP} & \quad \text{spec} \\
\text{spec} & \quad +f \quad \text{F'} \\
\text{F'} & \quad +f \quad \text{VP} \\
\text{VP} & \quad +f \quad \text{V} \\
\text{V} & \quad +f \quad \text{...}
\end{align*}
\]
The specifier of the FP serves as the landing-site for a focalised constituent. The focus nature of this constituent may be realized syntactically, in which case it will move to [spec, FP] overtly at S-structure. Alternatively, a focus may be realized phonetically, in which case the focalised constituent only need move covertly to [spec, FP] at LF. Focus interpretation arises from the V assigning a +f feature to F, when V moves there. This phonetic feature is then assigned by F to [spec, FP] via spec-head agreement. V-to-F movement, an instance of head-to-head movement (see section 2.2), is forced by the F-criterion, analogous to the Wh-criterion (May 1985, Rizzi 1990). According to the F-criterion: (i) the spec of an FP must contain an +f feature, and (ii) all +f phrases must be in an FP, though this may apply either at S-structure or at LF.

As far as the status of the focus phrase is concerned, it is taken to be universal, though there exists a certain parametrization which concerns the level of representation at which the F-criterion applies. Thus, languages with syntactic focus (Hungarian) must satisfy the criterion overtly in the syntax, whereas languages with purely phonetic focus (English) satisfy the criterion at LF.

Thus assuming a theory of FP such as the one outlined above, the fronted object in Greek is said be moved to the [spec, FP] immediately dominating TP. This is depicted in (22) below, with the intermediate VP/AGRP/TP adjunctions of the subject omitted for the sake of simplicity:

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6Tsimpani (1995) generally follows Brody's theory of FP, with one exception: she assumes Chomsky's (1991) theory of parametrization, according to which parameters are associated solely with functional categories and not with levels of representation. Thus all languages have an FP, though they differ in the value of the feature f carried by the head F of the FP. In this view, a tripartite typology is predicted: (i) languages with syntactic focus (Hungarian) in which the f is positively set. In such languages movement of the focused phrase to [spec, FP] must take place prior to S-structure following the F-criterion. The latter has been redefined along the lines of spec-head licensing. That is, a [+] X must be in spec-head agreement with an F-Operator, (ii) languages with phonetic focus (English) in which the f feature is set negatively, and therefore, movement of the focused phrase to [spec, FP] takes place at LF, and finally, (iii) languages with optional syntactic focus (Greek), where the f feature is set either positively or negatively. In the first case, the focus is called syntactic and movement to [spec, FP] occurs at S-structure, whereas in the second case the focus is called phonetic or in-situ, and movement to [spec, FP] occurs at LF.
Apart from the construction in (22) above in which the fronted object is assigned focal stress, Tsimpli identifies another type of construction containing a fronted object which is associated with the absence of heavy stress and the presence of a resumptive clitic pronoun as in (23):

(23) Tin Eleni tin thaumazi o Petros.
    [the Eleni]acc her admire-3s [the Petros]nom
    'Helen, Peter admires her.'

Unlike the focus construction in (22), (23) is described as a topic construction which formally differs from the former in that the fronting of the ‘topicalized’ object is not taken to be the product of movement; rather it is base-generated in its S-structure position and coindexed with a clitic pronoun. It is this clitic which serves as the true argument of the verb. Once again, however, there are some points to be raised concerning this analysis.

Firstly, as already pointed out, the account of these fronted object foci (22) and topics (23) relies respectively on the notions of ‘topic’ and ‘focus’, for which no specific
definition is provided in Tsimpli’s account. Thus, for example, the term ‘focus’ is widely used to denote many distinct concepts such as emphasis, contrast, newness, rhematicity, etc. (Couper-Kuhlen 1986, among others). The presence of focal stress associated with the feature, which Tsimpli takes as an indication of focus, is one, phonological attribute which gives no insight, however, into any other aspect of the term’s content. Thus, there might be other non-phonological aspects of focus which should be taken into consideration in a theory of focus and its interaction with word order. As an example, consider the sentences in (24a, b) below which respectively contain a pre- and postverbal focused object shown in capitals:

(24) (a) TIN ELENI sinantise o Petros.
the Eleni]acc met-3s [the Petros]nom
‘It was Helen that Peter met.’

(b) O Petros sinantise TIN ELENI.

According to Tsimpli’s theory, both object NPs in (24a, b) are foci, the difference between them being that in the former movement of the object to [spec, FP] takes place in the syntax, whereas in the latter the operation can be executed covertly at LF. However, as I will argue in the following chapter, each of the object constituents in examples such as in (24) above is associated with a different type of focus, which, consequently, makes them felicitous in two different contexts. Thus, in (24b) the postverbal focused object NP merely encodes new information. This type of focus is often referred to as ‘wide’ focus. This means that the focus either denotes new information, or it is not quantified over a closed set of entities with which it is contrasted (Kiss 1995). The situation is rather different, however, in (24a). Here, the preverbal occurrence of the focused object assumes a more restricted, or ‘narrow’ sense, in which the entity identified as focus expresses exclusion with respect to some closed set of alternative entities, with which it stands in contrast. Hence, subsuming pre- and postverbal instances of objects under the same term focus just because they bear focal

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1In fact, there is not even any one-to-one association between stress and focus. Thus, Siewierska (1991) points out that, in English, for example, constituents which are analysed as topics are often accentuated (see also Givón 1990b: 705-6).
stress cannot hope to reveal potential correlations between the object's order in relation to the verb (OV, VO) and kinds of focus.

In addition, as we saw, according to Tsimpli’s theory the basic difference between OVS and Oclitic-VS is that OVS involves syntactic focusing, i.e., a substitution movement process whereas in Oclitic-VS the fronted object is base-generated and adjoined to the rest of the clause. The main evidence for the postulated distinction comes from island effects and Chomsky's chain condition (Chomsky 1986a). However, as I will show below the situation is far from clear-cut when some further data are taken into consideration. Let us look at the relevant arguments.

2.4.3.1 Island-effects

The first piece of evidence supporting the distinction between 'topicalized' and 'focused' fronted objects concerns their behavior in relation to extraction out of NP-islands. Consider first the examples cited below in (25) (Tsimpli ibid: 240):

(25) (a) Afro to vivlio, gnorisa to sigrafeu pu to egrapse.
    this-acc book met-1s the author who it-wrote-3s
    ‘This book, I met the author who wrote it.’

    (b) *AFTO TO VIVLIO gnorisa to sigrafeu pu egrapse.
        this-acc the book met-1s the-acc author who wrote-3s
        ‘I met the author who wrote THIS BOOK.’

According to Tsimpli, extraction of a topicalized NP out of the complex NP does not result in ungrammaticality as in (25a) while extraction of the focused object out of the NP-island does, as indicated in (25b). This difference in grammaticality is explained, in her view, if topicalization is taken to not involve movement whereas focusing does. However, as mentioned earlier, in the 'topicalized' example in (25a) the fronted NP (i) is construed as coreferential with the clitic object pronoun and (ii) is separated by the rest of the clause by a pause indicated by commas. Both these attributes are standardly considered as the hallmarks of left-dislocation rather than topicalization, two rather different phenomena (Ross 1967: 253-7).
In addition, as mentioned above, Tsimpli’s analysis of topicalized vs. focused constructions as in (25a, b) above depends on the way these behave with respect to NP-islands. Different though the examples in (25a, b) may be, their difference may well be related to processing factors rather than to a violation of a purely grammatical constraint. In fact, the very status of the complex NP-constraint as a matter of grammar per se is by no means uncontroversial. Thus, Givón (1973, 1975, 1979) argues that the constraint in question is a matter of processing. That is, sentences with complex NP are difficult to process, because the grammatical relations of subject and object in the deeply embedded clause are hard to reconstruct. The large gap that occurs between the noun and the verb of which it is the object, creates an opaque context for the reconstruction of their relation. That is why it is not accidental that languages which ‘strand’ a resumptive pronoun at the position of the coreferential noun strategy inside the embedded clause, do not display the constraint in question. In these languages this pronoun is used as a procedure or strategy which renders the recovering of the verb-noun relation transparent. In favour of the view of the NP-constraint as a matter of processing, Givón (1979) cites Kuno (1972, 1976). Kuno has provided examples of standard English which violate the complex NP constraint under certain pragmatic conditions such as contexts which allow easy reconstruction of the case-function relation of the noun vis-à-vis the verb which suggests that processing may, after all, explain the different status of (25a, b) above.

*Note that, anyhow, in Greek, the extent to which NP-islands are operational is not entirely uncontroversial either (Horrocks 1987).

Similarly, the restriction on consecutive double loci, which Tsimpli takes to support her analysis of focusing may be processing-motivated. According to Tsimpli, taking focusing as a substitution operation accounts for why sentences with two consecutive loci are ungrammatical. An example of such a sentence is (i) below:

(i) * O J A N I S T I M A R I A agapai
[the Janis]nom [the Maria]ace love-3s
JOHN loves MAR

However, this restriction need not be accounted for syntactically. The fact that it holds nearly universally with the exception of Korean (Kiss 1995) and English suggests, it may well be interpreted as a processing-based constraint. Givón (1990b) argues, in fact, that processing strategies are involved here. If the processing-motivated restriction on consecutive double loci is on the right track, then it may be argued that the apparent syntactic restrictions may in fact be subsumed by more fundamental principles of human cognition, which either have been insufficiently explored so far, or they simply have not been taken seriously enough by formal syntax. As García relevantly points out: "... if it should turn out that communicative considerations DO play a role in explaining certain facts of distribution, and we ignore them, then we clearly will run the risk of postulating as independent, arbitrary facts of language structure to which a speaker must conform merely the consequences of other facts (of a communicative nature) that we have not bothered to explore" (1979: 25).
As with the case of NP-island effects discussed above, Tsimpli’s examples of ‘topicalized’ and ‘focused’ fronted objects in relation to adjunct-islands seem also problematic.

2.4.3.2 The chain condition (Chomsky 1986a)

Let us now examine the other type of evidence Tsimpli cites in favour of the postulated distinction between focused and topicalized objects. Consider the examples in (26) below (ibid: 241):

(26) (a) I Galli/tus Gallus, tus ematha kala menontas sto Parisi.
    The French, I understood them well when I was in Paris.

(b) TUS GALLUS/*I GALLI ematha kala menontas sto Parisi.
    I understood THE FRENCH well when I was in Paris.

(26a) is an example of a topicalized object NP, whereas (26b) contains a focused object NP. According to Tsimpli, the chain condition, discussed in Chomsky (1986a) can explain the difference in grammaticality in the pair above. This condition requires that a chain contain only one Case-position. Thus, the grammaticality of (26a), where the object clitic ‘tus’ may be coreferential with a topicalized NP bearing nominative or accusative Case, suggests that the fronted NP in (26a) cannot be the product of movement, since this would create a chain with two Case-positions which would result in ungrammaticality. On the other hand, (26b) above can only be grammatical when the fronted object NP bears accusative Case coindexed with the accusative clitic. This suggests that the fronted NP forms part of a chain (i.e. it has been moved) and this is why it can only bear a single Case. The argument seems to be well-motivated from a theory-internal perspective. However, it wrongly predicts that the pair shown below in (27) would also be similar to the one just discussed:
(27)  (a) Tus ematha kala menontas sto Parisi, tus Gallus/*i Galli
them-understood-1s well staying in the Paris, the-acc /the-nom French
(b) Ematha kala menontas sto Parisi TUS GALLUS/*I GALLI
understood-1s well staying in the Paris the-acc / the-nom French

(27a, b) above are exactly as (26a, b) respectively but the NP 'I Galli/Tus Gallus' (The French-nom/-acc) here occupies the clause-final position. Tsimpli’s theory, as seen, allows for both left and right base-generated adjunctions (recall the analysis for SVO and VOS in section 2.4.2). The fact that the right-adjunction in (27) would be base-generated would again predict, following the chain condition, that the chain of the clitic and the right-adjoined topics NPs may bear both cases. But, as (27a) suggests, it cannot. (27a), thus, in which the clitic is coreferential with the right-adjoined NP in nominative, is predicted fine by Tsimpli’s account, but it is not.

Note that formally speaking the examples with left- and right-adjoined units are identical in the sense that they make use of the same formal apparatus (base-generated adjunction). Their respective functions, however, are different. Terminologically, this difference has been captured by virtue of the terms topic and antitopic in the functional literature. Thus the left-placed nouns are topics in the sense that they “...set a general frame of reference which permits a very loose connection with their subsequent predication...” (Valiouli 1990: 58) By contrast, the right-placed nouns are antitopics in the sense that they pick up a referent which is antecedently available in what precedes the antitopic10.

Topics in contrast to antitopics, are characterized by a loose connection to the upcoming predication. It is this loose connection that has been argued to sanction the appearance of the two Cases in the examples in (26a) above. With topics the speaker is at freedom to postpone the assignment of the semantic role of the referent of the NP. Thus the speaker may initiate the utterance with the nominative, the agentive case par excellence, and subsequently change it to accusative. This construction is referred to in traditional grammar as the ‘psychological subject’ construction. By contrast, antitopics, i.e. the right-placed NPs, do not display such a freedom. This is so, for the preceding

10See Valiouli (1994a, b).
object clitic has already established the semantic role and case of its referent. Hence the upcoming coreferential antitopic has but to comply with this, as the ungrammaticality of (27a) suggests. If this explanation is correct, then it follows that the disparity displayed by the object NPs in (26) above as far as being associated with two Cases is concerned, provides no relevant evidence for Tsimpli's distinction between focusing and topicalization.

2.4.3 Some further arguments
A further point in relation to the postulated distinction is also the following: it seems that there is more to this matter than a simple topicalization/focusing distinction, as the examples in (28) below indicate:

(28) (a) Afto to ergo echo tin entiposi oti to idame ke persi.
   [this the film]acc have-1s [the impression]acc that it-saw-lpl last year
   'This film I have the impression that we saw it last year.'

(b) AFTO TO ERGO echo tin entiposi oti idame ke persi.
   [this the film]acc have-1s [the impression]acc that saw-lpl last year
   'It was this film I have the impression that we saw last year.'

In both examples above fronting the object - be that coreferential with a clitic or not - out of the complex NP 'tin entiposi' (the impression) does not result in any ungrammaticality. What differs crucially, however, is the interpretation under which these fronted objects are to be accepted. That is, (28b) requires a contrastive reading of the fronted object which is, so to speak, singled out of a set of potential films as the one that the speaker thinks they saw last year, whereas such a reading is not necessary for (28a), in which the speaker merely states the proposition that they have seen that film last year.

Similarly, examples such as in (29) below show that there is more to the point than the postulated distinction between topicalization and focusing:
(29) Polus nekrus echo tin esthisi oti tha *tus thrinisume
[many dead-pl]acc have-1s [the feeling]acc that will them mourn-1pl ke afto to savatokirjako.
and this the weekend
'Many dead I have the feeling that we will mourn *them again this weekend.'

(29) is another instance of a construction containing a complex NP within which an oti-(that) clause is embedded. According to Tsimpli's analysis the predictions here would be:
(i) the structure with the topicalized NP coreferential with the object clitic is grammatical, (ii) the structure with the fronted focus NP is ungrammatical showing an expected island effect in its movement out of the complex NP. In fact, neither prediction is borne out. Surprisingly, the reverse state of affairs obtains. Thus, in (29) above, coreferentiality of the topic NP with an object clitic results in ungrammaticality whereas the fronted focus NP shows no island effects. Definiteness seems to be the key criterion involved in the explanation here. That is, the referent of the focus NP 'many dead' is indefinite and non-specific. Hence it cannot be coreferential with the definite and specific referent of the clitic. I say more about this matter in ch. 3. Let us now look at the two remaining orders, i.e. SOV and OSV.

2.4.4 SOV
Tsimpli does not discuss the derivation of SOV which, however, within her proposal, could be accounted for by a combination of a base-generated left-adjointed topic-subject as with SVO and a movement of the object to the specifier of the focus phrase as with OVS. A possible structure is shown in (30):
This derivation, however, would face the same sort of problems pointed out above with respect to embedded SVO orders. That is to say, it would wrongly predict that SOV cannot occur in an embedded complement clause, even though it can, as shown in (31) below (capitals show focused material):

(31) I Eleni mou ipe oti o Petros TI MARIA agapai.

[The Helen]nom me told that [the Peter]nom [the Mary]acc love-3s

‘Helen told me that Peter loves MARY’.

Clearly, if the subject ‘o petros’ occurs in the [spec, CP] it cannot follow the COMP ‘oti’ (that). (31) could be generated by means of a recursive CP creating an additional specifier position for the subject NP of the embedded SOV. But, following the discussion in section 2.4.2, this seems rather an ad hoc solution.

2.4.5*OSV ?

Finally, we come to the last of the six logically possible orders for subject, object and verb: OSV. According to Tsimpli’s account, the order is actually ungrammatical in Greek. Furthermore, Tsimpli assumes that in all structures involving an object moved across the verb, this object is focus. Following Brody (1989) Tsimpli holds that an
adjacency requirement must obtain between the head F, occupied by the verb, and the specifier position of the focus phrase\textsuperscript{11}. If then, this [spec, FP] position were to be occupied by a focused object then an adjacency requirement would automatically obtain between the object and the verb. In OSV, assuming that the object is focused, the occurrence of the subject between the FP and the verb would give rise to a violation of Lasnik's Filter, for its presence in the [spec, AGRP] would imply that V-movement to F has failed to take place. As a result, the affix F would then be left improperly scattered among the words of the sentence. Hence the claimed ungrammaticality of OSV, schematized in (32) below:

\begin{itemize}
  \item \textbf{FP} \textbf{spec} \textbf{F'}
  \item \textbf{TP} \textbf{AGRP} \textbf{spec} \textbf{AGR'}
  \item \textbf{OBJ} \textbf{SUBJ} \textbf{VERB}
\end{itemize}

However, according to my judgment and that of the thirty native speakers whom I consulted, the OSV order is perfectly grammatical in Greek, though quite marked (see ch. 4). More importantly, in the course of my research I have been able to collect a number of OSV utterances from various spoken and written sources (see ch. 5 and the final appendix). In fact, the number of OSV structures I have collected along with those found in other existing corpora (Laskaratou 1984, 1989) indicates that OSV is grammatically licensed in Greek and cannot be attributed to some performance error. In addition, OSV is listed as a grammatical alternative order of constituents in most relevant literature on Greek word order (Kakouriotis 1979, Laskaratou 1984, 1989, Catsimali...)

\textsuperscript{11}In Brody's terms this adjacency condition rests on the assumption that the [+f] feature assignment to the FP by the verb (F criterion) can take place only under strict locality.
Thus, for example, Philippaki (1985) includes OSV as a grammatical order, although she offers no representation nor insight into its structure. She particularly points out that OSV sentences “can be rendered only with the first constituent stressed” (ibid: 118). This stress pattern serves as a means of expressing the speaker’s surprise or, alternatively, it establishes a contrast between the prominently stressed constituent with a potential alternant.

Quite apart from making a false prediction in relation to the grammatical status of OSV order, Tsimpli’s account faces another, more general problem: if the outlined focus theory has any universal validity at all, then it would be difficult to see how languages with canonical OSV order (e.g. Apuriná, Urubui, Xavante) could be accounted for, given that, according to Siewierska (1988), in these languages too, the object tends to be focused.

2.4.6 Some residual problems with the outlined Focus theory
As seen above, Tsimpli’s analysis of some of the logically possible word orders in Greek relies heavily on Brody’s theory of focus. However, there exist some cases which would be difficult to accommodate within the countenanced focus theory. These concern verb-focusing and what I call cases of more ‘inclusive’ foci. In relation to the former, as we saw, in this syntactic approach to focus only the specifier of FP can host focused material. This means then that only XPś can be focused. Given that verbs fill the head position of the FP, it follows that verbs cannot be focused. The problem has already been pointed out by Agouraki (1993), although no solution has been proposed. Undoubtedly, there is a cross-linguistic tendency for focus to be associated with nouns, particularly, object nouns, rather than with verbs. According to functional approaches to language this “...is connected with the predisposition of humans to be more interested in the participants or consequences of events rather than in the events themselves” (Siewierska 1988: 101). As Siewierska reports, the correlation of object and focushood vis-à-vis the verb has been stated repeatedly by Praguian linguistics. True though this tendency may be, there certainly do arise situations where the verb needs to be focused, and surely, the grammar should make available the relevant machinery.

Secondly, there may be cases where not the whole XP is focused but only a part of it. Consider (33) below (as a convention adopted in this thesis, I use Greek characters in order to distinguish ‘real-life’ examples from introspective ones):

(33) ΙΔΙΑΣΠΟΠΟ η ομιλία του πρωθυπουργού.
Idietero endiaferon ichi i omilia tu prothipurgu.

[particular interest]acc had-3s [the talk of the prime minister]nom

'The talk of the prime minister was PARTICULARLY interesting.'

(33) has been uttered in a context where a journalist gives a live report on a political conference in Athens. The immediately preceding utterance states that all the talks delivered were interesting; (33) serves to state that the prime minister's talk had a 'particular' interest. Thus, the concept expressed by the noun 'ενδιαφέρων' (interest) is contextually available, and in this sense it may be seen as topical. What (33) focuses on is the adjective 'ιδιαίτερο' (particular). However, both the focal adjective and the topical noun, in the FP analysis, will be hosted under the specifier of FP, as seen in (34) below:

(34) 
\[
\text{spec} \quad \text{spec} \\
\text{...FP} \quad \text{TP} \\
\text{ΙΔΙΑΣΠΟΠΟ η ομιλία του πρωθυπουργού.}
\]

This way, both will be assigned the focus status but only one of them in the NP is in fact focused. One might, of course, counter that all the NP (or DP, following Abney 1987) is focused, irrespective of the adjective being assigned the focal stress, which is not plausible from a discourse perspective at least, since as explained the noun is topical in the particular discourse setting. But even so, unless a different mechanism is made operational for this focus assignment here, the outlined theory of focus will predict that...
the +f feature will 'percolate' from the head F to the whole specifier, with yet no account for the fact that this feature is assigned only to the adjective.

2.5 Arguments for a non-configurational account of Greek clause structure

As we saw, within the traditional X-bar schema, the specifier and complement occupy asymmetrical positions; complements are sisters to the head whereas subjects are positioned higher up in the tree, as sisters of the intermediate X-bar projection. When the X-bar schema is extended to clausal structure, then this asymmetry between specifiers and complements was shown to be the basic distinction from which differences between subjects and objects can be derived.

The main motivation for this geometrically-defined distinction between subject and object comes from various data in which subject and object behave asymmetrically. Thus a fully configurational clause structure for MG can only be shown to be viable if such asymmetries between subject and object can be shown to be applicable to the language. Catsimali (1990) has, however, presented rather convincing evidence against the existence of subject-object asymmetries, supporting, perhaps, a 'flat' account of Greek clause structure. A similar 'flat' account has also been proposed by Horrocks (1994), following Speas' (1990) discussion of non-configurational languages. Below, after briefly introducing Catsimali's proposal, I present and evaluate her arguments giving, in addition, some of my own (Tzanidaki 1996). I shall also review Horrocks' highly relevant ideas concerning Greek configurationality.

2.5.1 Catsimali 1990: a 'flat' structure

In trying to accommodate the structural differences existing between English and Greek, Catsimali (1990) suggested a 'flat' Greek clause structure, following Kiss's proposal for Hungarian (Kiss 1987). According to her theory the positional variation of subject across the Greek sentence is accounted for by "...a floating branch which appears optionally filled with lexical content" (ibid: 148). This is illustrated in (35), with NP1 representing the optional subject argument coindexed with INFL:
The suggested flat argument structure in (35) relies heavily on the assumption that the subject argument indicated by the dotted lines lacks a case-marking governor and is assigned a default Nominative Case lexically. It is, furthermore, licensed at S-structure by coindexation with INFL. Note that, as already said, this floating branch is only projected when filled with lexical content. At the core of this proposal is thus the insight that there is no syntactic position specifically reserved for subjects in Greek clauses, since subjects are always encoded in the verbal morphology. The presence of full subject nominals in the clause is thus pragmatically triggered. This idea builds on Philippaki's (1987) proposal. Since the idea in question constitutes one of the points of departures for my account as well, which is introduced in the following chapter, I postpone the details of this proposal until then.

As far as topic and focus are concerned, Catsimali follows Kiss' (1987) proposed structure, shown in (36) below:

Thus, topic and focus are hosted in recursive CP projections, situated above the 'flat' IP, shown in (36) above. This structural arrangement, she argues, predicts the common TOP-FOC linearization, rather than the reverse. She takes topics to be adjuncts, and foci to be arguments, though she does not specify whether the latter are derived by movement or by base-generated adjunction to [spec, CP]. The argument-status of foci accounts for the inability of clauses to contain more than one focus (see footnote 9 above).

With respect to both the structures shown in (35) and (36) above, the following
two points should be noted. Firstly, note that the flat structure in (35), though empirically
motivated, would be hard to reconcile with the overall theory it assumes, i.e. GB. For
one thing, in adopting a flat argument structure all the benefits GB theory gains from its
'steep' configurations are lost (e.g. the binary branching theorem and language
acquisition (cf. Haegeman 1991, ch. 1)). All in all, the suggested flat structure amounts
to a series of dependency relations/chains between the verbal head and its arguments, and
hence it is conceptually much closer to a dependency-based approach to linearization. I
shall say more on this issue in ch. 3.

Secondly, the representation in (36) and its associated analysis gives rise to at
least two problems: the rather ad hoc postulation of CP recursion (see section 2.4.2), and
the terminological unclarity as to the nature and precise content of terms such as topic
and focus.

Notice that even abstracting away from these problems, it is not sufficiently clear
what motivates the steeply configurational left-periphery of the clause in the
representation in (36) above, given that, as Siewierska (1988: 219) points out, whatever
is hosted in the postulated topic and focus positions has been extracted, or can be
construed with the relevant constituents inside the flat clause, as schematically shown in
(37):

(37) \[ T [ F [ VX]]\]

All one needs, therefore, is a system of licensing topic and focus dependencies, such as
that adopted by, say, Functional Grammar (Dik 1978), or the dependency-based Word-
Grammar (Hudson 1984, 1990). The latter is in fact explored in this thesis, and it will be
outlined and exemplified in the following chapter.

2.5.2 Horrocks (1994)
Horrocks (1992, 1994) has developed a partly flat analysis of Greek clause structure,
though different from Catsimali's account outlined above. Below I review Horrocks'
account pointing to similarities and differences between his account and Catsimali's
analysis. As a convenient point of departure, consider the tree shown in (38) below:
As can be seen from the above representation, the projection of argument structure is flat, with subject and object arguments within V' rather than within I', as in Catsimali's account. Furthermore, there are a number of differences between these two 'flat' accounts. Thus, as already seen, in Catsimali's account all but the subject argument receive structural Case, the subject being assigned Nominative Case lexically. The subject occupies a 'floating' branch filled only when a lexical subject is projected and is licensed at S-structure by coindexation with INFL. In Horrocks' analysis, however, the verb and its arguments are projected at D-structure within V' according to "...some version of the thematic hierarchy..." (Horrocks 1994: 90), and all but the subject are inherently Case-marked; the subject argument, bearing no case, raises to [spec, VP] to be assigned Nominative Case under government from V+I, following Drachman (1992).

Thus according to this analysis the traditional predication structure, with the subject external to the VP, actually holds at S-structure, arising from the subject's movement to satisfy the Case filter. According to Horrocks, this perception of predication structure, allows two distinct types of languages: (i) Greek-type languages, including Ergative languages, in which all arguments are generated 'flat' within V' and subjects are then moved to [spec, VP] for Case reasons; (ii) English-type languages where the subject-predicate split shows at D-structure and the subject is Case-marked at [spec, IP].

These two types of language are argued to derive from two types of Nominative
Case assignment available to UG. That is to say, Greek-type subjects are Case-marked via head government whereas English-type subjects satisfy the Case-condition through spec-head licensing. The choice is ultimately said to follow from the strength of the inflection system of the language; a morphologically ‘strong’ language (MG) opts for the first structural mechanism of Case-assignment while an inflectionally ‘weak’ language (English) selects the second option. Related to this morphologically-based distinction is a further structural distinction between two subject positions, one external to V′ and the other within the V′. Thus if V+I can govern and Case-mark the [spec, VP] position then all arguments are projected flat within V′ and the most ‘salient’ of them is ‘externalized’ to [spec, VP], as in Greek-type languages. In effect, this means that Greek has two subject positions, one external to V′ (SVO) and one within V′ (VSO), following his earlier proposals (Horrocks 1983, 1984). In contrast, if V+I cannot govern and/or assign Nominative Case to [spec, VP] then the subject, generated in [spec, VP] raises further to [spec, IP] to receive Nominative under spec-head agreement, as in English.

Finally, as far as Greek is concerned, there is a further distinction between [spec, VP] and [spec, IP] positions. They can both host subjects but they are structurally different, the former being an A-position in which subjects proper are ‘created’, the latter being a mixed A-/A' position which serves to host either proper subjects or ‘topicalized’ subjects.

However, there are some problems with this account. Firstly, subjects are the only arguments which require structural Case in contrast with all others which are said to be inherently Case-marked. But why this has to be so remains unclear, in particular, given that the opposite situation, i.e. inherent Nominative Case for subjects and structurally Case-marked objects, as proposed by Catsimali (1990), could also work. Horrocks provides no explicitly discussed motivation for the proposed Case-marking mechanisms.

Secondly, there is no account for the well-known fact that part of the Greek verb morphology expresses the subject argument, thus rendering the occurrence of the full argument NP a pragmatically marked, and indeed statistically infrequent, option (Philippaki 1987). Related to this point is also the following: given that MG uses so-called null or pro subjects, the representation in (38) above would allow pro to occur in
many different positions. This would result in multiple structural ambiguity which is vacuous.

Thirdly, although I think the proposed flat structure incorporates an interesting insight, it is not at all obvious why the argument structure should be generated in a VSO, rather than, say, SVO order at D-structure, as Horrocks suggests. Which criteria is this choice based on? Surely, it cannot be statistical frequency, for currently available statistics do not support that claim at all. In fact VSO is statistically a very infrequent order, representing only 1.1% in Laskaratou’s corpus of 2530 clauses (Laskaratou 1984). Horrocks seems to justify VSO as the D-structure representation on the basis of some version of the thematic hierarchy. It is not, however, clear which precise formulation of the thematic hierarchy he assumes. Moreover, what the thematic hierarchy requires is that subjects be projected before objects. Thus, there is nothing to prevent subjects from being placed before verb in an SVO, or SOV arrangement, still in accordance with the thematic hierarchy.

Another problem with Horrocks’ account is that it proposes a distinction between two kinds of preverbal subjects: proper subjects occupying the [spec, VP] position in (38) above, and subject topics in [spec, IP], unlike Tsimpi’s and Philippaki’s proposals (Philippaki 1985, Tsimpi 1990). According to these two accounts preverbal subjects are always topics. In Horrocks’ account, if a subject NP is not a topic, then it will be in [spec, VP]. An example of a sentence containing a subject which cannot be topical is given in B’s answer in the exchange shown in (39) below:

(39) A: Ti sinevi;
    ‘What happened?’
B: O Petros pire aftokinito.
    [the Petros]nom took-3sgl [car]acc
    ‘Peter bought a car.’

According to Horrocks, the SVO sentence uttered by Speaker B above, is an answer to a broad question ‘what happened’ in which nothing, including the subject, is given from the previous discourse. Thus, since ‘o Petros’ in (39) above cannot be a topic subject,
it is a subject proper. Examples such as (39) above would thus support the distinction between these two types of subjects in MG. Further corroboration of this distinction comes from examples such as the first sentences of novels. Horrocks (1983) quotes the first sentence from a Greek novel.

