

Polydefinites in Greek: a close appositive analysis*

1 Introduction

This paper discusses polydefinites in Greek, i.e. combinations of an adjective and a noun where each features its own determiner, as in (1).

- (1) a. to spiti to megalo
the house the big
b. to megalo to spiti
the big the house

Polydefinites co-exist in the language with monadics like (2), i.e. modification structures where only one determiner is present—although polydefinites have special semantic and pragmatic properties (see Alexiadou and Wilder (1998); Alexiadou (2001); Kolliakou (2004); Campos and Stavrou (2004), and also section 4 of this paper).

- (2) to megalo spiti
the big house

Our proposal is to treat polydefinites as a case of close apposition, as in (3) from Greek and (4) from English:

- (3) a. o aetos to puli
the.MASC eagle the.NEUT bird
b. to puli o aetos
the.NEUT bird the.MASC eagle

*Acknowledgments

- (4) a. Burns the poet
- b. the poet Burns

The affinity of polydefinites to close appositives has been noted in passing by a number of authors (Stavrou, 1995; Kolliakou, 2004; Panagiotidis, 2005), but it has not been exploited systematically. We propose that the two constructions are structurally very similar, in that both consist of two (or more) DPs. What makes polydefinites, which contain (overtly) one adjective and one noun, different from close appositives, which contain (overtly) two nouns, is the fact that polydefinites contain noun ellipsis. We argue that these two key properties of polydefinites—the appositive relationship between their subparts and the ellipsis site inside one of them—can account for the properties of the construction. We provide an overview of these properties in the following section.

Before we proceed, we should note that throughout the paper we will favour the term ‘polydefinite’ (from Kolliakou 2004) over the more common ‘determiner spreading’, because the latter reflects assumptions we do not endorse about the syntax of the construction. In particular, in many treatments of the phenomenon, the ‘adjectival’ definite articles are semantically expletive, either realizing copies of the moved determiner, or lexicalizing a functional head distinct from the determiner. This has the undesirable consequence that the different occurrences of the definite article in polydefinites have different properties from each other and from the definite article in monadic definites (a term also due to Kolliakou). By contrast, the approach to polydefinites based on apposition, advocated here, makes readily available an explanation for the occurrence of multiple determiners.

1.1 Core properties of Greek polydefinites

One of the best-known properties of polydefinites in Greek is the ordering freedom that they enjoy (Androutsopoulou, 1995; Alexiadou and Wilder, 1998; Campos and Stavrou, 2004; Panagiotidis, 2005). This was illustrated in (1) repeated below as (5). The fact that in polydefinites the adjective can either precede or follow the nominal DP contrasts with the case of monadic definites, where the adjective necessarily precedes the noun it modifies, as shown in (6).

- (5) a. to spiti to megalo
the house the big
- b. to megalo to spiti
the big the house

- (6) a. to megalo spiti
the big house
- b. * to spiti megalo
the house big

The ordering freedom of constituents in a polydefinite persists even when more than one adjective is present, as illustrated in (7) (see Alexiadou and Wilder (1998); Panagiotidis (2005), but cf. Androutsopoulou (1995); Campos and Stavrou (2004)).

- (7) a. to megalo to petrino to spiti
the big the stone the house
- b. to megalo to spiti to petrino
the big the house the stone
- c. to spiti to megalo to petrino
the house the big the stone
- d. to spiti to petrino to megalo
the house the stone the big
- e. to petrino to spiti to megalo
the stone the house the big
- f. to petrino to megalo to spiti
the stone the big the house

Any analysis has to account for the word order possibilities in a principled way. An obvious choice is to employ movement in order to derive the different word orders. This option has been taken up by most authors. Moreover, the movement operation has often been taken to target a focus projection inside the DP. In section 3 we propose that the various ordering options are not derived by movement, but are instead base-generated. In section 4.3 we provide arguments that no Focus Phrase is motivated by the data at hand; instead, we argue that what look like focus-related interpretational effects derive straightforwardly from the ellipsis inside the ‘adjectival’ DP.

