

# Clitics and doubling in Greek\*

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*Abstract.* In this paper I present an analysis of Greek clitic doubling following Philippaki-Warburton (1994 and 1998) where the clitic is merged as the argument of the verb and the coreferent DP is an adjunct. I advocate a right-dislocation analysis for clitic doubling (against Anagnostopoulou 1994, Schneider-Zioga 1994, Papangeli 2000) which differs from previous analyses in proposing that the lexical DP is an adjunction to VP rather than IP (Philippaki-Warburton *ibid.*). To support the analysis, I rely on arguments for the status of clitics as syntactic words, independent evidence from *wh*-, and Null Operator structures and configurational arguments from small clauses and control structures where clitics appear with coreferent adjunct NPs. The evidence and the arguments presented show that clitics participate in dependencies with DPs in a uniform fashion, in internal argument position and the coreferent DP in an adjoined position. Right-dislocation phenomena with an intonational break are analysed as instances of IP adjunction; discussed also in relation to clitic-doubling and the Uniformity Hypothesis.

## 1. Introduction

Clitics have been a very controversial issue for the theory of grammar and clitic-doubling, naturally, has been no exception. The original point of disagreement in the literature has been the movement vs. base-generation theories of clitics (see Kayne 1975, Quicoli 1980 a.o. for a movement analysis and Rivas 1977, Strozer 1976 a.o. for a base-generation analysis). Since then, the discussion and the theory have developed towards more specific and more technical issues and the movement vs. base-generation distinction has been further refined.

In what follows, based on Philippaki-Warburton (1994) (contra Anagnostopoulou 1994, 1999, Alexiadou & Anagnostopoulou 1999, 2000, Schneider-Zioga 1994, Papangeli 2000)<sup>1</sup>, I present an analysis for Greek clitics according to which clitic pronouns are generated as arguments of the verb and then move to a higher functional category. When such an

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<sup>1</sup> For detailed discussion and argumentation see Androulakis (forth.).

analysis is applied to clitic doubled constructions it entails that the doubled DP is in a peripheral A-bar position and plays a role other than that of an argument since that is already satisfied by the clitic. The discussion concerns direct object clitic doubling; it is expected that the analysis can be carried over to indirect object clitic doubling with some refinements that regard properties of indirect objects or double object constructions for that matter.

In section 2 I present and discuss the analysis proposed. In section 3 raises some objections to a DP-argument analysis. Section 4 discusses the evidence for clitics as syntactic words. In sections 5, 6 and 7, evidence from focus, *wh*- and Null Operator Structures (NOS), in favor of the proposed analysis, is provided. Section 8 offers, in favor of our analysis, configurational evidence from clitic-doubled adjunct DPs such as small clauses. Section 9 comments on the Uniformity Hypothesis with regard to the analysis proposed.

## ***2. The proposed analysis***

Basically, there are two possible approaches to the cl-DP dependency, based on the original controversy over clitics, each approach making possible a number of analyses:

- 1) clitics are morphemes<sup>2</sup>
- 2) clitics are words<sup>3</sup>
  - a. clitics are arguments of the verb
  - b. clitics are non-arguments

I will defend the view (contra Anagnostopoulou 1994, Alexiadou & Anagnostopoulou 2000, Schneider-Zioga 1994) that in so-called clitic doubling constructions, clitics are arguments of the verb and the doubled DP is in adjunct position, drawing arguments from the following:

1. independent phonological, morphological and syntactic evidence that clitics are syntactic words;
2. evidence from DP-clitic dependencies, such as *wh*-plus-clitic and Null Operator Structures, in these cases, the doubled DP appears in a

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<sup>2</sup> Early analyses include: a) clitics are base-generated as morphemes bound to a verb [<sub>v</sub> cl-V] (Joseph 1988, Strozer 1976, Rivas 1977), b) clitics are complex agreement morphemes, heads of a phrase and they are in a spec-head relationship with an NP (Sportiche 1993). For a more extensive discussion of alternative analyses see Androulakis (forth.).

<sup>3</sup> For an analysis of clitics generated in complement NP position and then moving to attach to a host see Kayne 1975, Warburton 1977 for Greek a.o.

non-argument position but these constructions do not exhibit movement effects as would be expected under an argument-DP analysis;

3. configurational evidence that doubled DPs are in adjunct position.

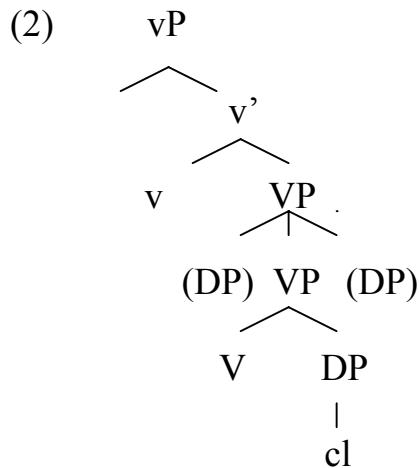
In other words, I will show that clitics in dependencies are not different than simple clitics as discussed in Philippaki-Warbuton & Spyropoulos (1999). In the first place, there is no reason to assume that dependent clitics are different from simple ones. Moreover, the data from clitic dependencies indeed show that they are not. There are two distinct theoretical advantages to this solution. First, it captures the uniformity of pronominal clitics across the language, offering thus a typological perspective as well. Second, it makes it possible to explain clitic phenomena in configurational and semantic terms without further stipulations.

Our approach differs in one respect from previous analyses for Greek. It has been proposed for Greek clitic doubling structures (see Philippaki-Warbuton 1994) that clitics are generated as arguments of the verb and the doubled DP is an adjunction to IP. The presented analysis suggests that in clitic doubling structures the doubled DP is a dislocated element adjoined to VP. In a language which lacks VP-ellipsis, like Greek does, it is hard to test and discover positive evidence that will distinguish between VP and IP adjunction. Significantly, note that there is no theoretical reason that would not allow adjunction to VP. On the other hand, our analysis seems to explain data such as in (1).

- (1) *to edose to vivlio, o Vasilis*  
 it-CL gave-he the book, the Vasilis  
 ‘He gave the book, Vassilis’

In (1), there is a dislocated element after the intonational contour indicated by the comma. Even if multiple adjunctions to IP are postulated, this does not explain why the intonational contour occurs before the last element *o Vasilis* but cannot occur before the doubled DP *to vivlio*. Were both DPs adjunctions to the same XP, we should be able to have the same intonational reading for both. Instead, (1) shows that *to vivlio* is adjoined lower, to VP, than *o Vasilis* adjoined to IP.