However, the notion of topic Horrocks assumes to justify the postulated distinction is based on the given-new bipartition. According to this, topics represent 'given' information in relation to foci which constitute 'new' information. It is only this particular sense of topicality which cannot be applicable in a first clause of a novel or in an answer to a general question, since nothing can be taken as relatively given, owing to the absence of a previous context in which the subject in question can be evaluated as a previously accessed piece of information. However, as Siewierska points out, it is only this restrictive and rather controversial perception of topicality which would justify Horrocks’ distinction between a subject-topic and a subject-proper (Siewierska 1988: 218). In fact, current cognitively-oriented approaches to topicality show that 'givenness' is not even a necessary property of topic. According to the relevance-theoretic approach to the issue (Sperber and Wilson 1986), for example, topics are backgrounding devices which merely reflect the speaker’s intention to project their referent as part of the hearer’s background, irrespective of the referent being present or recoverable from the previous discourse, and the like. In this approach to topicality, nothing would prevent a subject of the first sentence of a novel, or a subject of an answer to a broad question from being the topic, in the sense that that speaker intends the referent of this subject to be projected as part of a background or contextual premise on which the rest of the utterance builds its effects.

There is also another reason which arguably undermines the postulated distinction between subject-topic and subject-proper. The first sentence of a novel, or, for that matter, the answer to a general question as in (39) above, belongs to the type of 'thetic' propositions, discussed in 2.4.2. In such statements, as already pointed out, the informational content of the clause is all new and we have a kind of broad-focus proposition (a proposition whose every constituent bears focus (De Jong 1981)), or, alternatively, distinctions such as topic-focus are altogether irrelevant and unoperational
(Dik et al. 1981).

Following the discussion above, therefore, it is clear that there are problems with both Catsimali’s and Horrocks’ partly flat accounts. Having said that, however, it should be acknowledged that the basic insight incorporated in the flat argument structure, as well as the extensive argumentation for the proposed symmetrical generation of subjects and objects in the Greek clause seem to be plausible, and they certainly deserve some further attention.

2.5.3 Greek and subject/object asymmetries

In this section I present the main arguments, first highlighted by Catsimali (1990), which support a symmetrical treatment of subjects and objects in Greek clause structure, in contrast with that of English.

2.5.3.1 ECP effects

The absence of ECP effects in MG is one key area where subjects and objects can be shown to be more symmetrical than in English. ECP-effects concern the proper government of traces left by moved constituents (Chomsky 1981, 1986b). Thus, in English objects can be extracted freely since their traces, being theta-governed will thus always be properly governed. By contrast, subjects can only be moved out of a subordinate clause on condition that its complementizer position is empty. Such an asymmetrical behavior, however, does not obtain in Greek as was first pointed out by Catsimali (1990). The following subsections summarize the relevant argument.

2.5.3.1.1 That-t filter: wh-movement

Compare (40) and (41) shown below:

(40) (a) Who did you say [cp [that [t John saw t]]]
(b) Who did you say [t John saw t]

See Sewierska (1991: ch. 6) for details and further references on the issue.
As (40a, b) indicate extraction of the object out of a clause is allowed, no matter whether the subordinate clause has a complementizer or not. In contrast, extraction of a Wh-subject out of a clause is permissible only provided that there is no overt complementizer. Examples of this sort have been known as ‘that-trace’ effects. According to Chomsky and Lasnik (1977) the observed subject-object asymmetries relate to the condition of proper government on traces left behind by moved categories. Traces are empty categories whose presence is licensed by proper government. This condition is known as the Empty Category Principle (ECP). Proper government is attained either by theta-government or by antecedent-government. I shall not go into the mechanics of proper government (Chomsky 1981, 1986b). Suffice it to say that traces of objects are always theta-governed since they are governed and directly theta-marked by a lexical head V. By contrast, traces of subjects satisfy the ECP only by being antecedent-governed, i.e. by being coindexed with a c-commanding NP.

We can use this machinery to account for the grammaticality patterns in (40) and (41). That is to say, in (40) the trace of the wh-object is properly governed in that it is theta-governed by the head V. In (41), however, the trace of the wh-subject can only satisfy the ECP by being antecedent-governed. This indeed is true in (41b), since ‘who’ will antecedent-govern the intermediate trace in the lower [spec, CP] and this intermediate trace will govern the lowest trace in [spec, IP] of the embedded clause. In (41a), however, the presence of the overt complementizer ‘that’ is said to somehow block government of the lower trace by the intermediate trace t’ in the lower [spec, CP]. Consequently, the subject trace in [spec, IP] fails to be antecedent-governed and thus violates the ECP, resulting in ungrammaticality.

Assuming that the subject in Greek is in the same underlying position as in English, this story runs into difficulty when considering the corresponding data from Greek shown in (42), (43):

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14See, however, Hudson (1976), Gazdar et al. (1985), Sag & Fodor (to appear) for arguments against the existence of ‘of’ traces.
As can be seen extraction of both subject and object out of a clause is fine in Greek, irrespective of whether an overt complementizer 'oti' is crossed\(^{15}\).

### 2.5.3.1.2 That-trace: wh-relatives

The same absence of subject-object asymmetry in Greek holds also for cases of so-called 'long Wh-movement'. Compare (44) and (45) shown below:

(44) (a) I saw the man [\(c_T\) whom [\(W\) I knew [\(c_T\) that Mary likes t]].

(b) *The man [\(c_T\) who [\(W\) I knew [\(c_T\) t' that t likes Mary]] rang me up.

(45) (a) Ida ton andra ton opio ksero oti i Maria agapai. saw-1s[the man]acc whom know-1s that [the Maria]nom love-3s

(b) O andras o opios ksero oti agapai ti Maria mu [the man]nom who-nom know-1s that love-3s [the Maria]acc me-acc-cl telefonise.

rang

\(^{15}\)In view of the discrepancy observed in MG concerning that-trace effects Tsimpli & Roussou (1991) have proposed, following Du Plessis (1987), that the Proper Government Parameter available to UG is set positively in MG. That is to say, Comp is a proper governor in MG. Hence the grammaticality of constructions involving 'that-t' violations. However, such a proposal would need independent evidence of some sort to show that: (a) such a parameter is indeed operational, and (b) its value is positively set in MG.
Thus, in English the long-distance movement of a wh-relative object occurs unproblematically, whereas the same does not hold for subjects as (44b) suggests. In Greek again no asymmetry between subjects and objects obtains.

2.5.3.1.3 Superiority Effects

Another area which shows that subject-object asymmetries obtain in English but not in MG relates to the so-called superiority condition. This condition is a constraint on the order of extracting wh-words in sentences containing multiple wh-questions. Structurally, superiority is defined in terms of c-command. Subjects c-command objects and consequently, they are superior to objects. As an illustration, consider the contrast between the two multiple wh-questions in (46a and b) below:

(46) (a) \[cp Wh, \[g, t, \text{said } t]\]?
(b) *\[[cp W hata, \[cp Wh, \[g, t, \text{say } t]]\]

According to the superiority condition if X is superior to Y then any movement affecting X must occur on a lower cycle than that affecting Y. The reason for that is again ECP. Thus, in (46) above, any movement affecting the superior element, namely the wh-subject must take place on a lower cycle than that affecting the wh-object. The movement operation in question is LF-raising, an operation by which the wh-operators are assigned scope at LF. Following the application of LF-raising to (46a, b) above, we get the following LF representations shown in (47a, b) respectively:

(47) (a) \[cp W hat, \[cp Wh, \[g, t, \text{said } t]\]]
(b) *\[[cp Wh, \[cp W hat, \[g, t, \text{said } t]]\]

(47a) is grammatical since movement affecting the superior subject has occurred in a lower cycle than that affecting the object. This way, all traces are properly governed. Namely, the object trace is theta-governed by ‘said’ and the subject trace is antecedent-governed by the c-commanding ‘who’ in [spec, CP]. (47b), in contrast, violates the ECP since the subject trace cannot be antecedent-governed by its c-commanding antecedent.

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The wh-object phrase bars government from ‘who’ into its trace. The Greek data shown in (48) do not display any such superiority effects:

(48) (a) P jos  ipe ti?
    who-nom said-3s what-acc
(b) Ti ipe pjos?

Drachman (1987) attributes the discrepancy displayed by English and Greek concerning the superiority condition to “an unknown factor”. This, of course, does not constitute an explanation.

2.5.3.2 The VP in Greek
A key argument in favour of subject-object asymmetries (and hence configurational structure) is the presence of a constituent containing the verb and its object but not the subject. The presence of a VP or V constituent (following the VP-internal hypothesis) in a language is witnessed by the existence of verb-object idioms and any rules sensitive to the constituent in question. Let us first look at the former type of evidence.

2.5.3.2.1 S-V idioms
As already pointed out, V-bar consituents (V+O) are taken to be more closely related than V+S, as witness the presence of idiom chunks, etc. If thus subject-verb idioms can be found, the argument for ‘steep’ configurational structure separating subjects from verbs is weakened. In Greek, both Catsimali (1990) and Horrocks (1994: 88) have shown that there exist subject/whole sentence idioms some of which I repeat below in (49):

(49) Τον ήρμε κόλπος = (to-him came gulf/bosom)=he was stunned
    Δεν ιδρώνει το αυτί του (not sweats the ear of him)= he doesn’t turn a hair
    Πίσω  είχε η αχλάδα την ουρά (behind has the pear the tail)=there are problems ahead
Πήρε ο νους του αέρα (took the mind of him air)= he got big-headed
Кρατάει η σκούφια του (prevails the hat (of him))=he comes from
Κάτι τρέχει στα γύφτικα (something is running in the Gypsy camp)=so what?
Φούρνος να μην καπνίσει (oven let not smoke)=après moi le deluge
Του μπήκαν ψύλλοι στα αυτιά (to him entered fleas into the ears)=he got wind of something

In addition, Stavropoulos (1992) and Delicostopoulos (1993) provide the following:

(50) Πετάει η σκούφια του= he is very keen on sth
Το λέει η περδικούλα της=she's got plenty of spunk/guts, she's full of beans
Του λείπει μια βίδα=he is a bit mad
Του έστριψε η βίδα=he lost his mind
Κακή ώρα να σε βρει= may misfortune befall on you!
Ο θεός να την φυλάει= may God look after her!
Τους κόπηκε η χολή=they were scared stiff
Τους κόπηκε η ανάσα= their breath was taken away
Τους κόπηκε ο πυρετός, τους ἔπεσε ο πυρετός= their temperature was brought down
Της ανέβηκε ο πυρετός= her temperature was brought up
Μου πέφτει λόγος= it is none of my business
Κόβει ο νους του=he has plenty of gumption
Της κόλλησε η ιδέα=she had a fixed idea
Της κόπηκε η μαγιονέζα/το γάλα=the mayonnaise/milk turned
Ο κόσμος να χαλάσει=it's the end of the world
Δε χάλασε ο κόσμος=no harm is done
Της κόπηκε το κέφι=her fun was gone
Του κόβει το κεφάλι του=he has plenty of gumption
Του κόβει ο νους του=he has plenty of gumption

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The list of S-V idioms shown above is sufficiently long to suggest that there are many of them in MG, unlike other languages where similar constructions are extremely rare.

2.5.3.2.2 VP rules

In relation to rules sensitive to V′ constituent, Catsimali has also drawn attention to conjoined constructions such as (51) shown below:

(51) (a) O Vasilis edose sti Sophia to molivi [the Vasilis] nom gave to the Sophia [the pencil] acc ke o Kostas to stilo and [the Kostas] nom [the pen] acc.
(b) *Basil gave Mary the pencil and Constantine the pen.16

Unlike its English counterpart (51a) is grammatical consisting of two conjuncts the second of which contains a subject and a verb with its direct object while the indirect object is missing. According to Catsimali such data suggest that the construction and interpretation of conjoined sentences is not sensitive to a VP node, and, therefore, it seems that the verb and its internal arguments do not form an inseparable unit17.

2.5.3.3 Weak Crossover

Weak Crossover is another area in which subject and objects in MG behave more symmetrically than they do in English. Consider the data in (52) (taken from Horrocks 1994: 100):

(52) (a) PjoSj agapai t, ti mitera tu,?
who, love-3s t, the mother-ACC of-him,?
‘Who, loves his, mother?’

(b) Pjonj agapai i mitera tu, t, ?
whom, love-3s the mother-NOM of-him, t,?
‘Who(m), does his, mother love?’

As Horrocks points out, such data suggest “...a less clear-cut contrast in MG between extraction of subjects and objects with respect to weak crossover than exists in English” (p. 100). This is again interpreted as supportive of a flat clause structure which, in his view, would allow the trace of the moved element to c-command and bind the possessive in the lower object and subject NPs respectively. A highly configurational structure as advocated by Tsimpi (1990), for example, cannot account for these data.

16(51b) is OK for English speakers which suggests that her claim concerning the V+O sequence may not be conclusive.

17See, however, Horrocks (1994: 86-88) for a VP-based analysis of these data.
2.5.3.4 Extraction of secondary predicates

Subjects and objects also behave symmetrically in Greek with respect to the extraction of secondary predicates. Compare (53) and (54):

(53) (a) Mary left the house very pleased with herself.
    (b) *How pleased did Mary leave the house?*
    (c) The Japanese eat fish totally raw.
    (d) *?How raw do you think that the Japanese eat fish?*

(54) (a) Poso efharistimeni afise i Maria to spiti?
        how pleased-female-nom left [the Maria]nom [the home]acc
    (b) Poso omo nomizis oti i Japonesi trone to pasri?
        how raw-acc think-2s that [the japonesi]nom-pl eat-3pl [the fish]acc

In English, the extraction of subject-oriented adjunct predicates (53b) produces a stronger degree of ungrammaticality than the extraction of object-oriented predicates (53d), even when the latter takes place out of an embedded clauses. In Greek, on the other hand, both subject- and object oriented predicates can be extracted without any difference in the degree of grammaticality, as seen in (54).

2.5.3.5 Small clauses

A similar disparate pattern, according to Catsimali (1990), emerges between English and Greek in small clauses, shown in (55), (56):

(55) (a) Who does Mary consider innocent?
    (b) ? What does Mary consider Bill?

18Worth-noticing would also be (a)-(b) below pointed out by Hudson (p.c.):
(a) ? How drunk did he come home?
(b) How hot do you drink your coffee?
Here again, the extraction of subject-predicate leads to oddness whereas the extraction of object-predicate is fine. In Greek, both (a) and (b) above are grammatical.
In (55), the subject NP inside the small clause can be questioned, whereas the predicate attribute cannot. No similar situation holds for the Greek, as the data in (56) show.

2.5.3.6 Binding

Catsimali (1990) also discusses binding data from Greek as illustrative of a striking structural difference between MG and English. Consider first the English sentences in (57):

(57) (a) John likes himself.
(b) *Himself likes John.

‘Himself’ is a reflexive which has to be bound (Condition A of the Binding theory, Chomsky 1980, 1981)). This means that it should be coindexed with a c-commanding antecedent. (57a) satisfies that condition if we assume that ‘John’ occupies a higher position in the structure than the reflexive. Hence it is grammatical. (57b), however, is ungrammatical; the NP ‘John’ in this configuration will fail to c-command the reflexive. Once again, no such condition seems to be operative in Greek as exhibited in (58):

(58) (a) o Janis agapai ton eafto tu.
[the Janis]nom love-3s himself
(b) Ton eafto tu agapai o Janis.

Assuming a standard configurational structure, the reflexive ‘ton eafto tu’ in (58b) would not be c-commanded by its antecedent ‘o Janis’

\(^{19}\)See Horrocks (1994) for a different view on the issue.
One way in which it might be possible to save Principle A of the Binding Theory would be to stipulate that the reflexive in (58b) originates in a D-structure position in which it can satisfy the c-command condition and, therefore, can be bound by the antecedent NP. At a later stage of the derivation this then moves to a position higher than the NP. This is illustrated in (59a, b):

(59) (a) VP
     SPEC V' NP
     o Janis agapai
     ton eaflo tu

(b) [Ton eaflo tuₜₙ]ₜₙ agapaiₗ₁
     SPEC I' VP NP
     o Janisₙ tₗ₁ [t]ₙ

Note, however, that such an argument is highly problematic. Not only does it rest entirely on theory-internal rather than independent evidence, but it also goes against the standard GB assumptions about Binding. There are good reasons to think that Binding Principles must hold at S-structure. Catsimali (1990) uses data such as (58a, b) to support her 'flat' clause structure of MG clause structure, which would allow NPs and their coreferential reflexive pronouns to c-command each other without triggering ungrammaticality.

2.5.3.7 Greek and the Extended Projection Principle (EPP)

There is a clear contrast between configurational and non configurational approaches to language vis-à-vis the subject position. Clearly, for a traditional X-bar based clause structure the subject, as a specifier, will be important in that a specifier is necessary for the projection of the intermediate X-bar constituent to a full XP. Consequently, a subject
position will always be required in a clause, regardless of whether or not it is lexically filled. In non-configurational approaches to language, however, the subject lacks its structural significance. Quite simply any 'higher projection' - such as X-bar - will dominate any sentential constituents equally, and thus will not be dependent on the presence of one above the other. One immediate consequence of this is that pleonastics, semantically empty structure-filling subjects, are predicted to be absent in a non-configurational language, since their role filling a required specifier position is essentially redundant. So too, constructions involving subject raising and non overt subjects (PRO) are predicted not to occur in non-configurational languages. Evidently, if these constructions could be shown to be absent in Greek, then it would lend support to the argument that Greek is a 'flat', non-configurational language. Let us first examine the issue of pleonastic subjects.

2.5.3.7.1 Lack of pleonastics

According to the GB assumptions all sentences must have a subject projection (EPP). EPP guarantees that a subject position will always be available even though it may not be relevant to a predicate's argument structure. In these cases expletives or 'dummy' subjects occupy the empty-generated subject position as in (60b) below. Their presence in the sentence has no bearing on semantics. However, as it is well known no similar dummy subjects appear in Greek as shown in (60a) below:

(60) (a) Vrechi.
    rains-3s
    'It is raining.'
(b) It is raining

Thus, while the English (60b) requires a dummy subject in the absence of a proper one, the Greek (60a) does not require this. According to Speas (1990, ch.3 cited in Horrocks 1994: 84) absence of pleonastics is a property associated with non-configurational languages for reasons described above. So too, according to Speas, related to this point is the fact that such languages do not also display subject raising, a problem which I shall
2.5.3.7.2 Lack of PRO

Following the EPP outlined above, all clauses must contain a subject position even though this may not be filled by an overt subject. In this case, an anaphoric pronominal empty category is postulated, called PRO, or big PRO. The main evidence for PRO comes from so-called control data. As an example, consider (61) below:

(61) John persuaded Mary to come to the party.

In (61) above the understood subject of the infinitive clause is the same as the object of the matrix verb ‘persuade’. In this case, it is said that ‘Mary’ is the controller of the subject of the subordinate clause. According to Bresnan (1982: 372), control depicts a relation of referential dependency between an unexpressed subject, called the controlled element, and an expressed controller. It is furthermore argued that PRO is in complementary distribution with overt NPs, the reason being that nominals need to be case-marked under government, while PRO is only licensed in ungoverned environments (hence non-Case-marked). This is the so-called PRO theorem, which basically entails that PRO cannot occur as the subject of a finite clause (Chomsky 1981, Manzini 1983).

In relation to Greek now, there are two types of analyses concerning PRO. One assumes the standard mainstream GB approach outlined above, the problems of which have been pointed out by Philippaki and Catsimali (1995). The other claims that PRO does not exist at all in Greek, since Greek has no infinitives, and thus PRO cannot be licensed (Philippaki 1987, Philippaki and Catsimali 1995). This approach furthermore advocates that control in Greek can be easily accounted for by reference to semantico-pragmatic information. Although a detailed description of these two types of analyses goes beyond the scope of my discussion, I shall briefly refer to the main arguments of this second analysis, for it incorporates some useful empirical and theoretical insights, which are relevant to the overall argument of this part. Consider first the data in (62):
(62) (a) O Petros theli na pai sinema.
[the Peter]nom want-3s to go-3s cinema
‘Peter wants to go to the cinema.’
(b) Peter, wants [PRO, to go to the cinema]

In (62a) above, the embedded verb agrees in number and person with the matrix subject. Thus, it might be argued that the understood subject is a PRO coreferential with the matrix subject, as in the corresponding English example in (62b). However, unlike English, the embedded verb may vary in number, person, as illustrated in (63) below:

(63) (a) O Petros theli na pas sinema.
[the Peter]nom want-3s to go-2s cinema
‘Peter wants you to go to the cinema.’
(b) *Peter, wants [PRO, to go to the cinema]

Na-clauses are finite clauses, introduced by ‘na’, an inflectional element showing subjunctive modality (Philippaki and Veloudis 1985)\(^\text{20}\). If PRO was licensed in the embedded clause in (63a), then it would be governed by the finite inflection, which should presumably result in ungrammaticality, contrary to fact. According to Philippaki and Catsimali, therefore, PRO is not licensed in Greek. Instead, what is licensed inside the embedded clause is a small pro, which, however, is of a sublexical affix inside the VP, carrying features of number, person, tense (Philippaki 1987). I return to the details of this in chapter 3.

According to this view, then, the coreferential or non-coreferential interpretation between the embedded and matrix subject in (62) and (63) above is semantically licensed. This kind of analysis is also advocated by Joseph (1992), and Philippaki and Catsimali (1995) offer rather convincing data in support of their view that it is the pronominal subject suffix, rather than PRO, which controls the nominative case of the embedded nominal, as shown by the data in (64):

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\(^{20}\)See, however, Agouraki (1991), and Tsoulas (1993) for an analysis of ‘na’ as a complementizer.
The point of the data shown in (64) above is that the nominative case of the embedded clause can only be accounted for by coindexation with the built-in subject suffix of the embedded verb.

2.5.3.9 Some more arguments

This last part brings to attention some additional areas in which I think the case for the structural difference between Greek and English clauses can be reinforced. These mainly concern nominal raising and passivization.

2.5.3.9.1 NP-raising?

Recall from the discussion in section 2.5.3.7 that raising is predicted to be absent in languages where the subject does not enjoy a special syntactic status. Consider the NP-raising data from English in (65) and the equivalent Greek examples depicted in (66):

(65) (a) *It seems[\textit{t} the children to be intelligent]  
(b) It seems [\textit{t} \textit{c} that [\textit{t} the children are intelligent ]]  
(c) [The children, seem [\textit{t} \textit{t} to be intelligent]]

(66) (a) Fenonte na ine eksipna ta pedhia.  
seem-3pl to be intelligent-nom-neut [the children]nom  
(b) Ta pedhia fenonte-3pl na ine eksipna.

According to a GB analysis (65a) is ungrammatical because the subject of the infinitival clause, ‘the child’ is not assigned Case. Note that the [-finite] inflection in (65a) cannot
qualify as a governor and, consequently, as a Case-assigner to the relevant NP. If, however, the NP is raised to the empty subject position of the matrix verb ‘seems’, then the NP will be Case-marked by the [+finite] governor I of the matrix verb, and the sentence becomes grammatical (65c). The fact that the position before ‘seems’ is generated empty is proved by (65b) in which the expletive ‘it’ occupies the subject position. ‘Seems’ is called a ‘raising’ verb since its inherent property is always to trigger raising of the NP occupying the subject position of its infinitival complement.

Considering now (66) we see that both the ‘raised’ and the ‘non-raised’ construction are equally grammatical in Greek and, therefore, no structural requirement similar to that obtaining in English is at work here. Note that in the GB analysis of raising discussed here, (66) would be taken as an example of raising (Agouraki 1993). One of the arguments supporting this putative ‘raising’ analysis is that the number and person of the ‘raised’ NP is registered in the inflection of the ‘raising’ verb ‘fenete’ 21. Note, however, that this argument is not conclusive, for as shown in (67) below, ‘fenete’ (seem) could also be left unchanged in terms of number, irrespective of the number of the ‘raised’ noun.

(67) (a) Fenete na ine eksipna ta pedhia.
      seem-3s to be intelligent-nom-neut [the children]nom
(b) Ta pedhia fenete-3s na ine eksipna.

In this case, ‘fenete’ is the impersonal 3rd person singular verb whose subject, according to the traditional analysis, is the whole lower na-clause. Moreover, since Greek does not make use of pleonastic elements, the diagnostic for an empty generated non-theta, Case-assigned position preceding the raising verbs cannot be employed either.

NP-raising thus appears to be totally optional in Greek, and totally unrelated to

21Furthermore, Agouraki (1993) points out that the Greek verb ‘fenete’ meets other diagnostic criteria for raising verbs quoted below (ibid: 133):

(i) no selectional restrictions imposed by ‘fenete’ on the lower subject
(ii) ‘fenete’ lacks an object
(iii) ‘fenete’ does not assign an external theta-role
(iv) ‘fenete’ is not similar to the English ‘look like’
any grammatical conditions on NPs such as Case assignment. Agouraki’s point (Agouraki 1993: 131) quoted here, I think, indicative of this: “…with respect to other languages the possibility of raising from +fin clauses has been noted by Grosu and Horvath (1984) and Rivero (1992). […] The fact that there is raising from +fin clauses is problematic for all current theories of movement... The question of the motivation of raising seems to be equally problematic”.

In sum, I argued that obligatory NP-raising does not obtain in Greek which naturally follows from the fact that NP subjects do not enjoy a special syntactic status in MG. This situation parallels exactly that of passivization to which I shall turn below.

2.5.3.9.2 Passivization

Further evidence against the existence of a compulsory subject position in Greek comes from facts relating to passivization. Consider (68) and (69) below:

(68) (a) *It is considered John to be intelligent.
(b) John is considered[as t to be intelligent]

(69) (a) Theorunte ta archea elinika na ine sinarpastika.
are considered [the ancient Greek]nom-pl to be fascinating-nom-neut-pl.
‘Ancient Greek is considered to be fascinating.’
(b) Ta archea elinika theorunte na ine sinarpastika.
(c) Theorite ta archea elinika na ine sinarpastika.
is considered [the ancient Greek]nom to be fascinating-nom-neut.
(d) Ta archea elinika theorite na ine sinarpastika.

In (68a) again the NP subject of the infinitival clause fails to be Case-marked, on the

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22 The difference between (67a and b), however, appears to be interpretative and, perhaps, any potential explanation should take into account various pragmatic terms involved. Thus, (67a) gives an impersonal flavour to the proposition expressed by the domain of the lower clause, whereas (67b) expresses that the speaker is somehow involved in the predication concerning ‘the child’ which is picked out of the domain of the lower clause. For transformational operations governed by discourse and contextual factors, among which subject-to-subject raising, see Creider (1979).
assumption that passive morphology deprives a verb of its capacity to Case-mark its complement. Thus only raising of the embedded subject NP to the Case-assigned matrix \([\text{spec, IP}]\) position rescues the structure. By contrast, the Greek data in (69) suggest, once again, that no structural condition is responsible for the raising of the embedded subject NP into the matrix \([\text{spec, IP}]\) position. Indeed, as in the case with the ‘raising’ verb ‘fenete’ in section 2.5.3.9.1, the passive verb does not have to agree in number with the ‘raised’ noun, as shown in (69c, d) above. Here, ‘theorite’ (it is considered) will be the 3rd person singular impersonal version of the passive ‘theorume’ (I am considered), even though the supposed passivized subject ‘ta archea elinika’ is plural.

Passivization in MG seems to be related more to semanticopragmatic factors rather than syntactic. This idea has been entertained by Philippaki (1976). According to Philippaki Greek passives express “…the involvement of the subject in the meaning of the verb…due to the fact that the same verb form covers the meaning of both passive and middle or reflexive.” (ibid: 570). Note that passivization is a subject-creating construction (Gundel 1988). As seen above, however, passivization in Greek need not be employed as a subject-creating operation. This again follows if we assume that the subject need not be syntactically present in MG clause.

2.5.3.10 A note on adverbial placement

A final word should be said about the position of adverbials in MG. Unlike English, adverbials may be placed between a verb and its direct object in Greek. This is illustrated in (70) below:

\[
\begin{align*}
(70) \quad (a) & \quad \text{*John lost completely his mind.} \\
(b) & \quad \text{O Janis echase telios to mjalo tu.} \\
 & \quad \text{[the John]nom lost-3sgl completely [the mind his-gen]acc} \\
 & \quad \text{‘John completely lost his mind’}.
\end{align*}
\]

Thus, (70a) above is ungrammatical, because the NP ‘mind’ cannot be Case-marked by the verb ‘lost’ since it is separated from it by the adverbial. This is because according to some versions of Case theory in GB case is assigned under government by a head which
is strictly adjacent to its assignee. The fact of the matter is then that strict adjacency is violated in Greek without giving rise to any ungrammaticality (70b). This lack of V-O adjacency in MG might weaken the argument for a VP, and hence for a configurational approach in conjunction with the arguments offered so far.

2.6 Non-configurationality and recent linguistic developments

Taken together, the arguments presented in section 2.5 have led some people, such as Catsimali (1990) and Horrocks (1994) to propose a flat clause structure for MG (outlined in 2.5.1 and 2.5.2 above), with no hierarchical distinction between subjects and objects. However, these proposals rest on two grounds which might be problematic, especially in the light of current linguistic proposals.

Firstly, these ‘flat’ analyses to Greek appeal to a distinction between configurational and non-configurational languages, first proposed by Hale (1981, 1982, 1983), as outlined in section 2.3. This bifurcation, however, appears to be incompatible with current thinking in GB/Principles and Parameters theory, as exemplified by the work of Kayne (1993) and Chomsky (1992, 1993, 1994, 1995).

Kayne (1993) has proposed a theory of word order according to which a strict linearization of elements is governed by their participation in a structural relation, antisymmetric c-command. If an item x anti-symmetrically c-commands y, then x will precede y. This is known as the **Linear Correspondence Axiom**, the technicalities of which need not concern us here. The theory predicts certain word order facts, the core of which is that SVO is the universal underlying order and every other order has to be achieved by means of leftward movement. Clearly such an approach presupposes that a strictly configurational structure will be operational in all languages; in order for the elements of a language to be ordered, they must enter into an antisymmetric c-command relation. However, as I pointed out in section 2.5 a relation such as c-command is only expressible in terms of a branching configurational structure. In addition, with the Minimalist program, Chomsky (1993), like Kayne, takes the X-bar binary branching schema to hold universally, word order facts being also derived by morphologically-
driven movement.

The second problem with these flat accounts, is that they rely on the architecture of the so-called T-model of the Grammar, shown in (71) below:

(71) Lexicon
    ↓
    D-structure
    ↓ move-α
    S-structure
    move-α move-α
    ↓
    PF
    LF

Thus, as seen in 2.5.2 Horrocks 'flat' account of MG clause structure crucially employs the distinction between D- and S-structure. However, in the Minimalist program, Chomsky provides extensive arguments for dispensing with D- and S-structure, the main point being that they both are conceptually redundant. That is to say, the main motivation for them, i.e. Projection Principle and Theta-theory for D-structure, and surface order and Binding Principles for S-structure can be derived by virtue of a new apparatus, in which the role of Economy is ever increasing. Therefore, only two stages are postulated in the course of a derivation to LF, i.e. Spell Out and LF, as seen in (72) below:

(72) lexicon
    ↓ Spell Out
    LF

Thus, fully-inflected lexical items, carrying all their verbal and nominal features, are inserted from the lexicon in the syntax to have their features checked along the course of a derivation to LF. At some stage of this derivation, Spell Out takes place which
constitutes a phonetic realization of that particular point in the derivation. Thus, the order in which each item is placed in the clause at Spell Out follows from parametrized morphological properties of these items, for movement and placement of an item to a position is driven by the requirement on lexical items to have their features checked.\footnote{See, however, Wilder and Cavar (1993) for problems this theory of word order presents in relation to word order variation.}

In the light of these new developments, then, it is hard to see how such flat accounts of Greek clause structure could be accommodated in a theory of language which: (i) assumes a universal configurational structure, and (ii) rejects D- and S-structure levels of representation.

**2.7 Conclusion**

This chapter introduced the concept of configurationality, with particular reference to Greek clause structure and word order. Firstly, I presented and evaluated Tsimpli's configurational account of Greek clause structure, and I argued that a number of assumptions and predictions this account makes seem problematic. A main problem of this account is that it is based on a hierarchical distinction between subject and object positions which fails to account for a number of empirical data, such as lack of ECP-effects, weak crossover, subject-verb idioms, etc. These data seem to support 'flat' accounts of Greek clause structure, such as the ones proposed by Catsimali (1990) and Horrocks (1994). However, these 'flat' analyses, exploiting as they do a universal configurational parameter, were argued to be incompatible with the latest evolutions of the grammatical framework on which they are based.