A second property of polydefinites often noted in the literature is that not all adjectives can take part in it, and not all otherwise available adjective interpretations survive in the polydefinite. With regards to the first issue, there seems to be a ban on non-intersective (strictly speaking, non-subjective) adjectives like ‘alleged’ (Alexiadou and Wilder (1998); Kolliakou (2004) among others), as indicated in (8). According to Alexiadou and Wilder (1998), a more general constraint, stated in (9), is operative, which effectively rules out non-predicative adjectives.

- (8) i ipotithemeni (*i) tromokrates
the alleged the terrorists

- (9) An adjective permits determiner spreading only if it can be used predicatively.

A second observation, due to Kolliakou, is that in polydefinites the adjective has to be interpreted restrictively with respect to the noun it modifies. This has the effect that (even pragmatically) non-restrictive adjectives are inadmissible in the construction. In (10), *dilitiriodis* ‘poisonous’ is non-restrictive when applied to cobras, since as a matter of world knowledge there are no non-poisonous cobras. The polydefinite cannot be used under such circumstances.

- (10) a. Idame tis dilitiriodis kobres.
saw.1PL the-PL.ACC poisonous-PL. ACC cobras-PL.ACC
‘We saw the poisonous cobras.’
b. # Idame tis dilitiriodis tis kobres.
saw.1PL the-PL.ACC poisonous-PL.ACC the-PL.ACC cobras-PL.ACC

Thus, a second desideratum for a theory of polydefinites is to define and derive the set of adjectives that can appear in the construction.

A final property of polydefinites is that, as the name suggests, they arise with definite determiners. As shown in (11), polyindefinites do not occur in Greek.

- (11) a. ena megalo (*ena) spiti
a big a house
b. ena spiti (*ena) megalo
a house a big

A third question, therefore, is why indefinite determiners do not spread.

As mentioned already, our proposal is to analyze polydefinites on a par with close appositives. We first discuss close apposition. In section 2 we present the syntactic and semantic properties that set close apposition apart from loose apposition. We suggest an analysis for the former in terms of R(eferential)-role identification. The syntax we propose for such structures involves a sisterhood relationship, in other words a multi-headed structure. In section 3 we apply this proposal to polydefinites in Greek. We show how the ordering freedom and the lack of polyindefinites is derived. We then briefly consider how the occurrence of multiple determiners is dealt with in existing accounts of the phenomenon in comparison to our own. In section 4 we discuss the semantic and pragmatic properties of polydefinites. We argue that positing an ellipsis site inside the polydefinite, in conjunction with the close appositive treatment, derives the set of admissible adjectives and adjective interpretations. Finally, we show that it is empirically and theoretically

more adequate to invoke ellipsis rather than a focus projection in accounting for the pragmatic properties of polydefinites, and in particular those that have been treated as focus-related. Section 5 concludes the paper.

2 On apposition

2.1 The distinction between close and loose appositives

The literature on apposition distinguishes between close and loose apposition, exemplified in (12):¹

- (12) a. Burns the poet (close apposition)
b. Burns, the poet (loose apposition)

Several differences have been noted in the literature between the two types of apposition in (12) (see among others for English Burton-Roberts (1975); Espinal (1991); Meyer (1992); McCawley (1998); Acuña-Fariña (1999); Huddleston and Pullum (2002); Keizer (2005); Potts (2005), and for Greek Stavrou (1995))—although we should point out that much more attention has been paid to loose than to close apposition. We will focus on the differences that seem most relevant.

One well-known difference between close and loose apposition relates to the intonational properties of the two constructions. The two elements partaking in close apposition belong to a single intonational unit. Loose apposition, by contrast, involves an intonational pause between its two sub-parts. This property is reflected in orthography by means of a comma (as shown in (12)), a dash or parentheses. Since loose apposition comprises two separate prosodic units, it is possible for each unit to feature its own stress. By contrast, in close apposition there can only

¹In the literature we find a variety of terms to refer to close vs. loose apposition, for instance restrictive vs. non-restrictive apposition (particularly in connection to the parallels between nominal appositives and relative clauses), integrated vs. supplementary appositives (Huddleston and Pullum, 2002; Potts, 2005), etc. We retain the terms close and loose apposition. Moreover, a number of different terms have been used to refer to the two sub-parts of appositives. In particular, for many authors ‘host’ or ‘anchor’ designates the (linearly) first subpart, and ‘appositive’, ‘apposition’ or ‘supplement’ designates the second one. Unfortunately these terms have been coined with loose apposition in mind and do not reflect the ways in which the latter is different from close apposition, which is our primary focus here. We therefore refrain from adopting these terms and use the somewhat awkward ‘first’ and ‘second’ subpart/ unit/ nominal constituent/ DP.

be one stress assigned. (In English close appositives, main stress falls on the rightmost element, which is neutral stress assignment in this language.)