Schematically, the right-dislocation analysis proposed for Greek clitic doubling is presented below:



In (2) the clitic is merged as the complement DP of V and the coreferent DP as a VP adjunct. Following Philippaki-Warbuton (1994), the characteristics of clitic, viz. their semantic and accentual weakness motivate the movement by which clitics move to head adjoin to the node containing Agr. The fact that clitics are generated as maximal projections but move as heads is the well-known controversy of clitics (see also Chomsky 1995). Whether the doubled DP is left- or right-adjoined is open in (2). The issue concerns whether one adopts Kayne's (1994) prohibition on right adjunction. Although the presented analysis is based on the premise that the doubled DP is an adjunct and therefore differs from Kayne (1994) where it is generated as a complement<sup>4</sup>, it is still compatible with the framework of Kayne (1994) where right adjunction is prohibited. To derive the sequence [cl<sub>i</sub>-V DP<sub>i</sub>] by (2) the verb moves to check features of Agr and T and the clitic moves and left-adjoins to Agr for feature checking; by a morphophonological rule, the clitic attaches to V.<sup>5</sup> I will now proceed to discuss briefly some further objections to a DP-argument analysis and then present the arguments for the status of clitics as syntactic words. Then I will move on to present the data from DP-clitic dependencies and the configurational evidence of the adjunct properties of the doubled DP from small clauses and ECM.

<sup>4</sup> Significantly, in the framework of Kayne (1994) clitic doubling and right-dislocation with an intonational contour are not configurationally differentiated. The right-dislocated DP is not dislocated but is assumed to have a specific intonational/interpretive status.

<sup>5</sup> For alternative derivations, see discussion in Androulakis (forth.).

### 3. *Further objections to clitic doubling*

The adjunction site of the dislocated DP, VP or IP, is significant insofar as it concerns the distinction between clitic doubling and clitic right dislocation. According to (2) clitic doubling is essentially analysed as right dislocation, making thus the term clitic doubling descriptively misleading. However, the term will continue to be used for purposes of exposition.

Let us take a closer look at the clitic doubling/right-dislocation debate. Traditionally, what is referred to as clitic doubling is the phenomenon by which a DP which is the internal argument of a verb appears with a clitic pronoun with which it agrees in features and which is attached to the verb. Strictly speaking then, the analysis that is adopted here does not acknowledge Greek clitic doubling as such.

On the other hand, typically, dislocation constructions are characterized by a special intonation contour that is indicated by a comma before the dislocated phrase.<sup>6</sup> According to Vallduvi (1990), this construction in Catalan has a specific informational task which is to stress  $V^0$  or a projection of  $V^0$  and the clitic in these constructions is obligatory. Similarly enough, Philippaki-Warburton (1987) claims that in Greek the clitic has a topicalization effect. The presence of the clitic puts the object into background information and makes it the topic. When the object is backgrounded through the use of the clitic then it is possible to put the main stress on the verb and make it the focus or contrast etc.

Anagnostopoulou (1999), in discussing the case of indefinite doubled NPs provides some arguments against the right dislocation hypothesis for doubling in Greek. There are two observations in Anagnostopoulou (1999) that I would like to take a closer look at. First, she remarks that in cases of right dislocation “the object tends to occur in a sentence final position (to the right of adverbial elements like *efxaristos*<sup>7</sup> ‘gladly’) and the adverb or the verbal complex must be heavily stressed”. Certainly, in cases of right dislocation the object does tend to appear at the end of the sentence which has a specific intonation contour, indicated by a comma. Observe, however, the following examples that contradict the definition above.

<sup>6</sup> However, right-dislocation does not exhibit the same properties in all languages and analyses differ. For example, according to Zubizarreta (1994), right dislocation in Peninsula Spanish does not necessarily require a clitic while on the other hand Jaeggli (1986) has argued against the right dislocation hypothesis for Spanish.

<sup>7</sup> The definition refers to the classic example by Kazazis & Pentheroudakis (1976):

(1) to pino efxaristos ena uzaki (K & P 1976)  
 it-CL drink-I with-pleasure one ouzo-little  
 ‘I drink it with pleasure, one little ouzo’

- (3) a. tu milisa enos pedju anixta  
 him-CL talked-I the child-GEN openly  
 b. tu milisa anixta enos pedju  
 him-CL talked-I openly the child-GEN  
 c. ton thelo enan andra  
 him-CL want-I one man-ACC  
 d. me ton fovo to odijis ena pedi stin apoksenosi  
 with the fear it-CL lead-you one child to-the alienation  
 ‘With fear, you lead a child to alienation’

According to the definition adopted by Anagnostopoulou the example in (3b) would be an instance of right dislocation<sup>8</sup> considering that the DP appears to the right of the adverbial element *anixta* ‘openly’, but (3a) would be an instance of clitic doubling, a difference determined ad hoc by the definition above. To make matters worse, (3b) is acceptable without a specific intonation contour. (3c) is an example of an indefinite doubled NP without a heavily stressed adverb which is a diagnostic of right-dislocation. (3c), however, is acceptable without heavy stress on the verb. Instead, the reading on the verb is that of topicalization, the what-the-sentence-is-about effect rather than the focused element. Consider also (3d) which does not meet any of the diagnostics of the right-dislocation definition above. The object is not in sentence final position and not to the right of an adverbial element; moreover, a heavily stressed adverbial appears in initial position. Would (3d) be an instance of right-dislocation or clitic doubling in this case? The examples in (3) indicate that the clitic doubling vs. clitic right dislocation, being quite loose in syntactic and pragmatic terms is clearly inadequate. Instead, the view defended here is that clitic doubling and right dislocation involve adjunction to different categories, the former to VP and the latter to IP. Significantly, this view is acknowledged as a plausible explanation by Anagnostopoulou (1999) as well. Again, testing VP or IP as adjunction sites, is hard but the difference in (4) and (5) indicates that our analysis may be on the right track. (4) concerns the observation in Anagnostopoulou (1999) and Alexiadou & Anagnostopoulou (2000) that it would be impossible for a right dislocated object to intervene between the verb and a postverbal focused subject<sup>9</sup>, if this is true then (4) cannot be a right-dislocated structure and therefore it is an instance of clitic doubling.

<sup>8</sup> The argument holds for both definite and indefinite DPs.

<sup>9</sup> This prediction is attributed to Vallduvi (1990) and Zubizarreta (1994).

- (4) tin efaje tin turta O JANIS  
her-CL ate-he the cake THE JANIS

At first sight, our analysis may be running against a problem with (4). However, upon closer look the problem lies with the sentence itself because the focused reading in (4) cannot be obtained<sup>10</sup>. Instead, the dislocated reading, that of a hanging topic, is obtainable in (5).