The picture that emerges, then, is that we need an account of Greek word order able to accommodate the empirical facts of the language and provide a way of distinguishing among orders, thus capturing native speakers’ intuitions with respect to the degree of ‘naturalness’ associated with each order. The point of departure for my alternative is the belief, presented in the introduction of this thesis, that word order is a reflex of several interdependent factors, and thus, studying it with exclusive reference to
a system of formally generating and representing the various word orders is inadequate. My task in the following chapters is thus to put forward such an account.
3 Dependency and Greek clause structure

3.0 Introduction

This chapter lays the foundations of an account of Greek word order. The main focus is Greek clause structure, and in particular, the question of what constitutes the basic clause structure in Greek, given the rich verbal inflection which allows for the subject and object to be expressed morphologically. I will take as my starting point Hudson’s theory of Word-Grammar (WG henceforth, Hudson 1984, 1990), and in particular, his version of Dependency Syntax. A basic clause structure is hypothesized, consisting of a verbal stem plus subject and object morphological markers (Tzanidaki 1995). It is furthermore argued that full subject and object nominals construable with these subject and object markers are merely adjuncts, their appearance in the clause being pragmatically motivated. This proposed clause structure not only accords with insights taken from other analyses of free word order languages, but also may have desirable implications for properties of subjects and clitic constructions.

The chapter is organized as follows: Section 3.1 offers an introduction to Hudson’s Dependency framework, part of his overall theory of WG, the most basic tenets of which are presented. Special focus is, of course, given to the approach this theory adopts towards word order. Section 3.2 discusses Greek clause structure, and offers a representation of the hypothesized basic clause structure. It also elaborates on the relation between morphosyntax and pragmatics. Section 3.3 examines the issue of adjuncthood in relation to noun subjects in Greek.

3.1 Dependency: background

Word-Grammar (WG henceforward) (Hudson 1984, 1990) belongs to the family of Dependency Grammars (Tesnière 1953, 1959, Mel’čuk 1988). Hudson’s version of Dependency Theory, in particular, is a theory of language which seeks to express
linguistic knowledge in terms of relationships holding between individual words. These binary word-word relationships are represented by arrows linking the relevant words, rather than phrase-structure trees. In any dependency relation one word is the head and the other is the dependent. This inequality in the dependency relation is represented by the direction of the arrow. Thus, A in (1) below is the head of B and B is the dependent of A:

(1) \[ \rightarrow \]
A \hspace{1cm} B

Head and dependent are the two general primitive syntactic functions a word may assume in its relationship to others. Various relations such as subject, object, adjunct, etc. may be distinguished as subfunctions of the general head-dependent relation. Thus, as far as English is concerned, WG assumes the following hierarchy of head-dependent relations (Hudson 1990: 208, 233, Volino 1990: 31), seen in (2) below:

(2) \[
\begin{array}{cccc}
\text{CO-WORD} & \text{head} & \text{dependent} & \text{postdependent} \\
\text{predependent} & \text{subject} & \text{adjunct} & \text{visitor} & \text{complement} & \text{post-adjunct} \\
\text{particle} & \text{clausal object} & \text{indirect} & \text{adjunct-complement}
\end{array}
\]

To the extent that dependents are basic, the grammatical relations (GRs) encoded by them are also basic. This relationist view of WG is also shared by other theoretical frameworks such as Relational Grammar (Perlmutter 1980) and Lexical-Functional

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1Traditionally, the relation between A and B above is taken to be transitive, irreflexive and antisymmetric (Tesniere 1953, 1959, Hays 1964, Gaifman 1965). Transitivity allows for a word B which depends on a word A to be the head of a third word C. Irreflexivity ensures that no word can depend on itself, and finally, antisymmetry means that in any dependency relationship holding between two elements A and B only one of them is the head.
Relational categories such as the ones in (2) above are represented in the syntactic structure by means of labelling on the dependency arrow, as illustrated in (3) below:

(3)  <---s------ -----o------>

Euripides wrote Electra

Thus, the noun ‘Euripides’ in (3) is the subject of the verb ‘wrote’ and ‘Electra’ its object. As I pointed out before, in this model grammatical description is lexicalist, i.e. it refers only to lexical items. This entails that: (i) there is no recognition of sub-lexical units such as, say, the inflectional head I of GB, (ii) empty categories are also not recognized, and (iii) there is, similarly, no recognition of super-lexical elements, such as phrases, as primitive entities, though phrases may arise as a by-product of inter-word dependencies: in a dependency structure the head-word may be considered as the root of a ‘phrase’ containing all its dependents.

3.1.1 WG (Hudson 1990) and word order

3.1.1.1 LP and ID format

One cardinal feature of Hudson’s model related to word order is the so-called ID/LP format of WG (cf. The ID/LP principle of GPSG (Gazdar and Pullum 1981, Gazdar et al 1985, Hudson 1976, Dik 1978)). This means that the rules governing word-order, or linear precedence (LP) rules, are distinguished from rules which serve to structure

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2Note that an increasing role of GRs features in Chomsky’s recent work. Thus, in Minimalism (Chomsky 1992) the hypothesized universal clause structure contains subject and object agreement projections, as shown schematically in (i) below:

(i)  [ _AGRSP \_AORS [ T [ _AGRORP \_AORO ] ] ]

It is within these functional projections that the lexically inflected subjects and objects check their morphological features. Of course, as Covington (1994) points out, though this minimalist view of GRs is simpler than the GB approach, the fact remains that a more explicit theory of GRs without using trees or terminal nodes, as the one suggested by Hudson (1990), would lighten the work done by the phrase structure component of the grammar.

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In WG two types of LP rules are said to govern the word-word relations. One regulates the directionality of a single dependent in relation to its head. The other type of LP rule deals with the arrangement of two dependents in relation to each other. The former rule is known as **head-dependent ordering** whereas the latter is referred to as **dependent-dependent ordering**. The directionality of both types of ordering in a particular language is defined by virtue of a **proposition**. A proposition is a construct of the grammar which expresses various types of information about a word or a word-word relation. The repository of these propositions is the lexicon/grammar (no formal distinction is assumed between lexical and grammatical knowledge). This is a consequence of the **cognitivist** nature of the theory; for Hudson "...language is a particular case of more general types of knowledge, which shares the properties of other types while also having some distinct properties of its own." (ibid: 54). To take an example from English word order, consider the example in (4) below:

(4)  

<s>John enjoys maths</s>

The ordering of the words in (4) above is derived by means of two propositions, one of which defines the object as an instance of **postdependent** in English, that is as following the verb. The second proposition defines the subject as an instance of **predependent** in English, that is as preceding the verbal head. Post- and predependent are themselves instances of the dependent relation, as seen in the hierarchy in (2) above. WG extensively uses these so-called 'isa' or **inheritance hierarchies**, also employed by Artificial Intelligence and other theories (cf. Flickinger 1987, Gazdar 1987). Thus, for example, just as "predependent isa dependent", so "verb isa word", which means that verb is an instance of word whose properties it inherits. The grammatical propositions generating the ordering of (4) above are shown in (5) below, with italics representing the concept’s

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³Horrocks (1987) discusses some of the problems conventional PS grammars have from conflating ID and LP facts.

³Parenthetically, Horrocks (1983, 1984) also exploits the ID/LP format in his GPSG-based account of Greek word order phenomena.
name to which 'it' refers, following the standard WG notational convention:

(5) p1: position of dependent of word = after it
    p2: position of predependent of word = before it

3.1.1.2 Monostratalism and default word order

The WG-treatment of word-order outlined above is monostratal and non-derivational, that is, sentential structure is expressed by reference to a single level of syntactic representation. Passivization and extraction are two examples. Consider first the passive construction in (6) below:

(6) Maths is enjoyed

(6) above is the passive rendering of the sentence in (4). Thus, in this passive sentence, the noun can be simultaneously described both as the subject, and the object of the passive verb without reference to separate levels of syntactic representation. The dependency structure is derived here by means of the following propositions:

(7) p3: subject of passive verb = an object of it
    p4: NOT: position of object of passive verb = after it

P3 determines that the subject of a passive verb is also its object. In the active sentence in (4) the word-order requirement on subjects and objects in English is that the former are predependents and the latter postdependents. P4, therefore, reconciles these conflicting demands by allowing the word 'maths', which is the object of the active verb 'enjoy', to precede its passivized head, thus overriding the default postdependence property of objects.

Overriding is a crucial concept in WG, and is based on the assumed prototypist character of linguistic categories. Related to overriding in this theory is the concept of

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**Default Inheritance**, a logical relation holding between *instances* and *models* by virtue of which general properties of the models are particularized to their instances, the principle being that more specific instances have priority over more general ones (Fraser and Hudson 1992). Overriding comes into effect, therefore, where the more specific properties of instances cancel those more general properties inherited by default. Thus, in the example above, the general property of objects is postdependence. However, a passivized object is a more specific instance of object. Hence its word-order requirement takes precedence over that of the general entry ‘object’.

Similarly, consider an example of object extraction, shown in (8) below:

(8)  
<--------o----------  
<--s------  
Maths John enjoys  
<--visitor----------  

As can be seen the noun ‘Maths’ can be simultaneously read off the structure as the object of the verb and also its extractee - in a sense to be described later on. Here again, the more general default linearization of object-dependents (after the verb) is overridden by the more specific word-order requirements which arise in constructions containing ‘extracted’ objects.

In structures such as that in (8) above the theory makes available an extra dependency relation, called **visitor relation**, which holds between an extracted element and its head. The ‘visitor’ link is represented below the line so as to separate it from ordinary dependencies. This ‘visitor’ relation could be said to correspond to the [spec, CP] position in constituency-based theories, or to the ‘topic’ or ‘theme’ of Functional Grammar (Dik 1978), Systemic Grammar (Halliday 1976), and Daughter Dependency Grammar (Hudson 1976). Note, however, that the visitor relation is semantically empty (or unspecified) in WG, that is, its status as ‘topic’, ‘focus’ or even wh-extractee is left to be specified by the discourse context. This could be considered as a strength of the

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^This concept is also common to a number of theories, including HPSG (Pollard and Sag 1987) and Cognitive Grammar (Langacker 1987), where it is called *schematicity*. 

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theory, in the light of the problems raised in the previous chapter concerning the non-contextual approach to the categories of topic and focus.

The monostratal system of grammatical representation outlined above is particularly attractive as far as the description of flexible word order languages is concerned. For it allows both fixed and free word-order languages to be described without forcing the latter type of languages to be accounted for as having one (syntactically) basic or underlying order from which all other orders are derived by syntactic or stylistic movement rules. Instead a dependency system allows for the possibility of taking 'free word order' as basic and seeing fixed word order as the product of restrictions or word order rules obtaining on the 'free word order basis'. According to Hudson (1990: 212) "...a language in which word-order is completely free, subject only to the Projectivity Principle\(^6\), would represent an extreme case with respect to word-order. In such a language, if a word had more than one dependent each dependent could appear on either side of it, and in any relation to any of the other dependents. The grammar would then contain no word-order rules at all, since every order would be permitted". Thus, in such a 'free word order' language all possible head-dependent and dependent-dependent orderings could obtain, as schematically illustrated in (9) below:

\[
\begin{array}{cccc}
S & V & O & V \\
O & S & O & S \\
V & O & S & V
\end{array}
\]

(9) above represents the dependency structures of a simple declarative sentence consisting of a verb and its subject and object arguments in all possible permutations.

Thus, the more flexible the word order in a given language the less grammar it

\(^6\)See section 3.1.2.1 for explanation.
would need for its description. This seems a plausible approach, although one which is diametrically opposite to the approaches to free word order languages in other grammatical models such as GB. Thus, as seen in the previous chapter, a standard GB approach to a language like Greek is based on an SVO binary constituent structure with subject and object hierarchically distinguished. While suitable, perhaps, for a description of English, this configuration is assumed to underlie all languages, irrespective of their possible surface orders. According to Foley and Van Valin (1984: viii), such an approach arises from the fact that "...much current and recent linguistic theorizing has depended too heavily on English and familiar European languages, with the result that this theorizing has been biased in favor of essentially one grammatical type. [...] The actual richness of human language types has been ignored, and [...] much of current grammatical theory has been impoverished as a consequence." It has to be said, however, that current post-GB work does not merit such criticism since a lot more attention to other languages is being paid though arguably it is too late to influence the basic assumptions.

Assuming Hudson's approach to linearization outlined above, I shall go on to examine Greek clause structure. Before doing so, however, I should say something concerning the Projectivity Principle referred to above which regulates word order.

3.1.1.2.1 Word order and the Projectivity Principle
As pointed out above, 'free' word order languages need not contain any word order rules, though they do have to obey the Projectivity Principle. In his earlier work Hudson used to call this the Adjacency Principle but the more traditional term is now used to avoid confusion with Chomsky's principle of adjacency, a condition on case assignment to a complement by its adjacent head.

The role of the Projectivity Principle is to prevent 'discontinuity' among the phrases of a sentence. As a brief illustration consider the schemas in (10a, b), taken from Hudson (1994: 92):

---

7According to the earlier Adjacency principle (Hudson 1993: 335) D is adjacent to H provided that every word between D and H is a subordinate either of H, or of a mutual head of D and H.
(10a) represents the so-called Tesnière's stemma (Tesnière 1959) which is a tree whose nodes are words rather than phrases. The same applies in the tree in (10b). In (10a) the words are said to 'project' onto nodes represented by dotted vertical lines, following Hudson's convention. Projectivity obtains in (10a) for each word's projection onto a node does not cross any dependency lines in the stemma. By contrast, the stemma in (10c) below (Hudson ibid: 93) is not projective since crossing of dependency-line crossing takes place:

Hudson (1994) has recently reformulated this principle to handle some problematic discontinuous data from English adjuncts and extraction. His recent formulation of this principle has the new name of the **No-tangling Principle**. According to this principle, the dependency structure for a phrase must contain a substructure, called the **structural skeleton**, which must be tangle-free and complete. By 'complete' it is meant that this substructure consists of all those dependency arrows which are necessary for 'connectedness', i.e. for linking a word to the rest of the sentence. For concreteness, compare (11) and (12) below:

(11)  
```
\text{It is snowing}
```

conventions:  
s=subject  
x=incomplement  
o=object  
a=adjunct

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The allegations against the Albanians rest strong on evidence

(11) is grammatical despite the tangling between the line from 'it' to 'snowing' and the vertical arrow since the structure or the structural skeleton of (11) is complete without the tangling arrow which links 'it' to 'snowing'. Sentence (12), by contrast, is ungrammatical. This is so, because the tangling arrow pointing to the adjunct 'strong' belongs to the structural skeleton of the sentence, that is it connects the adjunct to its nominal head; should the arrow be ignored the sentence would fall to pieces. Therefore, the substructure of the sentence tangles and, as a result, violates the no-tangling principle.

3.2 Dependency and Greek clause structure

After this introduction to the basic tenets of the dependency component of WG let us turn to the Greek clause and examine how a dependency-based theory could be formulated to account for it. Since Greek is well-known for its morphological richness, displaying both verb- and noun-marking, I start with a morphosyntactic description of the Greek clause, looking at the relation between morphosyntax and word order flexibility. Although the object of study is the Greek clause, references will also be made to other languages exhibiting free word order phenomena.

3.2.1 Verbal morphology and full NPs

The question of flexibility displayed by the subject and object nominals in the Greek clause appears to be bound up with a related, but separate question. That is, whether full nominals occur in a clause by default, and, if not, what triggers their appearance.

In relation to the latter point, there seems to be a general consensus in the literature on language typology (Payne 1992a, b) that in so-called free word order languages both the appearance and the position of nominal elements are pragmatically triggered. This is so since these languages tend to encode their clausal arguments via rich
verbal agreement*. For example, Hale (1992) reports that in Walpiri or Papago, sentences containing both subject and object arguments overtly expressed occur infrequently, since typically one or even both of them would be recoverable from the previous discourse along with verbal morphology. Mithun (1987) has stated something similar in her study of Coos and Cayuga, two North-American languages, and also Ngandi, a North-Australian language. In addition, Swartz (1987) following Mithun (1987) has analysed overt nominals in Walpiri as non-arguments. According to this view, arguments are expressed by the pronominal morphology in the verb and/or auxiliary system, and overt NPs are adjuncts, construed with the actual morphological arguments in some way similar to that in which a dislocated noun is linked to a resumptive pronoun in languages like English and French.

Similarly in Greek, both subject and object are encoded by morphology which takes the form of verbal affixes in the case of subjects and so-called object clitics in the case of objects. Thus, in (13) below the verbal affix ‘es’ encodes the second singular subject of the verb ‘vlepo’ (to see) and the clitic ‘ton’ stands for the verb’s object:

(13) Ton idhes.

him-cl saw-2s

‘You saw him.’

The immediate implication of the view outlined above is that, whereas in fixed word-order languages pragmatic rearrangement of clausal elements is marked (cf. L- and R-dislocation, Y-movement (Givón 1990b: 705), etc.), in flexible word order languages the very occurrence of full nominals, let alone their ordering, is a marked option. In Swartz’s words: “...given that the primary case relations are between the verb and the

---


*Note also that a distinction between languages which rely on word order for the identification of grammatical relations and languages which employ morphology and agreement seems to be corroborated by psycholinguistic evidence (MacWhinney and Bates 1978, Plch 1981, Reger 1984).
pronominal affixes, and given that the major constituent noun phrases serving as subject, object, and indirect object are relatively rare, every occurrence, and the subsequent positioning, of such noun phrases represents a marked phenomenon determined by the pragmatic requirements of the surrounding discourse” (ibid: 42-43). Such pragmatic requirements are the introduction of a new referent in the discourse, resolution of potential reference ambiguity due to competing referents, switch reference, emphasis upon a referent, contrast, etc.

Thus, for example, as far as subject NPs are concerned, it has been pointed out that the use of full subject nominals in languages which usually encode them by verbal inflection is pragmatically motivated in that its presence allows the hearer to keep track of the thematic development of the discourse (Givón 1983, 1988, Cooreman 1992). In particular, the employment of full subject nouns serves as a mechanism of: (i) ambiguity resolution, in cases where there may be more than one referent in the discourse register which the subject encoded by the verbal stem could potentially refer to, (ii) topic-resumption, in cases where the referent of the full noun in question resums a previous discourse topic which was interrupted or discontinued¹⁰, (iii) topic shift; the subject nominal indicates a change in the topic of the discourse.

As an illustration of these points, consider the examples in (14) below, adopted from L. Dukidu’s novel: Πάντα λίγο νωρίς (Always a bit early) (1994: 7-8):

(14) [...] Η Λέλα επέλεξε με το χέρι της τα κούμπια του ραδιοφώνου...Πάντα, από όταν γνώρισε τον Πέτρο, ένιωθε να περιβάλλονται απ’ αυτή την αέναη αρμονία... Ως τώρα νόμιζε ότι τα είχε όλα γεννήσει η φαντασία του, ...αλλά τώρα άρχισε να τα πιστεύει κι εκείνη).

‘Lela played the radio buttons with her hand... Always, ever since she met Petros, she felt she was surrounded by this continuous harmony. Sofar she thought that it was his imagination that had made everything up, but now she too started believing (in) them.’

¹⁰Often the referent of this full noun is not a mere repetition of this interrupted previous discourse topic; rather, it expands this previous topic so as to include new referents, or it narrows the referential scope of this previous topic.
(a) Ο Πέτρος οδηγούσε φύχραιμα.
[The Petros]nom drove-3s calmly
'Peter drove calmly.'

(b) Η καινούργια εικόνα του Πέτρου δεν έδειξε
[the new image [the Peter-gen]nom not show-3s
προσωρινή.
temporary
'Peter’s new image did not seem temporary.'

(c) Ενα πουλί χοροπήδησε δίπλα στο δρόμο.
[one bird]nom danced-3s next to the road
'A bird danced next to the road.'

(14a) exemplifies what was outlined above as the ambiguity-resolution mechanism. Thus, the underlined NP ‘Peter’ is used to prevent the reader from associating the following predication with ‘Lela’, who was the last NP to be interpreted as the subject of a number of clauses in the previous discourse, shown in the italicized brackets. Just before the utterance with the underlined ‘Peter’ appeared, ‘Peter’ was also introduced in the discourse setting. The subject encoded by the suffix ‘e’ of the verb ‘drove’ is third singular person. Both ‘Lela’ and ‘Peter’ are third person singular nouns, and, therefore, are plausible referential candidates potentially construable with the suffix ‘e’. By using ‘Peter’ the writer avoids this potential ambiguity.

(14b) is an example of topic resumption. In particular, the underlined NP reinstates ‘Peter’ as the topic of the discourse, and in fact it narrows its referential scope; the resumed discourse topic is not ‘Peter’ but specifically ‘the new image of Peter’. Finally, the utterance in (14c) offers an example of topic-shift. Here, the introduction of the underlined NP ‘a bird’ serves to change or shift the discourse topic from ‘Peter’ to that expressed by the underlined nominal.

This idea of employing verbal morphology as a default representation of subject (and object), and using full NPs under certain pragmatic conditions has been explored by Givón (1983, 1988), independently of languages’ word order type. According to Givón, what governs whether or not a full nominal expression is employed in a language is the
concept of referential accessibility. This refers to the degree of ease with which referents can be identified in a discourse setting, the basic idea being that easily accessible referents can be minimally encoded while less accessible referents tend to require fuller encoding. This rather iconic claim suggests that the referential accessibility of an NP stands in inverse proportion to the phonological size of the grammatical device which encodes it. This claim has been substantiated on the basis of textual studies of languages as diverse as English, Biblical Hebrew, Polish, Japanese, Amharic, Ute, Spanish, Hausa, Chamorro (see Givón 1983 for references); it is known as the code-quantity scale the lower point of which is zero anaphora for most accessible/predictable referents, the upper one being restrictively-modified definite nouns for least accessible/predictable referents, as seen in (15) (Givón 1988: 249):

(15)

most predictable/accessible/continuous referent

- a. zero anaphora
- b. unstressed/clitic pronoun ('agreement')
- c. stressed/independent/contrastive pronoun
- d. full DEF-noun
- e. restrictively-modified DEF-noun

least predictable/accessible/continuous referent

According to Givón, the iconicity underlying this scale may well be motivated by a psychological, motor-behavior principle: “Expend only as much energy on a task as is required for its performance” (Givón 1983: 18).

3.2.1.1 Greek clause and full NPs

Following the discussion in the previous section, it appears that at least in some languages, full expression of one or both arguments is typically infrequent, given that the office of these arguments is filled by verbal morphology. Statistical data from my own

11 As I understand it, the motor-behavior nature of this principle comes from some element of energy conservation which exists in it (Givón ibid: 37).
corpus of (mainly) spoken Greek seem to corroborate this point further. Consider the table in (16) below:

(16)

<table>
<thead>
<tr>
<th>sentences</th>
<th>total</th>
<th>% of total 437</th>
</tr>
</thead>
<tbody>
<tr>
<td>with neither full S nor O</td>
<td>243</td>
<td>56</td>
</tr>
<tr>
<td>with full S and O</td>
<td>35</td>
<td>8</td>
</tr>
<tr>
<td>with full O</td>
<td>143</td>
<td>33</td>
</tr>
<tr>
<td>with full S</td>
<td>16</td>
<td>4</td>
</tr>
</tbody>
</table>

(16) above shows the statistical frequency of orders with full subject and/or object nominal arguments. Note that only 8% of the 437 matrix declarative sentences containing a transitive verb displayed full subject and object nominals, the point being that in the overwhelming majority subject and object are encoded by subject agreement and object clitic respectively. The variety of the sources from which these 437 clauses have been taken is important, since as pointed out in the previous section, certain pragmatic environments favour or require the introduction of full nominals in the discourse. Thus, 158 of the 437 sentences in (14) are extracted from a novel, 171 from a phone conversation and 108 from a recorded 3-person conversation. In all three sources, discourse between the communicators is characterized by a high degree of intimacy and familiarity (Hopper 1987). That is, communication relies heavily on mutually shared background context and, therefore, communication need not be that explicit. However, the proportion of sentences containing full NPs rises considerably when one examines another type of discourse. Consider the table in (17) below:

(17)

<table>
<thead>
<tr>
<th>orders</th>
<th>total</th>
<th>% relative to total 136</th>
</tr>
</thead>
<tbody>
<tr>
<td>with neither full S nor O</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>with full S and O</td>
<td>68</td>
<td>50</td>
</tr>
<tr>
<td>with full O</td>
<td>48</td>
<td>35</td>
</tr>
<tr>
<td>with full S</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

93
The clauses of the table in (17) have been taken from a news bulletin and a live talk show on television. As seen, more than 50% of the clauses contain full subject and objects arguments. This increase may be accounted for if one considers the different pragmatic demands underlying this type of discourse. Thus, a news bulletin is naturally full of events and participants, which are ‘new’ and often assume no degree of familiarity on the part of the hearers. The majority of information has, therefore, to be fully specified, and thus the degree of the overall explicitness rises considerably, in remarkable compliance with Givon’s claim outlined in the previous section.

In passing, note that the number of full objects in sentences from both sources, in tables (16) and (17), outnumbers by far more the number of full subjects. This discrepancy seems to corroborate the typologically and functionally acknowledged strong correlation between object and focushood on the one hand, and subject and topichood on the other hand. Thus, if objects tend to encode focal information, i.e. information which carries the main effects of the utterance, in a way to be specified in the following chapter, then their more frequent presence in a clause can be naturally explained. By contrast, the highly topical nature of subjects tends to render their full presence redundant, especially in discourse frames with high degrees of familiarity and intimacy. The point made here seems to be further corroborated by cross-linguistic facts concerning languages which employ morphological topic and focus markers. As Kiss (1995) reports, focus markers occur far more frequently than topic markers.

Overall, it appears that the overt occurrence of full subject and object NPs in the Greek clause is subject to the pragmatic needs of the various discourse types, a claim which will be illustrated in chapter 5. This realization has led some (Tsimpli 1992) to include Greek within the set of discourse-oriented languages, as opposed to sentence-oriented languages. This is supported by available language acquisition data (Tsimpli 1992\textsuperscript{12}, Stephany to appear).

These observations concerning the morphological encoding of subject and object

\textsuperscript{12}Tsimpli, however, seems to restrict the claim that discourse regulates the arguments’ optionality to the grammar of children 18-24 months of age. According to her, after this period the module of the grammar which contains the functional categories matures, and this marks the shift from a discourse- to a sentence-based grammar.
arguments, along with the discourse sensitivity of their full appearance in clauses have been incorporated into Philippaki's approach to Greek clause structure (Philippaki 1987). According to this proposal MG clause structure would be depicted as in (18) (ibid: 316):

(18) C''
    /\      \
   / \      /
  C' --- COMP --- V''
      \       /    
       \     /     
        \   /      
         \ /       
          NP----NP
            |  
            |   
        tense person NP
        mood number clitic
        aspec case

Under this analysis IP is no longer a phrasal category dominating VP but rather a sublexical one dominated by VP. Also, contrary to Rizzi's proposal (Rizzi 1982), pro is not considered to be base-generated preverbally in complementary distribution with a lexical subject NP. In Philippaki's view, pro is encoded by the verbal suffix and receives Nom Case by [\textit{+fin}] head though its Case is not phonetically realised, following Safir's Nom-Drop Parameter (Safir 1985). Finally, the [spec, VP] and [spec, CP] positions are regarded as A-bar positions which host, optionally on the basis of discourse considerations, the so called 'local' and 'peripheral' topic respectively. The basic stance of this analysis, namely subject encoding via the verb's agreement affix and the resulting optionality or discourse sensitivity of a full lexical subject NP's appearance, accords with the language data. Understandably, however, projecting the IP node as part of the VP, and thus conflating lexical and functional projections constitutes rather a radical departure from standard assumptions. In what follows, I will propose an account of these facts adopting Hudson's Dependency framework, outlined in section 3.1.
3.2.2 The Basic Clause Structure in MG

Word-Grammar offers a neat straightforward way of expressing the insights concerning the Greek clause outlined in the previous section. Firstly, following the discussion in the previous section, I assume that (19a) below represents the grammatical structure of a simple declarative clause containing a transitive verb in Modern Greek, an example of which is given in (19b):

(19)  (a)  <------
       [cl_o+V_e]

      (b)  To ida.
            it-cl saw-1s
            'I saw it.'

According to the structure in (19a), the clause basically consists of a verbal compound (containing a subject suffix) and an object clitic which depends on the verb. The main verb, in Dependency Grammar is the 'root' of the clause, i.e. the most central element. As I argued in the previous section, expression of the subject and object arguments by means of a subject suffix and object clitic respectively is pretty standard in MG, the nominal expression of these arguments being typically infrequent (see table (16) above). Taking that for granted, I will call the representation in (19a) the basic or default clause structure in Greek.

The main claim, following (19a), is, therefore, that the subject suffix and object clitic bear the grammatical functions of subject and object respectively. However, a potential objection to this claim might be that, unlike object clitics, inflectional affixes cannot satisfy valency requirements. In other words, the subject suffix 'a' in (19b) above cannot function as the subject argument of the verb 'idha' (saw); unless, of course, there is evidence to suggest that these inflectional affixes do indeed function as the subject arguments of Greek verbs having clitic-like properties on a par with object clitics. In fact, clustering subject suffixes and object clitics under cliticization is not unprecedented in the literature on Greek language. Thus, both Horrocks (1984) and Philippaki (1987) treat subject inflection and object clitics as the same phenomenon. In particular, Horrocks
draws a formal parallelism between subject inflection and object clitics treating them as cases of a cliticization process “...which involves the copying, and subsequent morphological spelling out, of the agreement features of N” into lexical governors which are their sisters; such N” then become optional” (ibid: 123). According to Horrocks, subjects N” are cliticized in languages such as MG but not in configurational languages such as English. ‘Pro-drop’ is simply an extension of cliticization to subject N” under government by V.

Similarly, Philippaki (1987) treats subject affixes and object clitics as pronominal elements functioning as resumptive pronouns and being base-generated. Thus, any other nominal expression which can be construed with these subject and object markers will have something like the status of an adjunct, an insight also shared by other approaches to MG (Catsimali 1990, Tsimili 1990, Kreps 1992). The relevant structures are shown in (20) below:

(20) (a) [Ton, idhej] ton Petro, i Mariaj.
    him-cl saw-3s [the Peter]acc [the Mary]nom
    ‘Mary saw him, Peter.’

(b) [Ton, idhej] i Mariaj ton Petro.
(c) Ton Petro, [ton, idhej] i Mariaj.
(d) I Mariaj, [ton, idhej] ton Petro.
(e) Ton Petro i Mariaj i Mariaj.
(f) I Mariaj ton Petro, [ton, idhej].

Thus, in (20a-f) above the nouns ‘ton Petro’ and ‘i Maria’ construed with the object and subject markers ‘ton’ and ‘i’ respectively are adjuncts, which can occur in all logically possible orders with respect both to each other and with respect to the bracketed verbal compound. According to Philippaki, the coindexation of the subject and object clitics with the respective NPs in (20) above takes place at LF via a predication rule following Chomsky (1982).

In further support of her view of subject suffixes as clitic-like elements, Philippaki quotes Rizzi (1982) who also argues for verbal inflection as having clitic-like
pronominal properties, and Safir (1985) who calls the null subject pro a ‘subject clitic’ assuming that subject clitics are part of the Italian verb, being base-generated at the verbal ending. However, unlike Rizzi’s theory of pro, Philippaki takes this pronominal subject clitic as being the subject argument itself, the theta-role being assigned to it by the verb. In her view, there is no need to postulate a separate - empty in this case - subject position in addition to the subject clitic at the end of the verb. As we already saw in the previous chapter, there is sufficient evidence in support of this view, particularly relating to the optional nature of nominal subjects in Greek in combination with the lack of pleonastics, the free ordering of nominal subjects which could be better explained if these subject NPs are adjuncts rather than proper arguments. In addition, taking the inflectional suffix as the verb’s subject would naturally explain why no that-trace effects obtain in Greek, as already seen in the previous chapter. Given that the subject is encoded as the verbal ending there can be no structure in which an empty subject occupies the preverbal position. Further supporting evidence could be drawn from control data, which I will discuss in section 3.3. below.

