

Determiner Spreading as DP-predication

ABSTRACT

Determiner Spreading (DS) is a type of adjectivally modified nominal phrase comprising more than one definite article, which has been extensively described in Greek. This paper discusses the syntactic properties of DS, compares the phenomenon to multiple-article noun phrases in Semitic and Mainland Scandinavian and proposes a new analysis for it. It argues that DS is a predication configuration involving two DPs, while also serving as an argument. This account successfully captures its word-order properties and its distinctive interpretation, while also laying the groundwork towards unifying DS with other Greek constructions comprising two DPs in a relation of predication with each other.

1 INTRODUCTION

Determiner Spreading ('DS' henceforth) is a nominal construction in Modern Greek ('Greek' henceforth), in which more than one definite article can appear in front of the noun phrase's adjectives.¹ DS is actually attested through most of

the history of the Greek language, going back to at least Herodotus (5th century BC)² and displays distinctive interpretive characteristics. DS prototypically involves a D(eterminer)-A(djective)-D(eterminer)-N(oun) order or a D(eterminer)-N(oun)-D(eterminer)-A(djective) one, and it exists alongside ‘ordinary’ adjectival modification, displaying a (D)-A-N or an N-A order. The phenomenon is intriguing for a number of reasons: why do these two different ways of ‘doing’ adjectival modification exist? What are their interpretive differences? How can we explain noun phrase-internal determiners and a single noun in an analysis adhering to the DP-hypothesis (popularised by Abney, 1987 – but of many progenitors)? To what extent is it possible to unify DS with similar adequately studied phenomena of ‘multiple articles’ in other languages?

This paper will examine Determiner Spreading from a syntactic point of view and touch upon its semantics only in order to clarify structural matters. Insightful semantic approaches to the phenomenon, although not fully compatible with the syntactic analysis put forward here, are provided in Larson (2004), Kolliakou (2003; 2004) and Campos & Stavrou (2004). In this paper we will argue that DS is a DP-predication structure; more specifically, that it is a DP with a DP specifier, the subject of predication, the whole constituent serving both as an argument and as a predication structure.

The paper is organised as follows: Section 2 describes the properties of DS and Section 3 reviews previous analyses of the phenomenon. Section 4 presents our own analysis and shows how, with minimal assumptions, it correctly accounts for the Greek facts. Finally, a summary and conclusions are given in Section 5.

2 THE DATA

DS is a type of adjectival modification that involves the use of multiple definite articles preceding adjectives and the noun. Moreover, in DS only *definite* articles may precede adjectives and the noun. This section will present the distributional properties of DS, that is the word order facts (subsection 2.1), as well as the interpretation of DS (in subsection 2.2). In the last subsection (2.3) we will compare DS with superficially similar constructions in Semitic and Mainland Scandinavian.

2.1. Possible word orders with DS

With DS several word orders are possible. As far as the position of *one* adjective relative to that of the noun is concerned, there are two possible word

orders: Determiner-Adjective-Determiner-Noun (D-A-D-N), as shown in (1) and Determiner-Noun-Determiner-Adjective (D-N-D-A), as shown in (2).³

(1) **To** spiti **to** meghalo

the house the big

(2) **To** meghalo **to** spiti.

the big the house

‘The big house’

When more than one adjective is present in DS, then *all* the possible combinations of constituents inside the nominal phrase are grammatical, provided that all adjectives as well as the noun are preceded by definite articles. Thus, in the case of two adjectives and a noun, all the $3!=6$ possible combinations are grammatical, as shown in (3a-f) below.

(3) (a) **To** meghalo **to** petrino **to** spiti.

the big the of.stone the house

(b) **To** meghalo **to** spiti **to** petrino.

the big the house the of.stone

(c) **To** petrino **to** spiti **to** meghalo.

- the of.stone the house the big
- (d) **To** petrino **to** meghalo **to** spiti
- the of.stone the big the house
- (e) **To** spiti **to** meghalo **to** petrino.
- the house the big the of.stone
- (f) **To** spiti **to** petrino **to** meghalo.
- the house the of.stone the big
- ‘The big stone house.’

The data in (3) above may give the impression that word order is free under DS, to the point of this structure appearing flat or even non-configurational, which will actually be demonstrated in section 3.4 to be far from true. For the time being, having just presented the freedom of word order within DS constructions, we now turn to some word order restrictions at play.

In non-DS (‘monadic’ in Kolliakou, 2003; 2004) Greek nominal phrases involving adjectival modification and headed by a definite article, adjectives are *always prenominal*, as shown in (4) below. Moreover, in non-DS nominal phrases, the relative order of the adjectives tends to be rigid and is governed by restrictions related to the type of the adjectives (Cinque, 1994; Stavrou, 1996; 1999 for Greek).

- (4) (a) **To** meghalo petrino spiti.
 The big of.stone house
- (b) ***To** spiti meghalo petrino.
 The house big of.stone
 ‘The big stone house.’

Regarding DS, a first prominent characteristic of the construction is the following: not all adjectives need be preceded by an article; the noun can be articleless, too. In this case, ordering freedom is restricted in two ways:

First, *if one of the adjectives is not preceded by an article, it cannot appear postnominally*, as shown in (6b); contrast (5a) and (5b) below with (3e) above.

- (5) (a) ***To** spiti meghalo **to** petrino.
 The house big the of.stone
- (b) ***To** spiti **to** meghalo petrino.
 The house the big of.stone
 ‘The big stone house.’

Second, and complementing the state of affairs exemplified under (5), if the noun is not preceded by an article it is obligatory for it to immediately follow an adjective, as in (6). Interestingly, sequences like *to petrino spiti* in (6a) and *to meghalo spiti* in (6b) look like fully-fledged monadic DPs.

- (6) (a) **To** meghalo **to** petrino spiti.
 The big the of.stone house
- (b) **To** meghalo spiti **to** petrino.
 The big house the of.stone
 ‘The big stone house.’
- (c) **To** meghalo petrino spiti **to** palio
 the big stone house the old
 ‘The old big stone house’

The statements in (7) recapitulate the word order state of affairs in DS:

- (7) (a) no indefinite articles can be involved in a DS noun phrase;
 (b) if all adjectives and the noun are preceded by the definite article,
 ordering is free;

- (c) if the noun is not preceded by an article, it must be preceded by an adjective that is preceded by an article;
- (d) adjectives can be used postnominally if they are preceded by a definite article.

2.2. *On the interpretation of DS*

Noun phrases with DS are interpreted differently from (monadic) definite noun phrases, however subtle the difference. As Alexiadou & Wilder (1998), Manolessou (2000: Ch. 4), Kolliakou (1998; 2003; 2004) and Campos & Stavrou (2004) point out, DS is not semantically identical to adjectival modification with a single definite article. Adjectival modification within a monadic DP may have either a restrictive or a non-restrictive interpretation, as in (8a) below; on the other hand, DS often receives only a restrictive reading, i.e. DS “narrows down’ a given set of referents by picking out a proper subset of it” (Kolliakou 1998: 4-5; 2004: 268-276). This is illustrated in (8b) below.⁴

- (8) (a) O dhiefthindis dhilose oti *i ikani erevnites*
 the manager declared that *the competent researchers*
 tha eprepe na apolithun

FUT had.to SUBJ fired.3RDPL

‘The manager declared that the competent researchers should be fired.’ (*restrictive or non-restrictive* interpretation)

(b) O dhiefthindis dhilose oti *i ikani i erevnites*

the director declared that *the competent the researchers*

tha eprepe na apolithun.

FUT had.to SUBJ fired.3RDPL

‘The manager declared that just the competent researchers should be fired.’ (*restrictive* interpretation strongly preferred)

In (8a) above, an adjectivally modified definite noun phrase may have either of two principal interpretations, a non-restrictive interpretation or a restrictive one. In the non-restrictive interpretation, we have information about only one group of researchers, those who should be fired (possibly due to financial difficulties of the company) and who are also characterised as competent; thus, there are no cues as to whether there is another group of researchers which should not be fired: *i ikani erevnites* (‘the competent researchers’) describes a salient set of competent researchers.

On the other hand, in the restrictive interpretation of the DS noun phrase in (8b), a set of competent researchers is singled out from a larger set of

researchers, a superset, and only the competent ones should be fired (maybe because they are involved in some secret plot against the company). In the restrictive interpretation, it is implicated that other researchers (who, for instance, are not competent and therefore not dangerous for the company) should not be fired. Under the restrictive interpretation, the nominal structure with DS, say D-A-D-N (*'i ikani i erevnites'*), refers to a proper subset of a set denoted by D-N (*'i erevnites'*).

Now, as Manolesou (2000) has observed,⁵ although the restrictive interpretation is clearly the preferred one in cases like (8b), a non-restrictive interpretation is also possible, if properly contextualised. Moreover, in the ambiguous sentence (8a), prosody may be used to disambiguate between the two interpretations. If the adjective is stressed, the restrictive interpretation is favoured here as well.⁶ Therefore, the restrictive reading is only one of the possible interpretations for DS, albeit the preferred one in most contexts. Moreover, both the available interpretations for DS are here going to be argued to stem from the *predicative* nature of DS.

Following Manolesou (2000), let us now zoom into the possible non-restrictive interpretation of DS, as in the contexts in (9) below:

- (9) a. vyike exo s [**ton** krio **ton** kero].

went-out out in the cold the weather

‘S/he went out in the cold weather.’

b. Ti thelun [**ta** kala **ta** pedia]?

What want the good the children

‘What do the good children want?’

c. Tha se dho brosta s [**ton** Lefko **ton** Pirgho].

FUT you see front in the White the Tower

‘I’ll see you in front of the White Tower.’

d. Bike s [**to** kenuryo (tis) **to** aftokinito] ki efiye

got.in.1STSG in the new hers the car and left

‘She got into the/her new car and left.’