- (5) a. tin efaje o Janis tin turta  
her-CL ate-he the Janis the cake  
b. tin efaje tin turta, o Janis  
her-CL ate-he the cake, the Janis

(5) is evidence that there are indeed two adjunction sites available in Greek, VP for doubled DPs (5a) and IP for hanging topics (5b), probably regardless of phrasal categories.

#### 4. *Clitics are syntactic words*

The analysis presented here has two basic premises: first, that clitics indeed qualify as internal arguments of the verb and second, that the dislocated DP is in an adjunct position. Philippaki-Warburton & Spyropoulos (1999) have shown that clitics are syntactic words providing phonological, morphological and syntactic evidence. Their arguments are presented below in brief; the reader is referred to Philippaki-Warburton & Spyropoulos (1999) for a detailed discussion. Clitics are shown to affect the trisyllabic rule (see Joseph and Warburton 1987, for a more detailed presentation of stress and its rules in Greek see Triantafyllides 1984 or Holton, Mackridge and Philippaki-Warburton 1997), a phenomenon not observed with inflectional and derivational products or compound words. Also, clitics, like words, appear with a euphonic *-e*. Morphologically, clitics pattern with the corresponding strong pronouns, carrying features of case, gender, number and person.

In syntax, Greek clitics are optional elements, their appearance being constrained by pragmatic factors, but not by grammatical processes. In a number of cases, clitics ‘introduce’ topics as has also been argued by Philippaki-Warburton (1985), (1987), Theophanopoulou-Kontou (1986-

<sup>10</sup> For the un/availability of the focused reading without clitic-doubling of the object see Georgiafentis (in this volume).

1987), Philippaki-Warburton and Stavrou (1986), Stavrou (1984) and Tsimpli (1995). This view, namely that the DPs which appear with clitics are dislocated and function as topics, is further supported by the fact that these DPs cannot be focalized, that is, they cannot be the emphasized constituent of the sentence. The contrast between topic and focus phrases has been witnessed in *wh*-plus-clitic constructions and NOS in Greek as well to be discussed in later sections.

A further argument I would like to add to those listed by Philippaki-Warburton and Spyropoulos (1999) is that Greek clitics do not trigger allomorphic changes either in the pronoun itself or the word they attach to like they do, for example, in European Portuguese (Spencer 1991). European Portuguese pronominal clitics may even intervene between tense and aspect affixes which means that clitics interact with inflectional affixes, a fact which indicates that they may be inflectional affixes themselves. Conversely, Greek clitics do not interact with inflectional affixes either in ordering or morphological changes.

Consider also the way clitics or clitic clusters enter a morphophonological relationship with the following verb.

- |     |                                       |                                     |
|-----|---------------------------------------|-------------------------------------|
| (6) | a. to eδosa → to'δosa<br>it-CL gave-I | to akusa → t'akusa<br>it-CL heard-I |
|     | b. apo eδo → apo'δo<br>from here      | apo akri → ap'akri<br>from edge     |

Leaving the issue of the ordering of rules aside,<sup>11</sup> (10) shows that clitics pattern in exactly the same way with words, such as prepositions, when it comes to morphophonological rules.

Moreover, if Greek clitics are assumed to be nominal affixes, there are two more facts that are not accounted for. First, clitics seem to double CPs as well as DPs.

- (7) to katalaveno (to) oti o Nikos ine epifilaktikos  
it understand-I (the) that the Nikos is hesitant  
'I understand (it) that Nikos is hesitant'

The first observation that can be made here is that the clitic seems to agree with the complement CP which can also be nominalized by the article to. This seems to contradict the claim that the clitic is an argument and the

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<sup>11</sup> The ordering of syntactic, morphological and phonological rules is significant and relevant to any discussion of clitics but beyond the scope of the present work. The similarity between (6a) and (6b) remains.



doubled XP an adjunct.<sup>12</sup> On the other hand, Iatridou and Embick (1997) have shown that subject agreement affixes do not agree with CPs.

- (8)       \*[oti o Nikos ine epifilaktikos] epise tin Ana na kani  
           to proto vima  
           that the Nikos is hesitant convinced the Ana *na* makes  
           the first step  
           ‘That Nikos is hesitant convinced Anna to make the first step’

If the clitic is an agreement affix, it is not explained why a subject agreement affix does not agree with CPs while an object agreement affix does.

Second, the doubled DP does not receive nuclear stress in the sense of Zubizarreta (1998) according to whom “the terminal element dominated solely by prominent constituents within a phrase is designated as the rhythmically most prominent one within that phrase” (Zubizarreta 1998:72). In other words, the doubled DP should be able to receive nuclear stress if it is an argument. However, as shown in (9), a doubled DP cannot receive nuclear stress, while a non-doubled DP can.

- (9)       a. eδosa to vivlio  
           gave-I the book  
           b. \*to eδosa to vivlio  
           it-CL gave-I the book

This point was originally made for Greek in Philippaki-Warburton (1987).

### 5. Evidence from focus constructions

Focus phrases in Greek appear in-situ or in a fronted position after a process of operator movement. A significant argument in favor of our analysis comes from the fact that focus phrases in Greek, be they in-situ or in a fronted position, cannot be doubled by clitic pronouns.

- (10)      a. (\*to<sub>i</sub>) epise to KREAS<sub>i</sub>  
           it-CL baked-s/he to MEAT

<sup>12</sup> An alternative is suggested in Tsimpli (1990) whereby the clitic is an expletive element.

b. to KREAS<sub>i</sub> (\*to<sub>i</sub>) epsise  
 the MEAT it-CL baked-s/he

Our analysis explains the judgements in (10) in a straightforward manner. The clitic and the focus DP compete for argumenthood when only one argument is permitted. One of the two receives case or a  $\theta$ -role, leaving the other one uninterpretable.