Given the presence of a prosodic boundary, it is not surprising that in loose apposition the two parts can be separated by expressions like *namely*, *that is (to say)*, *or rather*, *in other words* and the like. As expected, this is impossible in the case of close apposition:²

- (13) a. the head of department, namely Prof. Todorov
b. * Burns namely the poet

In fact, while nothing can intervene between the two parts in a close appositive, the two parts of a loose appositive need not even be adjacent:

- (14) a. [The two dominical sacraments] stand out from all the rest – namely [baptism and Holy Communion]. (Huddleston and Pullum, 2002)
b. I met [the new head of department] the other day, [Prof. Todorov].

Of particular interest to the syntax of these constructions is the fact that close apposition necessarily involves a relationship between two DPs, whereas any two categories can come together under loose apposition:

- (15) a. He [_V ate], or rather [_V devoured], the whole pie. (adapted from Stavrou (1995))
b. It was [_{PP} at about 7 o'clock], [_{PP} just before sunset], that they left. (Burton-Roberts, 1975)
c. When the patient closed his eyes, he had absolutely no [_A spatial] (that is, [_A third-dimensional]) awareness whatsoever. (Huddleston and Pullum, 2002)
d. The goal is to produce individuals who not only [_{TP} possess 'two skills in one skull'], that is, [_{TP} are bicultural], but can also act as human links between their two cultures. (Huddleston and Pullum, 2002)

²To be more precise, expressions like *namely* can occur in specifying, but not ascriptive loose apposition. The distinction between these two kinds of loose apposition is discussed in Huddleston and Pullum (2002) (it seems to correspond to what traditional Greek grammars call *epeksegesis* and *parathesis* respectively).

- (i) a. The first contestant, (namely) Lulu, was ushered on stage. (specifying)
b. Kim Jones, (??namely) a quite outstanding student, won a scholarship to MIT. (ascriptive)

We assume that both kinds of loose apposition receive a similar treatment, and we will for the remainder ignore the distinction.

- e. [IP John was speechless], I mean, [IP he was really surprised].
- (16)
- a. * He [V ate] [V devoured] the whole pie.
 - b. * It was [PP at about 7 o'clock] [PP just before sunset] that they left.
 - c. * When the patient closed his eyes, he had absolutely no [A spatial][A third-dimensional] awareness whatsoever.
 - d. * The goal is to produce individuals who not only [TP possess 'two skills in one skull'] [TP are bicultural], but can also act as human links between their two cultures.
 - e. * [IP John was speechless] [IP he was really surprised].

Finally, and most crucially for our purposes, the two constructions differ with regards to their referential properties. In nominal loose apposition, the first nominal constituent picks out a unique entity and the second one provides supplementary information about that entity. In close apposition, on the other hand, reference to a unique entity is determined by the two DPs together. This is the reason that belies the contrast in (17), taken from Potts (2005). We return to this particular difference between close and loose apposition presently.³

- (17)
- a. Armstrong, the Texan, is a cyclist. #Armstrong, the Ohioan, is an astronaut.
 - b. Armstrong the Texan is a cyclist. Armstrong the Ohioan is an astronaut.

In view of the characteristics of loose apposition reviewed above, it seems that the two subparts do not stand in a tight syntactic relationship. There can certainly be no selectional requirement between them, since they can be of any category and since they can be separated from each other. In other words, the second element seems to behave like an adjunct, a parenthetical, or even a non-integrated constituent (see Potts (2005) for a recent analysis and Dehé and Kavalova (2007) for discussion and references). It is thus not surprising that nominal loose appositives like (18a) have been treated on a par with supplements/interpolations/appendages, such as the rest of the examples in (18) (Huddleston and Pullum, 2002):

- (18)
- a. Pat – the life and soul of the party – had invited all the neighbours.
 - b. The best solution, it seems to me, would be to readvertise the position.
 - c. Jill sold her internet shares in January – a very astute move.