Of course, given the discussion of (3) above, the D-N-D-A orders *ton kero ton krio* (‘the cold weather’), *ta pedhia ta kala* (‘the good children’) and *ton Pirgho ton Lefko* (‘the White Tower’) are also perfectly grammatical. However, the above examples cannot always be naturally construed with restrictive readings. (9a) can be uttered plainly if the weather is cold outside, not necessarily only if cold weather is understood as a subset, say a special case, of weathers. Turning to a plural DS constituent in (9b), when addressing the children in question, a pragmatically felicitous usage of this sentence, the

speaker does not mean to single out the set of good ones out of a salient set of children. More intriguingly, in (9c) a well-known landmark in Salonica can naturally be presented in a DS form.⁷ Kolliakou (2004: 273-276) discusses related examples of DS with proper names, arguing them also to be restrictive (as many people may share the same name). Still, both in (9c) and in the case of proper names, no restrictive reading may be necessary; in fact, it is virtually impossible in (9c) as there are neither other salient ‘white’ buildings nor more ‘towers’ in Salonica. All three cases represent run-of-the-mill usage and in all of them restrictive readings are strongly dispreferred. In this respect, (9d) is perhaps the most revealing example, in the sense that the constituent *to kenuryo to aftokinito* (‘the new car’) may indeed be read in a restrictive way, picking out the new car out of a set of cars; nevertheless, it is also perfectly possible to use it even if just *one* car exists, which also happens to be a new one. The point emerging here is that DS does have a special interpretation, but not necessarily a restrictive one, however.

As Manolessou (2000) and Campos & Stavrou (2004) point out, the interpretation of the DS noun phrases in (9) is *predicative*. Nevertheless, this is not the whole story, as ‘ordinary’ adjectival modification can also be predicative, e.g. *a white elephant* \approx *an elephant* (that) is *white* (see Larson 1999 for detailed exposition and an account). Hence, we have to sharpen this

observation, also considering the restrictive interpretations available for the construction, and claim that DS involves *DP predication*: it is a nominal constituent where one DP is predicated of another. So, in principle, DS is different from ‘ordinary’ adjectival modification because the latter *may* involve picking out the intersection of two sets, denoted by the predicate adjective and the predicate noun respectively. In contrast, Determiner Spreading *necessarily* denotes the intersection of two sets, respectively denoted by an elliptical DP containing the adjective, and a DP containing the noun, in its simplest manifestation. The importance of this predicative interpretation and its relation to the restrictive one, in fact the latter will be shown to be a *subcase* of the former, will be further explored in section 4.3.⁸

2.3. *Determiner Spreading and similar constructions crosslinguistically*

Having reviewed the basic syntactic and semantic characteristics of DS, we are now going to compare it with superficially similar configurations in other languages. Although we suppose that similar ‘multi-article’ noun phrases are not typologically atypical, we are only going to draw on evidence from such constructions in Semitic and Mainland Scandinavian. The reasons for this decision are a) these similar phenomena have been described in the above

languages in detail and b) we have solid evidence that in these languages ‘multi-article’ noun phrases behave as constituents.⁹

In Semitic, *standard* adjectival modification is a ‘multi-article’ noun phrase, with articles preceding every lexical constituent, all adjectives as well as the noun. This has been described as ‘agreement for definiteness’. Exemplifying with examples from Hebrew, (10a) below is a faithful translation for ‘the big house’; there are no ‘special’ interpretations, like a predicative or a restrictive one as above. It is not possible to have a D-A-D-N order (10b), or an adjective not agreeing for definiteness, as (10c) illustrates.

(10) (a) **Ha**-bayit **ha**-gadol.

The-house the-big

(b) ***Ha**-gadol **ha**-bayit.

The-big the-house

(c) ***Ha**-bayit gadol.

The-house big

‘The big house’

Thus, a unified analysis for the Greek and the Semitic facts is not possible, because in Semitic nominal phrases with adjectives ‘agreeing for

definiteness’ can display only a D-N-D-A order and because the ‘definiteness agreement’ structure is actually *the standard way* to express adjectival modification.¹⁰

Moving to Mainland Scandinavian, shorthand for Swedish and Norwegian here, we observe what has been called ‘double definiteness’.

- (11) (a) ***den** store gutt
 the big boy
- (b) **den** store gutt-**en**
 the big boy-DEF
 ‘The big boy’
- (c) gutt-**en**
 boy-DEF
- (d) ***den** gutt
 the boy
 ‘The boy’

In Mainland Scandinavian, an article-like element *–en / –et* attaches on either a single noun (11c), or on adjectives and in the presence of a ‘strong’ article *den / det*, as in (11b). Single nouns cannot be preceded by *den / det*

(11d); at the same time both *den* / *det* and *-en* / *-et* attached on the adjective are needed in adjectival modification.¹¹ The ungrammaticality of (11a) in Mainland Scandinavian, a monadic definite noun phrase, brings this double definiteness construction, obligatory with adjectives, closer to Hebrew than Greek DS. Furthermore, it has no ‘special’ effect on interpretation (*den store gutt-en* simply means ‘the big boy’).¹²

3 PREVIOUS ANALYSES

A number of analyses have been offered to account for the phenomenon of DS; we will now review four of them: Androutsopoulou (1994; 1995), Alexiadou & Wilder (1998), Giusti (2003) and Campos & Stavrou (2004).¹³ We concentrate on them because these analyses offer the best-articulated *syntactic* accounts of the phenomenon within the framework followed here, Principles and Parameters aspiring towards Minimalism.¹⁴ It is also worth noting that each of them is informed by major recent developments in syntactic theory; hence: Androutsopoulou (1994; 1995) by the proposals that a greater number of functional categories (may) exist, besides the better studied C(omplementiser), I(nflection) and D(eterminer); Alexiadou & Wilder (1998) by Kayne’s (1994) Antisymmetry Hypothesis; Giusti (2003) by Chomsky’s (1993) Bare Phrase

Structure; Campos & Stavrou (2004) by Bowers' (1993) and Den Dikken's (1998) postulation of a Pred(ication) category.

3.1. *Androutsopoulou (1994; 1995)*

Androutsopoulou (1994; 1995) takes DS to be akin to Semitic 'definiteness spreading'. She claims that the 'extra' definite articles in the structure of DS are not of the category D, but rather spell-outs of a definiteness feature [+def], which is argued not to be a semantic feature, but a syntactic one. This is in the spirit of Delsing's (1988) analysis for Mainland Scandinavian, as mentioned above. Like in Scandinavian, 'intermediate' articles look like the definite Determiner, but they are not. Every definite article heads its own functional agreement projection, called Definite Phrase (DefP), hosting agreement features (gender, number, case) and the [+def] feature. Although DefPs host the feature [+def], the locus of definiteness and referentiality is D and not the 'intermediate' articles, heads of DefPs. Finally, APs intervene in the projection line between D and N, à la Abney (1987) and Radford (1993). The 'initial' structure being the one under (14), movement to (the highest) SpecDefP derives the different word orders, an instance thereof illustrated in (15) below.

(14) *DS (=3a) in Androutsopoulou's account*

&&PLEASE INSERT FIGURE 1 HERE&&

(15) *DS with derived order (= 3b) in Androutsopoulou's account*

&&PLEASE INSERT FIGURE 2 HERE&&

Androutsopoulou's account can capture all the orderings under (3) above either with a series of movement operations to the highest SpecDefP or SpecDP, or with the possibility to merge the two adjectives in different orders.¹⁵ Even so, the question of what drives such XP movement operations remains unresolved; besides this, the analysis leaves a number of open questions regarding the nature of Def:

- a. What happens in cases such as (6), where articles ('Def heads') can be missing?
- b. Why are Def heads morphologically identical to Ds (unlike, for instance, Scandinavian D *den* and the definite suffix *-en*)?
- c. How is their [def] feature, a *syntactic* and not a semantic one, interpreted at LF, especially in view of the predicative / restrictive interpretation of DS?
- d. Are Def heads present in other syntactic environments in Greek?¹⁶

3.2. Alexiadou & Wilder (1998)

An account in a different vein is that by Alexiadou and Wilder (1998), who take the predicative / restrictive interpretation of DS as their starting point. They go on to analyse DS as involving predication and, more specifically, as *reduced relative clauses*. The analysis for relative clauses adopted is the one in Kayne (1994), namely that relative clauses are made up from a D head taking a CP (clausal) complement: $[_{DP} D_{the} [_{CP} [_{NP} stone\ house]_j [_{C} that [_{IP} I\ saw\ t_j]]]]$. Hence, Alexiadou and Wilder's proposed structure for DS is that of a reduced relative clause, complete with an embedded full CP:

$$(16) \quad [_{DP} D [_{CP} AP_i [_{C} \emptyset [_{IP} \alpha\ t_i]]]]$$

At the heart of DS is embedded an IP structure where the AP is predicated of the subject α . The predicate AP moves to the SpecCP, adjacent to D, and the order D-A- α obtains. Now, the surface order of constituents depends on the identity of the subject α . Thus, if α is a simple DP, then a 'basic' D-A-D-N order ensues, as in *to meghalo to spiti* in (17) below. Movement of the subject *to spiti* to a higher position, such as SpecDP, yields the D-N-D-A order.

When the subject α is a DS structure itself, then recursion follows, yielding $[_{DP} D [_{CP} AP_i [_{C} \emptyset [_{IP} [_{DP} D [_{CP} AP_j [_{C} \emptyset [_{IP} DP\ t_j]]]]\ t_i]]]]$, e.g. *to*

meghalo to petrino to spiti. Again, the embedded subject *to spiti* can arrive at a highest position using the specifiers of the respective DPs as escape hatches. By way of illustration, consider (17) below.

(17) *D-A-D-N as* $[_{DP} D [_{CP} AP_i [_C \emptyset [_{IP} DP t_i]]]]$

&&PLEASE INSERT FIGURE 3 HERE&&

Alexiadou and Wilder's proposal has the virtue of acknowledging both the restrictive interpretation and the predicative nature of DS, plausibly capturing them as resulting from the presence of a reduced relative inside a DP. At the same time, the structure proposed is too complex in the sense that it radically differs from that of monadic DPs: they posit a verbless clause in the complement of D as well as a set of constraints and movement operations lacking clear motivation. Furthermore, under this analysis, D-A-D-N appears to be the default order with D-N-D-A order as the derived one, resulting from a further movement operation to the specifier of the matrix DP. However, there is no evidence that either D-A-D-N or D-N-D-A constitutes a default order.¹⁷

3.3. *Giusti (2003)*

Giusti's analysis is similar to Alexiadou & Wilder's – but without the proposed phrase marker containing a CP constituent. In this account, the D-A *is* a constituent, more specifically, an AP agreeing for definiteness. This agreeing AP is generated at the specifier of a YP situated between D and N, where all APs are hypothesised to be merged. The D-N-D-A order is derived by movement to the N head over the AP to a higher head position X, as shown in (18) below, an operation that could be posited to take place for independent purposes (Cinque, 1994). The D-A-D-N order is derived by a further optional XP movement operation of the 'definite' AP (D-A) to the specifier of DP.