Returning to the clausal structure in (19a) above, the following should be noted. First of all, the representation in question squares with the one postulated by Philippaki in assuming no null subject and in taking the inflectional suffix to function as the verb’s argument in Greek. However, unlike Philippaki’s syntactic account of cliticization, the representation in (19a) assumes an account of cliticization and intra-word dependencies according to which, pronominal clitics are attached to their host word by a morphological rather than a syntactic process, the output being a compound word, i.e. a morphological and phonological unit (Hudson 1984). This account of cliticization and affixation accords with Spencer’s (1991) observations concerning the clitic system of languages such as MG and Portuguese. According to Spencer the clitic placement rules in these languages are not defined in terms of the constituent surface order, as with

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13 See Joseph (1992) for the advantages of analysing the verbal complex in Greek as a morphologically rather than syntactically derived process.

‘Wackernagel clitics’, but in terms of a lexically defined host. This makes these clitics more reminiscent of affixes, and in fact, in many languages (e.g. Bantu languages) pronominal or agreement affixes have been developed from what were once clitics (ibid: 366). Such a lexical account does not, of course, prevent the object clitic, as well as the subject agreement suffix from also having some syntactic properties; after all both subject and object markers serve to satisfy the valency requirements of their host predicate.

So far I have dealt with the issue of inflectional elements functioning as subject arguments. There is, of course, a separate question which arises as to the extent to which these subject and object markers have an identical morphological status. Namely, are they both clitics (Horrocks 1984, Philippaki 1987), are they both inflections (Kreps 1992), or are they different? Examining the issue would of course require setting criteria for clitic- and affix-hood. Such criteria are not uncontroversially available, and a full discussion of the issue would be beyond the scope of my discussion here. As Zwicky (1994) points out ‘clitic’ is something of an ‘umbrella’ term for “words” with both word- and affix-like properties (see also Borer 1994 and Spencer 1991: ch. 9). However, I will confine myself to illustrating that both object clitics and the subject suffixes, such as in (19a) above, share a number of properties. It is due to these properties that both clitics and suffixes stand in clear contrast to words whose status as independent words is undoubted. Following Zwicky (1994) the contrast applies at the syntactic, morphological, semantic and phonological levels.

Syntactically, unlike undisputed words, neither clitics nor suffixes enjoy any degree of syntactic freedom; they cannot be modified (21a’, b’), coordinated (22a’, b’), or stylistically scrambled (23b’, c’), as illustrated below.

(21) (a) Kalon anthropo
    good-acc man-acc
   
   (a’) *Kalon ton

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15These are also referred to as P2 clitics since they occupy the second position in the clause. Languages having P2 clitics are: Serbo-croatian (Slavic), Luiseño (Uto-Aztecan), Walpiri (Australian).

16See Philippaki (1989) for the issue of morphologically determined subjecthood in Greek.

17See, however, Agouraki (1993) for an account of clitics as functional categories which head their own maximal projection.
good-acc him-cl
(b) Kalos anthropos
good-nom man-nom
(b') *Kalos -o
good-nom I-suffix

(22) (a) Idha ton Andrea ke ti Maria.
saw-1s [the Andrea]acc and [the Maria]acc
(a') *Ton ke tin idha
him-cl and her-cl saw
(b) Efije ke irthes.
left-3s and came-2s
‘S/he left and you came.’
(b') *-e ke -es
s/he-cl and you-cl

(23) (a) Pes ta nea stin Ekaterini!
tell [the news]acc [to the Ekaterini]
‘Tell Catherine the news!’
(b) Ta nea pes stin Ekaterini!
(c) Stin Ekaterini ta nea pes!
(a') Mu to ipe.
me-gen-cl it-acc-cl told-3s
(b') *To mu ipe
(c') *To ipe mu

Morphologically, both clitics and affixes enter into template restrictions, i.e. they must occur in a specific order with respect to one another, as well as to other elements such as negative and modality particles, and also to their host word. The table in (24) below illustrates a template-based approach to the order of these dependent elements around their host:

100
Slots 1-5 in the above diagram represent the spaces that must be filled by the negative particle (dhen), the future particle (tha), the indirect object clitic (mu), the direct object (to), the stem of the verb ‘hide’ in Greek and the subject suffix ‘i’. While any of the dependent markers filling slots 1-2 may be absent, any alteration of their template-specified order results in garbage, as in (25) below:

(25)  *Tha to dhen mu i krips

Semantically, both object clitics and subject suffixes in Greek form part of abstract grammatical categories such as a number, person, gender\(^{18}\), whereas the semantics of proper words comes from the semantics of the lexemes these words are instances of. Thus, ‘ton’ (him-cl) represents masculine third person singular, ‘is’ (-s) represents the second singular person, etc. Unlike proper words, they cannot be used to answer questions, as illustrated in (26) below:

(26)  A:   Pjon idhes;
      whom saw-2s
      ‘Whom did you see?’

     B:  (i) Ton Petro.
        [the Petro]acc
        ‘Peter.’
     (ii) Afton/ (iii)*ton
         ‘Him.’

Phonologically, proper words are free-standing, whereas object clitics and subject suffixes have no independent phonological content. They are always unstressed, and their

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\(^{18}\)This may not be, of course, true of, say, the French clitics y, en.
phonological shape depends on the host word. Sometimes this dependence is manifested in the form of allophonic variation of the clitic as shown in (27) below:

(27) (a) [Ton] [cerasa]
     him-cl treat

(b) [toncerasa] —> [tonʃerasa mia bira]

(27a) shows the phonetic transcription of the object clitic /ton/ and the verb /kerno/ before the process of assimilation takes place, shown in (27b). Thus, the final consonant of the clitic is a voiced alveolar nasal, and the first consonant of the verb is the palatalized version of the voiceless velar stop [k] in Greek (cf. Mackridge 1985). When the clitic attaches to the verb, the following two assimilatory processes are instantiated phonologically: (i) the nasal becomes assimilated in place of articulation with the following palatal velar stop, and (ii) the nasal voices the following stop, as schematically illustrated in (28) below:

(28) (a) /n/ —> [n] /[-velar]

(b) [c] —> [ʃ] /nasal-

There is, thus, some evidence to suggest that object clitics in MG behave like agreement morphology, perhaps to the extent that they should be classified together. However, there are differences between clitics and agreement proper. For one thing the occurrence of the subject agreement morph is compulsory (30), whereas the occurrence of the object clitic can be optional under certain circumstances, as seen in (29):

(29) (a) Idha TON PETRO.
     saw-1s [the Petro] acc
     ‘I saw Peter’, ‘It was Peter that I saw’.

19Assimilation may, of course, also apply across clear word boundaries.

20In other languages (Albanian, ‘Macedonian’, etc.) clitics are present in all circumstances (see Spencer 1991).
(b) TON PETRO idha.
(c) *TON PETRO ton idha.

(30) (a) *Irth o Petros.
cam [the Petros]nom
‘Peter cam’, instead of ‘Peter came.’
(b) Irthe o Petros.

Note that in (29a, b), in the absence of a clitic, the object role will be borne by the focally stressed accusative NP ‘ton Petro’, shown in capital letters. I will return to this issue later. In anticipation of this discussion, however, it is worth pointing out two things here:

As I claimed earlier, nominals construed with a morphological marker, be that subject agreement or object clitic, can be construed as adjuncts. This will always be true of subject nominals, since as we have seen the presence of the subject agreement is compulsory in all clauses. The optionality of the object clitic’s presence (29a, b) suggests that a full object NP may either be an adjunct or a proper argument, according to whether or not a clitic appears to assume the object role. Furthermore, as pointed out elsewhere, the object role appears to be borne by a nominal when it is focal. In this case, the focal objects NPs are in complementary distribution with object clitics as shown in (29c)\textsuperscript{21}.

3.3 Subjects as adjuncts

As we saw in chapter 2, languages in which the subject position is not syntactically important are predicted to display no pleonastics and no raising. According to the proposed basic clause structure in Greek, the subject is always encoded morphologically, and any nominative nominal which is construed with this subject suffix is merely an

\textsuperscript{21}For a discussion of this issue see the appendix (pp. 107-112).
adjunct. The 'adjuncthood' of subjects in Greek clause would, therefore, correctly predict the absence of pleonastics (see ch.2 sec. 2.5.3.7.1) and NP raising in MG, at least as a case-driven structural operation (see sec. 2.5.3.9.1). As reviewed in chapter 2, the absence of pleonastics and subject raising are problematic for the accounts which generate the [spec, VP] position as a subject position in Greek.

Another consequence of the proposed clause structure and its claim of subjects as adjuncts is, of course, that it predicts the existence of non-overt subjects, such as pro and PRO of GB in Greek. In fact it is in any case a standard assumption of WG that there is no place for empty categories of any sort in linguistic theory. With regard to non-overt PRO subjects, we saw in chapter 2, that PRO has been convincingly argued to be absent in the Greek clause. Thus, the relevant control data, discussed in section 2.5.3.7.2 of chapter 2, will have to be handled by recourse to the semantics of the matrix verb, in accordance with Philippaki and Catsimali's proposal (Philippaki and Catsimali 1995). To take just one example, consider (31) below:

(31) Perimeno afton na ekleji proedros.
wait-1s him to be elected-3s president-nom
'I expect him to be elected president.'

Thus, in (31) above the predicative nominative noun 'proedros' (president) agrees in gender and person with the accusative pronoun 'afton'. 'Proedros' (president), however, bears nominative case. The standard GB explanation of the English gloss of (31) is that 'him' is the subject of the embedded clause, and is exceptionally Case-marked (ECM) by the matrix verb. This exceptional Case-marking by the higher verb is said to be due to

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22Note that according to the proposed clause structure, the subject role is borne by the verbal affix and full subject nominals are inserted in the clause following certain pragmatic requirements. This idea of 'insertion' seems to be opposed to the traditional pro-drop approach. According to pro-drop theory, every clause in all languages has a subject position made available in the grammar (cf. the EPP, Chomsky 1986a). However, in some 'pro-drop' languages (Greek, Spanish, Italian, etc.) this obligatory subject position can be filled by a non-overt subject called pro. The implication of the pro-drop approach is that languages which exhibit pro-drop form an exceptional subset of the general non-pro-drop set of languages (see Hyams 1986, Smith 1989). By contrast, following the clause structure adopted for Greek the grammar of languages which can encode the subject argument morphologically need not be complicated with postulating an empty subject position. Indeed any full noun subjects in such languages are adjuncts which are present for pragmatic rather than syntactic reasons.
the non-finite inflection of the lower verb, which, thus cannot act as governor and case-assigner. However, in the Greek example, no such state obtains given that the embedded verb is finite, and thus, the condition of ECM cannot apply, which would leave the accusative case ‘afton’ unaccounted for. One could argue, of course, that the structure as in an example such as this might be as in (32):

(32)