³The contrast in (17) illustrates the restrictive nature of close apposition. We discuss the restrictive interpretation in close apposition in connection to polydefinites in section 4; see also the discussion in the following section.

- d. Jill – and I don’t blame her – left before the meeting had ended.

We follow Dehé and Kavalova (2007) and Ackema and Neeleman (2004) in considering loose apposition a parenthetical structure (contra de Vries (2006))—though ultimately the analysis of loose apposition is immaterial to what we say about close apposition and polydefinites.

2.2 Loose appositives are predicative, close appositives are referential

If loose appositives are taken to be parentheticals, their intonational properties follow straightforwardly. Furthermore, this kind of approach to loose apposition is consonant with what seems to be its semantic contribution. Doron (1992, 1994) and Potts (2005) provide several arguments for the claim that the second part of a loose appositive is semantically a predicate nominal and not a referential nominal. This claim captures the fact that the second part of a loose appositive does not pick out a referent, but simply provides a (supplementary) description for the entity referred to by the first sub-part. Consonant with this claim is the following generalization from Potts (2005):

- (19) An expression *E* can appear as the predicate in a predicative copular construction if and only if *E* can appear in an NA’s [non-integrated appositive’s, ML & KS] appositive position. (Potts, 2005, 132)

What does pick out a referent in a nominal loose appositive is its first sub-part. As noted by Kolliakou (2004) and many others, the first NP of a nominal loose appositive has a uniqueness presupposition. Consider, for instance, the sentences in (20). The loose appositive in (20a) is appropriate, because ‘Guillem’ picks out a unique individual in the world. By contrast, the close appositive in (20b) is not felicitous in this context.

- (20) Tonight I will speak of a great French artist.
a. Guillem, the dancer,
b. # Guillem the dancer

Not only do close appositives lack a uniqueness presupposition for their first subpart; what picks out a unique referent is the construction as a whole, i.e. both subparts jointly contribute to reference. This means that the close appositive *Guillem the dancer* can only be felicitous in a context where more than one individual in the world bears the name ‘Guillem’. The following example from Kolliakou (2004: 274-275) gives such a context. In this case we observe the

exact opposite pattern: the loose appositive is infelicitous because the uniqueness presupposition associated with its first part is not satisfied, whereas the close appositive is fine:

(21) Tonight I will speak of the Van Gogh brothers, the painter and the critic.

a. Van Gogh the painter

b. # Van Gogh, the painter,

Since in close apposition both parts contribute to the determination of reference, neither is a predicate; the two nominal parts are both referential. This means that the predicate-NP analysis that Doron (1992, 1994) pursues for the second subpart of loose appositives does not extend to close apposition. Indeed, we do not believe that close appositives involve a subject-predicate relation. Rather, we suggest that both DPs involved in the construction are referential DPs. We take this to mean that both DPs have an R(eferential) role in the sense of Williams (1981, 1989); Higginbotham (1985); Zwarts (1992); Baker (2003). Let us briefly see what function R-roles fulfill in nominals. In the next section we spell out our proposal for the analysis of close appositives.

In line with the aforementioned authors, nominal elements have, in addition to other thematic roles they discharge, a referential role, the R-role, which is their external theta-role.⁴ The R-role is what enables a nominal element to act as a referential argument.⁵ In Williams' system, which we adopt, when a nominal occupies an argument position, its R-role is bound by a thematic role of the selecting predicate, whereas when the nominal occurs as a predicate, it assigns the R-role to its subject. We thus follow Williams (1989) and Baker (2003), contra Higginbotham (1985), in assuming that R-roles are not automatically saturated by (definite) determiners. Rather, the R-role survives until the topmost DP-layer of the nominal projection, where it either gets bound by one of the theta-roles of the verb (in the case of argument nominals), or it gets assigned to the subject of predication (in the case of predicate nominals).