(18) *Giusti's account*

&&PLEASE INSERT FIGURE 4 HERE&&

One of the consequences is that the D-N-D-A order is again postulated to be the basic one, something that is in accord with the situation in Semitic (as in example (9) above) and the situation in older forms of Greek – as noted in footnote 17 – but unmotivated for Modern Greek. The D-A-D-N order is also argued to involve SpecDP, a position that has independently been shown to be particularly 'active' in Greek (see also footnote 15).

Giusti's analysis does not account for the special restrictive / predicative interpretation of DS, as such an interpretive effect does not seem to have anything to do with the categories X and Y. Another issue is with the status of the N-to-X movement, posited in Cinque (1994) to account for the Noun-Adjective orders in Romance. When it comes to whether this operation takes place in Greek, opinions are split between this head-movement operation overtly targeting a much lower head, e.g. Num, right above the (nP-)NP shell (Panagiotidis, 2000) and such a head-movement operation not existing at all in the language (Alexiadou & Stavrou, 1998). The latter view is strengthened by the fact that, except in DS, D-N-A orders are ungrammatical, see Stavrou (1996) for discussion.

3.4. *Campos & Stavrou (2004)*

The analysis of Determiner Spreading in Campos & Stavrou (2004) builds on that of Alexiadou & Wilder (1998). Besides doing away with the proposal of a reduced CP at the heart of a DS structure, the main merits of Campos & Stavrou's analysis are

- a) clearly establishing the predicative nature of Determiner Spreading, harking back not only to Alexiadou & Wilder (1998) but also to Manolissou (2000), and

- b) identifying the second Determiner in a DS as *the predication operator* itself.

A further advantage is their identifying the existence of Determiner Spreading as a predicative structure in languages beyond Greek: Aromanian (i.e. a variety of Southern Balkan Romance), Albanian – with some morphological complications – and Romanian. They also argue that the D-N-D-A order is the base one and that in these orders the adjective is a predicative AP. Finally, the D-N element is actually considered a complex head, in accordance to what happens in Balkan languages like Albanian, Macedonian, Bulgarian, Aromanian and Romanian.

(19) *Campos & Stavrou's account (irrelevant details omitted)*

&&PLEASE INSERT FIGURE 5 HERE&&

Now, D-A-D-N orders result as follows (Campos & Stavrou 2004: XXX): “the presence of *pro* [...] seems to block movement of the AP to [Spec, FocP]. Thus head-movement is the only option to reach FocP. The adjective moves as a head from A to Pred (picking up the determiner) to F to D (incorporating to the [D-N compound] head) [...] and then it exorporates to Foc”. Therefore, like in all other analyses of DS so far, an asymmetry between the two basic word orders

for DS is purported, with D-A-D-N orders resulting from movement of adjectival material to a nominal Foc(us) projection. However, D-A-D-N orders can hardly be said to have a focus reading, even more so one absent in D-N-D-A orders; moreover an asymmetry between D-N-D-A and D-A-D-N orders cannot be empirically motivated, either, as we will see in sections 4.3 and 4.4. Moreover, they propose – as is the case in all the other accounts – that the structure of monadic DPs is fundamentally different from that of DS: for instance, they take the N in DS to form a complex head with the first D, under the high D node, as in (19). Finally, we will take issue with their arguing the adjective in DS to be a predicative AP and show the empirical advantages of moving away from such a thesis. In general, as this analysis differs from the one presented in this paper minimally – however crucially, we will be comparing the two approaches throughout the rest of this paper.

4 AN ALTERNATIVE ANALYSIS

We will now present an account that captures the predicative nature of DS while also capturing word order facts with a minimum of assumptions, actually using the fact that DS has a restrictive / predicative interpretation as our point of departure. In order to achieve our goal, we will not argue for a restrictive

relative clause. Instead, we will claim that DS is a case of ***DP predication*** in the form of a DP small clause, in a vein similar to that of Campos & Stavrou (2004). Unlike them, we will however not argue for a PredP constituent inside DS constituents.

4.1. *DS and its kin*

Although we have already briefly discussed the relation between the restrictive and the predicative nature of DS in section 2.2, further elucidation in the form of examples (20-21) below is necessary. As judgements are subtle, contexts are provided.

- (20) Context: The personnel of an institute consists of researchers ('*erevnites*') and teaching staff. In this particular institute some of the personnel are competent and some are incompetent. A number of people have just left the institute and someone comments:

(a) i erevnites i ikani efighan. *DS*
 the researchers the competent left

(b) i erevnites pu itan (??i) ikani efighan. *restr. rel*
 the researchers that were the competent left.

‘The researchers who were the competent ones left.

(c) i erevnites itan i ikani. *with copula*

the researchers were the competent

‘The researchers were the competent ones.’

- (21) Context: The job selection process in company XYZ is a two-day long process involving a lot of waiting (*‘anamoni’*) and participating in different phases thereof in different locations far apart from each other. The two days are over and the process has just finished. A candidate says to another:

(a) ?i anamoni i eknevrstiki elixe. *DS*

the wait the irritating finished

(b) i anamoni pu itan (?*i) eknevrstiki elixe. *restr. rel*

the wait that was the irritating finished

‘The wait, which was the irritating thing, finished.’

(c) ?i anamoni itan i eknevrstiki. *with copula*

the wait was the irritating

‘The wait was the irritating thing.’

Let us first clarify examples (20-21) above. In (20) an adjective combines with the concrete noun *erevnitis* (‘researcher’) in three distinct

environments, whereas in (21) with a deverbal / event noun, *anamoni* ('wait').

The environments respectively are:

1. Determiner Spreading: (20a), (21a).
2. Restrictive relatives with a referential predicate, characterising a referential 'head' (cf. *the man who was the responsible one has fled*): (20b), (21b).
3. A copular structure with a DP predicate (cf. *this man is the responsible one*).

In (20), the combination of D-A *i ikani* ('the competent ones') with a concrete noun is possible in (20a) and (20c), but very deviant in the context of a restrictive relative. Similarly, turning to (21) we observe along with Manolissou (2000: Ch.4) that DS is anomalous with deverbal nouns such as *anamoni* ('wait') (21a).¹⁸ Nevertheless, (21a) and (21c) are much better than (21b), where D-A *i eknevrastiki* ('the irritating one') is embedded within a relative clause. Moreover, (20b) and (21b) are perfect when the predicate they involve is not referential (e.g. without the article). In other words, Determiner Spreading does not pattern up with restrictive relative clauses, but with copular predication structures. This is particularly instructive because if, as in Alexiadou & Wilder

(1998), DS syntactically involved a reduced relative clause, then we would not expect the contrast between the acceptability of relatives with D-A and Determiner Spreading.

More importantly, and as is made clear especially in (20c) and (21c) above, DS contains not an AP constituent with an adjective agreeing for definiteness, as argued in previous analyses, but a D-A constituent that is an *elliptical* DP. This is why in the aforementioned examples these can be used as referential predicates, although no overt noun is present. The fact that D-A constituents are *elliptical* DPs is also evident from the translations of these examples: cf. the translation of (20c) as ‘The researchers were the competent ones’. We will return to this matter in section 4.4.

With the above in mind, we will now go on to present our analysis.

4.2. *SpecDP again*

DS has been shown to be a predicative relation, more specifically, a relation between a DP *subject* and a DP predicate. In other words, the relationship between constituents like *to meghalo* and *to spiti* in DS is that of a DP predicate to its specifier. Hence, and deferring discussion of the nature of

the elliptical DP *to meghalo* until the next subsection, our proposed configuration for DS can be either:

(22) [DP [DP-subject *to meghalo*] [D' *to spiti*]]

or

[DP [DP-subject *to spiti*] [D' *to meghalo*]]

(23) *Phrase marker for* [DP [DP-subject *to meghalo*] [D' *to spiti*]]

&&PLEASE INSERT FIGURE 6 HERE&&

The idea that Determiner Spreading contains two constituents with one of them in SpecDP, belongs to Horrocks & Stavrou (1986).¹⁹ This configuration is in concord with both Stowell's (1981) 'small clause' analysis, the small clause being the whole DP here, and Williams' (1994) configuration for predication: the DP at SpecDP is the subject of the referential predicate at D'. As in Campos & Stavrou (2004), the D head of the whole constituent acts as the predication operator.

Before proceeding, it is important to clarify a problem concerning the nature of the DS subject.²⁰ Although the predicate in DS is referential, nothing in principle would prevent indefinite subjects or bare plural subjects showing up

in SpecDP, yielding instances of DS like the ungrammatical (13a). Why is this not possible? The answer lies in the peculiarities of Greek subjects. Greek generally does not tolerate bare plurals as subjects. In generic sentences, for instance, subjects have to be headed by the definite article;²¹ in this respect Greek resembles Italian as discussed in Longobardi (1994). The only way to force sentential subjects headed by the null indefinite article in Greek is by D-linking them. Furthermore, the ‘aversion’ to subjects headed by the null indefinite determiner is absolute with small clauses, as exemplified in the context of a copular sentence (24a) and *consider*-constructions (25a). Interestingly, indefinite subjects headed by the ‘indefinite article’ *enas*, *mia*, *ena* (‘a / one’), are also out as subjects of sentences (24b) and small clauses (25b), unless interpreted as numerals or as D-linked / specific.²²

(24) a. *(O) xronos ine politimos.

The time is valuable.

‘Time is valuable.’

b. Mia falena ine oreá.

one whale is mammal

‘One / a (specific) / *a whale is pretty.’

(25) a. Theori [* (ton) kafe vlavero]

considers the coffee harmful

‘She / he considers coffee harmful.’

b. ?Theori [enan kinigho fonia]

considers one hunter killer

‘S/he considers one / a (specific) / *a hunter a killer.’