## 6. Evidence from *wh*-constructions

In Androulakis (1998) the status of clitics as internal arguments is defended with evidence from constructions where *wh*-phrases occur with a coreferential clitic. *Wh*-plus-clitic constructions have been analyzed as topic or D-linked constructions (see Androulakis 1998 for references and discussion). These constructions do not display the movement effects that *wh*-movement structures do. From such an observation we conclude that the *wh*-phrase is merged in its fronted position. Considering also the arguments presented in section 4 about the status of clitics as syntactic words, *wh*-plus-clitic constructions provide strong evidence that supports such an analysis. The independent evidence provided below indicates that the two dependencies bear one significant similarity, an argument clitic pronoun is coindexed with an adjunct phrase. Observing this parallelism, the question that arises is whether both *wh*-plus-clitic and clitic-right-dislocation structures can be derived by the same underlying structure. By the analysis presented in (2) and Androulakis (1998), the answer is negative. There is, however, a significant generalization that our clitic doubling analysis captures successfully: clitic dependencies are uniform in one respect at least: clitics are A-elements, coindexed with an A'-element for semantic reasons and the differences between *wh*-plus-clitic and right dislocation constructions can be attributed to factors pertaining to their distinct characteristics. I will leave aside the specifics of these other factors (for conditions on clitic doubling and *wh*-plus-clitic configurations see Androulakis 1998 and references therein) and I will proceed to review briefly the evidence for absence of *wh*-movement in *wh*-plus-clitic structures.

### 6.1 *wh*- as [-qu]

*Wh*-phrases that appear with a coreferential clitic have a different interpretation from *wh*-phrases that occur without a clitic which receive a

topic reading of the kind *of which x, is it true that...* Compare the following examples; (11) is ambiguous with respect to the relative scopes of *posus maθites* ‘how many students’ and *kaθe kaθijitis* ‘every teacher’, while in (12) *posus maθites*, that is doubled by a clitic, can only take wide scope.

- (11)     posus maθites eksetase kaθe kaθijitis  
           how-many students examined-he every teacher  
           ‘How many students did every teacher examine?’  
           *Every teacher examined the same X students*  
           *Teacher A examined X students, teacher B examined Y*  
           *students etc.*
- (12)     posus maθites tus eksetase kaθe kaθijitis  
           how-many students examined-he them-CL every teacher  
           ‘How many students did every teacher examine (them)?’  
           *Every teacher examined the same X students*

What (11) and (12) show is that the ambiguity of the relative scopes of the DPs in (11) is explained by the fact that the *wh*-phrase is a quantifier. In (12) on the other hand, the *wh*- that appears with a clitic can only take wide scope and therefore is not a quantifier<sup>13</sup>. Under a structural determination of quantifiers, the *wh*-phrase in (11) is in a position that hosts quantifiers, that of [Spec, CP] while the reading of (12) indicates that the *wh*-phrase is not in such a position. Conversely, the clitic in (12) does not receive the same interpretation with the variable in (11). By elimination, the reasoning is the following: is this *wh*-phrase is not a quantifier by virtue of its position and it cannot be in an argument position either, it is therefore an adjunct. And if the *wh*-phrase is an adjunct, then the clitic must be the argument. This is further supported by the absence of movement effects in *wh*-plus-clitic constructions.

## 6.2 Parasitic gaps

Parasitic gaps in Greek occur marginally or not at all<sup>14</sup>. Notice the following contrast.

<sup>13</sup> The position where such *wh*-phrases are generated has been argued to be a D-linked position (Iatridou 1990, Anagnostopoulou 1994) or a topic position (Androulakis 1998).

<sup>14</sup> As Eric Haeberli (p.c.) points out there may be no reason for talking about parasitic gaps in the context of this construction, given that the clitic is required in A-binding contexts as well. I agree with his point, in both terminology and essence, but the

- (13) a. ?pja vivlia  $\delta$ anise o Nikolis [ $\chi$ oris na  $\delta$ javasi e]  
 which books lent-he the Nikolis [without *na* reads]  
 ‘Which books did Nikolis lend without reading?’  
 b. pja vivlia  $\delta$ anise o Nikolis [ $\chi$ oris na ta  $\delta$ javasi e]  
 which books lent-he the Nikolis [without *na* them-CL reads]  
 ‘Which books did Nikolis lend without reading them?’

In *wh*-plus-clitic constructions parasitic gaps are not licensed, a fact that indicates lack of a variable and consequently, lack of movement, thus supporting a non-*wh*-movement analysis:

- (14) a. \*pja vivlia ta  $\delta$ anise o Nikolis [ $\chi$ oris na  $\delta$ javasi e]  
 which books them-CL lent-he the Nikolis [without *na* reads]  
 b. pja vivlia ta  $\delta$ anise o Nikolis [ $\chi$ oris na ta  $\delta$ javasi e]  
 which books them-CL lent-he the Nikolis [without *na* them-CL reads]  
 ‘Which books did Nikolis lend them without reading?’

From (13) and (14) we can draw two important conclusions. First, in (13a) a parasitic gap is marginal but unavailable in (14a) where the *wh*-phrase appears with a coreferent clitic. This indicates absence of a variable that would license the parasitic gap in the adjunct phrase; absence of such a variable entails absence of movement and we conclude again that the *wh*-DP is generated in its surfacing position and the clitic in internal argument position. Second, (13a) shows that empty operators are not available in Greek, a fact with significant consequences for null operator structures (see section 7 below). The presence of clitics can be explained if one postulates a case visibility requirement for  $\theta$ -marking in Greek.<sup>15</sup> Whatever the possible explanation for the presence of clitics in such constructions, the lack of *wh*-movement in (14a) is witnessed and the argument holds.

### 6.3 WCO

Weak crossover effects are not witnessed in *wh*-plus-clitic constructions.

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discussion on ‘parasitic gaps’ remains to illustrate the impossibility of extending the assumed parasitic gap analysis to Greek and because the phenomenon of Greek parasitic gaps has implications of clitic doubling.

<sup>15</sup> See Spyropoulos (2000) for clitics in small clauses.

- (15) pja jineka<sub>i/\*j</sub> ti<sub>i</sub> χorise o andras tis<sub>i</sub>  
 which woman<sub>i/\*j</sub> her-CL<sub>i</sub> divorced the husband her<sub>i</sub>  
 ‘Which woman<sub>i</sub> did her<sub>i</sub> husband divorce?’

As required by the leftness condition, a *wh*-trace cannot be coindexed with a pronoun to its left. In (15) we see that the opposite is true, the *wh*-phrase must indeed be coindexed with the pronoun on its left<sup>16</sup>. An analysis that does not posit movement for (15) predicts this fact without invalidating the leftness condition as a generalised grammar principle.

#### 6.4 *Wh-islands*

Clitics void (at least partially) *wh*-island constraint violations in *wh*-plus-clitic constructions.

- (16) a. \*pja jineka mu ipe o Nikolis pote θa χorisi  
 whom woman me told-he the Nicholas when will divorce-he  
 ‘Which woman did Nikolis tell me when he will divorce?’  
 b. ?pja jineka mu ipe o Nikolis pote θa ti χorisi  
 whom woman me told-he the Nicholas when will her-CL  
 divorce-he  
 ‘Which woman did Nikolis tell me when he will divorce  
 (her)?’