⁴In Baker (2003), nouns come with a referential index, which is the syntactic correlate of the semantic fact that only nouns come with identity criteria.

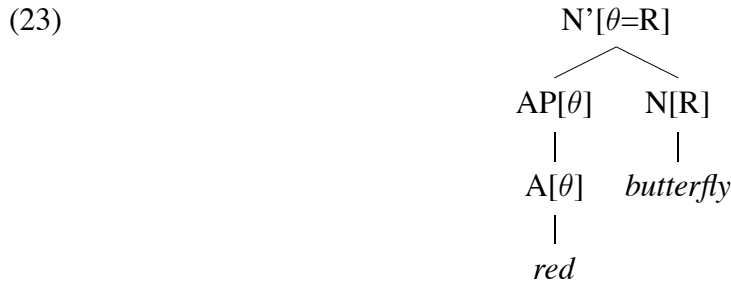
⁵Although the R-role is responsible for the (discourse-)referential properties of nominals, discourse reference is assigned outside the grammar, so that the syntax is independent of the system that ultimately assigns reference to nominal constituents.

2.3 Close apposition in terms of R-role identification

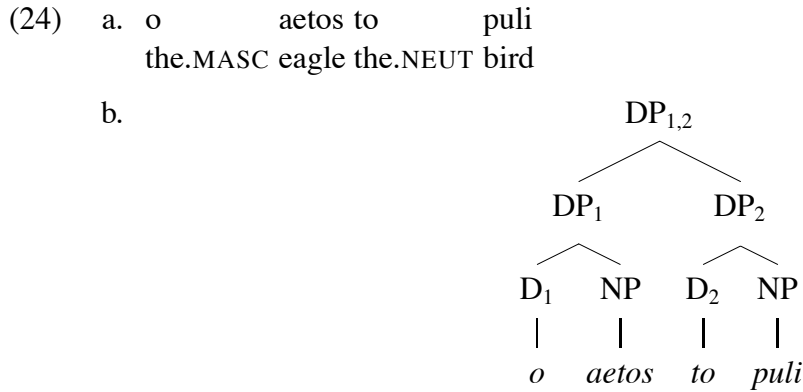
We propose that in close apposition an operation takes place which identifies the R-roles of two DPs. This operation can be thought of as complex argument formation. The proposal is schematically illustrated in (22).



Theta-identification is not new, and neither is identification that involves the R-role. Higginbotham (1985) proposes that this operation takes place in attributive adjectival modification, where the R-role of the noun gets identified with a theta role of the adjective, as depicted in (23):⁶



Applied to close appositives, theta-identification amounts to identification of two R-roles. This creates a syntactically symmetric structure, as illustrated in (24b):



That close appositives involve a symmetrical syntactic structure is strongly suggested by agreement facts. An adjective in predicative position can agree in gender with either DP of a close appositive (provided of course that it can sensibly apply to either DP), as shown in (25).

⁶Semantically, Higginbotham's theta-identification corresponds to the intersection of the set denoted by the noun and the set denoted by the adjective: 'a big butterfly' is a thing that is big and a butterfly. See also Heim and Kratzer (1998) for predicate modification as set intersection.

Note that such freedom in agreement is not granted in other nominal constructions, such as (25c), which could at first sight look as though they involve close apposition in the relevant sense.

- (25) a. O aetos to puli ine megaloprepos/ megaloprepo.
 the.MASC eagle the.NEUT bird is majestic-MASC/ majestic-NEUT
 ‘Eagle the bird is majestic.’
- b. To puli o aetos ine megaloprepos/ megaloprepo.
 the.NEUT bird the.MASC eagle is majestic-MASC/ majestic-NEUT
 ‘The bird eagle is majestic.’
- c. Emis i glosoloji piname/ *pinane.
 we.NOM the linguists are-hungry.1PL/ are-hungry.3PL
 ‘We linguists are hungry.’