Indefinite subjects with *enas*, *mia*, *ena* are much better in sentences (24b) than in small clauses. Speculating, this is probably a ‘Diesing effect’ (Diesing 1992): maybe small clauses do not contain (enough) structure in a ‘Discourse Domain’ (Grohmann 2003) for their subject to raise into in order to get a specific reading – contrary to what happens in full clauses. Therefore, specific interpretation of indefinite subjects with *enas*, *mia*, *ena* is harder to trigger syntactically either because of the deficiency of, say, the small clause’s complementiser field or because small clauses have *no* complementiser field. In any case, DPs definitely lack a complementiser field, hence we predict such generic and indefinite subjects to be impossible in the SpecDP – in Determiner Spreading, in other words – precisely as expected.

An important point in our analysis is that it does not postulate any movement operations: the subject DP merges directly with the predicate DP, in its specifier. Because any DP can be a predicate and of course any ‘definite’ DP,

being itself referential, can be a subject, the ordering of DPs appears to be free in DS, although in each case different predicates describe different subjects. So, in [DP [DP-subject *to meghalo*] [D' *to spiti*]], the meaning is roughly ‘the big one which is the house’, or similar, whereas [DP [DP-subject *to spiti*] [D' *to meghalo*]] means something along the lines of ‘the house which is the big one’. The difference is subtle, but present. Still, this is not the whole story: more needs to be said about the nature of the elliptical DPs, of which we see only the determiner and the adjective. This is the focus of the next subsection.

Before moving on, let us briefly address a valid question, that is, whether DS can involve two DPs neither of which is elliptical. The answer is yes, at least in Greek. Examples include the following (adapted from Stavrou-Sifaki, 1995: 218 – see also Campos & Stavrou, 2004):²³

- (26) (a) *o Solomos o piitis.*
 the Solomos the poet
 ‘Solomos the poet.’
- (b) *o aetos to puli.*
 the eagle the bird
 ‘The eagle, the bird.’
- (c) *esis i nei kalitehnes.*

you the young artists

‘You young artists.’

In (26a), a proper name DP combines with another one; in (26b) two definite DPs combine together; in (26c) it is a pronoun and a definite DP. The semantic interpretation of all the examples in (26) is similar, if not identical, to DS, involving predication between DPs. Stavrou-Sifaki (1995) dubs the phenomenon illustrated above *epexegetis* and she teases it apart from apposition, which *inter alia* forces an intonation break between the two DPs. She moreover offers a very similar analysis to ours, also unifying *epexegetis* with Determiner Spreading, a claim reconfirmed in Campos & Stavrou (2004). Therefore, by extending our analysis to *epexegetis*, we would represent (26c), for instance, as [DP [DP-subject *esis*] [D' *i nei kalitehnes*]] (‘you young artists’). Details aside, DP predication is anything but a peculiar phenomenon of just D-A sequences. DPs with referential predication are run-of-the-mill in Greek; labels such as ‘DS’ or ‘*epexegetis*’ are merely descriptive, evocative of the type of constituents involved.²⁴

4.3. *Deriving the interpretive effects*

We already saw in example (8) of section 2.2, and throughout the discussion in this section, that Determiner Spreading can have a restrictive reading, i.e. pick out proper subsets from the superset described by its predicate DP. At the same time, we also encountered the availability of predicative readings for DS. How are the two related to each other? Although the semantics of the structure is actually beyond the scope of this contribution, an informal sketch will be provided here for exposition.

Let us start with the difference between the interpretation of DS and that of an adjectivally modified ‘monadic’ DP, which can be expressed as follows: the interpretation of DS arises from the intersection of two sets described by two *two* ‘monadic’ DPs, a subject and a predicate; DS is the intersection of two *already* restricted sets. Elaborating: call S' the set of *the* stone things as described by the elliptical DP ‘*ta petrina*’ (‘the stone ones’) and H' the set of *the* houses as described by the DP ‘*ta spitia*’ (‘the houses’). Membership of these sets S' and H' is not only restricted by the concepts the adjective *petrina* and the noun *spitia* denote, but also by the respective Determiners *ta* and whatever else a Greek DP, such as Num, contains. Determiner Spreading, a predication relation, is interpreted as the intersection of the two sets:

$$(27) \quad [[ta petrina ta spitia]] = S' \cap H'$$

Now we need to derive the restrictive reading of DS, which, as claimed here, is a subcase of the predicative one. This task can be carried out as follows: recall that membership of the sets S' and H' is not only restricted by the concepts their respective lexical (adjective and noun) material denotes, but also by their determiners, Num heads and so on. Now, given the various contextual factors conspiring with syntactic structure to yield the extension of (definite or other) DPs, it may happen that one of the sets, let's say the subject DP's extension, is a proper subset of the other one, with $S' \subset H'$; this is the restrictive interpretation of DS, the only interpretation according to Kolliakou's *Polydefiniteness Constraint* (2004: 272-276). Of course, in a situation where $S' \subset H'$ holds, it is also trivially true that the whole S' is the intersection of itself with H' . Informally, a DP with Determiner Spreading like *ta petrina ta spitia* can be interpreted either predicatively as 'the stone ones that have the property of being the houses', as from (27), or restrictively as 'the stone ones of the houses'. Given that, a monadic DP *ta petrina spitia* ('the stone houses') can also have an interpretation similar to that indicated in (27), the pragmatically preferred reading for DS, which contains more structure, is often the restrictive one, pace matters of Focus and intonation.

To summarise, DS is a DP predication structure with a DP subject predicated over a DP predicate. The resulting relation, one of two sets

intersecting, is the expected one, although a subcase where the intersection is one of the (sub)sets itself, is available and this the restrictive interpretation. Crucially, we have taken for granted so far that D+A constituents are DPs. The reasons why are explained in the next subsection.²⁵

4.4. *The D+A constituent is an elliptical DP*

Constituents like *to meghalo* ('the big one'), far from being APs or language-specific curiosities, are nothing but *elliptical DPs* comprising a semantically (i.e. non-descriptive) and phonologically null noun e_N (Kester, 1996; Corver & Delfitto, 1999; Panagiotidis, 2002 and elsewhere). According to Panagiotidis (2002), semantically empty nouns, whether phonologically null (e_N) or not (*one* in English), are also present within pronouns – again argued to be full DPs. The presence of e_N in a number of seemingly nounless DP constituents syntactically licenses the determiner and provides a trivial predicate for it to range over. Finally, despite its not denoting a concept, e_N may mark other LF interpretable features.

What this means in our case is that the D-A constituent functions quasi-pronominally, it being an elliptical DP of the form $[_D \text{ to } [_{FP} [_{AP} \text{ petrino}] F [_N e_N]]$. So, the presence of an article before an adjective does not constitute a

definiteness agreement marker on the adjective, exactly as it is not before the adjective *ikani* in (20c) either.

The resulting structures in detail are given in (28) and (29) below.

(28) *D-A-D-N*

&&PLEASE INSERT FIGURE 7 HERE&&

(29) *D-N-D-A*

&&PLEASE INSERT FIGURE 8 HERE&&

This account is empirically superior to the ones arguing the adjective within DS to be an AP and we will argue for this concentrating on Campos & Stavrou (2004). They claim that the adjective constituents within DS must be APs, as discussed in 3.4; adjectives in D-N-D-A orders behave as full APs, while they head-move all the way to a highest Foc head in D-A-D-N orders. In support of this purported asymmetry, they cite examples, their (51); judgements are theirs:

(30) *Adjective heads vs. APs?*

- a. *to toso / poli / pjo oreo to vivlio
 the so / very/ more nice the book

- b. to vivlio to toso / poli / pjo oreo
 the book the so / very more nice
 ‘the very nice / nicer book’
- c. *i perifani gia ta pedia tis i mana
 the proud of the children her the mother
- d. i mana i perifani gia ta pedia tis
 the mother the proud of the children her
 ‘the mother proud of her children’

Although they star examples (30a) and (30c), this is not a judgement other native speakers share. To the extent that (30c) should be given a ‘?’ judgement, this must be attributed to parsing reasons, due to the subject DP *i perifani gia ta pedia tis* (‘the proud of her children’) being so much heavier than the DP predicate *i mana* (‘the mother’) – not to an inability of the head-moved adjective *perifani* (‘proud’) to pied-pipe its argument to the Focus domain. Now, the difference in heaviness between the DP subject *to toso oreo* (‘the so nice’) and its DP predicate *to vivlio* (‘the book’) is much smaller, and this is why the said parsing effect is virtually imperceptible (and far from deserving a star), in this case. At the end of the day, what the examples in (30) actually

show is that D-N-D-A structures are symmetrical to D-A-D-N ones and that the same D-A constituent is at play in both orders.

This takes us to whether this D-A constituent is an AP or, as argued here, an elliptical DP with an adjective. Campos & Stavrou (2004: XXX) argue it to be a predicative AP on the basis of intensional adjectives (31a), circumstantial adjectives (31b), as well as adjectives that form part of a A+N compound (31c), or of compounds employed as locational names (as in 31d) being banned in DS – see also Manolessou (2000: Ch. 4). These are illustrated in the example below – adapted from example (49) in Campos & Stavrou (2004); again, judgements are their own:

(31) *Which adjectives are banned from DS?*

- a. *o tromokratis o ipotithemenos
 the terrorist the alleged
- b. *o proedros o proin
 the president the former
- c. ?to astiko to leoforio
 the urban the bus (urban bus)
- d. *o Lefkos o Pirgos

the White the Tower

To start with, in example (9c) we have already presented the very instance of DS in (31d) as a grammatical, and widely attested, use of Determiner Spreading. We also agree that (31c) is peculiar and that the presence of intensional and circumstantial adjectives is out in DS, thereby agreeing with the judgements in (31a-b). All this reconfirms the predicative character of DS. However, the grammaticality of (31d) and the limited one of (31c) are crucial at this point. Given that these two cannot stand as predicative APs in, say, a copular environment, their acceptability within DS would suggest that they are part not of predicative APs inside DS configurations. On the other hand, if our intuitions that they can be part of elliptical DPs instead are correct – again, to the exclusion of intensional and circumstantial adjectives, then we have some support for our own analysis of D-A constituents inside DS as elliptical DPs. More research is indeed necessary at this point.