By our analysis, on the other hand, (16) is explained by simply assuming that the clitic in (16b) satisfies the necessary requirements of the verb thus escaping the island violation of (16a).<sup>17</sup> Notice that the Subjacency

<sup>16</sup> As pointed out by Eric Haeberli (p.c.) the WCO argument would be more convincing if it were the case that only when a clitic is present is coreference possible. In other words, if a clitic is not present, the coreference is impossible. However, the data are not clear on this (see also section 8.2).

- (1) pja jineka<sub>i/j</sub> χorise o andras tis<sub>i</sub>?  
 which woman<sub>i/j</sub> divorced the husband her<sub>i</sub>

<sup>17</sup> Similarly, clitic pronouns have an effect on CNPC violations although they do not succeed in saving them.

- (1) a. \*pjon pistevis ti fimi oti θa apolisun t  
 whom believe-you the rumor that will fire-they  
 ‘Whom do you believe the rumor that they will fire?’  
 b. ?pjon pistevis ti fimi oti θa ton apolisun  
 whom believe-you the rumor that they will him-CL fire-they

violation remains. Regardless of the marking on (16b) and how Subjacency or a similar notion<sup>18</sup> applies to non-movement structures, the difference between (16a) and (16b) remains.

### 7. Evidence from NOS structures

Clitic pronouns in Greek are also present in structures that have been claimed to involve generation and movement of an empty operator. For the purposes of the present work, the discussion will be limited to *tough*- and purpose clauses. Parasitic gaps were briefly discussed in section 6.2 above and it was claimed that empty operator movement is not available in Greek. In interrogatives and relatives (see section 6), a clitic is optional, while in so-called NOS<sup>19</sup> it is obligatory.

- (17) ?o Janis ine diskolos na \*(ton) katalavis  
 the Janis is difficult *na* him-CL understand-you  
 ‘Jannis is difficult to understand (him)’
- (18) eferan mazi tus ton Jani [<sub>RatC</sub> ja na \*(tu) milisun]  
 brought-they with them-CL the Jani for *na* him<sub>[GEN]</sub>-CL talk-  
 to  
 ‘They brought Janni along to talk to (him)’

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If one examines CNPC effects further it becomes evident that the facts are somewhat different than *wh*-islands. In (2) extraction is out of a complex NP which is also a *wh*-island. Our analysis would not predict the ungrammaticality of (2).

- (2) \*pja jineka ynorizis to pedi pu ti dagose  
 which woman know-you the kid that her-CL bit  
 ‘Which woman do you know the kid that bit her?’

I cannot provide a satisfactory explanation for the (2) as it compares to (1) and *wh*-islands. It is possible that it is a question of bounding but I will not pursue this matter here. The difference in (16) constitutes a sufficient argument for the role of the clitic.

<sup>18</sup> Assuming that Subjacency is a principle that applies to movement, it is possible that some other principle that determines the non-locality of non-movement structures is in operation here.

<sup>19</sup> The NOSs being discussed here are *tough*- and purpose clauses. Purpose clauses are of three kinds (Browning 1991): rationale, subject and object purpose clauses. Subject purpose clauses as in (1), not pertaining to the phenomenon of clitic doubling, are not discussed here.

- (1) eferan mazi tus ton Jani [<sub>SPC</sub> na milisi ja ton eafto tu]  
 brought-they with them-CL the Jani *na* talk-he about the self his-CL  
 ‘They brought Janni long to talk about himself’

- (19) eferan mazi tus ton Jani [<sub>OPC</sub> (ja) na \*(ton) γnorisun stin Ana]  
 brought-they with them-CL the Jani (for) na him-CL  
 introduce to-the Ana  
 ‘They brought Janni along to introduce (him) to Anna’

Null operator structures have been assumed to involve the generation of an empty category in argument position whether that is an operator (see Chomsky 1981) or a little pro operator (see Browning 1991). Greek clitics present two problems for this analysis: first, we have independent evidence that the clitic is an internal argument. We have no direct evidence that would lead us to claim that simple clitics are arguments but dependent clitics are not. Indeed, it would be desirable to formulate an analysis that would account for simple clitics and dependent clitics in a similar manner. The second problem regards the interpretation of the clitic.

Clitics bound by *wh*-phrases in interrogatives can be interpreted as quasi-referential elements.<sup>20</sup>

- (20) pjon ipalilo ton epjases na klevi  
 which employee him-CL caught-you *na* steals  
 ‘Which employee did you catch (him) stealing?’

By the referential interpretation, there is a group of people, known to both speaker and hearer, who qualify as *x*. (20) presupposes knowledge of the group and also the assumption that someone was caught stealing. The referential reading is obtained here by extension and to the extent that the properties of the *wh*-phrase allow it.

In cases of NOS, as in relatives too, the clitic is interpreted referentially. We have discussed questions and relatives elsewhere (see Androulakis 1998) and have proposed an analysis by which the *wh*-phrase is base-generated in topic position and a clitic appears in argument position. The referential interpretation of the clitic in NOS indicates that the clitic is dependent on the DP directly and not an operator. Quantifiers, too, do not appear to bind referential elements. By principle, as noted also by Evans (1980), when a pronoun is bound by a quantifier it does not make sense to ask what it refers to as in (21).

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<sup>20</sup> The variable interpretation is also possible but secondary. The bound variable interpretation would be something along the lines of *which x, you caught x stealing*.

- (21) kaθe maθitis θeli na ton proseχis  
 every student wants *na* him-CL pay-attention-you  
 ‘Every student wants you to pay him attention’

By the same argument, if the *wh*-phrase in (20) was a quantifier, the clitic in (20) would not be able to refer.

If we dispense with the idea of an empty element in Greek we still have to account for the structural dependency that holds between the NP and the clitic. And bearing all that in mind, the NP-clitic dependency should ideally be subject to the same semantic relation that has been shown to hold in the case of interrogatives and relatives. This should be so because the relation of the DP to the clitic or the XP that contains the clitic appears to be semantically constrained. It has been proposed that it is a predication relation and the DP (whether it is considered a topic or not) in these constructions is the thing or entity about which the predicate is true.

### 7.1 Browning

Browning (1991) explains this relationship by an analysis which proposes that On Wh-Movement (OWM) constructions do not involve null operators as these have been defined in the literature but instead an operator *pro* which, in the same way as subject *pro*, is identified via a kind of agreement. The agreement relation that holds between the subject of predication and the predicate in this case is set up by an agreement chain. By Browning’s analysis predicates that are not licensed by virtue of a  $\vartheta$ -relation between the head of the predicate and the subject as in *John*<sub>subject</sub> [<sub>predicate</sub> *gave*<sub>head</sub> *it to him*], must be linked to their subjects by an agreement chain which holds between the subject of predication and the category in the specifier of the predicate, namely *pro*<sub>op</sub>.