An interesting characteristic of the structure in (24b) is that it is multi-headed: the highest DP is a member of the projection lines of both DP_1 and DP_2 . Multi-headed structures are independently argued for by Baker and Stewart (1999), who deal with serial verb constructions in terms of multi-headed verbal projections, namely multi-headed VoicePs, vPs and VPs. The fact that multi-headed structures like (24b) must involve phrases of the same category can be derived on the basis of fairly standard assumptions. For instance, in the framework of Neeleman and van de Koot (2002) categorial features are copied up from daughter nodes to mother nodes in the projection line and any identical features that are copied onto a node get identified (two identical features collapse into one). It then follows then that multi-headed structures necessarily involve phrases of the same category, since the categorial features would otherwise clash on the highest node.

Finally, note that identification of two R-roles solves a potential theta-theoretic problem: how can two DPs not violate the Theta Criterion in the presence of a single theta-role assigner? (Or else, why do close appositives/polydefinites not require as many theta-assigners as the number of DPs they consist of?) To illustrate this point, consider the case of secondary predication, as analyzed by Neeleman and van de Koot (2002), where a similar theta-theoretic problem arises. The following is an example from Dutch:

- (26) dat Jan_i Marie_j naakt_{i/j} ontmoette.
 that Jan Marie naked met
 ‘that Jan met Marie naked.’

One may reasonably ask why there is no violation of the Theta Criterion in secondary predication: how can two predicates (the verbal and the adjectival one) discharge their theta-roles in

the presence of a single DP? The answer is ‘through identification’. If the theta-role of ‘naked’ gets identified with either the internal or the external theta-role of the verb ‘meet’, the identified theta-role can be discharged in the presence of a single DP. A similar reasoning applies to (22): even though both DP_1 and DP_2 are referential and thus potential arguments, by identification of their R-roles it is the highest DP alone that acts as a single argument.

A welcome prediction is generated within this treatment of close apposition. If close apposition involves R-role identification, it follows that only nominal phrases can be part of a close appositive, since only nominal elements have an R-role. Recall that indeed only nominal constituents can be brought together under close apposition, in contrast to loose apposition, which can involve any two (identical) categories, see the contrast between (15) and (16) above.

3 Polydefinites as close appositives

We now turn to Greek polydefinites. The core ingredients of our analysis are the appositive relationship between the two DPs and the nominal ellipsis contained in the ‘adjectival’ part. In 3.1 we spell out the proposal. In section 3.2 we show how the ordering freedom follows from the analysis. In section 3.3 we discuss the lack of polyindefinites. Finally, in section 3.4 we consider how the occurrence of multiple determiners is dealt with by existing analyses of the phenomenon in comparison to our own.

3.1 The analysis

Our proposal is that polydefinites are an instance of close apposition. Polydefinites are only special in that they involve an elided noun in one of their DP-subparts (cf. Panagiotidis (2005)):

- (27) a. $[_{DP} [_{DP} \text{ to megalo } \emptyset] [_{DP} \text{ to spiti}]]$
 the big the house
- b. $[_{DP} [_{DP} \text{ to spiti}] [_{DP} \text{ to megalo } \emptyset]]$
 the house the big

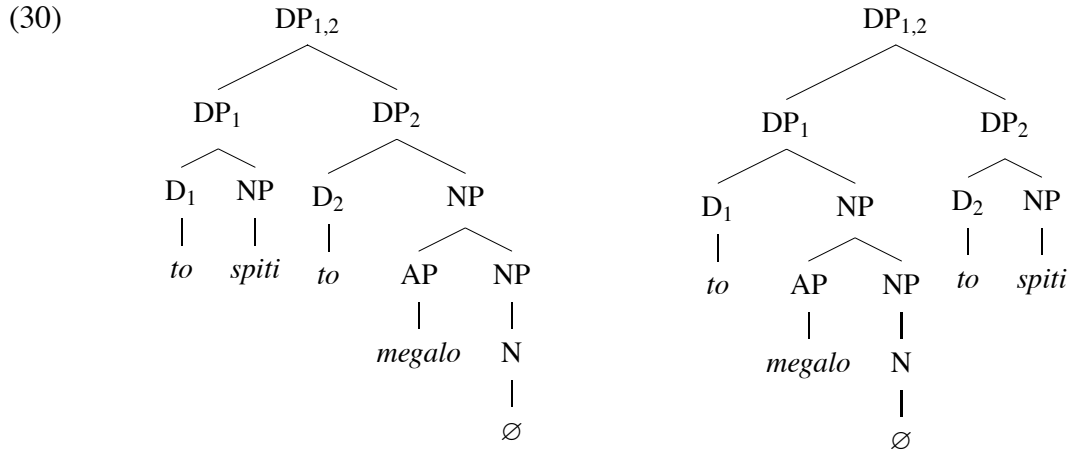
One piece of syntactic evidence that the two DPs form a DP constituent is that the two DPs share Kase and a selecting Preposition (see (28) and (29)). Nevertheless, the two DPs are semantically and syntactically fully formed and there do not seem to be any arguments that what