4.5. Deriving the word orders

A potentially serious problem with most of the previous syntactic accounts is deriving the full set of different word orders described in section 2 without overgenerating. Despite the fact that recursion can probably do the trick for the

evidence presented under (3) in Alexiadou & Wilder's (1998) and Giusti's (2003) analyses, accounting for the grammaticality of (3) and (6) as opposed to (5) – repeated below for convenience – can be less straightforward.

- (3) (a) To meghalo to petrino to spiti.
 the big the of.stone the house
- (b) To meghalo to spiti to petrino.
 the big the house the of.stone
- (c) To petrino to spiti to meghalo.
 the of.stone the house the big
- (d) To petrino to meghalo to spiti
 the of.stone the big the house
- (e) To spiti to meghalo to petrino.
 the house the big the of.stone
- (f) To spiti to petrino to meghalo.
 the house the of.stone the big
 'The big stone house.'
- (5) (a) *To spiti meghalo to petrino.
 The house big the of.stone
- (b) *To spiti to meghalo petrino.

The house the big of.stone

‘The big stone house.’

(6) (a) To meghalo to petrino spiti.

The big the of.stone house

(b) To meghalo spiti to petrino.

The big house the of.stone

‘The big stone house.’

In (3), we saw that all the combinatorial possibilities (six in the case of two adjectives and a noun) for DS are grammatical if an article precedes all the lexical elements of the constituent. In this case, three DPs are contained in the DS constituent, a DP itself. One of them, informally the rightmost, is the DP predicate, say *to meghalo* e_N in (3c). Its subject is yet another DS constituent, *to petrino* e_N *to spiti*, which in its own turn is made of a DP predicate *to spiti*, and its subject *to petrino* e_N . This is clarified in (32) below, where the structure of (3c) is given. It is hence worth noting here that the word order ‘freedom’ displayed in (3) is by no means a token of ‘non-configurationality’ but, rather, the result of DPs (including DPs displaying DS) being free to function as subjects.

(32) *DS with two adjectives* (or ‘the effects of recursion’)

&&PLEASE INSERT FIGURE 9 HERE&&

In the account presented here, the contrast between (5) and (6) can also be satisfactorily captured with no added assumptions. In (6), if two DPs, one subject and one referential predicate, are involved in DS and nothing prevents either or both of them to possess a more complex structure, such as one including adjectives, demonstratives, possessors and so on. The examples in (6) illustrate only one of these options, namely the non-elliptical DP involving an AP. So, (6a) is analysed as [DP [DP-subject *to meghalo e_N*] [*D' to petrino spiti*]] and (6b) as [DP [DP-subject *to meghalo spiti*] [*D' to petrino e_N*]] – see also (28) and (29).

Turning to (5) now, if the article *to* marks the boundaries between the DPs in DS, the ungrammaticality of (5a) becomes obvious, as it would have the ungrammatical DP **to spiti meghalo* as subject. Comparing now **to spiti meghalo* with (4b) and (12b), we realise they suffer from the same problem: they both display the D-N-A order banned in Greek. As for the unacceptability of (5b), we wish to note that an elliptical DP with *two*, as opposed to one, APs is not permitted either, anyway. This is already discussed for English in Sadler & Arnold (1994). Whatever the principled explanation, this entails that (5b) is

ungrammatical because it contains the ungrammatical elliptical DP **to meghalo petrino* e_N as its DP predicate.

Before wrapping this section up, let us comment that our analysis helps shed light on the observation made by Manolissou (2000: Ch. 4) on the frequency of DS. After a study of Modern Greek corpora, she claims that DS is found in informal texts and written texts emulating speech more frequently than in texts representing a higher register or style. This is a mystery if, according to all the previous analyses, DS contains more complex structure than monadic DPs. On the other hand, in our analysis, this is a fact that can be captured along the lines of parsing effort. We clarify: a DP with Determiner Spreading typically consists of at least two monadic DPs, with one of them elliptical. This means that a number of modifiers can be packaged within a single DS structure, as in examples (3), (6), but also (30). Of course, it is also perfectly possible to package a number of modifiers within monadic DPs: a monadic DP with two adjectives in (4a) – repeated below – is absolutely fine. However, choosing DS to package more than one modifier presents the added advantage that every instance of the article marks the boundary of a new DP subconstituent, making parsing easier. If this conjecture is correct, we expect to find DS more commonly in speech, where parsing is in real time only, especially with nouns ‘taking’ two modifiers or more. Again, this is a topic for future research.

4.6. *Open issues*

Our account captures both the word order facts as well as the interpretive peculiarity of DS. There are nevertheless two issues remaining.²⁶

First of all, it is not clear why DS is unavailable in Romance languages, where elliptical DPs with adjectives ('D-A'), and noun ellipsis in general, are also available. A related issue is why **the blue one the house* is ungrammatical in English. In brief, why are DP predicative structures only possible in Greek and related languages, as far as we know? This seems to be tied to the fact that in Greek the SpecDP position is more active than in languages that do not display Determiner Spreading. SpecDP can be the landing site for left-dislocated genitives, focused or not (Horrocks & Stavrou, 1987), demonstrative operators (Panagiotidis, 2000) and, as discussed in section 4.2, DP or strong pronoun subjects in epexegetis configurations.

The above of course must be related to the dual status of (some) Ds in Greek and Balkan languages, acting both as intensional *and* predication operators – as argued in Campos & Stavrou (2004) and throughout this paper. This in turn brings up the following question: if SpecDP is an A' position, it cannot plausibly host subjects, so it must have a dual character, too. There is of course a lot of evidence of SpecDP being an A' position and even serving as an escape hatch for DP-internal wh-words.²⁷

In general, more research is necessary in order to establish whether the availability of SpecDP in Greek as an A' position for operators (demonstratives, focused genitives) and topics as well next to serving as an A position for subjects of predication constitutes evidence for *two* D projections. The answer cannot be a straightforward one, along the lines of Greek possessing an extra D projection with an A' specifier, because non-dislocated possessors are always postnominal, unlike English *Tom's diner*, for instance. On top of that, it is also true that, for some speakers, wh-extraction out of a DP with DS is much worse than extraction from a monadic DP, as in (33) below. This would suggest that SpecDP can host a subject, as an A position, while simultaneously blocking an A' operation, wh-extraction.

- (33) a. ? tinos_i ides [to petrino spiti t_i]?
 whose saw.2ndPL the of.stone house
- b. ?* tinos ides [to petrino to spiti t_i]?
 whose saw.2ndPL the of.stone the house
- ‘Whose stone house did you see?’

5 CONCLUSION

We have offered a novel account of Determiner Spreading in Greek. In doing so, we have distinguished it from the superficially similar phenomena of Semitic definiteness spreading and Mainland Scandinavian double definiteness. At the same time, we suggested it be unified with epexegesis, along the lines of Stavrou-Sifaki (1995), with both phenomena being instances of DP predication. This analysis has a number of advantages over previous analyses. First of all, it explains the ‘free’ distribution between D-A-D-N and D-N-D-A in DS. It also captures all the different orders in (3) and (6), while excluding (5) with no novel assumptions. The restrictive interpretation of the phenomenon is argued to be a pragmatically induced subcase of its predicative function. As one would expect from a subject-predicate configuration, it is a relation between a SpecXP (the subject) and a predicate (the X’): no special functional categories are postulated, no reduced relative CPs are taken to be embedded within the DP, no unidentified categories are required and, for what it is worth, no movement operations (and their triggers) are necessary.

Most crucially in terms of methodological parsimony and commitment to Occam’s Razor, DS has clearly been shown not to be a particular *construction*, a configuration at the periphery of grammar. On the contrary, it was argued to occur when elliptical DPs are involved in referential predication and, essentially, identical to epexegesis: LF can see both the highest category

(D) and the internal structure (subject-predicate) thereof and interprets both accordingly.

Comparing our account with competing analyses of DS we reach the conclusion that not only ours accounts for word order facts and the semantic interpretation of DS in a considerably more thorough fashion but that also it does so using a significantly simpler theoretical and methodological armamentarium.

REFERENCES

- Abney, S. P. (1987). *The English noun phrase in its sentential aspect*. Ph.D. thesis, MIT.
- Alexiadou, A. & Wilder, Ch. (1998). Adjectival modification and multiple determiners. In Alexiadou, A. & Wilder, Ch. (eds.), *Possessors, predicates and movement in the DP*. Amsterdam: Benjamins, 303-332.
- Alexiadou, A. & Stavrou, M. (1998). *On the relation between 'strength' and morphological richness: crosslinguistic asymmetries in noun movement*. Paper delivered at the 8th International Conference on Morphology, Budapest.

- Androutsopoulou, A. (1994). The distribution of the definite determiner and the syntax of Greek DPs. In *Proceedings of the 30th regional meeting of the Chicago Linguistic Society*. Chicago: University of Chicago Press, 16-29.
- Androutsopoulou, A. (1995). The licensing of adjectival modification. In *Proceedings of the 14th WCCFL*. Stanford: CSLI.
- Bowers, J. (1993). The syntax of predication. *Linguistic Inquiry* **24**: 591-656.
- Campbell, R. (1996). Specificity operators in SpecDP. *Studia Linguistica* **50**, 161–188.
- Campos, H. & Stavrou, M. (2004). Polydefinite constructions in Modern Greek and in Aromanian. In Mišeska Tomić, O. (ed.) *Balkan Syntax and Semantics*. Amsterdam: Benjamins, 136-173.
- Chomsky, N. (1993). A minimalist program for linguistic theory. In Hale, K. & Keyser, S. J. (Eds.) *The View from Building 20*. Cambridge, MA: MIT Press. 1-52
- Chomsky, N. (2000). Minimalist Inquiries: The Framework. In Martin, R., Michaels D. & Uriagereka, J. (Eds.) *Step by Step: Essays in Minimalist Syntax in Honor of Howard Lasnik*. Cambridge, MA: MIT Press. 89-155
- Cinque, G. (1994). On the evidence of partial N-movement in the Romance DP. In Cinque, G. et al. (eds.), *Paths towards universal grammar*. Washington D.C.: Georgetown University Press, 85-110.