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pro\textsubscript{i} perimeno\textsubscript{i} t\textsubscript{i} afton\textsubscript{x} PRO\textsubscript{x} na ekleji proedros\textsubscript{x}
```

Thus, ‘perimeno’ would be a three-place predicate, subcategorizing for a subject, in this case a non-overt pro, an object to which it assigns Accusative Case, and a clausal complement, whose PRO subject is controlled by the matrix accusative object. However, the problem with the structure in (32) is that, as I have stated, there is good evidence to suggest that PRO is absent (see ch. 2, sec. 2.5.3.7.2). In my proposed clause structure, on the other hand, ‘perimeno’ will also be a three-place predicate, taking a subject and two objects, the second of which is the clausal complement introduced by the subjunctive particle ‘na’. The embedded subject, however, is encoded by the verbal suffix ‘i’, which bears the morphological features of third person nominative singular. According to Philippaki and Catsimali (1995), it is these features which are shared between the embedded subject and the predicative noun. As for the coreferential reading between the embedded inflectional subject and the matrix object ‘afton’, it could be accounted for by a semantic link, i.e. a semantic dependency, as schematically shown in (33) below, with the irrelevant syntactic dependency relations omitted for the sake of simplicity and with x indicating coreference:
(33) perimenon aiston na ekleji proedros

Thus, ‘aiston’ in (33) above bears the role of a semantic subject of the predicative noun ‘proedros’. The subject of ‘proedros’ (president) within the na-clause is, following the proposed clause structure in Greek, the verbal subject marker ‘i’. Taking this for granted, the subject role of ‘proedros’ appears to be shared between two elements in (33).

3.4 Conclusion

In this chapter, I introduced and discussed Hudson’s Dependency syntax, as developed in his theory of Word-Grammar (Hudson 1990). I argued that this dependency-based model offers a neat framework for an account of Greek clause structure. More specifically, given the rich verbal inflection in Greek, I suggested that the grammatical relations of subject and object are encoded morphologically by a subject suffix and object clitic respectively, an insight which seems to prevail in a number of studies of free word order phenomena. Statistical evidence also seems to corroborate this claim. I thus proposed that the verb plus these subject and object morphemes constitute the basic clause in Greek. I then went on to discuss the implications of such proposal in relation to subject NPs in Greek.

In particular, I argued that since the subject in Greek is always encoded in the morphology of the verb, it seems plausible to assume that any nominal construable with this verbal subject suffix is merely an adjunct, an insight which is also shared by other accounts of Greek clause (Philippaki 1987). This adjunct status of nominal subject, then, would correctly account for the lack of pleonastics and raising in MG, and for the semantically (rather than syntactically-) based properties of control, in accordance with recent proposals (Philippaki and Catsimali 1995).

See Hudson (1995) for more on the notion of ‘sharing’ in the syntax and semantics.
Let us consider again the basic clause structure in Greek repeated in (1) below for convenience:

\[ \text{[cl}_o+V_s] \]

As already pointed out, this proposed clause structure contains an object clitic and subject agreement. According to traditional grammarians object clitics refer to entities present in the preceding discourse (Tzartzanos 1963, Tsompanakis 1994); in contemporary terminology, the referents of an object clitic would have to be activated in the immediately preceding discourse (Chafe 1987)^24. Below I will propose that this ‘active’ status of the clitic’s referent may be involved in the explanation of certain rather well-known properties of so-called clitic constructions (Cinque 1990). Before looking at this issue, however, I should say a bit more about the theory of activation proposed by Chafe. According to him, concepts which are expressed by nouns (as well as verbs, adjectives, etc.) may be in one of the following states of activation at a particular time, that is active, semi-active and inactive: active concepts are part of the communicators’ centre of attention. Semi-active concepts represent accessible information in the sense that they are peripherally in the person’s consciousness. Finally, inactive concepts form part of the person’s long-term memory; though they are neither centrally nor peripherally active^25.

Chafe demonstrates how these three activation modes constrain the linguistic form of utterances, and especially the way in which the utterance’s content is ‘packaged’,

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^24The situation parallels that observed in Albanian (Newmark et al. 1982). Albanian, like Greek, also displays rich morphology and a remarkable degree of word order flexibility.

^25According to Siewierska (1991), there is a fourth type of cognitive status which referents may assume in a given setting. This is called ‘unused’ or ‘unidentifiable’, and refers, following Prince (1981), to referents which are ‘brand-new’ in that they do not fall within the scope of the addressee’s short/long-term memory.
the claim being that the activation state of a concept in a sentence bears on the way it is linguistically encoded and linearized. Thus, for example, if a speaker assumes that a concept is already activated in the addressee’s mind, then he will probably express it by assigning it weak stress and pronominal form. For reasons related to the limited capacity of the addressee’s short-term memory only one concept can be active at a time (‘one new concept at a time constraint’, ibid: 32).

In the outlined account, then, the referents of object clitics will belong to the active type of concepts. Hence the clitic’s pronominal form and lack of stress. This, intuitively at least, seems to constrain the range of nominals which could be construed as coreferential with these clitics. Specifically, focally stressed nominals, whose referents are inactive at the time of their occurrence, should not be coreferential with clitics. As is well-known, the coreference of clitics with focally stressed nominals results in ungrammaticality (Philippaki 1985, Tsimpi 1990, Agouraki 1993). This is illustrated by the examples in (2) and (3) below:

(2) (a) *Toi ida [TO ERGO].
       it-cl saw-1s [the film]acc
       ‘*It is the film that I saw it.’
(b)  Toi ida [to ergo].
       it-cl saw-1s [the film]acc
       ‘As for the film, I saw it.’

(3) (a) *[TO ERGO]i toi ida.
(b)  [To ergo]i toi ida.

(2a, b) is an example of Clitic-Doubling, where the NP coreferential with the clitic follows it, and (3a, b) is an example of Clitic-Left-Dislocation, where the NP precedes the clitic with which it is coreferential. In (2a) and (3a) the coreferentiality of the clitic ‘to’ and the focally stressed nominal ‘to ergo’ is inadmissible because it would give rise

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36Alternative analyses of these clitic constructions in Greek have been offered by Philippaki (1976), Theophanopoulou (1987), Iatridou (1990), Tsimpi (1990), Agouraki (1993), Tsimpi and Roussou (1993).
to a contradiction. That is, the very nature of the clitic implies that the concept it expresses is already active in the hearer’s attention. On the other hand, the focally stressed nominal draws the addressee’s attention to a new, unfamiliar, or as yet not-active referent (Gundel 1985). No problem arises, however, in (2b) and (3b) in which the clitic and the coreferential nominal, which either precedes or follows the clitic, refer to the same referent which has already been activated in the preceding discourse. An analogous reasoning may be applied to constructions like (4) and (5) below:

(4)  (a)  *To₁ ide AFTOᵢ
t-it-cl saw-3s IT-acc
    ‘*It is it that he saw it.’
  (b)  *AFTOᵢ to₁ ide.

(5)  (a)  *To₁ ide PJOᵢ?
it-cl saw-3s WHICH-acc
    ‘*Which did he see it?’
  (b)  *PJOᵢ to₁ ide?

In (4) and (5) above the coreferential reading of the clitic with the tonic pronoun ‘afto’ and the wh-word ‘pjo’ also results in ungrammaticality. It is well-known that Greek only employs tonic pronouns as focal devices (Joseph and Philippaki-Warburton 1987, Tzartzanos 1991, Tsompanakis 1994, Stephany to appear). Similarly, the parallelism between focus and wh-words is uncontroversial, since a focused word often constitutes the answer to a wh-question. This being the case then, the oddness of the constructions in (4) and (5) may arise once again from the coreferentiality of the active referent of the clitic with the as yet not-activated referent of the tonic and interrogative pronoun. Evidence in support of this account comes from data such as in (6) and (7) below, discussed in Theofanopoulou-Kontou (1986-7), Iatridou (1990) and Anagnostopoulou (1992):
(6) *[Pjo forema]t o, agorases stis ekptosis?
which dress it- bought-2s in the sales
‘Which dress did you buy in the sales?’

(7) [Pjo apo ta foremata]t (to,) agorases stis ekptosis?
which from the dresses it- bought-2s in the sales
‘Which dress of all did you buy in the sales?’

In (6) above the coreferentiality of the object clitic with the bracketed interrogative NP results in ungrammaticality, which, according to the proposed account is due to the different states of activation which the referents of the wh-phrase and the clitic assume. Note, however, that in (7) the object clitic may be coreferential with the bracketed interrogative NP with no ungrammaticality arising. The difference lies, according to Anagnostopoulou (1992) in the ‘partitive’ and ‘specific’ nature of the wh-phrase in (7) above. Thus, ‘pjo’ (which) here refers to a set of things, i.e. dresses, which is already assumed to exist and is thus salient or ‘activated’ in the discourse context at the time of the utterance in (7). Hence the ability of the clitic to be coreferential with the interrogative partitive pronoun.

Note that a purely syntactic account would attribute the ungrammaticality of the examples in (2-7) to a violation of a grammatical condition. According to one such account (Tsimpli 1995), for instance, the ungrammaticality of the constructions discussed above is due to a violation of the A'-disjointness Requirement (Aoun and Li 1990). This is a condition on pronouns which requires that a pronoun be free in the smallest ‘Complete Functional Complex’ (CFC) which contains it (Chomsky 1986a). The CFC is the minimal binding domain which contains the pronoun, the pronoun’s governor and a phrase. This phrase is either focally stressed (2), or a tonic pronoun (4), or a wh-word (5). The ungrammaticality of these examples is, therefore, due to the fact that coindexation of the clitic with the focused/wh phrase would entail that the clitic is bound by this phrase within its own CFC- a violation of Principle B of the binding Theory (Chomsky 1986a). However, such an account would be unable to account for the example in (7), which would be wrongly predicted to be ungrammatical. As
Anagnostopoulou (ibid) correctly points out, a purely syntactic analysis with no reference to the semantics and pragmatics of the elements involved could provide no account for data such as in (7) above where the coreferentiality of the clitic and the interrogative NP does not result in ungrammaticality.

By contrast, my proposed line of explanation, if on the right track, accounts for the range of data discussed above (unlike Tsimpli's account); as pointed out above, the oddness of the relevant constructions, rather than being attributed to a violation of a postulated grammatical rule, will arise from the different modes of activation assumed by the referents of clitic forms and those of the focused/wh-words. Clearly though, much work remains to be done so that this preliminary explanation is substantiated.

Another set of data which the theory of activation outlined earlier in this section may help explain involves what might be called 'the definiteness condition'. This involves constructions containing clitics coreferential with NPs. Consider (8) below:

(8) (a) *To ida [ena ergo].
    it-cl saw-Is [one film]acc
    '*It is a film that I saw it.'

(b) *To ida ergo,
    it-cl saw-Is film-acc
    '*It is film that I saw it.'

(c) To ida [to ergo],
    it-cl saw-Is [the film]acc
    'As for the film, I saw it.'

In (8a, b), the coreferentiality of the clitic with a following non-definite NP results in ungrammaticality. The referent of the clitic, following the discussion above, will be active. However, according to Chafe's terms, indefinite NPs, by definition, will not be active in the discourse context; after all in some sense the presence of the definite article serves to mark 'active state'. Thus once again the ungrammaticality of these examples will be a result of conflict in terms of the states of activation assumed by the referents of the indefinite noun and the clitic.
Givón (1990a) attributes the oddness of data such as the above to a 'functional conflict' which he illustrates by means of a computer-language parallelism. According to him, the coreference of a clitic with both a stressed and a non-definite noun, impose on the addressee the rather infeasible task of 'retrieving an existing file' and 'creating a new one' at the same time. This clash results in a so-called 'info-overload' in computer jargon.
4 Greek word order and the 'preference principles' hypothesis

4.0 Introduction

In this chapter, I will discuss the positional variation of subject and object nominals. As we saw in chapter 1, a declarative clause containing nominal subject and object may be rendered in all six logically possible combinations. Moreover, available Greek corpora (see the appendix at the end of the thesis) show that even the more marked of the six orders occur with sufficient frequency to indicate that they are grammatical and thus should not be attributed to errors of performance or other such factors. Recall, from the discussion in the previous chapter, that in WG, word order is handled by two types of rules. The first concerns head-dependent ordering, the second dependent-dependent ordering. Does, then, the apparent flexibility in word order mean that both head-dependent and dependent-dependent ordering is totally free in Greek? To answer this question, I look at subject and object nominals separately in section 4.1. below.

The rest of the chapter is organised as follows: Section 4.2 introduces Jackendoff's (1988) concept of preference rules, showing how a grammatical preference principle could be employed to account for the predominance of certain word orders in Greek. Section 4.3 discusses the corelation between nominal objects and focus in Greek, offering a distinction between two kinds of focus; new focus and emphatic/contrastive focus. It is argued that Greek employs VO/OV linear ordering to mark these two distinct types of focus. Section 4.4 provides further justification for the postulated distinction, discussing some word order data relating to other kinds of dependents. Section 4.5 speculates on a processing-related explanation for the high preference of VO orders in Greek. Section 4.6 proposes a second grammatical preference principle, accounting for the predominance of SVO and OVS orders in Greek. Section 4.7 provides various types of evidence in support of this second principle. Finally, section 4.8 establishes a ranking mechanism which places each of the six orders in a preference hierarchy according to
whether they obey the hypothesized grammatical preference principles.

4.1 The SV, VS and VO, OV orders in Greek

Let us first consider nominal subjects. Following the default clause structure in Greek formulated in the previous chapter (section 3.2.2), these are taken to be adjuncts. As such, both their order in relation to the verb and in relation to the object dependent NPs is grammatically free. Thus all the grammar needs to say about nominal subjects in Greek is that they are free to occur in either head-dependent order, i.e. VS, SV and also in either dependent-dependent order, i.e. SO, OS, as will be the case with all adjuncts.

As far as nominal objects are concerned, the situation is rather more complex. To see why, one needs to look at some typological facts concerning (i) VO order, (ii) the ordering of the verb and object. In typological studies of word order the object’s placement in relation to its verbal head is taken to be the key criterion for setting the default head parameter in a language (cf. Lehmann 1973, Vennemann 1973, Siewierska 1988). Thus Lehnmann (1973), who modifies Greenberg’s work (Greenberg 1966) formulates his universals on the basis of only the VO/OV parameter, having found the subject’s position to be of little interest to this area of typology. Hence it is not necessarily surprising that even SVO languages (e.g. English) are often classified as head-initial together with VSO and VOS languages (see Siewierska 1988).

Greek has also been typologically classified as a head-first language. Further justification for this classification comes from the existence of prepositions rather than postpositions, the preferred Noun-Genitive sequence, the relative order of matrix and subordinate clauses, the order Noun-relative clause, the position of negatives before the verb (Lehmann 1973).

Moreover, from the statistical predominance of VO orders (Laskarafu 1984, 1989 and my own spoken corpus), Greek can be said to be unmarkedly a head-first language. Thus, in Laskaratou’s corpus, for instance, 85.7% of the sentences containing full subject and/or object NPs displayed orders where the verb preceded its object. Similarly, in my own spoken corpus 86% of the sentences containing subject and/or object nouns display VO order. It seems valid to assume that the observed variational frequencies are
indicative of overall tendencies in language (cf. Siewierska 1993). Furthermore, following Givón (1992), while word order statistics per se are not explanatory of anything, they might well shed light on the study of the mind that produces them. If that is so then, we need some sort of a principled explanation for the frequency of VO orders in Greek. In what follows I shall sketch the rough lines of a potential explanation by introducing and exploring a preference-based system of grammatical linearization principles.

4.2 The preference principle hypothesis

I suggest that the concept of preference principles, in particular in the spirit of Jackendoff (1988), may provide us with the necessary means for expressing the predominance of VO orders as opposed to OV orders in Greek.

Jackendoff (1988) is the first, as far as I know, to explicitly refer to and formalize a system of preference rules for language, as a means of working out a more comprehensive account of lexical semantics. The rules in question were initially employed in Lehrdal and Jackendoff (1982) to account for the most common grouping structures of musical signals, an unresolved issue in the theory of musical cognition. They hypothesize that listeners impose on a musical string a structure that encompasses the highest degree of overall preference.

A related concept was subsequently introduced into lexical semantics as a solution to problems associated with the traditional theory of necessary and sufficient conditions defining word-meanings. As Jackendoff points out, preference rule systems seem to be operational in a variety of areas such as visual experience, language, perception, communication, etc. However, it must be said that the notion of preference has not acquired any great theoretical status in the mainstream study of language, the reason being that current preconditions on how a formal theory should be renders the

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1For the term 'preference' in conversational analysis see Levinson (1983) and Moschovou (1995).
sort of computation performed by a preference rule rather alien.

Returning to Greek word order, I think that, ceteris paribus, the insight of preferential ranking of choices outlined above could be adopted in a theory of word order variation enriching it with the expressive power needed to capture the relative degrees of preference among different word orders. More specifically, one could plausibly hypothesize that preferences underly the otherwise flexible word order system of Greek, the main prediction being that orders exhibiting the highest degree of overall preference should be more favoured. A preference-based system would bring the following potential advantages to an account of word order phenomena:

- flexibility, i.e. preference does not establish inflexible decisions about structures;
- relativity, i.e. it only provides relative preferences among a set of logically possible ones;
- scalarity, i.e. the more preferences a structure satisfies the more preferred it is;
- cancelation, i.e. preference is not absolute and may be overridden under the influence of other competing forces.

4.2.1. VO/OV orders and the head-first principle

I shall assume that the object’s placement in relation to the verb is the criterial factor for setting the default head parameter in Greek. Apart from the typological evidence, outlined in 4.1 above, there is an additional reason for assigning objects this criterial role. As we saw in section 3.2.2 (ch. 3), subjects are always encoded in the verbal suffix, and any nominal construable with this suffix is more accurately described as an adjunct. Similarly, it has been already pointed out that objects are encoded by clitics, in which case the NPs construable with these clitics will also be adjuncts. We also saw, however, that these object clitics do not always occur, notably in cases where a full direct object noun is present bearing some sort of focus (to be defined later on). In the absence of a clitic, it is the accusative nominal that is assigned the object role. Hence the object noun cannot be an adjunct. Bearing in mind that the order of adjuncts is largely irrelevant.

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\[\text{In Jackendoff's words: "Formal logic, generative grammar, and computer science all have their roots in the theory of mathematical proof, in which there is no room for graded judgements, and in which conflict between inferences can be resolved only by throwing the derivation out."}\]
syntactically in most languages, it follows that the positions of objects may be more
criterial in the clause structure, since only object nouns have the potential to function as
proper arguments. Taking this for granted, I suggest the following preference principle
(PP henceforward), underlying Greek word order, shown in (1) below:

(1) **PP 1**: in Greek declarative clauses containing a verb and its nominal object, the verb
preferably precedes its object (schematically v—>o).

According to the PP proposed here the default value for a transitive verb's
position is to precede its nominal object. I take this principle to be part of the grammar
of Greek; it is a language-specific grammatical principle which, however, as its name
suggests, has a strong preferential flavour. That is, it does not impose a strict
grammatical condition the violation of which would produce ungrammaticality. Instead,
it imposes a strong preference for VO order which, however, may be overridden under
certain circumstances. As such then, this PP strongly reinforces the idea that “...the
word-order patterns occurring in languages are best viewed not in terms of dichotomous
grammaticality judgements, but in terms of a series of choices defining a preferential
ranking among the set of word-order possibilities available in a given language.”
(Siewierska 1994: 4999).

Moreover, although I take this v—>o principle to be operational in Greek word-
order, I do not preclude that it may be operational in other languages with similar word-
order flexibility. Siewierska (1993: 159), for example, offers some relevant data from
Polish word-order. According to these data, Polish, which also allows all six orders,
displays VO order in nearly 90% of sentences containing subject and object nominals.
This is illustrated in the table in (2) below (ibid: 158):

(2)

<table>
<thead>
<tr>
<th></th>
<th>Overt S and O N=459</th>
<th>Overt O N=931</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nr</td>
<td>%</td>
</tr>
<tr>
<td>VO</td>
<td>407</td>
<td>88.6</td>
</tr>
<tr>
<td>OV</td>
<td>52</td>
<td>11.3</td>
</tr>
</tbody>
</table>
Moreover, according to Tomlin (1986) more than 53% of the world’s languages exhibit VO linearization. If that is so then, and if other studies of word-order in other languages show similar patterns, then it may be that the principle I am proposing may form part of a universally available repertory of linearization principles, though not of course as a universal absolute. The interaction and/or conflict of this PP with other principles might then shape individual grammars (see Tomlin 1986). In fact, as I will argue later on, there is some good evidence to suggest that the proposed grammatical principle is processing motivated. Before coming to that, however, something should be said concerning the generation of OV orders in Greek, which also exist, rarer though they may be statistically.

It is well-acknowledged that OV orders, when they do occur in Greek, are associated with a special focal reading of the object (Philippaki 1985, Tsimpli 1990, 1995, among others). I shall look first at the way these orders may be generated in the grammar, given the PPI, and then I will say more about the claimed focal status of the object. First note that the PPI outlined above establishes that the verb preferably precedes a noun object. Given that in dependency terms the verb is the head of a clause and the object noun is a dependent, it follows that the v-o PP also establishes a head-before-dependent (h-d) preferable order. Assuming that a theory of overriding such as that in Hudson (1990), outlined in 3.1.1.2, may also involve preferences as a type of properties, I suggest that OV orders become available to the grammar by means of specific overriding of the more general and default v-o PP discussed above. Since the head parameter in Greek is taken to be based on preference (h-d), all the grammar will need to override is this preference for h-d order by means of a proposition which would have the effect of cancelling the PPI, shown in (1), thus yielding the mirror image of the preferred VO order. Two points should, however, be stressed here. Firstly, as we saw in the previous chapter, overriding comes into effect when particular values of words are not compatible with the values of the models of which these words are instances. This being the case, it has to be shown that some value of preverbal objects is not unifiable.

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3 For processing as underlying word order principles see Hawkins (1994) whose theory is discussed by Laskaratou (1994) with reference to Greek word order of ditransitive verbs.
with the default value of nominal objects. To establish that this is so, I shall look at the properties of post- and preverbal objects, and see whether it will be right to claim that the latter constitute more specific instances of the former, and thus, their properties take precedence over those of the former. Secondly, I think that the proposed preference principle would be explanatorily more adequate if it could be shown that there is some independent motivation both for it and its overriding. Concerning this second issue I shall speculate that processing may have a bearing on this matter. In the following section, I examine these issues, looking at post- and preverbal objects first. I should, however, point out that what follows is by no means an exhaustive account. Rather, I present a first approximation of these issues.

4.3 Object NPs and focus

As we saw, nominal objects tend to follow their verbs, though the reverse situation also obtains. Moreover, as I argued in the previous chapter, the actual presence of a full nominal object tends to occur when it assumes a focal role in the sentence. Cross-linguistically, a similar correlation between objecthood and focushood has been shown to be high (Siewierska 1988, 1991). In what follows, I will go on to claim that focus bears crucially on the V/O linearization in Greek. Unlike other formal accounts of focus in Greek (Tsimpli 1990, 1995), however, I follow Dik et al. (1981) and Dik (1989) in assuming that focus is far from being a unitary concept. According to Dik et al. (1981), the general term focus actually covers two distinct roles: a focalized element may either introduce something new, or, alternatively, the entity identified as focus may express exclusion with respect to some closed set of alternative entities, with which it enters to a contrastive relation. The first type of focus he calls newfoc, whereas the second type is referred to as confoc. The former has also been termed wide or new focus, and the latter narrow or identificational focus (Kiss 1995). Wide or new focus is taken as the

4In fact, an analogous distinction has been posed by Valduvi’s account of information packaging (Valduvi 1995). In his system, newfoc is equivalent to an ENTER-ADD operator, which instructs the hearer to add the new element of an uttered sentence into his knowledge store. By contrast, confoc is equivalent to an ENTER-SUBSTITUTE operator, which instructs the hearer not only to add information but also to replace some element in existing records. Moreover, in this view, newfoc (=ENTER-ADD) is the most basic aspect of the informational sentential structure, since every utterance is expected to add something in the hearers’ knowledge-store.
unmarked or plain type of focus, whereas contrastive focus is considered marked (Siewierska 1991).³

Apart from this semantic criterion as to the presence or absence of contrast in the two types of foci presented above, there is also a phonetic realisation of the binary focus distinction. That is, although both types bear focal stress, contrastive focus (confoc) is generally said to be associated with strong focal stress. According to Couper-Kuhlen (1986), this strong stress may justify not only a semantic but also prosodic distinction between new and contrastive focus. In her words (ibid: 137): "First, strict semantic contrast can be identified relatively well and is systematically accompanied by a distinctive pitch configuration (which may of course be neutralized in certain contexts, or modified by intonational features realizing other functions). Second, there is a sense in which the absence of contrastive pitch configuration in the presence of clear semantic contrast is a speech error (Couper-Kuhlen 1984). This constitutes the strongest evidence for its linguistic function. Third, even if the pitch configuration typically associated with contrastivity is extended to non-specific contrast or emphasis, a case can still be made for considering these as distinct from new information. Both specific and non-specific contrast make, loosely speaking, additional presuppositions. With specific contrast, the speaker chooses one candidate and simultaneously implies that all the other possible candidates are not the right ones: *JOHN ordered the tickets* ('it wasn't Tom'). With non-specific contrast, the speaker pressupposes that a particular candidate has a low degree of expectability but chooses that candidate anyway: *JOHN ordered the tickets* ('of all people', I wasn't expecting him'). Nothing similar is presupposed or implied with new information. In sum, if we recognize that contrast/emphasis are distinct from new information, then it can be argued that there are distinct pitch configurations which correspond to these two broad categories."

Following the above distinction, assuming that full object NPs will be focal in some sense, I want to claim that post- and pre-verbal objects in Greek seem to pattern respectively with this two-way dichotomy between new and contrastive (specific and

³This marked status of contrastive focus is supported by cross-linguistic facts. Thus, as Siewierska (1991) points out, contrastive focus is marked by object (and/or subject) fronting in many of the world's languages. In fact, some languages employ not only word order but special morphemes for marking contrast, such as the morpheme 'uu' in Haida. Efik, a Bantu-Congo language (Cook 1976) reduplicates the verbal stem when a contrastive element is present in the clause (De Jong 1981: 105).
non-specific) foci. That is, Greek exploits the ordering flexibility between the verb and the object in order to mark these semantically (and prosodically) distinct focus categories. As an illustration, consider the examples in (3) below:

(3) (a) Idha ton Petro.
    saw-1s [the Peter]acc
(b) Ton Petro idha.

Both object nominal in (3) above are instances of foci, as long as focus is taken to be the part of the utterance that states the main point and gives rise to contextual effects (Sperber and Wilson 1986). However, in (3a) the object focus is a newfoc (o-newfoc). According to Dik et al. (1981), these new foci can be clearly construed as answers to Wh-questions, following the standard operational question-test, shown in (4) below:

(4) A: Pjon idhes;
    whom saw-2s
    ‘Whom did you see?’
B: Idha ton Petro.

Thus, when the speaker asks the question in (4) above, his addressee can infer the following presuppositional structure as part of the speaker’s pragmatic information (ibid: 60):

(5) You saw x; x= ?

Thus, the question in (4) can be interpreted as a request to fill in the gap in the structure in (5). According to Dik, this type of focus is “...meant to fill in a gap in the pragmatic information of the addressee” (ibid: 60), and it is in this sense that Dik calls this type of focus completive.

On the other hand, the object noun ‘ton Petro’ (Peter) in (3b) above, instead of being completive, is only acceptable with a contrastive reading, i.e. it is a contrastive
focus (o-confoc). This contrastive reading may be either specific, as in (6a), or non-specific, as in (6b), in the sense of Couper-Kuhlen quoted above:

(6) (a) It is not John I saw; it is Peter.
    (b) I saw indeed Peter (though you didn’t expected me to).

The difference, therefore, between VO and OV orders could be said to lie in the different instructions these two linguistic forms give to the hearer. Thus, the full meaning of (3a) above containing o-newfoc would be along the lines of the following proposition: ‘In response to your question ‘whom did I see?’ I state that it was Peter that I saw’. By contrast, the OV order containing the contrastive focused preverbal object (o-confoc) in (3b) would mean something like: ‘I hereby state that I saw Peter, thus correcting your assumption that I saw someone else or ‘I did indeed see Peter despite your assuming that I did not’⁶. Thus, in these examples word order acts as an operator, or ‘special flag’, in the sense that the speaker uses the order of elements to instruct the hearer to develop or enrich further the linguistic form of the utterance, and thus, to reach the intended meaning.

Evidence for my claim that Greek employs word order to encode these two versions of focus comes from contextualizing sentences containing post- and preverbal objects. If the distinction drawn above is correct, then one would expect that the two types of foci will be appropriate in different discourse contexts. Consider (7) and (8):

(7) (a) Piga sinema tis proales ke tichea idha ton Petro.
    went-1sgl cinema the other day and accidentally saw-1s[the
    Petro]acc
    ‘I went to the cinema the other day and I run into Peter.’
    (b) ? Piga sinema tis proales ke tichea ton Petro idha.

(8) A: Pigame sinema tis proales ke idhame ton Aleksj
    went-1pl cinema the other day and saw-1pl [the Aleksj]acc

⁶Such fuller propositions are the result of an enrichment process (see Sperber & Wilson 1986).
'We went to the cinema the other day and we run into Aleksis.'

Bi: Ton adelpho tu idhame.
[the brother his-gen]acc saw-1pl
'It is his brother we run into.'


In (7a) the VO order is fine even in an out-of-the blue context, i.e. when nothing is presupposed, where speaker A merely reports a series of things, among which the fact they went to the cinema, they saw Peter there by chance, etc. By contrast the OV order in (7b) sounds nonsensical in that context. The situation is reversed in (8). Here speaker A has apparently made a mistaken or untrue statement, and Bii's utterance in OV form serves as corrective. A VO order in this context, as in Bii's response, would not make any sense, for the issue here is not a mere announcement of the fact that they saw the brother of Aleksis but mainly that it was Aleksi's brother that they saw rather than Aleksis himself.

It has also been claimed that these contrastive/emphatic foci⁷ are distinct prosodically in Greek (Waring 1976, Setatos 1981, 1982, Georgountzou 1993). According to Setatos, for example, these contrastive/emphatic foci fall under the category 'hyper-accented' in his classification of tonal scale in Greek, shown in (9) below (Setatos 1981: 2):

(9)

<table>
<thead>
<tr>
<th>accents</th>
<th>values</th>
</tr>
</thead>
<tbody>
<tr>
<td>accentless</td>
<td>0</td>
</tr>
<tr>
<td>semi-accented</td>
<td>1</td>
</tr>
<tr>
<td>accented</td>
<td>2</td>
</tr>
<tr>
<td>hyper-accented</td>
<td>3</td>
</tr>
</tbody>
</table>

Naturally, however, as Waring points out, "It would be just as wrong to say that a certain intonation conveys a certain precise and unmistakable message as it would to claim that

⁷See ch. 5 for examples and more on emphasis/contrast.
it has a one-to-one relationship with grammar or indeed any other relatively self-contained system.” (ibid.: 400).

Having thus offered a distinction between post- and preverbal objects, we can now return to the original matter of the $v \rightarrow o$ preference principle and what it is that makes preverbal objects more specific instances of postverbal ones. In other words, what licenses the overriding rule in the grammar of Greek word order, given in (11) below, to take effect? For one thing, preverbal foci are more restricted types of foci in the following sense; both types of foci supply the hearer with a piece of new information, i.e. they both bring the referent of the focused object into the hearer’s focus of attention. But whereas this is all there is to say about the postverbal (o-newfoc) foci, preverbal foci (o-confoc) are additionally associated with either a strong emphatic or counter-expective reading (6b), or alternatively, with a substitution operation whereby the entity identified as focus substitutes for a falsely presupposed entity (6a) (see also footnote 4). It is in this way that I take postverbal objects to encode the default o-focus in Greek clauses.

Consequently, preverbal focus is more specific version of postverbal focus. This is formalized in the dependency hierarchy in (10) below (with dots allowing for other types of dependents):

\[
(10) \quad \text{dependent}
\begin{array}{c}
\text{subject} \\
\text{object} \\
\text{confoc-object}
\end{array}
\]

Hence the rule of preverbal focus can override the more general rule of $v \rightarrow o$ subsumed by the PPI in (1) above. The overriding rule is formulated as in (11) below:

\[
(11) \quad \text{NOT: position of the head of } confoc-object = \text{before it}
\]

By virtue of the overriding proposition in (11) the $v \rightarrow o$ PPI will be cancelled when the

\footnote{Note that the default postverbal position for o-focus is in line with some typological evidence. Head-first languages unmarkedly place focal material postverbally, whereas head-final languages place it preverbally (see Hyun and Kim 1988 for details and references).}
object is of the type of confoc-objects.

4.4 Empirical evidence for the postulated focus distinction

We have already seen that a distinction between new and contrastive focus is operative in the V/O linearization. In this section I will give some extra evidence for this postulated distinction and its supposed interaction with the V/O ordering by looking at various other types of dependents, apart from nominal objects discussed in the previous section. My data come from the order of constituents in subjunctive, imperative and interrogative clauses, the word order of different types of subordinate clauses in relation to a main clause, the order of subject dependent in existential constructions, the order of (nominal and prepositional) adverbials and adverbial participles, and the order of NPs with genitive modifiers. It will be also argued that the word orders of these types of dependents further justify the head-dependent preference discussed above in relation to a nominal object dependent.

4.4.1 Subjunctive and imperative clauses

In main subjunctive and imperative clauses the normal position of the verb is right in the beginning of the clause and words depending on it follow. According to the traditional syntax (Tzartzanos 1991: 2741, vol. 2), this is so since in subjunctive clause emphasis tends to be placed on the verb (or rather, the meaning denoted by the verb). This is illustrated in (12) below:

(12) (a) Mi milas poli!
‘not speak-2s much’
‘Do not talk too much!’

(b) As pame mja volta!
let us go-1pl one walk
‘Let us go for a walk!’

However, if some other term needs to be emphasized or contrastively focused in
the clause then this term occupies the preverbal position as in (13) below, with capitals indicating the focused subject dependent:

(13) ESY pes mas ti gnomi su to ra!
    you tell-2s us [the opinion you-gen]acc now
    ‘YOU tell us your opinion now!’

4.4.2 Interrogatives

Main interrogative clauses seem to pattern with subjunctives and imperatives in displaying a similar left-to-right head-dependent order. Thus, once again, the usual position of the verb is at the beginning of the clause is clause initially as in (14a) below, though other orders are also possible as in (14b) below:

(14) (a) Plirose i Antigoni to logarjasmo tu revmatos;
        paid-3-sg [the Antigonijnom [the bill [the electricity-gen]]acc
        ‘Did Antigoni pay the electricity bill?’
    (b) To logarjasmo tu revmatos plirose i Antigoni?
        ‘Was it the electricity bill that Antigoni pay?’

Thus, (14a) would be appropriate in a context where the speaker merely wants to know whether the electricity bill has been paid by Antigoni. If, however, the speaker already knows that Antigoni paid some bill, but he is unsure about which kind of bill that was, then (14b) would be employed, with the emphasized object occurring preverbally.

4.4.3 The position of subordinates in relation to the main verb

Subordinate clauses, such as oti (that)- and na (to)-clauses, and indirect questions tend to occur after the main verb. This is exemplified in (15):

(15) (a) Ipe [oti tha pai sinema].
        said-3s that will go-3s cinema
    ‘S/he said he will go to the cinema.’
(b) Drepete [na omologisi to lathos tu]
is ashamed-3s to admit-3s [the mistake of his]acc
‘He is afraid of admitting his mistake.’

(c) Tus rotise [pote tha jirisun].
them-cl ask-3s when will return-3pl
‘S/he asked them when they are coming back.’

Once again, however, when the speaker wants to emphasize or contrastively focus the proposition expressed by the subordinate clause he may reverse this default order, as shown below in (16):

(16) (a) Oti tha pai sinema, ipe.
(b) Na omologisi to lathos tu, drepete.
(f) Pote tha jirisun piso, tus rotise.

4.4.4 Existentials