There are several advantages in adopting Browning’s analysis for Greek. First, the pronominal features that *pro*<sub>op</sub> and pronominal clitics share. In the cases where a clitic is optional, its empty alternative is closer to *pro* than an empty operator. Second, the obligatory coreference of the clitic and the DP is guaranteed without the stipulation of an additional mechanism that would be needed to account for the [DP, clitic] long-distance dependency. On the other hand, in order to adhere to Browning’s analysis it must be assumed that clitics do not originate in argument positions but that instead the argument position is occupied by a *pro*. However, there is evidence which makes Browning’s theory not viable for Greek: 1) clitics are syntactically independent lexical items (see section 4),



2) parasitic gaps are not licensed in Greek (see 6.2) and 3) it has yet to be shown that *pro* objects are available in Greek.<sup>21</sup>

### 7.2 An alternative

It is true that the DP in NOS structures is semantically connected to the clitic or the XP containing the clitic. This notion can be expressed either in terms of the notional subject of Kiss (1995)<sup>22</sup> or in terms of Browning's subject-predicate relation with the modification that the subject agree with a clitic pronoun contained in the predicate.

Alternatively, what we propose (see also Androulakis 1999) is that the DPs in NOS structures are topics or CLLDed elements, hence the obligatory nature of the clitic. True, topicalization or CLLD is subject to predication or some formulation thereof. Evidence for such an analysis is provided from a) the topic reading of NOS structures and b) the lack of movement phenomena that can be observed by the same tests that were applied to *wh*-plus-clitic structures.<sup>23</sup> By this approach, CLLD, *wh*-plus-clitic and NOS have identical configurations and the  $[NP_i [XP \dots cl_i \dots]]$  dependency is subject to the same semantic relation; the obligatory coreference of the clitic and the DP is established without further stipulations. For *wh*-plus-clitic and NOS we assume, considering that we have absence of movement and we also eliminated the operator, that there is a Top feature in Greek and that it is weak. If a DP has to check a topic feature in the domain of the head of a TopP (see previous work and Rizzi 1997) the DP will not be attracted by a weak Top feature and we will have absence of movement. Case and  $\theta$ -assignment are satisfied by a clitic in argument position. Since the topic DP has interpretable features, number, person and gender, it must be linked to an argument position which matches these features. The dependency then is not the product of a syntactic operation Move driven by some morphological requirement. As

<sup>21</sup> In fact, a generic *pro* has been stipulated for Greek in a limited range of environments in Heila-Markopoulou (1988), for clitic doubling with *pro* see also Papangeli (2000).

<sup>22</sup> The semantic interpretation of the topic as the notional subject is discussed in Kiss (1995). The *notional* subject is not identical with the *grammatical* subject, though they may coincide in certain cases, such as in the case of a Gk preverbal subject. According to the theory of Discourse Configurability (see Kiss 1995), the semantic function of topic (and/or focus) is associated with a particular structural position. Indeed, in Gk an XP that is a topic cannot receive a topic interpretation in situ but has to appear in a preposed position and at the same time be doubled by a clitic.

<sup>23</sup> For reasons of exposition I will not list all these phenomena. The data are comparable to those in section 6.

Rizzi (1997) observes with regard to comparative data from Romance and English, the parameter that differentiates these two is the non-availability of a null anaphoric operator for the former. Null operators and clitics are functionally equivalent in that they establish the connection between the topic and the “open” position in the comment. What we are saying then for Greek is that the clitic is this so-called open position. From a minimalist point of view, this is quite acceptable.

So far, we have argued that CLLD, *wh*-plus-clitic and NOS are a uniform phenomenon. We can now generalize and looking at the distribution of clitics across the language instead of just instances of clitic dependencies, we will see that the DP-clitic pair is a general phenomenon, in topics, interrogatives, relatives, NOS and clitic-doubling (it may also be the case that something similar is happening with lexical subjects and *pro*). The DP-clitic is a pair, a formal object interpreted at LF and it is by definition a pair just as a *wh*- and a trace are a formal object, by definition a pair.

### *7.3 Binary vs. singular substitution*

We have proposed a DP-clitic pair, a formal object assumed to be introduced by binary substitution (Generalized Transformation) instead of a singular substitution Move  $\alpha$ . Consider Tsai’s (1997) original Lexical Courtesy Hypothesis whereby binary substitution has intrinsic priority over singular substitution on grounds of economy and the Last Resort Principle (Chomsky 1995). This is in accordance with minimalist principles with further arguments by Tsai (1997) why binary substitution has priority over singular substitution. First, it is a conceptual necessity since the computational component of our linguistic faculty must have something to operate upon, i.e. something to relate to something else and second, binary substitution is the only way to weave phrase markers into a single piece and is thus the minimal requirement for legitimate PF interpretation. If the only syntactic operation is Move  $\alpha$  only on the grounds of morphological requirements, what can be more minimalist than moving nothing?

In addition, note that the DP-clitic dependency that we have proposed does not interfere with chain formation by movement. It is a chain in that it is an object to be interpreted at LF, it is a pair of positions, and it appears to satisfy the conditions on chains, namely the *c*-command, the uniformity and the Last Resort condition, although I do not wish to go into the technical details here. Our chain differs from chains derived from movement in one respect; according to Chomsky (1995:251) “under the

copy theory of movement a two-element chain is a pair  $[\alpha, \beta]$ , where  $\alpha = \beta$ . Since we distinguish among distinct selections of a single item from the lexicon, we can be sure that such pairs arise only through movement”.

There is an issue that presents itself when we consider the chain pair in our dependency. In a chain derived from movement  $\alpha = \beta$  but in our “chain”  $\alpha$  does not equal  $\beta$  but  $\alpha$  is identical to  $\beta$ . Surely, the [DP, cl] chain differs from a movement-formed chain, but this does not affect a copy theory of movement in any way. The fact, that in [DP, cl] chains the members of the chain are not equal but identical is what predication accounts for; the identity of the subject of predication with an open position or, in the case of Greek, a clitic pronoun. Considering that we have introduced the NP-clitic chain by binary substitution, we could reconsider the idea of predication.