- Corver, N. & Delfitto, D. (1999). *On the nature of pronoun movement*. In Van Riemsdijk, H. (ed.), *Clitics in the languages of Europe*, 799-861.
- Delsing, L.-O. (1988). The Scandinavian noun phrase. *Working Papers in Scandinavian Syntax* **42**, 57-79.
- Den Dikken, M. (1998). Predicate inversion in DP. In Alexiadou, A. and C. Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*. Amsterdam: John Benjamins, 177-214.
- Den Dikken, M. (2001). 'Pluringulars', pronouns and quirky agreement. *The Linguistic Review* **18**, 19-41.
- Diesing, M. (1992). *Indefinites*. Cambridge, Mass.: MIT Press.
- Dobrovie-Sorin, C. (2000). (In)definiteness spread: from Romanian genitives to Hebrew construct state nominals. In Motapanyane V. (ed), *Comparative studies in Romanian syntax*. Amsterdam : North Holland – Elsevier.
- Giannakidou, A. & Stavrou, M. (1999). Nominalization and ellipsis in the Greek DP. *The Linguistic Review* **16**, 295-331.
- Giusti, G. (1995). A unified structural representation of (abstract) case and article. In Haider H., Olsen S. & Vikner S. (eds.), *Studies in comparative Germanic Syntax*. Dordrecht: Kluwer, 77-93.
- Giusti, G. (1997). The Categorical Status of Determiners. In Haegeman L. (ed.), *The New Comparative Syntax*. London: Longman, 95-123.

- Giusti, G. (2003). The functional structure of noun phrases: a bare phrase structure approach. In Cinque, G. (ed.) *Functional Structure in DP and IP*. Vol. 1. Oxford: Oxford University Press, 54-90.
- Grohmann, K. (2003). *Prolific Domains. On the anti-Locality of movement dependencies*. Amsterdam: Benjamins.
- Hellan, L. (1986). The headedness of NPs in Norwegian. In Muysken, P. & Van Riemsdijk, H. (eds.), *Features and projections*. Dordrecht: Foris. 89-122.
- Holmberg, A. and Nikanne, U. (2002). Expletives, Subjects, and Topics in Finnish. In Svenonius, P. (ed.), *Subjects, Expletives and the EPP*. Oxford: Oxford University Press. 71-105.
- Horrocks, G. & Stavrou, M. (1986). Mia proti prosengisi ke erminia ton epithetikon prosdiorismon sta Nea Ellinika. ['A first approach and interpretation of adjectival modification in Modern Greek'] In *Studies in Greek Linguistics. Proceedings of the the 7th annual meeting of the Department of Linguistics, Faculty of Philosophy, Aristotelian University of Thessaloniki*. Thessaloniki: Kyriakidis. 109-116.
- Horrocks, G. & Stavrou, M. (1987). Bounding theory and Greek syntax: evidence for wh-movement in NP. *Journal of Linguistics* **23**: 79-108.
- Kayne, R. S. (1994). *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.

- Kester (1996). *The nature of adjectival inflection*. Utrecht: OTS.
- Kolliakou, D. (1998). Linkhood and Multiple Definite Marking. In Bouma, G. Kruijff G.-J. and Oehrle R. (eds.), *Proceedings of the 1998 Conference on Formal Grammar, Head-Driven Phrase Structure Grammar, and Categorical Grammar (FHCG '98)*, 14-22.
- Kolliakou, D. (2003). *Nominal constructions in Greek: implications for the architecture of grammar*. Stanford: CSLI Publications & Chicago: University of Chicago Press.
- Kolliakou, D. (2004). Monadic definites and polydefinites: their form, meaning and use. *Journal of Linguistics* **40**: 263-323.
- Lasnik, H. (1991). On the necessity of binding conditions. In Freidin, R. (ed.), *Principles and parameters in comparative grammar*. Cambridge, Mass.: MIT Press, 7-28.
- Larson, R. (1999). *Semantics of Adjectival Modification*. Lectures presented at the Dutch National Graduate School (LOT), Amsterdam.
- Larson, R. (2004) *The deep position of nominal modifiers*. Talk delivered at CUNY.
- Longobardi, G. (1994). Reference and proper names: a theory of N-movement in syntax and logical form. *Linguistic Inquiry* **25**: 609-665.

- Manolessou, I. (2000). *Greek noun phrase structure: a study in syntactic evolution*. Ph.D. thesis, University of Cambridge.
- Marinis, Th. & Panagiotidis, Ph. (2001). Determiner Spreading as Predication. In Clairis, Ch. (ed.), *Recherches en linguistique grecque*. Paris: L'Harmattan
- Panagiotidis, Ph. (2000). Demonstrative determiners and operators: the case of Greek. *Lingua* **110**: 717-742.
- Panagiotidis, Ph. (2002) *Pronouns, clitics and empty nouns*. Amsterdam: Benjamins.
- Platzack, C. (1996). The Initial Hypothesis of Syntax: A Minimalist Perspective on Language Acquisition and Attrition. In Clahsen, H. (ed.), *Generative Perspectives on Language Acquisition. Empirical Findings, Theoretical Considerations, Crosslinguistic Comparisons*. Amsterdam: John Benjamins, 369-414.
- Radford, A. (1993). Head-Hunting: on the trail of the nominal Janus. In Corbett, G. et al. (eds.), *Heads in grammatical theory*. Cambridge: CUP. 73-113.
- Ritter, E. 1991. Two functional categories in noun phrases: evidence from Modern Hebrew. In Rothstein, S. (ed.), *Perspectives on Phrase Structure: Heads and licensing*. [Syntax and Semantics 25]. San Diego: Academic Press, 37-62.

- Sadler, L. & Arnold, D. (1994). Prenominal adjectives and the phrasal/lexical distinction. *Journal of Linguistics* **30**:187-226.
- Siloni, T. (1997). *Noun Phrases and nominalizations: The Syntax of DPs*. Kluwer.
- Stavrou-Sifaki, M. (1995). Epexegetis vs. apposition in Modern Greek. *Epistimoniki Epetirida tis Filosofikis Sholis tu Panepistimiu Thessalonikis* 5. Thessaloniki: Aristotle University of Thessaloniki. 215-250.
- Stavrou, M. (1996). Adjectives in Modern Greek: an instance of predication or an old issue revisited. *Journal of Linguistics* **32**: 79-112.
- Stavrou, M. (1999). The position and serialization of APs in the DP: evidence from Greek. In Alexiadou, A., Horrocks, G. & Stavrou, M. *Studies in Greek Syntax*. Dordrecht: Kluwer. 201-225.
- Stavrou, M. & Horrocks, G. (1989). Enklitikes kai deiktikes antonymies mesa stin OF [Enclitic and demonstrative pronouns in NP]. *Proceedings of the Annual Meeting of the Department of Linguistics, Faculty of Philosophy*. Thessaloniki: Aristotle University of Thessaloniki. 225-243.
- Stowell, T. (1981). *Origins of phrase structure*. Ph.D. thesis, MIT.
- Taraldsen, K. T. (1990). D-projections and N-projections in Norwegian. In Mascaró, J. & Nespor, M. (eds.), *Grammar in progress. Essays in honor of Henk van Riemsdijk*. Dordrecht: Foris. 419-432.

Williams, E. (1994). *Thematic Structure in Syntax*. Cambridge, Mass.: MIT Press.