Existential verbs like ‘εἶμαι’ (to be), and υπάρχω (to exist) usually precede their subject dependent, as illustrated in (17) below (with Greek alphabet once more indicating that these examples have been extracted from texts):

(17) (a) Ηταν μια φορά ένας βασιλιάς που δεν έκανε παιδιά.
was-3s one time one king who not made-3s children
‘There was once a king who had no children.’
(b) Εἶχε υπάρξει ένας ξένος για την Πόλη ρυθμός.
had-3s existed one alien for [the Constantinople]acc rhythm-nom
‘There had been an alien rhythm for Constantinople.’

Example (17a) constitutes the beginning of a popular Greek tale and is used simply to announce the existence of a childless king. Example (17b) is taken from a popular Greek daily newspaper (Eleftherotipia 8/8/94) from an article which discusses the consequences of Kurds’ emigration to Constantinople. Sentence (17b) merely states the fact that due
to this emigration significant changes in Constantinople’s lifestyle and culture has taken place.

However, when the subject of the existential verb needs to be emphatically or contrastively focused, then the reverse order is employed, as in (18) below:

(18) (a) Ηλεκτρονικοί πίνακες δεν υπάρχουν.
   electronic boards-nom not exist-3pl
   ‘There exist no electronic boards.’

(b) Πρόβλημα συνεννόησης για τους διαίτητες επίσης δεν υπάρχει.
   problem communication-gen for the referees also not exist-3s
   ‘There exists also no communication problem for the referees.’

Both examples are taken from an article in a Sunday magazine talking about a basketball tournament held by the Philippine minority in Greece (Periodiko tis Kirjakatikis Eleftherotipias 24/7/94). The author’s intention is not merely to introduce the referents of the subject phrase. Rather, in both utterances the preverbal ordering of the existential subject is associated with a counter-expective reading.

4.4.5 Adverbials and adverbial particles
Adverbial modifiers of all types, including adverbial particles, are usually placed postverbally, towards the end of clause as seen in the examples in (19) below:

(19) (a) Η διαλέξει κυρία πολύ τον Πέτρο. [adverb]
   [the lecture]nom tired-3s much [the Petro]cc
   ‘The lecture tired Peter a lot.’

(b) Τη νύχτα πήρε. [nominal adverbial]
   returned-3s [the night]acc
   ‘He came back at night.’

(c) Τον παρακολούθησε με προσοχή. [prepositional adverbial]
him-cl followed-3s with attention
‘He followed him carefully.’

(d) Bike   milontas.  [adverbial participle]
entered-3s speaking
‘S/he entered speaking.’

Assuming that adverbs are dependent of verbs, these examples display the left-to-right default head-dependent directionality and no special effect of emphasis or contrast arises. Moreover, such effects can be brought about, once again, by reversing this order, as shown in (20) below, with ‘a’ on the dependency arrow indicating the adjunct dependent:

(20)  (a)  <----a------
      Poli ton kurase i djaleksi ton petro
(b)  <----a-----
      Ti nichta irthe
(c)  <----a-------------------
      Me prosochi ton parakoluthuse
(d)  <----a------
      Milontas bike

Thus, in the above examples the speaker does not just state the fact that ‘o Petros’ became very tired from the lecture (20a), or that the person in (20b) came in the night, or that some person followed someone else attentively (20c), or, finally, that the person in (20d) entered the room speaking. The effect of the utterances comes, as a result, from the emphatic or contrastive focus with which these preposed adverbials are associated. (20d), for example, would be felicitous in a context in which the speaker knows or suspects that his addressee thought that the person entered the room laughing rather than speaking, or in a context in which the speaker wanted to draw his hearer’s attention particularly to the act of speaking which accompanied the person’s entering.
4.4.6 Genitive modifiers

Genitive modifiers of subjects or objects are usually placed after the nominal subject or object they modify as in (21) below:

(21) (a) I Ilekra tu Sophokli tha anevi stin Epidavro.

[the Electra the Sophocles-gen]nom will be staged-3s in Epidaurus.

‘Sophokles’ Electra will be staged in Epidaurus.’

(b) O Andreas espase ena pjato tis supas.

[the Andreas]nom broke [one plate [of the soup]acc

‘Andreas broke a soup plate.’

(21a and b) merely state or announce the fact that Sophocles’s tragedy ‘Electra’ is going to be performed and that Andreas broke a soup plate, without attaching any particular importance to any of the terms of the sentence. Compare these examples with their counterparts in (22a, b):

(22) (a) <------a--------

Tu Sophocli i Ilectra tha anevi stin Epidavro

<------a------

(b) Tis supas ena pjato espase o Andreas

Note that (22a) will only be felicitous when the speaker has strong reasons to believe that the addressee is confused concerning which poet’s version of the play ‘Electra’ is going to be performed in Epidaurus, since both Sophocles and Euripides wrote a play with the same title. In the same vein, (22b) will only be felicitous when correcting a mistaken assertion such as ‘Andreas broke a salad plate’. Alternatively, (22b) may be used when the speaker suspects that the hearer is uncertain as to the type of plate that Andreas broke.

In sum, it seems that not only object NPs but also other kinds of dependents follow the left-to-right head-dependent order, with contrastive/emphatic focus effect arising from the reverse order. The key point that arises from this discussion is that there
is a 'preferred' left-to-right head-dependent order in Greek and that postdependents of various kinds tend to be associated - as in the case of noun object dependents - with the category new focus (newfoc). This order, however, may be overridden by more specific instances of focus such as contrastive/emphatic focus dependents which occur preverbally. The default head-->dependent order and its reverse will be generated respectively by the rules in (23) and (24) below:

(23) Position of the head of dependent=before it
(24) NOT: position of the head of confoc-dependent=before it

What is more, the data presented above from various areas of Modern Greek syntax can be brought as evidence to justify the introduction of the concept 'preference' in the grammar of Greek order in the form of the suggested v-->o Preference Principle.

4.5 Motivation for the v-->o principle and its overriding

Having seen how the v-->o PP, and head-->dependent ordering in general, may be overridden for specific focus effects, let us now come to the issue of what, if anything, may be the motivation underlying the grammatical v-->o PP in the first place. One way of explaining it would be to view this strong preference for VO orders as a reflex of some processing factor. In fact, according to Newmeyer (1994) even Chomsky would agree with the idea that needs of communication may influence structure, and that an iconic relation may exist between surface structure order and order of importance. After all, the claim that various linearization choices reflect underlying cognitive principles is pretty

*I assume that the hierarchy formulated in (10) above should be replaced with the one given in (i) below in the light of the h-->d and d<--h patterns discussed in 4.4:

(i) superdependent
    | confoc dependent
    | subject object ....

Following (i), the category 'confoc' is a superdependent for want of a better name which when combined with a kind of nominal or other dependent will cancel the default h-->d order.
uncontroversial, especially in the functional and pragmatic literature. One such principle is the well-known *given-before-new principle*, or so-called *Information Flow Principle* (IFP): “In principle, words in a sentence are arranged in such a way that those that represent old, predictable information come first, and those that represent new, unpredictable information last” (Kuno 1978: 54). There are, however, cases where the speaker may organize his/her message in the opposite order, which Givón (1988: 252) calls ‘the-attend-first-to-the-most-urgent-task-principle’. According to the latter principle, when the focus is especially important and the topical information highly accessible or predictable, then the most urgent task for the speaker is the presentation of the informationally important part of the message.

Returning to Kuno’s ‘given-before-new-principle’, similar predictions are made by the concept of backgrounding and foregrounding in Relevance Theory (Sperber and Wilson 1986). According to this distinction, backgrounded elements are those which set the context within which foregrounded elements are to be processed. Foregrounded elements are always elements which give rise to contextual effects. The main claim of this theory concerning linearization is that placing backgrounded elements earlier in the sentence facilitates processing, by making available a context to which the foregrounded part is anchored. This arrangement, however, rather than stipulated as a principle in Relevance Theory, derives from a more fundamental principle of human cognition and communication, that is the Principle of Relevance. According to this, rational communication is geared to relevance, i.e. to achieving enough contextual effects for no unjustifiable processing effort. It is due to this principle, then, that backgrounded elements are predicted to occur earlier, since in this way the utterance will achieve its effect with no wasted processing endeavour on the part of the hearer, unless the hearer already knows the background in which case background information may be totally omitted. The reverse state of affairs is also predicted, however. That is to say, extra processing effort is justified provided that it guarantees extra effects for the hearer.

As already pointed out, nominal objects tend to be overtly encoded only when encoding new information. Evidence of this is provided in the table in (25) below which shows the number of VO and OV clauses together with the kind of o-focus in a total of 191 clauses with noun objects in my corpus:
(25)

<table>
<thead>
<tr>
<th>orders</th>
<th>No of clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>VO</td>
<td>171</td>
</tr>
<tr>
<td>o=new focus</td>
<td>164</td>
</tr>
<tr>
<td>OV</td>
<td>20</td>
</tr>
<tr>
<td>o=emphatic/contrastive focus</td>
<td>17</td>
</tr>
</tbody>
</table>

(25) shows not only the predominance of VO orders found in my spoken corpus, but also that in the overwhelming majority of VO orders, the object encodes new information\(^{10}\). This being the case, the predominance of VO, and as we shall see later, SVO order in Greek may just be a reflex of the **message management** strategies (Hannay 1991) outlined above. That is to say that object NPs, in encoding new information, will tend to occur later in a sentence (i.e. post-verbally) in line with Kuno’s given-before-new principle or with the background-foreground ordering following Sperber and Wilson’s Principle of Relevance. If this is correct then it is easy to see why the v->o PP may be viewed as the default, for it complies with the most optimal cost-effect balance in terms of processing. This, of course, raises questions about OV orders.

As already pointed out, the object in OV structures, rather than simply filling a blank in the hearer’s information (as new focus does), requires him to carry out the more complex operation of removing a mistaken entity and replacing it with another. Taking this as a starting point, the following reasoning may account for the lower frequency displayed by OV orders. According to Ninio (1993a), the default head-dependent directionality in a language is acquired earlier and is easier to process. This would logically entail that a non-default head-dependent directionality should be costlier in processing terms. As pointed out above, according to Relevance Theory increased processing cost is accompanied by more extensive modification of the hearer’s cognitive

---

\(^{10}\)I assume that 'new' is a subcategory of focus rather than that 'new' and 'focus' are two independent categories which may cross-cut in certain cases.
environment. If my argument is correct then one would predict that orders exhibiting an 
OV sequence, being harder to process, should be richer in effects. In this case these extra 
effects involve the special emphatic or contrastive reading of the object which not only 
fills in a gap in the hearer's knowledge-store, but also instructs him to cancel a previously 
entertained assumption and replace it with the one expressed by the focal object. Note 
that a similar reasoning has been suggested by Siewierska (1993) in connection with 
Polish, a predominantly SVO free word order language. According to her, o-fronting is 
licensed by stronger pragmatic motivation.

4.6 The order of S, V, and O: variation and markedness

So far I have suggested that the unmarked head-dependent directionality in a language 
like Greek arises from a processing-motivated PP, discussed above. This v→o PP along 
with the possibility of overriding it gives rise to a twofold taxonomy of word orders 
shown in (26) below:

(26)

<table>
<thead>
<tr>
<th>v→o</th>
<th>o←v</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVO</td>
<td>OVS</td>
</tr>
<tr>
<td>VSO</td>
<td>OSV</td>
</tr>
<tr>
<td>VOS</td>
<td>SOV</td>
</tr>
</tbody>
</table>

This implies, perhaps, that there are three 'unmarked' or 'usual' orders which comply 
with the v→o PP, and three 'marked' or 'unusual' orders which do not. To a certain 
extent this is true, although the picture is rather more complicated in that even within 
each group not all orders are felt to be equally usual. For instance, from the first group 
of orders, while all three are generally felt to be unmarked in relation to their analogues 
in the second group (see Drachman 1985 and table (28) below), SVO is described as 
being the least marked both by traditional grammarians (Tzartzanos 1963, Tsompanakis 
1994) and modern theorists (Kakouriotis 1979, Horrocks 1983, etc.) With respect to the 
second group of orders, OVS is taken to be the least marked whereas SOV is usually
only accepted with a special intonation contour ('comma intonation' after the subject (Kakouriotis 1979, Philippaki 1985). OSV, finally, is judged to be very unusual indeed\(^{11}\).

Available statistics (Laskaratou 1984 and my own spoken corpus (see sec. 4.8)) seem corroborative of the markedness differences outlined above. In Laskaratou's corpus, for example 80.9% of the orders with full subject and object nouns were SVO. After this, however, the next most frequent order was OVS (14.2%). Laskaratou's corpus included 6055 clauses of which 2530 were active and transitive and 3525 were passive. The active clauses which concern us here were mainly taken from a variety of texts such as legal, scientific and medical papers, and newspaper articles. The latter articles were collected from two non-katharevusa daily newspapers, one dimotiki and one mixed language. The time of the selection of the corpus was early eighties. That is to say, after the establishment of dimotiki as the language of education in 1976. Laskaratou's findings are shown in (27) below (ibid: 235):

<table>
<thead>
<tr>
<th>Orders</th>
<th>No. of clauses</th>
<th>% out of total 1540</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVO</td>
<td>1246</td>
<td>80.9</td>
</tr>
<tr>
<td>OVS</td>
<td>219</td>
<td>14.2</td>
</tr>
<tr>
<td>VSO</td>
<td>27</td>
<td>1.8</td>
</tr>
<tr>
<td>VOS</td>
<td>19</td>
<td>1.2</td>
</tr>
<tr>
<td>SOV</td>
<td>19</td>
<td>1.2</td>
</tr>
<tr>
<td>OSV</td>
<td>10</td>
<td>0.6</td>
</tr>
</tbody>
</table>

This differentiation in markedness between the six orders is reinforced by intuitive judgements. These were surveyed in a test I conducted in which I invited 30 native speakers (NSs), mainly non-linguists, to complete a questionnaire. This contained one clause with a transitive verb and its nominal subject and object in all six possible orders. The thirty subjects of various educational and social background were asked to give each order a mark, ranging from 1-6, using lower marks for more common or natural orders and higher marks for less common ones. The results are shown in the table in (28) below

\(^{11}\) Some consider OSV to be ungrammatical in MG (Tsimpili 1990, Agouraki 1993). Rare though it may be, it does, however, occur and therefore should be generated by the grammar although a principled explanation should be given for its markedness.
which presents the most popular mark per order, with the numbers in the first row showing the marking scale 1-6 and the numbers in the rest of the rows indicating the number of native speakers who voted for each mark:

(28)

<table>
<thead>
<tr>
<th>orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orders</td>
</tr>
<tr>
<td>VOS</td>
</tr>
<tr>
<td>VSO</td>
</tr>
<tr>
<td>SVO</td>
</tr>
<tr>
<td>OVS</td>
</tr>
<tr>
<td>SOV</td>
</tr>
<tr>
<td>OSV</td>
</tr>
</tbody>
</table>

First notice that the overwhelming majority of speakers, shown in bold, awarded smaller markers to the group of orders obeying the v->o PP (PP1) as defined above, whereas the orders not satisfying this PP1 were generally felt to be more marked. These intuitions can thus be interpreted as being corroborative of the postulated PP1. Furthermore, note that in the first group of orders, SVO was uniformly judged as the most common and usual, while in the second group of orders OVS was judged to be the most unmarked and usual. All the informants confirmed the emphatic/contrastive reading associated with OVS, SOV and OSV orders, but they also stated that they would rather use OVS than SOV or OSV in circumstances in which they needed to emphatically or contrastively focalise the nominal object.

Again we need some sort of principled system which could capture these intuitions and provide us with an explanation for the relative frequency of these orders within each grouping. In what follows I will sketch the rough lines of a potential explanation, by exploiting further the already familiar concept of grammatical preference principle. The second preference principle which I claim to be operational in the ordering taxonomies described above is what I call the non-open dependency principle. I first present the principle in question and I then provide various types of supporting evidence for it.
4.6.1 The non-open dependency principle

As seen above SVO and OVS are, respectively, the most popular, unmarked members of the VO/OV ordering groups. Note that the dependency structure of these two orders is basically the same:

(29) \[ \text{S V O O V S} \]

Both orders belong to the ‘linear type’ of construction (Ninio 1993a). That is to say, subjects and objects are immediately adjacent to their head, with no material in-between. In contrast the remaining four orders, seen in (30), display non-linear dependencies:

(30) \[ \text{V S O V O S} \]

The dependencies in (30) are called open dependencies because in each case one dependency must remain pending until the other is being processed. In the case of VSO, for example, the dependency between the verb and object remains pending while the dependency between the verb and subject is being resolved. In each case, then, the ‘open dependency’ will occur between a head (verb) and a dependent which are separated by another dependent of the same head (verb). The open dependents in (30) are shown in bold. Constructions such as these are evidently not favoured in Greek; I therefore suggest the Preference Principle (PP2), shown in (31) below:
(31) PP 2: in Greek declarative clauses containing a verb and its nominal subject and object, the verb preferably linearizes in immediate adjacency with its nominal dependents (schematically £— v—>).

According to the PP proposed here the default, or preferred, value for a transitive verb's position will be immediately adjacent to its nominal arguments placed on either side of it. This will then account for the favoured status of SVO and OVS within the two ordering groups defined by the v—>o PP. Note that the proposed PP2 cross-cuts with the v—>o PP1 thus giving rise to a threefold taxonomy depending on whether an order obeys both preference principles, one of them or none. I will return to this point later on.

A question arises here as to what is the precise nature of the proposed principle. Is it a grammatical principle, or is it a processing factor? I should say that as in the case of the v—>o principle, I also take this preference principle to be part of the grammar of Greek. I shall argue, however, that the '<-v->' PP, no less than the v—>o PP discussed above, is motivated by processing-related factors. That is to say, that both PPs may find themselves within the grammar of Greek as a grammaticalized reflex of processing considerations (Hawkins 1994).

Furthermore, I should stress that although I take the '<-v->' PP to be operational in Greek word-order, there is some evidence to suggest that a similar principle is operational in other languages with word-order flexibility. Siewierska (1993), for example, offers some data from Polish according to which, from the six possible orders, SVO and OVS appear to be the most preferred orders. Thus, SVO appears in 80.4% of the clauses with full subject and object nominals, whereas OVS in only 7.9%. All the other orders appear in less than 6% (ibid: 157). These figures are remarkably similar to the Greek ones. If that is so, and if other studies of word-order in other languages show similar patterns, then it may be that both PPs examined so far may form part of a

12Note that as far as object is concerned, the PP in question renders the VO and OV sequences, i.e. the orders in which the object is adjacent to the verb, most preferred. It is indeed well established that the verb and its object form a kind of a unity in which the subject does not participate. Both in abstract transformational models (cf. the concept of VP in Chomskyan linguistics) as well as in functional and typological approaches (Tomlin 1986) a kind of a specific verb-object bonding is assumed. See also Keenan (1984), Bartsch and Vennemann (1972), Bazell 1953).
Finally, as in the case of the v→o PP, the <→v→> principle, being preferential in nature, can be overridable. Thus an ordering proposition, stated in the grammar will generate the dispreferred patterns, yielding word orders with open dependencies. This overriding will again have to be motivated by the achievement of effects other than those brought about by the preferred patterns, an issue which I will examine in chapter 5.

4.7 Motivation and evidence for the non-open dependency principle

4.7.1 Independent motivation

As I suggested above, the <→v→> PP outlined in section 4.6.1 can be shown to be independently motivated. By this I mean that it is not ad hoc, postulated solely in order to account for Greek word order variation, but rather enjoys broader application in the description and functional explanation of cross-linguistic data. For this reason, therefore, the principle does not unnecessarily proliferate theoretical or technical apparatus.

In particular, a version of the <→v→> principle, though not explicitly referred to as such, has been invoked by Vennemann (1974) to explain the drift from SOV to SVO in a number of languages. In addition, Ninio (1993a) accounts for the acquisition of 3-word constructions by English and Hebrew-speaking children by reference to a structural equivalent of this principle (see below).

4.7.2 Psycholinguistic motivation

The proposed <→v→> principle also enjoys some experimental support. Ninio’s research into language acquisition provides us with some relevant psycholinguistic evidence relating to this principle. In her paper ‘Predicting the order of acquisition of three-word constructions by the complexity of their dependency structure’ (Ninio 1993a) she reports the results of a test she conducted in relation to an English-speaking child’s first 102 sentences of more than two words. Her hypothesis was that ‘...the complexity of the dependency structure of different 3- and 4-word constructions predicts the order of their acquisition’. The theoretical framework of her research (see Ninio 1993b) was Dependency Theory (Hudson 1990, Mel'čuk 1979, 1988).
According to her findings, three-word constructions displaying a linear, uninterrupted dependency structure appear earlier in the children’s speech. Recall from the discussion in section 4.6.1 that linear constructions involve only adjacent dependency pairs as in (32a) below unlike non-linear ones in which one dependency pair is non-adjacent as in (32b and c):

(32) (a) <-------- -------->  <-------- -------->
      D1   H   D2               D2   H   D1

(b)  <-------- >  <-------- >
     <-------- >  <-------- >
      H   D1   D2               H   D2   D1

(c)  <-------- >  <-------- >
      <-------- >  <-------- >
      D1   D2   H               D2   D1   H

According to Ninio’s claim, adjacency is strongly supported by psycholinguistic evidence and seems to be of crucial importance, “...an inherent competence factor, specifying the subset of the syntactic rule system children are able to construct” (1993a: 25). She takes the dependency relation to be a ‘computational command’ on the basis of which individuals combinatorily compute the two separate units of the dependency pair. This combinatorial task or synthesising operation is carried out directly, i.e. without having to be stored and recalled from the short term memory, when the two members of the dependency couple are consecutive. Conversely, the separation of the two participants in the dependency relation by some other intervening element during sentence comprehension results in what she calls an open dependency which is harder to process since “...until the second member of the couple is generated, the speaker has to keep in short memory the fact that such closure is pending” (ibid: 10).

(32a, b and c) above are easily translated to the six orders of our study. Thus, if H=Verb and D1=S (for nominal subject) and D2=O (for nominal object) then the
following patterns emerge. SVO and OVS pattern with the linear-type of dependencies as in (32a) above. That means that they impose no detour from linear processing and, consequently, in processing terms they are easier.

On the other hand, VOS and VSO patterns with (32b), that is, either the v-->s or the v-->o dependency remains open which, according to Ninio, entails an increased processing cost in the interpretation process on the part of the addressee. Finally, SOV and OSV pattern with (32c) above, namely, either the s<--v or the o<--v dependencies are open which, following the reasoning above, translates to harder processing effort. Note, however, that the orders patterning with (32b and c) respectively are not totally equivalent despite the fact that they both belong to the non-linear type yielding open dependencies as a result. As already pointed out, the <-->PP cross-cuts the effects of the v-->o PP. Thus while VOS and VSO, SOV and OSV all fail to comply with the <-->PP, two of them, VSO and VOS do comply with the v-->o PP, this setting them apart from SOV and OSV, which violate both PPs. As Ninio points out, adjacency is just one of the factors having an impact on the processing of three-word sequences. She also suggests the predominant directionality of dependency relations in a language as another factor, although for her its effects have yet to be determined.

4.7.3 Empirical motivation
The non-open dependency PP enjoys some empirical support mainly drawn from Ninio’s acquisition data dealt with above as well as from SOV to SVO drift (Vennemann 1974, Givón 1979). With reference to Greek, it is also worth noting that a similar principle of verb-mediality seems to be favoured in clauses containing an intransitive verb with its nominal subject and an adverbial. Consider, for instance, the examples in (33) and (34) below:

(33) (a) O Petros efije ksaftika. [SVAdv]
       [the Petros]nom left-3s suddenly

Recall, however, from the discussion in 4.2 that the principle in question operates language-specifically. As such, it does not make any claim relating to processing difficulty in, say, head-final languages.

Other potential factors are the type of grammatical relations and the number of dependents per head (ibid: 14).
Although none of the examples in (33) and (34) is bad, those in (33a, b), where the verb occupies the medial position, sound more natural than those in (34) where the verb occupies a non-medial position. The same has been reported in Polish, a predominantly SVO ‘free word-order’ language (Jacennik & Dryer 1992).

A similar dispreference for open dependencies also obtains in interrogative clauses containing a wh-word, as shown in (35) and (36) below:

(35) (a)  
<--------v---------->

Ti agorase o Petros?  
what bought-3s [the Petros]nom  
‘What did Peter buy?’

(b)  
<--------v----->

O Petros agorase ti?  
[SVWH-word]

(c)  
Agorase ti o Petros?  
[VWH-wordS]

(d)  
Agorase o Petros ti?  
[VSWH-word]

(e)  
O Petros ti agorase?  
[SWH-wordV]

(f)  
Ti o Petros agorase?  
[WH-wordSV]

(36) (a)  
<--------v---------->

Pote irthe o Petros?  
when came-3s [the Petros]nom  
‘When did Peter come?’
(b) \[\text{-------------} \text{v} \text{-------------}\]  
  O Petros irthe pote?
(c) Irthe pote o Petros?
(d) Irthe o Petros pote?
(e) O Petros pote irthe?
(f) Pote o Petros irthe?

Thus, (35a, b), in which no open dependency obtains are more preferable than the (35c-f) where one dependency relation has to remain open. A similar pattern holds for wh-adverbials, shown in (36) above. Moreover, note that following the v-->o PP, those orders in (34-36) which comply neither with the <-->v-->PP nor with the v-->o will be predicted to be more marked (34c, d, 35e, f, 36e, f) than those orders which at least comply with the v-->o PP (34a, b, 35c, d, 36c, d).

The same dispreference for non-linear dependencies seems to be true in sentences containing a clausal object (cl-obj), shown in italics in (37) below:

(37) (a) O Kostas perimeni na pari i Klio tilefono.[SVcl-obj]  
  [the Kostas]nom is waiting for to give-3sgl [the Klio]nom [call]acc  
  ‘Kostas is waiting for Klio to call.’
(b) Na pari i Klio tilefono perimeni o Kostas.  
  [cl-objVS]
(c) Perimeni o Kostas na pari i Klio tilefono.  
  [VSc1-obj]
(d) Perimeni na pari i Klio tilefono o Kostas.  
  [Vcl-objS]
(e) O Kostas na pari i Klio tilefono perimeni.  
  [Scl-objV]
(f) Na pari i Klio tilefono o Kostas perimeni.  
  [cl-objSV]

Thus, (37a, b) in which the object-clause ‘na pari i Klio tilefono’ and the noun subject ‘o Kostas’ is arranged on either side of the verb ‘perimeni’ are predicted to be less marked than (37c, d) and (37e, f) in that they both comply with the <-->v-->PP. What is more, the sentences in (37c, d) though violating the <-->v-->PP, comply with the v-->o PP, and thus, are predicted to be less marked than the sentences in (37e; f) which violate both PPs. Both predictions are borne out.
4.8 The preference principles and the criterion of maximal compliance

Having defined the two preference principles, we are now in a position to establish a ranking mechanism which will place each of the six orders on a preference hierarchy according its degree of compliance with the two PPs. The criterion formulated in (38) below serves this function.

(38) **Criterion of maximal compliance**: an order will be more common or 'natural' according to its compliance with the \( v \rightarrow o \) and the \( <\rightarrow v \rightarrow > \) principles.

A table showing the feature values each order is assigned after the application of the above criterion is given in (39) below:

(39)

<table>
<thead>
<tr>
<th>orders</th>
<th>SVO</th>
<th>VSO</th>
<th>VOS</th>
<th>OVS</th>
<th>SOV</th>
<th>OSV</th>
</tr>
</thead>
<tbody>
<tr>
<td>( v \rightarrow o )</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>( &lt;\rightarrow v \rightarrow &gt; )</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

As before, the six orders are divided up in two groups according to whether or not they obey the \( v \rightarrow o \) PP. Desirably, SVO occupies the first position in the first group in that it obeys both the \( v \rightarrow o \) and the \( <\rightarrow v \rightarrow > \) PPs. This may thus account for the overwhelming dominance of SVO order in clauses containing subject and object nominals (see (40) below) as well as for the highest degree of commonness reflected by native speakers' intuitions (see table 28 above). Conversely, the value attributed to the two remaining orders of this group accounts for their intuitively and statistically rather law profile; VOS and VSO constitute a subgroup which although they obey the \( v \rightarrow o \) PP, fail to comply with the \( <\rightarrow v \rightarrow > \) PP. Thus, while they are also predicted to be less common and more marked than SVO, they are also predicted to be more common and less marked than their mirror images in the second group, OSV and SOV. In the second group, OVS is the most preferred in that it complies with the \( <\rightarrow v \rightarrow > \) PP. SOV and OSV, on the other hand have a lower degree of preference in complying neither with the head-parameter \( v \rightarrow o \)
>o nor with the <-v--> PP. These results accord both with native speakers’ intuitions and with statistical evidence. The latter is seen in the table in (40) below which shows the predominance of SVO and OVS orders in my (mainly) spoken corpus:

(40)

<table>
<thead>
<tr>
<th>orders</th>
<th>SVO</th>
<th>VOS</th>
<th>VSO</th>
<th>OVS</th>
<th>SOV</th>
<th>OSV</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of clauses</td>
<td>78</td>
<td>2</td>
<td>2</td>
<td>19</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>% relative to total 103</td>
<td>76</td>
<td>2</td>
<td>2</td>
<td>18</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

4.9 Conclusion

In this chapter I have attempted to provide an answer to one of the questions set out in the introduction of this thesis; why is it that certain orders are intuitively felt as more ‘natural’ and common, as reflected by available statistics and intuitive judgements? I specifically argued that Jackendoff’s concept of preference rules (Jackendoff 1988) offers a new, plausible way of examining Greek word order and accounting for the predominance of certain orders vis-à-vis others. I proposed two grammatical preference principles, namely the head-first (v-->o) and the non-open dependency (<-v--> ) PPs. Both these principles were argued to be part of the Greek grammar, but motivated by processing considerations. Various types of evidence were given for both the preferential and the processing-related nature of these PPs. Although I have proposed these PPs specifically in order to account for the markedness associated with certain word orders in Greek, there is some evidence to suggest that they might have a wider application, perhaps as part of a universally available set of linearization principles, especially in the light of recent proposals such as by Hawkins (1994). According to Hawkins, many cross-linguistic distributional and implicational universals of linear ordering arise as a grammaticalization of processing factors, the claim being that those orderings which involve minimal processing complexity occur more frequently.
5 Word order variation, overriding and effects

5.0 Introduction

In the previous chapter I provided an account for one of the questions set out in the introduction of this thesis, namely why it is that certain orders are more common and less marked than others. In this chapter I want to look at another question, namely why it is that the less common and more marked orders occur at all. In other words, why does word order variation exist? In relation to Greek and the hypothesis put forward in chapter 4, word order facts arise from interacting preference principles and their overriding. Thus, any answer to the question of Greek word order variation is eventually related to 'overriding' this set of default patterns specified by the grammar.

In particular, the basic question which arises in connection with word order variation is why it is that the v—>o and <--v--> PPs are overridden? This last chapter attempts to provide an answer to this question by looking at collected data and exploiting various theoretical perspectives in relation to the pragmatics of word order. It should, however, be pointed out that what follows is by no means an exhaustive survey of the many various aspects of the phenomenon of word order variation and overriding. Rather, an attempt is made to present, discuss and evaluate some real-life examples so that a better understanding of the effects associated with each order is achieved by studying these contextualized data. As far as I am aware, such study of Greek word order in context is unprecedented.

A convenient point of departure for this discussion is, I think, the presentation of some central theoretical issues related to the question of word order variation. Such presentation is, I think, relevant and valuable in two ways: (i) it sets the theoretical context for the discussion of Greek word order data, (ii) it provides a historical perspective on this discussion. The chapter is organized as follows: section 5.1 presents an overview of some core theoretical insights of word order variation with particular reference to issues of topicality, focality, various linearization hierarchies, and
processing-based explanation of word order patterns. Section 5.2 presents and evaluates
the relevance-theoretic approach to word order, the emphasis being on the distinction
between back- and foreground material and its relation to the establishment of relevance
in communication. Finally, section 5.3 elaborates on the relation between overriding the
hypothesized preference principles specified by the grammar of Greek, and the effect(s)
achieved this way.

5.1 Word order variation: an overview

We have already seen throughout this thesis that various discussions and accounts of
Greek word order heavily rely on notions such as topic and focus. More generally, one
of the fundamental insights in many discussions on word order is the observation that
there obtains a tight relationship between a language’s word order and its positional
strategies for topic and focus. The idea that word order is a means of allocating topical
(thematic) and focal (rhetic) material across the sentence goes back to the Prague
School of linguistics and the work on what has been termed Functional Sentence
Perspective (FSP), introduced by Mathesius (1928) and further developed by his

Inherent in the FSP approach is the idea that linearization affects the way a
sentence is communicatively or informationally structured, the claim being that there
exists a certain asymmetry in the extent to which each element in a given sentence
contributes to its informational structure or communicative dynamism (CD, Firbas
1992). Crucial, of course, is the view that a sentence is not only a syntactic entity but
also a communicative act in that it is perspectived or oriented towards the attainment
of a communicative aim. According to Firbas, then, FSP is the “perspective in which a
semantic and grammatical sentence structure is to function as an act of communication”
(ibid: 11). But as already pointed out, not all elements contribute equally to the fulfilment
of this communicative objective. In principle, thematic elements, also referred to as
‘topical’, ‘given’, etc. carry lower degrees of CD, and as such, they tend to appear
clause-initially. By contrast, ‘rhetic’, ‘focal’, or ‘new’ material contains the highest
degree of CD, and is, following the principle of communicative dynamism, usually
positioned at the end of a sentence.

This correlation, on the one hand, between an earlier position in the clause and topical material, and, on the other hand, between a later position and focal material has been also taken to arise as a product of another strong cross-linguistic correlation which obtains between a language’s subject and topic position, and also, between its object and focus position. Due to the arithmetic predominance of subject-initial languages (Tomlin 1986), the correlation between subject and topic is thus often stated in terms of topic and clause-intitial position.

Various accounts of word order within both the formal and functional paradigm have tried to incorporate this perception of word order as a marker of topic-focus positions, by postulating separate nodes or special positions in their models. These nodes or positions serve as hosts of topics and/or foci (cf. the topic projection (TOPP) in GB, the theme position in Halliday’s Systemic Functional Grammar, Dik’s P1 position (Dik 1978), Hudson’s visitor relation (Hudson 1986, 1990). A problem to which I have already drawn attention is that such accounts inevitably approach categories such as topic and focus from a sentence-based point of view (ch. 2 section 2.4.2). To the extent, therefore, that at least certain properties of topic/focus fall outside the realm of sentence-based syntax, often important and crucial aspects are missed out in such accounts.

As briefly pointed out in chapter 2, however, more recent studies show an increasing awareness of the utterance- or discourse-based dimensions of notions such as topic and focus. It has already been mentioned that topic has gradually ceased to be perceived as a relation between an entity and the oncoming predication (sentence topic). Rather, it is viewed as a relation between an entity and the overall structure of the discourse in which a given utterance occurs. Hence an increased emphasis on the study of utterance and discourse topic (see Van Dijk 1977, Reinhart 1982, Brown & Yule 1983).

This shift of theoretical interest from the sentence-based to the utterance-based aspects of topic and focus is also associated with a similar interest in the cognitive factors underlying word order. A theory of word order drawing heavily on cognitive insights is Givón’s (1983). Givón has accomplished a large body of work on word order and topic placement in many structurally different languages employing the notions of topic
identifiability and topic persistence and showing how the degree of ease with which a subject's referent can be identified in a given setting determines whether it is going to appear before or after the verb, as well as whether it is going to remain the topic of the subsequent discourse. The basic claim is that subjects which encode highly continuous referents tend to linearize postverbally, whereas those which encode more discontinuous referents appear preverbally (Givón 1978, 1979, 1983, 1987, 1988, 1990a, b).

In addition, such cognitive aspects of linearization and the placement of topic and focus has advanced the view that focus and topic should be better perceived as scalar notions, or as superordinates of further concepts (see Dik et al. 1981 and Dik 1989^). Furthermore, this increased emphasis on the cognitive aspects of word order features in some very recent approaches to word order phenomena such as Valduvi (1995). Valduvi has attempted to incorporate a non-truth-conditional pragmatic component into the grammar, called information packaging, which essentially builds on works such as Chafe (1976) and Prince (1986). Information packaging deals with sentential structure on the basis of what speakers assume hearers know and pay attention to at the time of the utterance (ibid: 123). This interpretive component is proposed to be

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^1Dik's focus typology is schematically given in (i) below:

```
Focus
/       
/                     
-contrast +contrast
|                      |
|                      |
+specific +specific
presupposition presupposition
-contrast -corrective +corrective
compleitive  selective  expanding restricting replacing parallel
```

Dik's work on focus and also that of De Jong (De Jong 1981) have attempted to encompass findings from the investigation of focus in some African languages, in which some of the types of focus in (i) above are morphologically, prosodically, or syntactically marked (see Siewierska 1988: 101, footnote 25). See also Wells (1986) whose experimental work on focus suggested that there is psycholinguistic evidence for hypothesing more than one category of focus.

^2In Dik (1989) topic is no longer perceived atomically, and a fourfold division is proposed on the basis of the cognitive status (level of activation) which the referent of the topic assumes. Thus, topic is subdivided to Given Topic (GivTop) applicable to referents already active, SubTopic (SubTop) (Hannay 1985) for semi-active referents, Resumed Topic (Restop) for former active referents which are peripherally active, and New topic (NewTop) for inactive referents. This last type of topic is the most controversial one since its definition infringes on the boundaries of the focus category. This Newtop is associated only with presentative constructions, called unaccusatives (Perlmutter 1978).
language-independent, i.e. it applies across languages. The level at which the component in question operates is between surface syntax and a postulated abstract level called Information Structure (IS), illustrated in (1) below, with dotted lines indicating any other strata that the grammar may need to include (Valduvi 1995: 147):

(1) DS
    PF SS IS
    LF

The schema in (1) assumes a T-model of grammar, though it departs from its original version in certain ways. For one thing, S-structure maps onto two autonomous abstract levels, i.e. LF and IS. S-structure is taken to be a contact point or level where information from all pure levels of representation 'meets' and is then passed on to PF. Each sentence is thus seen as encoding not only a logico-semantic form but also an information packaging form providing an instruction. This instruction, as pointed out above, is construed on the basis of speaker's assumptions about the hearer's knowledge, and aims to indicate what part of the sentence constitutes information and how it is to be incorporated into the addressee's knowledge-store.

5.1.1 Word order variation and linearization hierarchies

Various studies of word order variation appeal to various 'linearization hierarchies' in order to account for observed linearization patterns across languages as well as patterns within the same language. As Siewierska (1988) points out, following Allan (1987), there are three types of hierarchy, the formal, the dominance-based and the familiarity-based. Siewierska (ibid: 29-103) offers a very illuminating discussion on issues relating to all these hierarchies, illustrating how they interactively bear on the word order of a wide variety of languages. In what follows, I will briefly summarize her discussion and examine each of these three types of hierarchy.

The formal hierarchies deal with linearization in terms of the relative length, and
complexity of constituents. A typical example of such a hierarchy is Dik’s LIPOC (Language-Independent Preferred Order of Constituents) (Dik 1978, 1984), according to which constituents linearize in order of increasing categorial complexity. Thus, categorically simpler constituents such as clitics linearize before pronouns, NPs, etc., as schematically illustrated in (2) below (adopted from Siewierska 1988: 31), with the symbol < indicating precedence of the lefthandside item over the righthandside constituent:

(2) clitic < pronoun < noun phrase < adpositional phrase < subordinate clause

Another type of hierarchy is, as mentioned above, based on the notion of ‘dominance’. This notion involves “factors connected with perceptions of natural salience as reflected in the way humans experience the world” (Siewierska ibid: 29). ‘The personal hierarchy’ (see (3) below) and ‘the semantic role hierarchy’ (see (4) below) are two instantiations of the dominance-based hierarchies. The former determines that nouns with human referents tend to precede those with non-human referents, which in turn tend to precede nouns with inorganic or abstract referents. The semantic role hierarchy, on the other hand, arranges elements according to the perceived saliency of their grammatical function. The two types of hierarchies are illustrated in (3) and (4) respectively, with < once again indicating precedence of the leftward member of the hierarchy over the rightward constituent:

(3) The personal hierarchy
1st p. < 2nd p. < 3rd p. human < higher animals < other organisms < inorganic matter < abstracts

(4) The semantic role hierarchy
agent < patient < recipient < benefactive < instrumental < spatial < temporal

LIPOC has been claimed to be operative in Greek word order by Laskaratou (1984, 1989, 1994).
The hierarchies in (3) and (4) above often overlap in languages, which Siewierska attributes to the fact that both agenthood and the human bias captured by the personal hierarchy tend to be associated with human rather than inanimate or abstract entities (ibid: 49).

The third type of hierarchy involves the notion of ‘familiarity’. This term is used to denote ‘closeness to the speaker’s cognitive field’ (Ertel 1977), or ‘the speaker’s empathy’ (Kuno 1976, 1979, Kuno and Kaburaki 1977), or ‘the focus of interest’ (Zubin 1979). As Siewierska points out ‘familiarity’ is a speaker-based notion relating to concepts such as topicality, givenness, referentiality, definiteness, iconicity, or even idiosyncratic factors such as the speaker’s emotive involvement, personal preference, expertise in a field, etc. (p. 61). Hierarchies, therefore, such as ‘the topic hierarchy’, or ‘the given hierarchy’ form a subset of this superordinate familiarity-based hierarchy.

This familiarity hierarchy is mostly discourse-oriented rather than semantically-based as the dominance-based hierarchies, or even syntactically-oriented as the formal hierarchies. According to Siewierska (ibid: 83), it is not surprising that the familiarity hierarchy is the most common factor in word order facts in a broad variety of languages since discourse factors are often more criterial with respect to word order than purely semantic and/or syntactic factors, as is widely acknowledged. In fact, there appears to be some good processing-motivated explanation concerning this predominance of the familiarity hierarchy. I turn to this explanation now.

5.1.2 Processing-based principles of word order

As already pointed out in the previous section, one of the most influential and pervasive ideas with respect to linear ordering is that, in many languages, information is presented or structured following a progression from more familiar, accessible, given, etc. material

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4 All these references are cited in Siewierska (1988: 61).

5 See Siewierska (1988: 67) for a set of definitions of the term ‘given’ ranging from Halliday’s anaphorically or situationally recoverable information (Halliday 1967), Clark and Clark’s presupposed information (Clark and Clark 1977), Chafe’s foregrounded information in the addressee’s consciousness (Chafe 1976) to Prince’s previously evoked, contextually retrievable, inferentially related to an evoked entity, etc. (Prince 1981).
to less familiar, accessible, etc. This idea, as already mentioned in chapter 4, has often been termed the given-before-new principle, and has been supported empirically by a large body of cross-linguistic data.

According to Bock (1982) the structuring of sentential information in terms of a progression from readily accessible material to less accessible is geared to the addressee in order to facilitate the addressee’s processing task in two ways: firstly, the processing of the easily accessible or retrievable material which occurs first, allows the hearer to save his processing resources for the processing of less accessible information appearing later. Secondly, the earlier placement of already accessible material provides the hearer with a basic frame, perspective, or context within which the processing of the oncoming less accessible information can be achieved more easily.

In addition, apart from these addressee-related reasons, the rendition of information in such an order may also be motivated by the fact that the speaker needs some time in order to focus his attention on the less accessible data. The idea here is that the transmission of already accessible data being almost automatic does not require any special attention on the part of the speaker. Therefore, the speaker is likely to start off with the less attention-demanding data, and then goes on to apply his conscious effort/attention to the production of the more demanding data.

Understandably, however, it is not difficult to see how, in certain discourse environments this given-before-new arrangement is overridden and the exactly reverse state of affairs may obtain. That is, an utterance in which the less accessible material occurs first and any contextual frame or perspective, if occurring at all, follows. This happens particularly in cases where speaker and hearer share the same or largely similar situational context, or an extensive set of mutually manifest background assumptions, experiences, expectations, etc. In such cases, it is reasonable to expect that discourse between such communicators will be highly elliptical and focal in the sense that the only

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6Siewierska (1988) points out, languages with OVS, SOV and OSV order, i.e. languages in which the object is placed before the subject, appear to have instantiated this new-before-given hierarchy rather than the more common reverse hierarchy.
pieces of information worth mentioning will be less readily accessible.

There exists, however, an inherent problem with all those theories which postulate a given-before-new principle, namely they could not account for its opposite version across-languages or even within one and the same language. Furthermore, even abstracting away from this problem, accounts of word order assuming such a given-before-new principle never address the way in which this principle interacts not only with the processing side of utterance understanding but also with the effects brought about by any utterance. However, a promising and psychologically plausible account of these issues has been offered by Sperber and Wilson (1986). Their work builds on Grice’s work (Grice 1975), and, in particular, his maxim of relevance. The most appealing feature of Sperber and Wilson’s cognitive theory of word order phenomena is that it allows for notions such as topicality, accessibility, etc. to be subsumed under a single, general principle of human cognition and communication called the principle of relevance. What is more, this same principle is employed to account for the way these notions bear on linear ordering by making specific predictions in terms of both the effects and the processing effort involved in utterance interpretation. These ideas are going to be relevant to my discussion (in section 5.3 below) on overriding the default word order principles hypothesized for Greek in the previous chapter. In the following section I will thus present the basic tenets of the relevance-theoretic approach to word order.

5.2 The relevance-theoretic insights on word order

In Relevance (1986) Sperber and Wilson investigate, inter alia, two kinds of stylistic effects: presuppositional and poetic. The former fall within the interest of our discussion here. Their analysis of word order and the presuppositional effects associated with it trace their origin back to Sperber and Wilson’s theory of ordered entailments.

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3In fact, Givón (1983) has shown that utterances of impromptu speech have only focus or comment, and tend to lack explicitly encoded topical information, whereas written examples of the same language may be structured in a topic < comment order. In relation to Greek, I pointed out in ch. 3 that discourses with high degree of familiarity among the interlocutors do display a considerable amount of ellipsis and non-explicitness, whereas the degree of overall explicitness often demonstrated by the use of full subject and object nouns rises considerably in discourses with lower degree of familiarity among the communicators.
(Wilson and Sperber 1979). This theory had been offered as an alternative to the presuppositional theory of meaning. As an illustration of their theory, consider first the sentences in (5) below:

(5)  
(a) Electra wrote the poem.  
(b) The poem Electra wrote.  
(c) The poem was written by Electra.  
(d) It is Electra who wrote the poem.  
(e) What Electra wrote is the poem.

(5c) is the passivized version of (5a) while (5b) is what is generally known as a 'topicalized' construction. (5d) is the it-cleft version of (5a) and, finally, (5e) is the wh-cleft form of (5a). Note that all the sentences in (5) above are truth-conditionally identical. That is to say, the proposition expressed by each sentence is true in a world where there exists an x such that x is Electra and there is a y such that y is the poem, and that x wrote y. However, according to Sperber and Wilson, this truth-conditional equivalence of the sentences in (5) above does not mean that their full meaning is also identical, provided that one takes meaning not to be equated only with the truth-conditions of a sentence.

Apart from the purely truth-conditional aspects of sentence meaning, there is also a kind of meaning which arises from the differences in the arrangement of the truth-conditional material of each individual utterance, the claim being that the internal structure of an utterance's entailments is also important for the computation of sentential meaning and bears on the pragmatic interpretation of the utterance in question.

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*See also Carston (1993) for a comprehensive illustration of the theory with respect to English word order and word order variation, especially with respect to passivization, topicalization, clefting, etc.

*For some background discussion on presupposition see Levinson (1983, ch. 4).

*An important point to be borne in mind is that when it is said that the sentences in (5) are truth-conditionally equivalent, all is meant is that they make identical contributions to the truth-conditional content of the utterances containing them, and not that they fully encode that truth-conditional content. As Carston (1993) points out, a full set of an utterance's truth-conditions is only obtainable after some pragmatic work is done, such as reference assignment, disambiguation and enrichment of the linguistic form with attitudes expressed by the utterance.
Following Sperber and Wilson (1986: 205) it is by means of this additional non-truth-conditional, cognitive aspect of sentence meaning that a natural linkage can be built between, on the one hand, the syntactic form of an utterance, and in particular, its word order, and, on the other hand, its pragmatic interpretation. This linkage between the linguistic form of an utterance and its pragmatic interpretation is pursued in the light of the supposed parallelism between the syntactic and logical forms of a sentence. As far as the syntactic form is concerned, Sperber and Wilson take Chomsky’s branching configurations to represent clause structure. In parallel with the lexically projected syntactic categories (e.g. V, VP, N, NP, etc.), they also assume that humans are mentally equipped with a fixed set of basic logical categories which represent variables over concepts of different types (ibid: 205). Thus, SOMEONE, SOMETHING, and DO SOMETHING are the variables representing respectively persons, things, and actions.

As an illustration, consider (6a, b) below which are the syntactic and logical structures of the sentence in (5a) above:

(6)  (a)  S
     NP  VP  V'  
     Electra  V  wrote  NP  the poem

(b)  Something is the case
     someone  did  something
     Electra  wrote  the poem

(6a) serves as the syntactic structure of (5a), with irrelevant details omitted. (6b), on the other hand, is the isomorphic logical tree-configuration of the same sentence. According to Sperber and Wilson this mapping between syntactic and logico-semantic categories empowers the addressee of an utterance to form not only anticipatory hypotheses or expectations in relation to the syntax of the uttered sentence but also corresponding anticipatory logical hypotheses. Thus, the syntactic hypothesis likely to be entertained by the interpreter in hearing (5a) is that the subject noun ‘Electra’ will be followed by a verb, in this case ‘wrote’, and that this verb will itself engender, in the hearer’s mind, another syntactic hypothesis; the verb should be followed by an object nominal, in this
case, 'the poem'. Note that the syntactic hypothesis that the nominal 'Electra' in (6a) above is followed by a verb will give rise to the logical hypothesis that 'Electra' will be followed by the variable over actions, that is, 'do something', and so on, following the left-to-right order of the uttered sentence. In this way, the order in which words are encountered will give rise to an ordered set of anticipatory logical hypotheses. This set of ordered hypotheses is called the logical scale of an utterance; every time the word order changes then the logical hypotheses which are members of this set are reorganized, or restructured. In section 5.2.1.1 below I discuss this issue further by providing some examples.

A question which naturally arises at this point is what is the significance of these implications and the logical scale outlined above with respect to the interpretation of sentences having identical truth-conditional meaning but different word order. To say that such sentences simply differ in their respective logical scales does not show, let alone explain, what part the scale in question plays in the process of the interpretation of the utterances which contain them. Sperber and Wilson's explanation is based on the notion of relevance and ways of achieving it by means of employing linguistically or syntactically variant forms.

Before outlining, however, the precise interaction of this notion with the concept of logical scale discussed above, I should briefly say something about the notion of 'relevance' itself, and how it is perceived in their overall theory. I think that this is necessary since their account of linearization effects, instead of postulating extra word order principles specifically employed for linear ordering, falls out instead from a single general principle of human cognition, i.e. the principle of relevance\(^\text{11}\). This principle is claimed to account for a whole range of phenomena related to utterance interpretation, linearization among them.

5.2.1 The principle of relevance and word order variation
As already pointed out in section 5.2 Relevance Theory developed out of Grice's

\(^{11}\text{In the postface of the second edition of their book on Relevance, Sperber and Wilson reformulate this single principle by postulating a distinction between the cognitive and the communicative principles of relevance (Sperber and Wilson 1995: 260-261).}\)
pragmatic theory, although, unlike Grice (1967, 1975), it is not maxim-based nor does it assume that human communication is a cooperative enterprise driven by a common goal. The goal of this pragmatic theory is to account for the process of utterance interpretation, how hearers arrive at an understanding of an utterance. The basic assumptions of Relevance are the following (Wilson 1993): (i) every utterance has a variety of possible interpretations, all of which are not equally accessible to the hearer; (ii) hearers are equipped with a criterion, which enables them to pick out the interpretation intended by the speaker, with ‘interpretation’ meaning not only ‘what the speaker intends to say’, but also the intended context, the intended implications (called implicatures) and attitudes; (iii) human communication may be faulty and, therefore, failures of understanding may occur, which means that the criterion in question does not always work successfully.

The most fundamental assumption of Sperber and Wilson's theory is that human communication and cognition is relevance-governed. That is to say, humans are by virtue of their cognitive profile set to allocate their attention to the most relevant information and to process any incoming information as relevantly as they possibly can. The optimal relevance of an utterance in a given context is computed by reference to two concepts: contextual effects¹² and processing effort. In particular, an utterance in a given interpretation is optimally relevant if and only if: (a) it achieves enough contextual effects to be worth the hearer’s attention, (b) it puts the hearer to no unjustifiable processing effort in achieving those effects. Furthermore, given that on many occasions, what is optimally relevant is essentially not the utterance itself but the speaker’s intention to utter it as such, the actual pragmatic criterion proposed by Sperber and Wilson is a criterion of consistency with the principle of relevance. According to this criterion, an utterance, on a given interpretation, is consistent with the principle of relevance if and only if the speaker might rationally have expected it to be optimally relevant to the hearer on that

¹²By contextual effects, it is meant the effects arising by the interpretation of an utterance in a given context. There are three types of effects obtained by the interaction of an utterance in a context, that is the proposition conveyed by an utterance may either strengthen a previously existing assumption, or, alternatively, cancel a previously existing assumption, belief, expectation, etc., or, finally, it may give rise to a contextual implication, which is derived by using the particular context and the proposition expressed by an utterance as joint premises in a deductive process.
interpretation.

Let us then see how the outlined insights in combination with the concept of logical scale outlined in the previous section could account for the phenomenon of word order variation, namely the rendition of the same truth-conditional information in a number of linear orderings.

5.2.1.1 Word order as a back- and foregrounding operation

One of the core insights of the relevance-theoretic account of word order is that the set of hypotheses, or implications, forming the logical scale do not contribute equally to the process of the pragmatic interpretation.

There are two distinct ways in which an implication contributes to the computation of an utterance's relevance: either by reducing the processing cost of the utterance, or by yielding contextual effects. An implication which contributes to the relevance of an utterance by reducing its processing cost is called a background implication. The function of a background implication is to provide a context, or frame by reference to which any new upcoming material can be processed. By contrast, an implication which contributes to the relevance of an utterance by giving rise to contextual effects is called a foreground implication. According to the relevance-theoretic account, words which give rise to these background implications occur by default before the words which give rise to foreground implications. This again follows from the cost-effect clause of the principle of optimal relevance; it is much easier for the hearer to process an utterance having previously encountered a context, frame, etc. to which he can anchor the oncoming part of the utterance, the part which carries the contextual effects. As an illustration, consider (7) below:

(7) (a) John reviewed the play.
(b) The play was reviewed by John.

The logical scales of (7a, b) are shown respectively in (8) and (9) below:
(8)  (a) Something is the case.
    (b) John did something.
    (c) John reviewed something.
    (d) John reviewed the play.

(9)  (a) Something is the case.
    (b) Something happened to the play.
    (c) The play was reviewed by someone.
    (d) The play was reviewed by John.

(7a, b) are truth-conditionally identical. The difference between them lies in the allocation of back- and foreground implications in their respective logical scales. Thus, in the logical scale of (7a) ‘John’ is the contextual frame to which the oncoming part of the utterance anchors its contextual effects. By contrast, this ‘background’ role is taken on by ‘the play’ in the utterance in (7b). In other words, what is background in (7a) occurs as foreground in (7b), and vice versa.

Following the outlined difference between (7a and b), the theory’s prediction would be that these two sentences would be felicitous in different discourse environments. This prediction seems to be borne out, as suggested by the data in (10) and (11) below with the question mark indicating general preferences rather than absolute inadmissibility of the relevant sentences:

(10) (a) What did John do?
    (b) ?The play was reviewed by John.
    (c) John reviewed the play.

(11) (a) Who was the play reviewed by?
    (b) The play was reviewed by John.
    (c) ?John reviewed the play.

Such data are also discussed by Williams (1977) and Creider (1979: 6).
Thus, (7a) with ‘John’ in the background implications would be more likely to occur in a discourse context in which ‘John’ is part of the background. Hence (10c) is more suitable answer to the question in (10a) above rather than (10b). Similarly, (7b) repeated as (11b) above is more suitable answer to the question in (11a) above rather than (11c).

One significant contribution offered by Relevance Theory to the study of word order is that it demonstrates that a psychologically plausible account of word order variation can be developed not by reference to ad hoc pragmatic principles of linearization but instead as a logical consequence of humans' cognitive profile, and, in particular, humans' propensity to optimize relevance. In this way, word order variation and its concomitant back- and foregrounding effects ceases to be an arbitrary fact of language and is viewed as an important relevance-driven mechanism fully integrated into the wider systems of human communication. As already seen, the distribution of backgrounded and foregrounded information follows not from a principle postulated ad hoc (cf. the given-before-new principle discussed earlier in this chapter); rather information is linearized following the communicators' cognitively implanted tendency towards the achievement of optimal relevance. In fact, as seen earlier in this chapter, many word order approaches take linearization to be related to cognitive and processing-based factors. Of particular value, however, is the fact that the relevance-theoretic account offers a well-thought out model of interpreting utterances exhibiting different word order in terms of contextual effects and processing effort.

In addition, it should be pointed out that back- and foregrounded information is not another dichotomy in the style of those examined so far, i.e. given-new, topic-comment, etc.; in fact, as Sperber and Wilson point out, background information need not be old, nor need foreground information be new, the essential difference between them being only in terms of their contribution to relevance; background material contributes indirectly to relevance by providing a context within which the part of the utterance which carries the contextual effects is computed, while foreground material contributes to relevance directly by having contextual effects in its own right. Thus, the basic difference between the ‘given-new’ distinction found in some theories and the distinction between backgrounded and foregrounded information employed in Relevance Theory is essentially one of theoretical status.
Furthermore, situations and, specifically, utterances which do not conform with the predicted background-foreground arrangement can also be accounted for. The prediction in this case is that these utterances are ‘marked’, in that they are richer in effects; the claim being, following the criterion of cost-effect balance outlined above that the extra effort needed to process the utterances in question is rewarded by the achievement of additional effects. Below I shall provide evidence for this claim by examining contextualized examples of such ‘marked’ word orders in Greek.

5.3 Overriding and effects

The outline of the relevance-theoretic account of linearization sets the context for returning to word order in Greek, and in particular, to the overriding of the two preference principles outlined in chapter 4. As already pointed out, following the hypothesis put forward in chapter 4, word order facts in Greek arise from interacting preference principles and their overriding. Recall from the discussion above that processing cost and effects play a major part in word order, the general idea being that default word order patterns can be considered to be motivated by processing considerations whereas more ‘marked’ patterns are usually associated with extra effects.

5.3.1 Overriding the v→o principle

According to the proposed v→o preference principle (PPI) the default value for a nominal object is to follow its verb head (in line with the default head-dependent parameter discussed in the previous chapter). As shown in chapter 4, the orders that comply with PPI are VOS, VSO and SVO. As already argued, the nominal object in these orders is a ‘new focus’ (newfoc) in that it introduces a new referent in the discourse and can be construed as an answer to a wh-question (see section 4.3). By contrast, OVS, SOV and OSV override this v→o preference principle and are associated with a contrastive/emphatic reading of the object NP.

As we saw, in chapter 2, in some formal accounts of OVS order (Tsimpli 1990, Agouraki 1993) the object is taken to occupy the specifier position of an abstract Focus Phrase. Furthermore, all the introspective OVS sentences used in support of these
analyses seem to share a contrastive interpretation to such an extent that it would indeed be valid to assume that these orders necessarily involve contrastive focus. What I want to claim, however, is that contrast may be involved in many instances of preverbal objects, but not necessarily in all of them. My collected utterances displaying orders with preverbal objects counterargue a one-to-one mapping between the syntactic form and the communicative function of these orders. That is to say, there is empirical evidence to suggest that the preverbal position of the object may be correlated with two different focus functions, which these formal 'abstract' analyses of focus have not taken into account.

In the previous chapter, I showed how preverbal objects differ from postverbal ones by appealing to a distinction between contrastive/emphatic foci and new foci. In this section I want to concentrate on the first part of the distinction in question, by looking at the notions of contrast and emphasis in relation to the focus category. It should be recalled that, following the discussion in ch. 4, contrastive/emphatic foci have been taken to be some kind of 'marked' focus juxtaposed to the 'plain' or 'unmarked' new focus.

Generally, emphasis is considered the superordinate marked focus category with contrast being a more specific instance of emphatic focus. This is partly, because, as Siewierska (1991) points out, it is far from easy to characterize the precise nature of contrast vs. emphasis in the absence of contextual information. However, there are some languages which formally distinguish between the emphatic-assertive from contrastive-or counter-assertive focus, the distinction being that in the former case there is no denial of the truth of a previous proposition, whilst the latter type of focus involves an explicit contrast between the entity expressed by the focus and that of a previous proposition. According to Dik et al. (1981), Dutch and Aghem are two languages which encode a distinction between these two varieties of focus. Dutch marks the distinction in question

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14See also Silva-Corvalan (1983) for a similar point in relation to spoken OV constructions in Spanish.

15Focus has, of course, a prosodic manifestation which I shall not discuss here. For the relation between focus and prosody, particularly pitch accent see O'Connor & Arnold (1961), Chafe (1976), Katamba (1989), Pierrehumbert (1980), Selkirk (1984), Johns-Lewis (1986) and Bolinger (1989), among others.
by the use of particle *wel* for emphatic foci, whereas Aghem uses word order.

I shall show below that preverbal objects in Greek may fall under either the emphatic or contrastive type of focus. As pointed out above, one difference between these two types concerns whether or not the entity identified as focus is contrastively juxtaposed over a previously-mentioned or evoked entity. Furthermore, there might be another way of distinguishing between the two. As Siewierska (1991) points out, Halliday's three functions of language may provide us with a way of teasing out the difference involved in this distinction between emphatic and contrastive focus.

Thus, according to Halliday (1967-8) language includes three so-called macro-functions: the ideational which is concerned with propositional content, the interpersonal, dealing with the interaction between speakers and hearers, and finally, the textual, concerned with the informational structure of a discourse. Emphasis and contrast may be seen as part of the interpersonal function (De Jong 1986), providing instructions to the addressee on how to process the speaker's information. "In the case of contrast, the addressee is invited to juxtapose the presented information with some other explicit or presupposed information, while in the case of emphasis, the addressee is advised to read into the presented information some additional meanings connected with, for example, the unexpected or paradoxical value of the message." (Siewierska ibid: 180).

In relation to Greek, whereas the distinction between contrastive/emphatic focus and new focus is encoded by word order, i.e. via the linguistic form of an utterance, as seen in ch. 4, this further distinction between emphatic and contrastive focus will be shown to be contextually specified. That is, depending on the context, the focal entity in question will be either in specific contrast to some other entity (contrastive focus), or will instead merely convey a surprising, intensifying, paradoxical, etc. reading. Below I look at examples of orders overriding the *v*→*o* PP showing the emphatic or contrastive focus effect that arises as a result of this overriding.

### 5.3.1.1 Preverbal objects and focus of emphasis

Consider the following examples, with capitals indicating a focalised element. Wherever applicable, the source of each example and date of its collection is provided. The
examples listed with no source and/or date come from impromptu recorded conversations:

(12) NEA ΓΕΝΙΚΗ ΣΥΝΕΛΕΥΣΗ πραγματοποιούν αύριο OVS
[new general meeting]acc realize-3pl tomorrow
οι εργαζόμενοι στο νεώριο Σύρου.
[the workers]nom in the dockyard Siros-gen
'The people working in the dockyard of Siros will have a new general meeting
tomorrow.'
SKY radio 3.8.94

(13) Οι νέοι ΔΙΠΑ ΠΡΑΓΜΑΤΑ γνωρίζουν. SOV
[the youngsters]nom, few things know-3pl
'The youngsters know very few things.'
LGR 3.7.94

(14) ΨΥΧΡΑΙΜΗ ΣΤΑΣΗ η Τουρκία τήρησε. OSV
cool attitude [the Turkey]nom kept
'Turkey remained cool.'
LGR 3.7.94.

What all these examples seem to share is this element of emphatic focus, outlined in the previous section. The aim of this focus in general is to introduce emphatically the referent or the concept denoted by the preverbal object to the hearer's focus or center of attention. In other words, the preverbal objects in the examples above do not merely activate or foreground a new concept in the hearer's mind - as postverbal object foci do in VO orders - but also invite the hearer to an extra 'surprising', 'intensifying' reading associated with it.

Example (12), for instance, constitutes the first utterance in a radio news

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16This is reminiscent of the presentational focus of Rochemont and Culicover (1990).
program. Often discourse-initial utterances have been considered to be the least presupposing by virtue of their position since at the opening stage of a discourse or an article etc. they cannot take very much for granted. This, however, does not always seem to be the case since even in the beginning of a conversation or of a radio program, as in our case, there is a set of concepts that the speaker takes as being part of the background knowledge of the hearer(s). In (12) above, the problems facing the dockyard of the island of Syros is a long-standing topic of the Greek press, and as a result, even though there is no prior mention of this topic at the time of the utterance, the speaker is rightly entitled to take it as being part of the listeners' background knowledge. Thus, the fact that the dockyard's workers have had other meetings in the past is evidenced by the use of the adjective 'new' to modify the meeting planned this time.

In relevance-theoretic terms, the preverbal object associated as it is with this emphatic effect, constitutes the bit of the utterance that brings the contextual effects for the hearer, whereas the rest of the utterance just provides the context within which these effects are computed. Thus, in hearing that such a meeting is pending soon the listeners may think - depending on the degree of their background knowledge of the matter - either that an agreement between the people working in the dockyard and the government will be reached, or, given perhaps a background of previous unsuccessful similar meetings, that the workers will decide to go on strike, and so on.

Similarly, in (13) above the preverbal object emphatically introduces the concept expressed by the focal part of the utterance. (13) has been uttered in the context of a discussion about the Turkish invasion of Northern Cyprus. The speaker believes that a great part of the younger generation, especially those who were born outside Cyprus has little or no knowledge of the historical event. It is precisely this fact that he wants the addressee to focus on. A similar analysis holds for the utterance in (14).

There is some further evidence for the idea that the preverbal object in these cases does not merely introduce the concept identified as focus; instead it brings about this extra emphatic effect. Such evidence comes from utterances in which the entity or concept expressed by the focal object is in fact present in the immediately previous discourse. Consider the examples below:
(15) **MEGA CHANNEL 11.7.94.**

big fines however up to and 200.000 drm will
pay-3pl and [the owners]nom hotels-gen
who not cut-3-p ticket-acc
'The hotel owners who do not issue tickets will also pay fine up to 200.000 drachmas'.

(16) A: *Ναι, εδώ έξω καφεδάκι πίνει.*

yes, here outside a small coffee drinks-3sgl.
'Yes, he's outside drinking his coffee.'

B: *Κι εγώ ΚΑΦΕΔΑΚΙ έπινα αλλά το διέκοψα.*

And I small coffee-acc drunk but it-cl stopped-1s
'As for me, I was drinking my coffee too until I was interrupted.'

Greek film: *Η σωφρίνα* (‘The woman driver’), SKY 17.7.94.

(17) A: *μα τα πόδια της είχε φάει η καημένη*

but [the foot her-gen]acc had-3sgl eaten [the poor]nom

να ψάχνει από δω κι από κει.
to look from here and from there

'She moved heaven and earth trying to find it, the poor woman.'

B: *Αι, το ξέρω.*

yes, I know

A: *ΤΑ ΠΟΔΙΑ ΤΗΣ η καημένη είχε φάει OSV*

[the foot her-gen]acc [the poor]nom had eaten

'She hunted everywhere for it, the poor woman.'
(18) **ΤΗΣ ΕΝΝΕΑ ΕΠΙΣΤΟΛΕΣ ΤΟΥ ο Ρηγόπουλος απευθύνει OSV**

[the nine letters his-gen]acc [the Rigopulos]nom addresses

στη Λοιζά κατά τις οκτώ τελευταίες μέρες του 1988.

to the Loiza during [the eight last days]acc the-gen 1988

'The nine letters Rigopulos addresses to Loiza during the eight last days of 1988.'