#### 7.4 Indexical dependency

Let us consider the observation  $\alpha$  is identical to  $\beta$ . If we look at the relationship that holds between  $\alpha$  and  $\beta$  outside the structural dependency and the without the semantic assumptions of predication, we basically have a relationship of indexical dependency. This indexical dependency is not redundant considering the operation of binary substitution; it is not a rule that operates on  $[\alpha, \beta]$  but follows directly from the process of binary substitution itself.

One way of expressing this indexical dependency is in terms of the Dependency Theory outlined by Fiengo and May (1994). The fundamental notion of Dependency Theory is that an occurrence of an index may be dependent on another or independent of other occurrences. An occurrence that is independent of others is an  $\alpha$ -occurrence and one that is dependent on another is a  $\beta$ -occurrence. Indices are complex objects made up of an indexical type,  $\alpha$  or  $\beta$ , and an indexical value, indicated by a numeral. In (22a and b) for example Fiengo and May argue that although in both sentences the name/pronoun pairs are coreferential they come by this coreference in different ways in virtue of their indexical type. Roughly, but not totally accurately, (22a) and (22b) correspond to instances of accidental coreference and bound anaphora respectively.

- (22) a. John <sup>$\alpha$</sup> <sub>1</sub> saw his <sup>$\alpha$</sup> <sub>1</sub> mother  
 b. John <sup>$\alpha$</sup> <sub>1</sub> saw his <sup>$\beta$</sup> <sub>1</sub> mother  
 c. John <sup>$\alpha$</sup> <sub>1</sub> saw his <sup>$\alpha$</sup> <sub>2</sub> mother

## (23) realization of ID

The advantage of Dependency Theory for clitic dependencies of the sort we have been discussing is that it distinguishes between binding of one occurrence by another and dependency of one occurrence on another, assuming a linguistic connection for both cases. In other words, it distinguishes accidental from obligatory coreference. If we apply this to our dependency we would have pronouns as  $\beta$ -occurrences and DPs as  $\alpha$ -occurrences in binary substitution expressing in this way, with the aid of Dependency Theory, the fact that the interpretation of these pronouns depends on context for their values. Considering the semantic weakness of clitic pronouns and their dependence for reference, it is quite reasonable to assume that clitics are  $\beta$ -occurrences whose syntactic occurrence is licensed through association with dependencies. In other words, the characterization of clitics as  $\beta$ -occurrences follows from their inherent properties without any further stipulations needed.

The only assumption we have to make regarding the semantic conditions that license DP-clitic dependencies is that a  $\beta$ -occurrence, dependent on context for interpretation, is not intrinsically unqualified to refer and, as we would expect, it will be allowed to depend only on any DP that denotes reference or may be construed as referring. Pronouns bearing  $\beta$ -occurrences are compatible with quantificational and referential antecedents. Our analysis is supported by examples of bare plurals and bare indefinite DPs characterized by non-referentiality and non-specificity, DPs which cannot be clitic doubled.

- (24) bires ine anθijiino na (\*tis) pinis prin to fajito  
 beers is unhealthy *na* them-CL drink-you before the meal  
 ‘Beers are unhealthy to drink (them) before a meal’
- (25) bira ine anθijiino na (\*tin) pini kanis prin to fajito  
 beer is unhealthy *na* drink someone before the meal  
 ‘Beer is unhealthy to drink (it) before the meal’

These types of DPs will not qualify either as quantificational or referential antecedents, the two kinds of antecedents that  $\beta$ -occurrences are compatible with. Conversely, clitics can be present with quantified phrases:

- (26) oles tis bires ine anθijino na \*(tis) pini kanis prin to fajito  
 all the beers is unhealthy *na* them-CL drink someone before  
 the meal  
 ‘All the beers are unhealthy to drink (them) before a meal’
- (27) kaθe bira ine ijiino na (tin) pini kanis prin to fajito  
 every beer is healthy *na* her-CL drink someone before the  
 meal  
 ‘Every beer is healthy to drink (it) before a meal’

The discussion about quantifiers, pronouns and pronominal variables is a very long one and certainly beyond the scope of the present work. For now, (24)-(27), the discussion above along with the independent evidence in section 3 provide strong support for our analysis.

## 8. Configurational evidence

### 8.1 Small clauses, ECM

For Greek, Schneider-Zioga (1994) and Anagnostopoulou (1999) have argued against the right dislocation hypothesis for doubling using data from doubled phrases in positions where adjuncts are not typically tolerated.<sup>24</sup> The examples in Anagnostopoulou (1999) are drawn from ECM constructions and subjects of small clauses. However, there are substantial reasons to believe that lexical subjects in Greek occupy a non-argument position (see Philippaki-Warbuton 1987, Philippaki-Warbuton and Spyropoulos 1999, Tsimpli 1990). It has also been convincingly argued in Spyropoulos (1998) and Spyropoulos (2000) that subjects in ECM and small clauses are indeed adjuncts adjoined to the embedded CP or small clause.<sup>25</sup> It is shown that *pro* occupies the subject position of

<sup>24</sup> Interestingly, it is not at all clear how Anagnostopoulou (1999) ties in with Alexiadou & Anagnostopoulou (1999) where preverbal subjects are adjuncts, an implication drawn from the fact that the EPP can be dispensed with.

<sup>25</sup> It is possible that our analysis of doubled DPs as adjuncts can gain support from examples as in (1) if both readings are available: 1) Nikos saw Anna while Nikos was running to someone’s rescue or 2) Nikos saw Anna while Anna was running to someone’s rescue.

- (1) o Nikos (tin) iðe tin Ana treχondas na sosi kapjon  
 the Nikos her-CL saw the Ana running na save-3SG someone  
 ‘Nikos saw Anna running to save someone’

My personal judgement is that both control options are available but for a number of speakers the gerund subject cannot be controlled by the accusative DP. I leave this

small clauses while DP-subjects are found in peripheral positions. Small clause and ECM subjects, shown to be adjuncts, when occurring with a clitic provide a strong argument for an analysis of right-dislocation for clitic doubling. Indeed this is the case as can be seen in (28), (29) and (30).

- (28) ton vrisko ton Niko erotevmeno  
 him-CL find-I the Niko fallen-in-love  
 ‘I find (him) Niko in-love’
- (29) poso erotevmeno ton vriskis ton Niko  
 how in-love him-CL find the Niko  
 ‘How in-love do you find Niko?’
- (30) i Yoryia<sub>i</sub> den kseri poso siyuro ja ton eafto tu<sub>j</sub>/  
 \*ton eafto tis<sub>i</sub>/\*afton<sub>j</sub>/aftin<sub>i</sub> ton theori i Ana ton Niko  
 the Yoryia not knows how sure about himself/  
 \*herself/\*him/her him-CL considers the Ana the Niko  
 ‘Georgia does not know how sure about himself/  
 \*herself/\*him/her Anna considers Niko’

According to the analysis proposed in Spyropoulos (1998, 2000) the clitic in (28)-(30) is base-generated in [Spec, AP], receives a  $\theta$ -role and moves to head adjoin to V by case requirements while the lexical subject is in adjunct position. The exact adjoined position is left open in Spyropoulos (1998); by the analysis proposed here it is adjoined to VP. The analysis extends to ECM constructions as well.