FIGURE 1

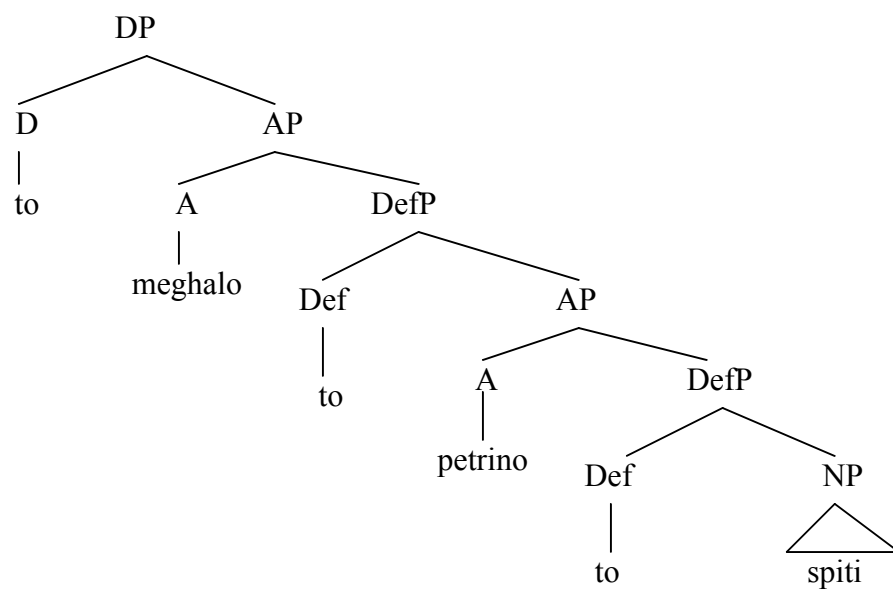


FIGURE 2

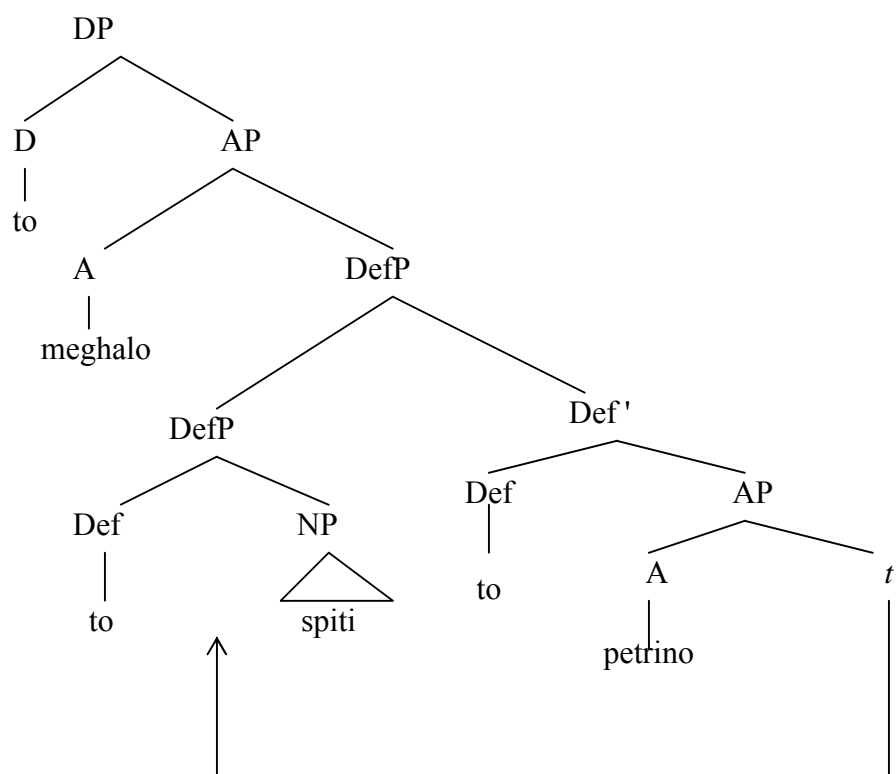


FIGURE 3

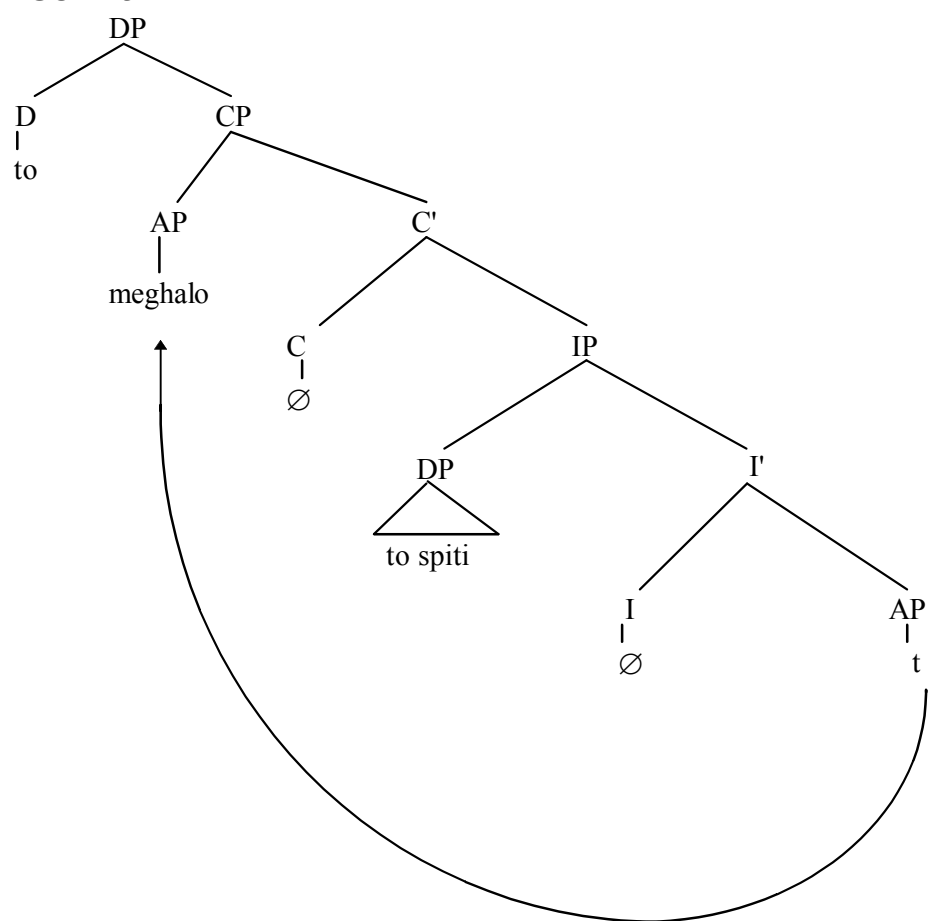


FIGURE 4

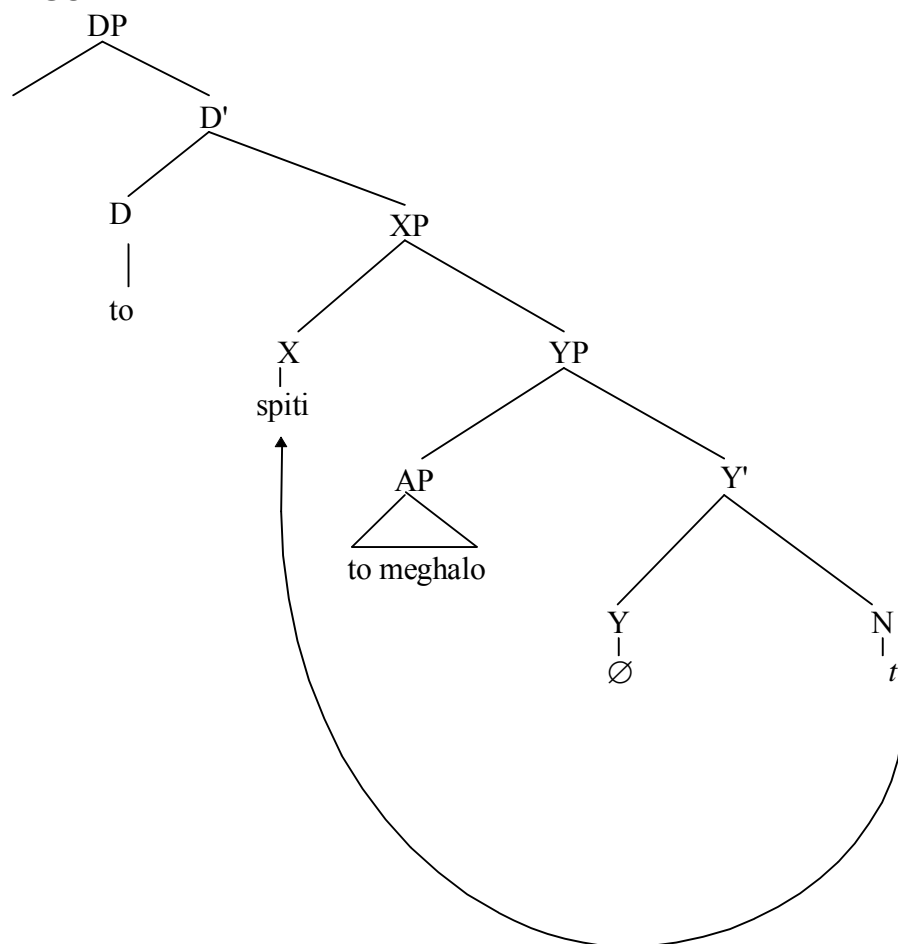


FIGURE 5

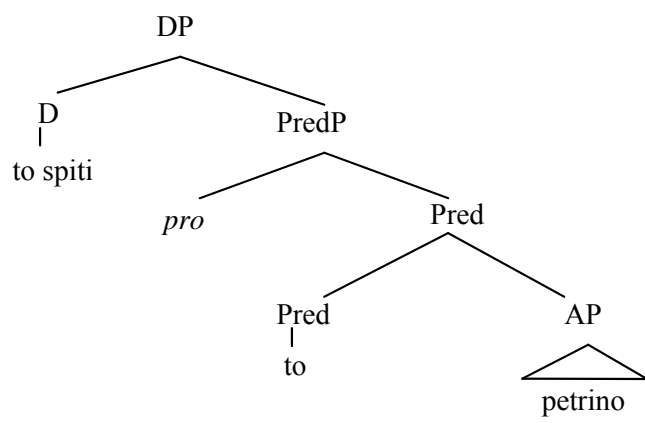


FIGURE 6

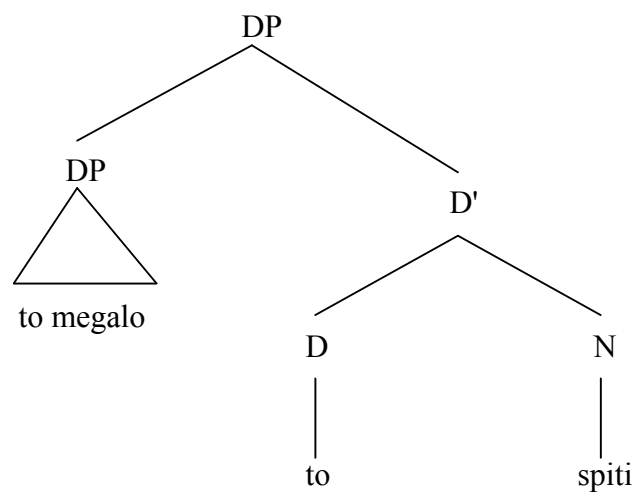


FIGURE 7

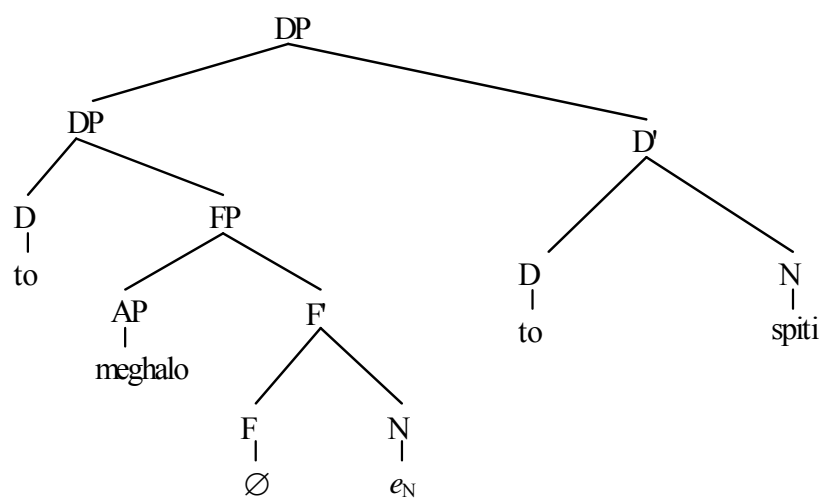


FIGURE 8

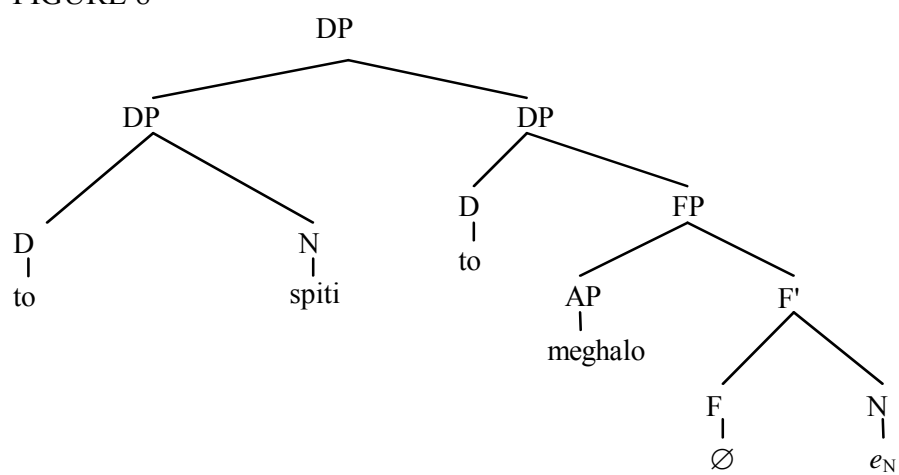
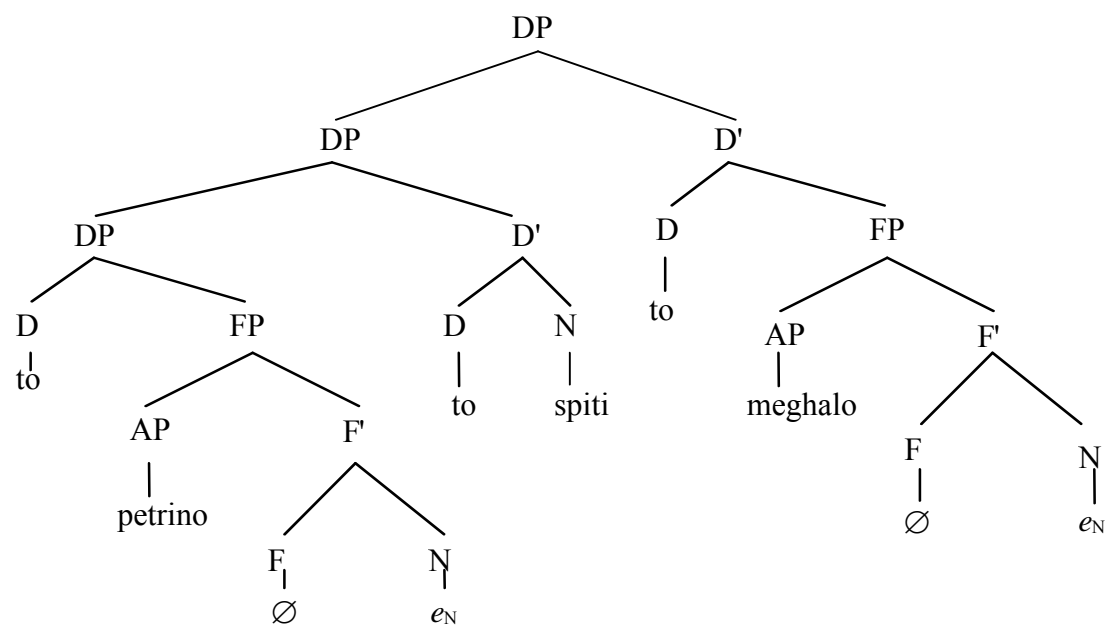


FIGURE 9



FOOTNOTES

¹ To the best of our knowledge, the term ‘Determiner Spreading’ was introduced by Androutsopoulou (1994). We prefer this neutral term over the more recent ‘polydefinite’ (Kolliakou 2003; 2004), because Greek ‘definite’ determiners (the *o*, *i*, *to* paradigm) are not exclusively definite in interpretation: Giannakidou & Stavrou (1999) have shown the Greek ‘definite’ article to be an intensionalisation operator. Expectedly, Determiner Spreading is not a definite construction: for instance, it is possible with a generic reading. We will nevertheless continue using ‘D’, ‘(definite) determiner’ and ‘(definite) article’ throughout this paper to refer to the *o*, *i*, *to* paradigm. Regarding the Greek ‘indefinite determiner’, we will have very little to say about it, as this never occurs in DS structures and it does not uncontroversially belong to the syntactic category of Determiner.

² See Manolessou (2000: Ch. 4) for a detailed description and discussion.

³ Articles and related markers appear in boldface throughout this section.

⁴ FUT= “future”; SUBJ= “subjunctive”. Example adapted from Kolliakou (2004: 270). Discussion here follows Kolliakou (1998; 2004) and Manolessou (2000: Ch. 4).

⁵ We return to this observation in section 4.3.

⁶ See Kolliakou (2004) on the relevance of prosody in disambiguating Greek DPs.

⁷ Despite this marked as ungrammatical in Campos & Stavrou (2004) – see discussion in section 4.4.

⁸ A further piece of evidence potentially supporting the relevance of predication in DS is the fact that only intersective adjectives can participate in it as Richard Larson (p.c.) pointed out. Very interestingly, DS with *epithets* such as *murlos* (‘nutter’), *kopanos* (‘blockhead’) and so on is interpreted predicatively and *never* as restrictive. We leave this open, as relatively little is

understood about the position, referential properties (but see Lasnik 1991) and feature-makeup of epithets. The interested reader is referred to the discussion in section 4.4, Manolessou (2000: Ch. 4) and Campos & Stavrou (2004).

⁹ Actually, Romanian, Aromanian and Albanian (Campos & Stavrou 2004; Anamaria Fălăus, p.c.) also seem to have Determiner Spreading; all three languages possess what looks like a dedicated D-element for use in the DS environment: *cel* in Romanian, *atsel* in Aromanian and *të* in Albanian. Not coincidentally, all these varieties belong to the Balkan *Sprachbund* and their syntax seems significantly influenced in this respect by that of Greek. See Campos & Stavrou (2004) for more details.

¹⁰ We are grateful to Idan Landau for discussing and elucidating the Hebrew facts. Actually, there are intriguing similarities of Hebrew adjectival modification to Construct State nominals, where a sort of ‘definiteness spreading’ also occurs (Ritter, 1991; Siloni, 1997; Dobrovie-Sorin, 2000).

¹¹ The examples in (11) are Norwegian, from Giusti (2003). As ‘Mainland Scandinavian’ here refers to Swedish and Norwegian dialects but not Danish, (11a) is grammatical in Danish but (11b) is out. The contrast between (11c) and (11d) obtains in all the three: Danish, Swedish and Norwegian. In most Scandinavian varieties (11d) has an emphatic / demonstrative interpretation instead, and this is why is starred under a ‘the boy’ reading.