In all these examples the preverbal object reinstates a concept which has just been uttered in the previous discourse. By means of thus reinstating or repeating the object NP an emphatic effect arises for the concept denoted by the preposed object.

Take, for instance, (15) which was uttered in the context of a new fine being imposed on the owners of night clubs, and hotels who do not issue customers with entrance tickets. The utterance immediately before the OVS states that the offending owners are going to be fined. The preverbal object in the OVS utterance which follows restates the referent of the object, i.e. the big fine which will also be imposed on offending hoteliers. This repetition thus functions as an intensifier of the concept denoted by the preverbal object.

Similarly, in the examples in (16)-(18) the preverbal object 'καφεδάκι' (small coffee) (16), 'πόδια' (feet) (17) and 'τις εννέα επιστολές του' (his nine letters) (18) respectively are all present in the immediately preceding linguistic environment.

Note that a speaker's intention to invite the hearer to derive an emphatic reading is even manifested in cases where the preverbal object is 'heavy' in that it consists of several words, as can be seen from the OVS example in (19) below:

(19) **Την απάνθρωπη, μεσαιωνική αναπεριφορά των ανδρών της**

[the inhuman, medieval treatment of men-gen of ασφαλείας κατά τη μεταφορά του στο Τζάνειο, καταγγέλλει o police-gen during the transport his in the Tzanio, denounce-3s [the Oδυσσέας Καμπούρης.

Odiseas Kaburis]nom.
‘Odiseas Kaburis denounces the inhuman, barbaric treatment by the policemen who transported him to Tzanio hospital.’

Ελευθεροτυπία 5.8.94.

Despite the fact that the object NP consists of a number of words, shown underlined in (19) above, it is placed clause-initially, in violation of any functional principle of ‘heaviness’, according to which heavier constituents tend to be placed clause-finally. What is crucial in all these cases is that had the o-focus been postverbal, the emphatic effect in question would be lost. As I argued in chapter 4, postverbal object nominals are of the type of ‘new focus’ (newfoc) in that they introduce or activate a new referent in the discourse. If we thus convert any of the above examples of OV orders into VO orders no emphatic effect will be derived and the object NP would simply be ‘newfoc’. In sum, emphasis seems to be one effect which arises from overriding the v->o Preference Principle, and thus compensates the hearer for processing the more marked OV orders. There is also another effect associated with preverbal objects to which I turn next.

5.3.1.2 Preverbal objects and focus of contrast

Contrastive focus is the other effect that may arise from overriding the default VO order in Greek. As mentioned elsewhere, contrastive focus modifies a false proposition/assumption which the speaker takes to be explicitly or implicitly entertained by the hearer. Often, the contrastive preverbal object is associated with some sort of ‘repair’ or ‘corrective’ effect of a mistaken concept which the speaker knows or thinks is

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17 As seen in ch. 4, some take contrastive focus to be phonetically distinct from other types of focus. Couper-Kuhlen (1984, 1986), following Chafe (1976), maintains that the degree of pitch fall or drop after the prosodically marked syllable is important in defining the notion of contrastivity. Also, Wells (1986) points out that there exists psycholinguistic evidence for hypothesising a distinct category of contrastive focus which is associated with maximal phonological prominence and in particular with pitch peak, kinetic tone, loudness peak and decrescendo.

18 According to Couper-Kuhlen (1984) there are two types of contrastive accent: One where “the speaker concedes that a proposition (or an item in a proposition) is true but implies that some other contrasting proposition (or contrasting item) is false”, and another where “the speaker asserts that a proposition (or an item in a proposition) is true and simultaneously asserts that a contrasting proposition (or a contrasting item) is false” (ibid: 143-44).
entertained by the hearer. Consider the examples below:

(20) MONO MIA ΔΗΛΩΣΗ εκαναν οι εφτά. OVS
    only [one statement]acc made-3pl [the Sevens]nom
    ‘The seven (leaders of the G7 countries in the world) made only one statement.’
    ΠΤ1 11.7.94.

(21) ΠΟΛΥ ΘΟΡΤΒΟ αυτός ο δρόμος απέκτησε. OSV
    much noise [this the road]nom acquired
    ‘This road became very noisy indeed.’

(22) ΒΟΥΝΑ ΑΓΡΙΑ ἐδειξαν καὶ οἱ δύο. OVS
    mountains wild showed-3pl and [the two]nom
    ‘...Both pictures showed wild mountains...’

(20) was uttered in the context of the summit of the G7 leaders which took place in Naples in July 1994. The news presenter, after giving some general information concerning the meeting in question, utters (20). There is no previous explicit linguistic mention of the leaders having made more than one statement. However, the presenter is entitled to assume that the listeners implicitly expect that the latter may well be the case. This is perhaps so because the lexical item ‘summit’ may prompt a set of expectations particularly related to a homonymous general schema (Barlett 1932, Mandler and Johnson 1977, Schank and Abelson 1977, Tannen 1979). Thus the summit schema will include, among others: leaders, agendas, decision-making, statements, declarations, press conferences, etc. It would then be natural that the listeners to this news item expect a lot of decision-making and consequent issuing of statements. In uttering (20) the presenter wants to cancel any such expectation, expressing at the same time an element of surprise that the leaders have issued just a single statement (especially given the various critical phases the world seems to undergo currently). A similar example of implicitly contrastive focus can be found in (21) above.
(22), on the other hand, is an instance of an explicit contrast between the entity identified as focus and another entity which is linguistically present in the immediately preceding discourse. The passage is taken from a modern novel recently published in Greece. The main theme of the novel is the true story of the tragic death of two academics in the university of Crete. Two professors of astrophysics were killed by one of their ex-postgraduate students during a departmental seminar. The killer escaped after the murder and he was assumed to be hiding in the Cretan mountains for some time until he was found dead by the police. The character of the murderer constitutes the main topic of the novel, which examines in some depth the disturbed personality of the murderer.

In the specific passage which (22) comes from the writer talks about two pictures published in the local paper of the area in which the killing took place. What the o-focus in (22) achieves is to explicitly state the contrast obtaining between two elements, namely ‘wild mountains’, which served as the shelter for the murderer, and ‘beauty of the Cretan seashore in summer’, which is mentioned in the immediately preceding clause. In this way, the writer contrasts what might seem natural for the pictures to show, given the time and place and what the pictures in question really showed.

Finally, as in the case of emphatic o-focus, had this o-focus been linearized postverbally, the contrastive effect would be lost. In sum, as already seen from the previous chapter, object nominals in orders which obey the v-->o PP were argued to be of the type ‘new focus’ (newfoc). By contrast, object NPs in orders which violate this preference principle (PP1) were argued to be associated with emphatic or contrastive effects. These effects could thus be argued to compensate for the breaking of the PP1.

5.3.2 Overriding the <--v--> principle

In section 4.6.1 of chapter 4 I outlined a second preference principle which might plausibly be argued to be operational in Greek, the non-open dependency principle or, schematically, the <--v--> principle. This PP predicts that the two orders which obey it

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19 The speaker may, of course, use very strong phonetic stress to indicate a contrastive reading of a postverbal object. Understandably, however, such contrastive reading would arise solely from the phonetic form plus the context, rather than the linear order plus the context, which is the object of study of this thesis.
(SVO, OVS) should be less marked than those which don't (VOS, VSO, SOV, OSV). Evidently, though, the degree of markedness will be cross-cut with the effects of the \( \text{v—}\rightarrow\text{o PP} \) and its overriding discussed in the previous section. It should also be noted that, as in the case of overriding the default \( \text{v—}\rightarrow\text{o PP} \), so too the overriding of the non-open dependency PP should not occur for free; the extra effort of processing the more marked orders should be compensated by otherwise unachievable pragmatic effects. Recall that in all four orders which override the non-open dependency PP one dependent remains 'open' in the sense defined in the previous chapter\(^{29} \). As we saw in chapter 4, it has been suggested that the processing of these open dependencies is more complex (Ninio 1993a). It would thus be logical to assume that any effect(s) derived from violating the \( \langle--\text{v—}\rightarrow\rangle \) PP should be somehow associated with this open dependent. Let us examine, then, what are the effects of overriding the \( \langle--\text{v—}\rightarrow\rangle \) PP.

As we saw in section 5.2.1, according to the relevance-theoretic analysis, word order variation amounts to a restructuring or reorganization of a sentence's logical scale. As was already pointed out, this scale consists of an ordered set of a sentence's analytic implications. These implications may contribute to relevance by making available a context to the hearer ('background' implications) or by providing contextual effects ('foreground' implications). We have already seen that when objects occur as full NPs they tend to be focal, or, in relevance-theoretic terms, they constitute foregrounded material bringing about either the 'new focus' effect in the case of postverbal objects or the 'emphatic' or 'contrastive focus' effect in the case of preverbal objects. We also saw that nominal subjects tend to be associated with topical or backgrounded material; in section 3.2 of chapter 3 it was argued that the use of full subject NPs in languages which encode subjects by verbal inflection is pragmatically motivated in that their presence allows the hearer to keep track of the discourse background. What we should predict, then, is that when these backgrounded subjects and foregrounded objects occur as open (non-adjacent) dependents of a verb, they should be associated with a greater range of effects. These (otherwise unobtainable) effects would thus count as the compensation for overriding the grammatical \( \langle--\text{v—}\rightarrow\rangle \) PP which otherwise imposes a preference for non-

\(^{29}\)A dependent is defined as open if it is not adjacent to its head.
open dependents. This can indeed be shown to be the case, and the occurrence of a subject or object as an open dependent seems to affect the degree of back-/foregroundedness with which these categories are associated.

More specifically, it can be shown that violating the non-open-dependency principle results in an **intensification** or more **emphatic projection** of the property associated with these non-open-dependents; while thus, a subject will always tend to be backgrounded, when occurring as an open dependent this backgrounded effect will be intensified. So too the level of foregroundedness usually associated with objects will be similarly intensified when the object occurs as an open dependent. To take just one example, compare (23) and (24) below, which show the SVO, OVS and the VOS, VSO, SOV and OSV orders of the utterance ‘The sky is full of stars’ together with the positional occurrence of the backgrounded subject nominal (backS) and the foregrounded object noun (foreO) in brackets. The open dependents are shown underlined:

(23) (a) O uranos echi astra. [backS-V-foreO]
    [the sky]nom has-3s stars-acc
    (b) Astra echi o uranos. [foreO-V-backS]

(24) (a) Eχει ἄστρα ὁ ὀυρανός. [V-foreO-backS]
    (b) Echi o uranos astra. [V-backS-foreO]
    (c) O uranos astra echi. [backS-foreO-V]
    (d) Astra o uranos echi . [foreO-backS-V]

In (23a, b) both the subject and the object are adjacent to their verbal head in accordance with the non-open dependency preference. The subject in (23a, b) is backgrounded either in that it is linguistically or situationally present in the previous discourse, or in that it sets the background for the rest of the utterance; in the latter case, (23a and b) could both well be a discourse-opening statement in which the subject would be introducing a new
By contrast, such a role could not be played by the open subject dependent in (24a, c). In fact, (24a, c) could only be used if the speaker was looking at the stars or was talking about the sky at the time of the utterance. In other words, the open subject dependent in (24a, c) disallows any reading whereby it would introduce a new topic. More to the point, this open subject dependent is associated with a more intensified degree of back-groundedness; by reinstating itself as part of the background it invites the hearer to pay special attention to its referent. I shall call this the 'strong topic' effect.

Similarly, in (23a, b) the object dependents are non-open and are associated with the normal range of effects outlined in section 5.3.1 above. By contrast, the open dependency between the verb and its object dependent in (24b, d), by allowing the object to be singled out from its verb host, results in the object being foregrounded in isolation, i.e. not as part of the entire predication. Hence the more intensified degree of the object’s fore-groundedness. In other words, the intervention of the nominal subject between the verb and the focal object makes this o-focus stronger. It is precisely this more intensified degree of the object’s fore-groundedness which renders these two orders highly dispreferred as discourse initial utterances in contrast to the SVO and OVS orders in (23a, b). Recall that the object in SVO is of the type ‘new focus’ whereas in OVS it is of the type ‘emphatic or contrastive focus’. While thus, the object dependents will always tend to be ‘new focus’ (postverbally) and ‘emphatic/contrastive focus’ (preverbally), when occurring as open dependents they will communicate these effects to a stronger degree; whatever properties of ‘newness’, ‘emphasis’, or ‘contrast’ are inherently associated with object dependents they will be intensified when these objects occur as open dependents. I shall call this the ‘strong focus’ effect. A similar effect has been discussed by Weil (1978 cited in Andersen 1983: 61) with respect to Greek constructions concerning modifier/modifying elements (in our terms head and dependents).

In particular, Weil suggests that if a speaker wishes to render very prominent one of the two ideas expressed by the modifier or the modifiee, he inserts material in between the two with the effect of separating the element intended as more prominent from the rest of the construction. The net result of inserting material between a dependent and its

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2Dik (1989) calls such subjects ‘Newtop’ in that they do not resume an already established topic but introduce instead a new topic.
head is, of course, to create an open dependent. As an example, consider (25) below (adopted respectively from Dukidou’s novel 1994: 81):

(25) ..............................................>

Εικόνες ανοιγαν αλλεπάλληλες.
images-nom open-3pl successive-nom
‘There opened successive images.’

In (25) above the canonical order of elements of which the NP ‘successive images’ consists are interrupted by words outside the scope of the NP; the verb ‘opened’ interrupts the otherwise adjacent pair ‘successive images’. In this way a more emphatic reading is prompted of the dependent element.

Returning to the examples in (23, 24), it should, of course, be pointed out that that there is a further difference between (24a, b) and (24c, d) arising from the fact that the latter also violates the v—>o PP which is associated with either contrastive or emphatic effects on the preverbal objects in Greek.

Examples from the corpus provide further evidence for the intensified effects displayed by open dependents. Taking the subject first (26) below illustrate the ‘strong topic effect’ associated with open subject dependents shown underlined:

(26) (a) Εχει πράγματι ενα μεγάλο πολιτικό μήνυμα αυτό το
has indeed a big political message [this the
βιβλίο.
book]nom
‘This book does indeed have a great political message.’
V. Vasilikou ‘Aksion Esti’. ET2 17.7.94.

(b) Το πρόγραμμα αυτό το κυβερνητικό καμμιά σχέση
[the program this the governmental]nom [none relation]acc
dεν έχει με τις ρητορείες πίσω από τα μπαλκόνια τις
not has-3s with the rhetoric behind from the balconies the
προεκλογικές.
pre-electoral
'This government's program bears no relation to the pre-election rhetoric.'
Samaras' statement at the Greek Parliament, 12.7.94.

Example (26a) was uttered during a TV arts review. The people who took part in this program discussed and reviewed a history book which had recently been published. Therefore the subject 'αυτό το βιβλίο' (this book) is already part of the background context since the book itself is the very topic of the program's discussion. However, by reinstating this rather obvious backgrounded referent of the subject noun the speaker invites the hearer to draw particular attention to it. It is as if the speaker intended a message along the lines: 'here is your background which you already know but it is important to keep it in mind, not to lose sight of it, that is why I repeat it.' This marked topic reading would not be available for a non-open dependent subject. Note also that the use of the pronoun 'αυτό' (this) with the subject noun points to the same effect of highlighting the relevance of this backgrounded element to the overall utterance in (26a). A similar pronoun appears with the subject noun in (26b). The referent of this subject too can be retrieved from the preceding discourse and its repetition here serves to emphasize its significance for the development of the utterance.

Further evidence for this intensification of the backgrounded subject referent comes from utterances in which the subject open dependent is a tonic pronoun, shown underlined in the exchange in (27) below:

(27) A: Τι κάνατε με το θέμα της προσφυγής;  
what did-1pl with the issue [the appeal]gen  
'What did you do in relation to the court appeal?'

B: Εμείς τίποτα δεν κάναμε.  
we nothing not did-1pl  
'We did nothing.'
In this case, the referent of the subject is totally manifest, through being physically present, and therefore the use of the pronoun as subject noun has a 'strong topic' reading, calling for special attention on the part of the hearer.

Similarly, examples can be found in the corpus displaying the 'strong focus' effect associated with an open object dependent. Two of these examples are given in (28) below, with the open dependent underlined again:

(28)  (a) Εξει το παιδάκι της σταφυλόκοκκο.
     ha-3s [the children]nom staphylococcus-acc
     'Her child had a staphylococcal infection.'
     TELECITY, 12.7.94.

     (b) Ιδέα η Μίνα δεν είχε.
     idea-acc [the Mina]nom not had-3sg
     'Mina had no idea.'

As already pointed out, the object open-dependents 'σταφυλόκοκκο' (staphylococcus) and 'ιδέα' (idea) are associated with a stronger focal degree brought about by the object's standing out from its verb host. Note that the postverbal or preverbal object NPs in (28a) and (28b) respectively retain their status as newfoc or confoc. However, their ordering here, in violating the <---v--> PP, communicates a stronger, more intensified degree of these inherent properties of newsworthiness and contrastivity (or emphasis in the case of emphatic preverbal o-foci).

Apart from this 'strong topic/focus' effect outlined above in relation to overriding the non-open dependency PP, a final point worth noting is also the following: given that, as shown above, subject NPs tend to be part of the background whereas, as already seen, object NPs usually belong to the foreground, it follows that overriding the <---v--> PP offers the speaker a means of allocating or arranging these back- and foreground parts of an utterance in various ways. This is by no means a trivial result of overriding the non-open-dependency principle; following the relevance-theoretic analysis, the order in which one accesses a word of an utterance and the concept that this word expresses affects
one's processing of this utterance. Thus the overriding of the non-open dependency PP makes available the entire range of possible permutations for processing an utterance.

In sum, I argued that overriding the \(<---v--> PP not only offers the speaker a means of rearranging the allocation of back- and foregrounded elements of an utterance but it is also associated with a 'strong topic/focus' effect on the subject and object open dependents. This effect concerns the more emphatic reading of the subject's backgroundedness, along with the more intensified interpretation of the foregrounded object. It is precisely these more elaborate effects which render the orders overriding the non-open-dependency principle less likely to appear in discourse-opening statements in contrast to SVO and OVS orders.

5.4 Conclusion

This chapter has dealt with the question of what motivates the occurrence of the less common, more marked word orders in Greek. At first I presented various ideas in relation to word order variation and more specifically the correspondence between topics and subjects and between objects and foci. I also discussed various linearization hierarchies and the role of cognitive factors, in particular the role of 'relevance' (Sperber & Wilson 1986), affecting linear order. This presentation set the context for the discussion of the Greek examples of those word orders which override the system of preference principles outlined in the previous chapter. In particular, I dealt with the interplay between syntax and pragmatics governing Greek word order flexibility, the idea being that the syntax imposes a (processing-motivated) system of preference on the language; overriding this system entails increased processing cost/complexity which is compensated by otherwise unachievable pragmatic effects in accordance with Sperber's

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\(^{22}\)It has been argued (Hopper 1987), for example, that verb-initial orders orient the hearer towards the actions in which participants are involved whereas noun-initial orders are oriented towards the participants themselves, i.e. they predicate about how these participants dispose, behave, act, etc. This verb-vs. noun-orientation is also responsible, following Hopper, for the dynamic, event-oriented, narrative and reportive nature of verb-initial orders vis-à-vis the more stative, durative and descriptive character of the noun-initial orders. However, this effect does not arise exclusively from overriding the non-open-dependency preference principle like the effects that I have been discussing in this section.
and Wilson’s Principle of Relevance.

More specifically, overriding the v→o PP was argued to bring about a particular o-focus effect. Whereas postverbal objects are of the type ‘new focus’, it was shown that preverbal o-foci may be either emphatic or contrastive, the difference being in whether or not the entity expressed by the o-focus contrasts with another entity which may be stated in or inferred from the immediately preceding discourse. In relation to the overriding of <←v→> PP, it was suggested that the rewards for overriding the <←v→> PP are twofold: (i) a full range of options as far as the allocation of back- and foreground parts of the logical scale of an utterance, and (ii) an effect associated with open dependents; open subject and object dependents were argued to convey a stronger, more intensified degree of their respective backgrounded and foregrounded properties which requires greater contextualization. This would explain the heavy dispreference for orders containing open dependents to appear discourse-initially.

On the whole, Greek word order flexibility can be viewed as a preference-based, relevance-driven phenomenon according to which the most preferred orders are ultimately those which achieve a pragmatic effect most economically; on the other hand, overriding these preferred orders leads to more elaborate effects, thus compensating for the extra processing cost associated with less preferred orders.

Self-evidently, of course, given the present absence of any extensive corpus of spoken MG the preliminary observations and explanations offered above should be further fleshed out. What is more, there certainly exist issues for further research: the relation, for example, between word order and discourse types, textual aspects of word order which concern the extent to which cohesion and coherence may influence particular choices of word order patterns in specific places in a text, stylistic correlates of word order, etc. Still, one significant point raised by the present discussion is that the study of word order should be based on contextualized examples and thus cannot be solely confined to introspective examples.
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Appendix: database

SVO orders

1. Δεκάδες δημοσιογράφοι ντυμένοι με καλοκαιρινά μπλούζικα είχαν πάει τη θέση τους στο γκαζόν του κήπου της καγκελαρίας.
ETI 11.7.94

2. Πριν από τέσσερα χρόνια άλλοι πέντε παχύσαρκοι έχασαν τη ζωή τους προσπαθώντας να χάσουν κιλά.
ETI 13.7.94

3. Ο διεθνής οργανισμός ζητά από την κυβέρνηση πιθανές αλλαγές στο ασφαλιστικό σύστημα.
MEGA 8.7.94

4. Η έκθεση του διεθνούς νομισματικού ταμείου σύμφωνα με τηλεγράφημα του πρακτορείου υπερτονίζει την ανάγκη αλλαγών στο ασφαλιστικό σύστημα της χώρας.
MEGA 14.7.94

5. Ο Πρόεδρος του ΠΑΣΟΚ έκανε ιδιαίτερη αναφορά.
SKY 21.7.94.

6. Ο κόσμος Κώστας Λαλιώτης ανέλυσε τα συμπεράσματα.
SKY 14.7.94.

7. Η υποψηφιότητα του κου Πάγκαλου επισκιάζει τις εργασίες του συνεδρίου.
SKY 14.7.94.

8. Ο Μιλτιάδης Εβερτ αναζητεί υποψήφιο.
SKY 14.7.94.

9. Ο Κων/νος Μητσοτάκης προτείνει τον κο Στεφανόπουλο.
SKY 14.7.94.

10. Ο κός Στεφανόπουλος απέρριψε την πρόταση.
SKY 14.7.94.

11. Η αγωνία των χιλιάδων υποψηφίων παίρνει τέλος.
SKY 14.7.94.

12. Αντιπροσωπεία τραπεζικών κατέθεσε πρόταση.
SKY 14.7.94.

13. Ο διοικητής της Εθνικής προετοιμάζει και προτάσεις.
SKY 14.7.94.

VOS orders

14. Γέμισε τουρίστες η Ελλάδα και η Κύπρος αυτό το καλοκαίρι.
15. Εχει σειρά η κυρία τώρα.
16. Εχει και τα καλά της η Μαρία.
17. Σημείωσε άνοδο η δραχμή σήμερα στο χρηματιστήριο.
ETI 11.7.94

18. Εχει εδώ και δύο χρόνια πάθει καθίζηση ο τουρισμός της Τουρκίας.
SKY 13.7.94

19. Εχει δίκιο ο κος Σαμαράς.
SKY 12.7.94

20. Αλλάξε πορεία η μύγα.
ANTENNA, 12.7.94, Εκπομπή της Ρ. Βαγιάνη.

21. Θα σπαταλάει μισή ώρα ο πελάτης να μπει μέσα.
ETI 12.7.94

22. Με επιφύλαξη και δυσαρέσκεια αντιμετώπισαν το νέο μέτρο οι ιδιοκτήτες νηστειακών κέντρων.
SKY 13.7.94

23. Θα πάθουν στραβισμό οι ίδιοι.
ET2 12.7.94, Εκπομπή του Β. Βασιλικού: Ο Αξιον εστί.

24. Ψάχνει αιτίες αυτή.

25. Ήχερε γαλλικά η γιαγιά μου.

26. Συμπικνώνει τώρα το μηχανισμό της Ρηγίλλης ο Εβερτ.
ETI 13.7.94
27. Από τις Μικρές Αγγελίες εντόπιζαν τα θύματά τους τα μέλη της σπείρας εκβιαστών.

MEGA 15.7.94

28. Έχει πράγματι ένα μεγάλο πολιτικό μήνυμα αυτό το βιβλίο.

ET2 17.7.94, Εκπομπή του Β. Βασιλικού: Αξιον εστί

29. Στο σημείο που βρίσκεται η μόδα στην Ελλάδα έχουμε μια ευθύνη όλοι.

SKY 17.7.94, Εκπομπή της Λ. Κανέλη: Τσάι με Κανέλη.

30. Κέρδισε τις εκλογές η Λουκία.

SKY 17.7.94, Εκπομπή της Λ. Κανέλη: Τσάι με Κανέλη.

31. Έχει δέκα παραμέτρους το πράγμα.

SKY 17.7.94, Εκπομπή της Λ. Κανέλη: Τσάι με Κανέλη.

32. Έχουνε βάλει συναγερμό η Ιφιγένεια.

33. Μελετά αλλαγές στο ασφαλιστικό η κυβέρνηση.

SKY 19.7.94.

34. Στη Στροφιλία της Ηλείας συνέχισαν την επιχείρηση κατεδάφισης αυθαιρέτων οι μπουλντόζες του υπουργείου περιβάλλοντος.

SKY 20.7.94.

35. Έχει καλή ομάδα ο Αρης.

SKY 20.7.94

36. Ναι, αλλά δεν έχει καλή θάλασσα η Λούτσα.

37. Κόβει πεύκα ο οργανισμός σχολικών κτιρίων.


38. Προκάλεσε τα κόμματα για πρόεδρο ο Άνδρεάς.

ΕΛΕΥΘΕΡΟΤΥΠΙΑ, 22.7.9, σ.3.

39. Εγκατέλειψε τα γκάλοπ ο Εβερτ.

ΕΛΕΥΘΕΡΟΤΥΠΙΑ, 22.7.9, σ.7.

40. Αυτή τη στιγμή κάνουν εισηγήσεις μέλη του ΠΑΣΟΚ της νομαρχιακής οργάνωσής Αθήνας.

ANTENNA 21.7.94

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41. Ανακάλυψε την Αμερική ο κος Πάγκαλος.
ANTENNA 1.8.94
42. Δε θα υποστηρίξει την υποψηφιότητα Δογοθέτη το στέλεχος του ΠΑΣΟΚ στον Πειραιά Ευάγγελος Βλασόπουλος.
SKY (radio) 3.8.94
43. Δεν έχει περιγραφή αυτή η φρίκη.
SKY 8.8.94
44. Ετοιμάζει συνδυασμό και ο Παπασπύρου.
ΕΛΕΥΘΕΡΟΤΥΠΙΑ, page title, 11.8.9.
45. Έχει την αρμοδιότητα αυτή ο δήμος.
SKY 20.7.94
46. Έχει λαϊκό ύφος ο δίσκος.
47. Ακριβαίνουν το χρήμα οι εμπορικές τράπεζες.
48. Θέλει δέκα χρόνια το Εσύ.
49. Οπου να ναι θα χτυπήσει την πόρτα εκείνος ο δυστυχισμένος.
II. Πρεβελάκη: Ο Ήλιος του θανάτου, Εστία 1984: 164.
50. Κάνει και σήμερα θάματα η Παναγιά.
II. Πρεβελάκη: Ο Ήλιος του θανάτου, Εστία 1984: 208
51. Έχει άστρα το αυραντός.
52. Κουλουριασμένος χάμω, είχε σηκώσει το κεφάλι ο ασκητής, ...
N. Καζαντζάκη: Αναφορά στον Γκρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 221.
53. Τέντωσε το χέρι του ο πάτερ Αγάπιος, ...
N. Καζαντζάκη: Αναφορά στον Γκρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 213.
54. Έχεις ζωή εσύ.
55. Ηδή έχουν προβλήματα οι ξενοδόχοι.
Δήλωση Παπακωνσταντίνου, Υποργού τουρισμού στο ΜΕΓΑΛΟ ΚΑΝΑΛΙ 11.7.94.
56. Έχει και ψυχοθεραπευτική ικανότητα ο χορός.
VSO orders

57. Έχω κι εγώ τά προβλήματά μου.

58. Και πάλινο εγώ φοβερή φόρα...
ANTENNA, 12.7.94, Εκπομπή της Ρ. Βαγιάννη.

59. Ισώς έπεσες κι εσύ θύμα της ομορφιάς σου.
ANTENNA, 12.7.94, Εκπομπή της Ρ. Βαγιάννη.

60. Δεν προβλέπει ο κανονισμός εφόδους γονέων και κηδεμόνων.
MEGA, 13.7.94, ΤΡΕΙΣ ΧΑΡΙΤΕΣ.

61. Είχε το παιδάκι της σταφυλόκοκκο.
TELECITY, 12.7.94, Εκπομπή του Β. Παπαδόπουλου: Ραντεβού στις 3.00μμ.

62. Έχουμε και τα παιδιά το περιοδικό τους.
TELECITY, 12.7.94, Εκπομπή του Β. Παπαδόπουλου: Ραντεβού στις 3.00μμ.

63. Τραγούδησε ο Μάκης ακόμα ένα τραγούδι.
TELECITY, 12.7.94, Εκπομπή του Β. Παπαδόπουλου: Ραντεβού στις 3.00μμ.

64. Έχουμε στην ελληνική οικογένεια εκμηδενίσει εμείς το λάθος.
TELECITY, 12.7.94, Εκπομπή του Β. Παπαδόπουλου: Ραντεβού στις 3.00μμ.

65. Στις 27.7 έχει προγραμματίσει η κυβέρνηση τη συζήτηση του προγράμματος σύγκλισης με τις οικονομίες των υπολοίπων χωρών-μελών της Ευρωπαϊκής Ένωσης.
SKY, 12.7.94.

66. Γέμισε η βάρκα νερό.
SKY, 15.7.94.

67. Αποδοκίμασε η Κυβέρνηση με δήλωση του Γιώργου Κουβέλακη την οξεία επίθεση που εξαπέλυσε ο βουλευτής του ΠΑΣΟΚ Γιώργος Ανωμερίτης.
SKY 3.8.94.

68. Εγατέλειψε ο Γ. Π ξαφνικά την αίθουσα την ώρα του σεμιναρίου.
Γ. Γιατρομανωλάκη: Ανωφελές Διήγημα, Κέδρος 1993: 79.

69. Έχει και το Λίγιο τα ψηλά αλώνια του.
Καθημερινή 14.8.94.

70. Καταλάβαινε ο ξένος τη γλώσσα μας.
II. Πρεβελάκη: Ο Ηλιος του θανάτου, Εστία 1984: 166.
71. Είχαν και ο Αι-Δημήτριος κι η Ασύτρα παιδιά.
II. Πρεβελάκη: Ο Ηλιος του θανάτου, Εστία 1984: 194.
72. Κατά τα ρούχα, δίνει ο Θεός το κρύο.
II. Πρεβελάκη: Ο Ηλιος του θανάτου, Εστία 1984: 223.
73. Μύριξε ο αγέρας συκόφυλλο.
N. Καζαντζάκη: Αναφορά στον Γκρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 147.
74. Μα πίσω από το σταυρό και το διπλωτσέκουρο ξεκρίνω εγώ και
προσκυνώ, αναμερίζοντας τα εφήμερα σύμβολα, τον ίδιο Θεό.
N. Καζαντζάκη: Αναφορά στον Γκρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 150.
75. Σωπάσαμε μια στιγμή και γέμισε ο μοναστηρισμός αέρας ερωτικό
αναστέναγμα.
76. Πήραν οι Ελληνες από την Ανατολή το πρωτόγονο ένστικτο, την
οργιαστική μέθη, τη κτηνώδη κραυγή, την Αστάρτη.
N. Καζαντζάκη: Αναφορά στον Γκρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 166.
77. Ποτέ πια στα χρόνια ύστερα που πλάκωσαν, ποτέ δε φέραμε, ο
φίλος μου κι εγώ, την αθιβολή για τις άγιες δονκιχωτικές ετούτες
ώρες.
N. Καζαντζάκη: Αναφορά στον Γκρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 207.
78. Ξέχασε ο Παχώμιος τα πέτρινα περιστέρια που φιλιούνταν.
N. Καζαντζάκη: Αναφορά στον Γκρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 277.
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79. Πιέσεις για την άρση του εμπάργκο σε βάρος των Σκοπίων άσκησαν στον Κάρολο Παπούλια στη Νέα Υόρκη ο Μπουτρος Γκάλι και ο Σάιρους Βάνκ.

ΣΚΑΙ 12.7.94

80. Το δελτίο καιρού προσφέρουν τα κλιματιστικά DELONGHI.

MEGA 12.7.94.

81. Συντονισμένη επίθεση ξένων κέντρων με σκοπό να πλήξουν τον ελληνικό τουρισμό αποτελούν ξέκαθαρα πλέον οι τρεις βομβιστικές επιθέσεις που έγιναν στη Ρόδο σε διάστημα μικρότερο των 24 ωρών.

SKY 12.7.94.

82. Μόνο μια δήλωση εκαναν οι εφτά.

ΕΤΙ 11.7.94.

83. Μεγάλα πρόστιμα όμως μέχρι και 200.000 δρχ. θα πληρώνουν και οι ιδιοκτήτες ξενοδοχείων που δεν κόβουν εισιτήριο.

MEGA 11.7.94.

84. Την απάντηση δίνει το ελληνικό γραφείο της Greenpeace στο τελευταίο τεύχος του περιοδικού ΝΕΑ ΟΙΚΟΔΟΜΙΑ.

Περιοδικό ΕΙΝΑΙ, τεύχ. 170: 31, τίτλος άρθρου: Τα οικολογικά ψυγεία, 16.8.94.

85. Την απονομή προλόγισε ο θεατρικός κριτικός Κώστας Γεωργουσόπουλος.

Περιοδικό ΕΙΝΑΙ, τεύχ. 170: 86, κοσμική στήλη, 16.8.94.

86. Καταναλωτικά δάνεια σε συνάλλαγμα θα χορηγούν πλέον όλες οι τράπεζες σε όλους τους έλληνες.

ΑΘΗΝΑ 1.8.94.

87. Νέα γενική συνέλευση πραγματοποιούν αύριο οι εργαζόμενοι στο Νεώριο Σύρου.

SKY 3.8.94, η πρόταση.

88. Την απάνθρωπη, μεσαιωνική συμπεριφορά των ανδρών της Ασφαλείας κατά τη ματαφορά του στο Τζάνειο, καταγγέλει με γράμμα
του από το νοσοκομείο όπου νοσηλεύεται σε κρίσιμη κατάσταση ο
Οδυσσέας Καμπούρης που ευρίσκεται στην 45η ημέρα απεργίας πείνας.
ΕΛΕΥΘΕΡΟΤΥΠΙΑ 5.8.94.
89. Μέτρα ζητούν όλοι.
ΕΛΕΥΘΕΡΟΤΥΠΙΑ 5.8.94.
90. Εντονή ανησυχία αλλά και διαίτερες αντιδράσεις έχει προκαλέσει
η τριπλή βομβιστική επίθεση της Ρόδου.
SKY 12.7.94.
91. Αλλο φωτισμό θέλει το υπνοδωμάτιο,
92. αλλο φωτισμό θέλει η κουζίνα,
93. αλλο φωτισμό θέλει το ξενοδοχείο,
94. αλλο φωτισμό θέλει το νοσοκομείο κλπ.
SKY 14.7.94.
95. Ευθύνες στην αστυνομία επιρρίπτει ο πατέρας των δύο νέων που
τραυμάτησε σοβαρά ο Λάζαρος Κάργας όταν έπαθε αμόκ την Κυριακή
το μεσημέρι στο Ευνό Νερό Φλώρινα.
SKY 13.7.94.
96. Τζίρο δισεκατομμυρίων δραχμών έχουν κρύψει από την Εφορία
εκατοντάδες εμπορικές και τουριστικές επιχειρήσεις σύμφωνα με το
υπουργείο οικονομικών.
SKY 13.7.94.
97. Α: διαπιστώσατε άλλα τραύματα;
Β: όχι, άλλα τραύματα δεν είχε ο Κουρτέσης.
LGR.
98. Αυτήν ακριβώς την περίλαμψη θέση κατέλαβε, για λίγο πάντως,
ο δράστης ανηκούστου εγκλήματος.
Γ. Γιατρομανωλάκη: Ανωφελές Διήγημα, Κέδρος 1993: 111.
99. Αυτήν την αποτρόπαια πορεία ποέβλεπε το αρχικό σχέδιο του Γ.
Πεπάνω στο χάρτη, ασχέτως αν για διάφορους λόγους δεν μπόρεσε να
την πραγματοποιήσει με την ακρίβεια που την είχε χαράξει.
Γ. Γιατρομανωλάκη: Ανωφελές Διήγημα, Κέδρος 1993: 175.
100. Θερινές ομορφιές του κρητικού γιαλού δεν έδειχναν οι φωτογραφίες ούτε ωραία ημίγυμνα κορμιά να βουτούν στα κύματα και να λουζούνται.


101. Βουνά άγρια έδειχναν και οι δύο, χωρίς δροσιά και σκιερή χαρά.


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102. ...αισθάνομαι λίγο σαν την πικροδάφνη. Δεν πειράζει, και οι πικροδάφνες λουλούδια έχουν.

ANTENNA, 12.7.94, Εκπομπή της Ρ. Βαγιάννη.

103. A: Τι κάνατε με το θέμα της προσφυγής για την αποκατάσταση των ζημιών του μαγαζιού;

B: Εμείς τίποτα δεν κάναμε.

104. A: Είπες της δικηγόρου ότι η προσφυγή πρέπει να γίνει σύντομα;

Της έδωσες την εντύπωση ότι βιαζόμαστε;

B: Ναι, εγώ, αυτό είπα.

105. Εγώ ένα πράγμα δεν καταλαβαίνω.

106. Το πρόγραμμα αυτό το κυβερνητικό καμμιά σχέση δεν έχει με τις ρητορίες πίσω από τα μπαλκόνια τις προεκλογικές.

Δήλωση Σαμαρά στη Βουλή, 12.7.94.

107. Και η Τζάν Κόλινς ένα πέρασμα έκανε από τη δυναστεία κι έμεινε για έξι χρόνια.

ANTENNA, 12.7.94, Εκπομπή της Ρ. Βαγιάννη.

108. Εμείς τηλέφωνο έχουμε επάνω οπότε μπορούμε να του το αφήσουμε.

109. Οι νέοι λίγα πράγματα γνωρίζουν.

110. A: Τι συνέβει;

B: Σάματις έξερω; εγώ τα αμπελοφάσουλα φύλαγα.

Ελληνική ταινία: Η Σκλάβα, ET2 15.7.94.

111. Κι αν οι Σουηδοί είναι πικραμένοι που δεν πήγαν ένα σκαλί πιο
πάνω και όπως δηλώνουν θέλουν να αποχαιρετήσουν τις ΗΠΑ κανόντας το καθήκον τους, οι Βούλγαροι δυο λόγους έχουν να θέλουν τη νίκη.

112. A: Δεν έχετε δικηγόρο;
B: Ναι, εδώ έξω καφεδάκι πίνει. Κι εγώ καφεδάκι έπινα αλλά το διέκοψα.

Ελληνική ταινία: Η σωφερίνα, SKY 17.7.94.

113. A: Κανένα λότο έπαιξες;
B: Ναι, ένα.
A: Εγώ τρία έπαιξα.

114. Οι άγγελοι στόμα έχουν, μιλιά δεν έχουν.

Ν. Καζαντζάκη: Αναφορά στον Ικρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα 1982: 152.

115. Η Βαγίτσα τρία αγόρια έχει.

B: Κι η μαμά μου ραδίκια πήρε.

117. A: Πήγα στον Κωτσόβολο να δω για ένα ηλεκτρικό ματάκι.
B: Α, εχω πάρει πολλά και φτηνά πράγματα από τον Κωτσόβολο.
A: Εγώ ένα ματάκι θέλω.

118. A: Είναι γνωστός φιλόλογος και συγγραφέας ο κος Καργάκος.
B: Ναι, το τελευταίο του βιβλίο κι εμένα βοήθησε.

ET2 19.7.94, Εκπομπή του B. Βασιλικού: Αξιον εστί

119. A: Εγώ, έξερεις, αντι να παίρνω μπουκάλια σάριζα πηγαίνω στην πηγή και παίρνω ωραίο φρέσκο νερό.
B: Κι εγώ αυτό κάνω.

120. Η Αθήνα δήμαρχο χρειάζεται κι όχι οπορτονιστα δελφίνο.
Δήλωση Εβερτ στον ANTENNA 21.7.94.

121. Απέφυγε καμάρες και δημοσιογράφος. Ο Αντώνης Ανδρονίδης ούτε κουβέντα δεν είπε για το πάθος που τον τύλιξε και σκότωσε τον αντίξηλό του.
ANTENNA 21.7.94.
122. Εμείς τον Παύλο παντρευτήκαμε, όχι τη μάνα του.
123. Κι εμείς τη Λένα παντρευτήκαμε, όχι τη μάνα της.
ΜΕΓΑΛΟ ΚΑΝΑΛΙ, σήριαλ: Οι Μικρομεσαίοι, 7.8.94.
124. Εκεί η φύση τα στοιχεία της όλα έχει συγκράσει...
Γ. Πιτρομανωλάκη: Ανωφέλες Διήγημα, Κέδρος 1993: 22.
125. Και τα ρυάκια, από μυστικές πηγές ξεκινώντας, το αιώνιο ρεύμα
tους οδηγούν και τον διψαμένο λάρυγγα ψυχαίνουν και ζωγονούν.
Γ. Πιτρομανωλάκη: Ανωφέλες Διήγημα, Κέδρος 1993: 146.
126. Πέρυσι η Greenpeace είχε προωθήσει στην αγορά το πράσινο ψυγείο
που χρησιμοποιεί ως ψυκτικό μέσο το προπάνιο, το βουτάνιο, ή μίγμα
tους. Τα αέρια αυτά ούτε το όζον βλάπτουν ούτε το κλίμα της γης,
eνώ...
Περιοδικό ΕΙΝΑΙ, τεύχ. 170, τίτλος άρθρου: Τα οικολογικά ψυγεία, σελ.
31, 16.8.94.
127. Εγώ ένα πράγμα ξέρω:
128. Ο δικός μου ο χωρισμός, κανέναν δεν πονάει.
Ν. Καζαντζάκη: Αναφορά στον Ικρέκο, Εκδόσεις Ε. Καζαντζάκη, Αθήνα
1982: 322.
129. Δυο άνθρωποι μια μπριζόλα φάγανε.
130. Η πρώτη βουλή μοναδικό έργο έχει ...
ΕΤ1 12.6.95
131. Το θέατρο μόνο καλό κάνει.
ΑΝΤ1 13.6.95
132. Και αυτός θόρυβο κάνει.
133. Δυο άνθρωποι μια μπριζόλα φάγανε.
134. Και ο ανεμιστήρας θόρυβο κάνει.

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135. Πολύ θόρυβο αυτός ο δρόμος απέκτησε.
136. Ύγεια και πρόνοια η Αγγλία έχει.
137. Τέτοια κείμενα κανείς βρίσκει στη Γαλλία αλλά όχι στην Ελλάδα.
138. Ιδιαίτερο ενδιαφέρον η συζήτηση απέκτησε λίγο αργότερα.
139. Α: Σώθηκες με αυτό το διαμέρισμα.
B: Το συζητάς; Οσο ζω θα ευγνωμονώ τη μάνα σου.
A: Μα τα πόδια της είχε φάει η καμμένη να ψάχνει από δω κι από κει
B: Αυτό παρακαλώ να την έχει ο Θεός καλά λι αυτήν κι εσάς.
140. Α: Τα πόδια της η καμμένη είχε φάει.
141. Τις ιστορικές πληροφορίες η Ρέα Γαλανάκη επεξεργάζεται και
εντάσσει στο δικό της πρωτότυπο κείμενο.
Περιοδικό ΓΡΑΜΜΑΤΑ και τέχνες, τεύχ. 70, Αθήνα 1993: 9.
142. Τις εννέα επιστολές του ο Ρηγόπουλος απευθύνει στη Δοίζα κατά
tις οκτώ τελευταίες μέρες του 1988.
Περιοδικό ΓΡΑΜΜΑΤΑ και τέχνες, τεύχ. 70, Αθήνα 1993: 9.
143. Ψύχραιμη στάση η Τουρκία τήρησε μόνο για ένα 24ωρο.
LGR 3.7.94.
144. Αυτές τις υποσχέσεις η Αγγλία απαρνήθηκε.
LGR 3.7.94.
145. Ιδέα η Μίνα δεν είχε.
146. Ζήλεια όλοι έχουνε.
147. Ξένα έργα εγώ δεν βλέπω.
148. Τις εικόνες της Μαρκετάκη ουδείς ουδέποτε αμφισβήτησε.
Περιοδικό ΕΙΝΑΙ 16.8.94, σελ. 25.
149. Την ανωτέρω φράση ένας φιλόλογος με γνώσεις πληροφορικής θα
dιετύπωσε ως εξής: ...
ΒΗΜΑ, 23.10.94.
150. Αποφάσεις επί του θέματος η Κυβέρνηση θα λάβει την Τετάρτη.
LGR 4.7.95.
The sentences shown above and the data used for statistics have been collected from a variety of sources, mostly spoken, listed below:

- **TV channels:** ET1, ET2, MEGA, SKY, ANTENNA, TELECITY
- **Radio:** Α Πρόγραμμα, Αθήνα, SKY, London Greek Radio
- **(Secretely) recorded conversations**
- **Newspapers:** Βήμα, Καθημερινή, Ελευθεροτυπία, Τα Νέα
- **Magazines:** Γράμματα & Τέχνες, Είναι
- **Novels:**