- (31) o Nikos tin perimene tin Ana na arniθi  
 the Nikos her-CL expected the Ana na decline  
 ‘Nikos expected Anna to decline’

## 8.2 Against WCO

On the other hand, Anagnostopoulou (1999) argues that, assuming that WCO effects arise only if the c-commanding DP is in A-position, examples such as (32) below provide an argument for the analysis of doubled DPs as complements.

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matter open for the time being; for a more lengthy discussion of (1) see Androulakis (forth.).

- (32) \**me pjon<sub>i</sub> (ti<sub>i</sub>) theoris ti mitera tu<sub>i</sub> erotevmeni t<sub>i</sub>?*  
 with whom her-CL consider-you the mother his in-love  
 ‘With whom do you consider his mother in love?’

Structures similar to (32) can be found where weak crossover effects are not witnessed:

- (33) *ja pjon<sub>i</sub> (ti<sub>i</sub>) theoris ti mitera tu<sub>i/j</sub> perifani*  
 for whom her-CL consider-you the mother his proud  
 ‘For whom do you consider his mother proud?’

Weak crossover structures with clitic pronouns in Greek are not very consistent (cf. (32) and (33)) but it remains possible to have clitic-NPs dependencies that do not display WCO. Consider the following example where the DP containing the clitic is in A-bar position.

- (34) *pjon<sub>i</sub> sinenoiθikes me to diefθindi tu<sub>i</sub> na ton parun t<sub>i</sub>*  
*ja voiθo*  
 whom agreed-you with the manager his *na* him-CL take-they  
 for assistant  
 ‘Whom did you agree with his manager to take for assistant?’

It is plausible that other factors, such as binding or reconstruction, may be responsible for the readings in (32) and, in general, the inconsistency of WCO in Greek. This point regards also the non-configurationality argument from WCO in Alexiadou & Anagnostopoulou (1999, 2000).

Sufficient evidence was presented supporting the right-dislocation analysis of clitic doubling for Greek. One final remark on right-dislocation structures with an intonational contour is in order. Consider the examples in (35).

- (35) a. *to iða to kaθarma na pirovoli ton γλοςολογο*  
 it-CL saw-I the son-of-a-bitch *na* shoot-it the linguist  
 ‘I saw (him) the son-of-a-bitch shoot the linguist’  
 b. *to iða na pirovoli ton γλοςολογο, to kaθarma*  
 it-CL saw-I *na* shoot the linguist, the son-of-a-bitch  
 ‘I saw him shoot the linguist, the son-of-a-bitch’

In (35a) the clitic serves as a topic marker of the object (see Philippaki-Warburton 1987) while in the right-dislocated structure in (35b), with an appropriate intonation, the clitic fills in for a hanging topic. By this

analysis, the NPs seem to serve different purposes and have different adjunction sites. It may be possible that such topics in Greek are licensed as long as a clitic is present to ensure their interpretation. Hanging topics are possible in English too, where clitics are not available.

(36) I saw him eat out of the rubbish bin, the idiot

If there is an issue regarding hanging topics to be looked into, it is probably that of backwards pronominalization. In any case, such a construction that is syntactically as well as stylistically constrained differs from clitic-right dislocation which is a much more systematic phenomenon. Alternatively, hanging topics can be regarded as an instance of clitic-right dislocation where specific pragmatic factors may be at play. For all practical purposes, right-dislocation with a specific intonation contour is a marginal phenomenon which does not interfere with an analysis of clitic-doubled DPs as adjuncts. This is borne out also by the syntactic arguments provided in previous sections.

### ***9. A note on the Uniformity Hypothesis***

According to the Uniformity Hypothesis (Sportiche 1993) single clitic, clitic-doubled and clitic left-dislocation constructions are all clitic dependencies that involve the same underlying structure. Generally, speaking, the Uniformity Hypothesis is the most economical and psychologically realistic solution for a language that has clitic pronouns. The concept of the Uniformity Hypothesis is in fact part of the motivation of the analysis presented here with the difference that the framework described in Sportiche cannot be adopted for Greek.

In our view, the decisive argument for or against the Uniformity Hypothesis can be drawn from language acquisition data. There is not much research done on the issue of clitic acquisition in Greek but we may be able to draw some tentative conclusions from the data that have been collected. Marinis (1999) reaches the conclusion that if the three clitic constructions are acquired at different ages, they must be different phenomena. In fact, in the Christofidou Corpus, the child observed starts using all structures simultaneously while in the Stephany Corpus, there is a stage when the children use only simple clitics, then clitic doubling and only later clitic left dislocation. Thus, Marinis (1999) argues for a syntactic analysis that treats them as separate phenomena by claiming that the Stephany Corpus poses a problem for the Uniformity Hypothesis.



According to Marinis (1999), the Christofidou Corpus indicates that structures showing high complexity are not necessarily acquired later than structurally simpler ones. The evidence, however, is not conclusive. Many children may acquire the three different structures at different points in time but this does not exclude the possibility that some will acquire them simultaneously as in the Christophidou and the Torrens and Wexler Corpora. In reality, the argument is quite reversible. The fact that some children acquire the three structures simultaneously may indeed mean that the structures are similar but not identical and it does not exclude the possibility that some children will acquire them at different stages. The fact remains that, as we look at the three uniformity constructions more closely, we notice that there are semantic and pragmatic factors that may constrain each one of them.

Considering the Uniformity Hypothesis and the acquisition data, our analysis stands as follows: simple clitics, CLLD and CLRD are uniform in that they involve an argument clitic and in the case of CLLD and CLRD an NP in an A-bar position, an analysis that extends to other structures in the language as well. CLLD and CLRD differ in the number or type of constraints that apply to each. The dependency is in abstraction the same, namely it is one that holds between an A-bar and an A-element. One differentiating factor in CLLD and CLRD is linearity. Another differentiating factor has to do with the semantics of the NP that is CLLDed or CLRDed. If linearity and semantic restrictions can be shown to play the crucial role of constraining CLLD and CLRD accordingly, then we can arrive at an account that can maintain the essence of the Uniformity Hypothesis but will also be able to explain the Greek data in an economical way.

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