¹² Actually, it is anything but obvious that *-en* / *-et* is a D article, despite Hellan (1986) and Taraldsen (1990) arguing so. It has been convincingly suggested that *-en* / *-et* is a separate functional category involving a syntactic feature [+def] (cf. Kester, 1996: 141-154 and, especially, Delsing, 1988) or a marker of definiteness agreement (Giusti 2003); in the latter

case, (11c) is preferred over (11d) on economy considerations, because (11c) would project less structure.

¹³ As the analysis here heavily builds on the one in Marinis & Panagiotidis (2001), we will not summarise it here.

¹⁴ There being no such thing as a ‘Minimalist Theory’: minimalist aspirations are methodologically expressible in any grammatical framework; see Chomsky (2000: 92).

¹⁵ SpecDP is the position for DP-internal focus, topic (Horrocks & Stavrou, 1987) and demonstratives (Stavrou & Horrocks, 1989; Campbell, 1996; Panagiotidis, 2000) in GREEK. More discussion on SpecDP is deferred until section 4.2.

¹⁶ Contrast this to the rather ‘productive’ nature of Mainland Scandinavian double definiteness markers *-en* and *-et*, as they can appear in the *absence* of *den* and *det* with interesting interpretive effects (albeit different from those of DS): compare *Vitte Hus-et* (‘The White House’) with *det vitte hus-et* (‘the white house’, e.g. on the hill). Again, see Hellan (1986), Delsing (1988) and Taraldsen (1990) for discussion.

¹⁷ But note that Manolissou (2000: Ch.4) presents evidence that historically D-N-D-A predates D-A-D-N in Greek by several centuries.

¹⁸ Why this is the case is beyond the scope of this work: the interested reader is referred to Manolissou’s work for insights.

¹⁹ Although they do not take them to be both DPs.

²⁰ We are indebted to Caroline Heycock and Kleanthes Grohmann for discussing this topic with us.

²¹ I.e. the *o*, *i*, *to* paradigm. See footnote 1.

²² We treat D-linking and specificity in unison here. No theoretical claims are implied. We are grateful to an anonymous reviewer for extensive comments on a previous version of this paper.

²³ The structure exemplified in (26) is extremely common and a way to express kinship terms with proper names in Greek: *o thios (o) Nikos* ('uncle Nikos').

²⁴ Naturally, DS with *two* elliptical DPs is fine, especially as an elliptical answer to a question like "Which house would you buy?": *to meghalo to petrino* ('the big stone one').

²⁵ In other words, and as Campos & Stavrou (2004) also claim, the D heading the DS constituent (the 'predicate' one) is also the predication operator. It is both referential and predicative, reminiscent of Homberg & Nikanne's (2002) *Fin*, with its mixed A and A' properties.

²⁶ The discussion here has greatly benefited from discussions with Kleanthes Grohmann, who we wish to thank.

²⁷ Alternatively, we will have to split DP into at least a 'nominal C' and 'a nominal Infl' layer. DS would then target the specifiers of this 'nominal Infl', which could be equated to Campos & Stavrou's (2004) nominal Pred category. See, once more, Horrocks & Stavrou (1987) as well as Giusti (1995) for D as a nominal Complementiser (hence SpecDP as an A' position) and Abney (1987) for D as a nominal Inflection (hence SpecDP as an A position). Campbell (1996) and Den Dikken (2001), as well as footnote 15, contain some further discussion. Note that the above would *not* entail that we import a full clausal structure into DS, like in Alexiadou & Wilder (1998): we cannot propose a constituent with full discourse (C) and temporal / aspectual (Infl) structure as explained in section 4.2 on illegal DS subjects.