is involved is an asymmetric syntactic structure.⁷

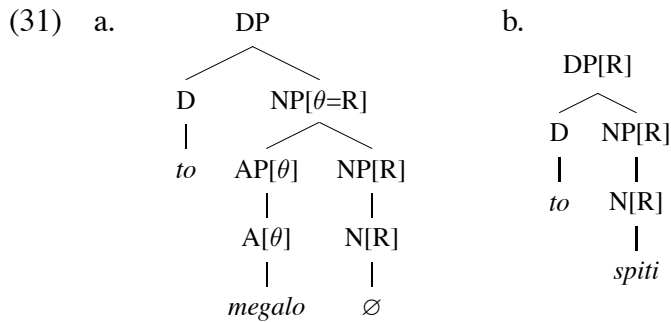
- (28) [_{KP} K [_{DP} [_{DP} tu palju] [_{DP} tu spitiu]]]
 the-GEN old-GEN the-GEN house-GEN

- (29) a. [_{PP} me_P [_{KP} K [_{DP} [_{DP} to kokino] [_{DP} to podhilato]]]]]
 with the-ACC red-ACC the-ACC bicycle-ACC
- b. * [_{PP} me_P [_{KP} K [_{DP} [_{DP} to kokino] [_{PP} me_P [_{DP} to podhilato]]]]]]]
 with the-ACC red-ACC with the-ACC bicycle-ACC

The structure we assign to polydefinites is given in (30):

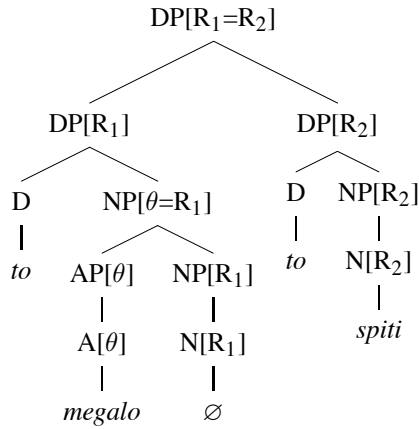


Let us see the workings of R-role identification in polydefinites in more detail. Higginbotham's theta-identification first takes place between the adjective and the null noun. This is illustrated in (31a). The resulting DP then undergoes R-role identification with the DP which contains the lexically realized noun, i.e. the DP in (31b). The result is (32).



⁷One argument against asymmetric and in particular predicative analyses of polydefinites has to do with the distribution of adjectives in the construction. We discuss this in section 4.2.

(32)



As regards the nature of the ellipsis site in the ‘adjectival DP’, two options are in principle available: one is that the elided noun is syntactically represented but deleted at PF. A second option is that the elided noun is syntactically represented as an empty category, for instance a *pro*. See Lobeck (2006) for extensive discussion. For the time being we will simply assume, in line with e.g. Giannakidou and Stavrou (1999), that what is involved is an empty category. In section 4.2 we will see an argument in favour of this position.

3.2 The word order freedom

As already mentioned, polydefinites display a freedom in word order which is not available in the case of monadic definites:

- (33) a. to spiti to megalo
the house the big
- b. to megalo to spiti
the big the house
- (34) a. *to spiti megalo
the house big
- b. to megalo spiti
the big house

Since we analyze polydefinites as an instance of close apposition, we expect the same ordering freedom in nominal appositives as well. We have already seen that this is indeed the case:

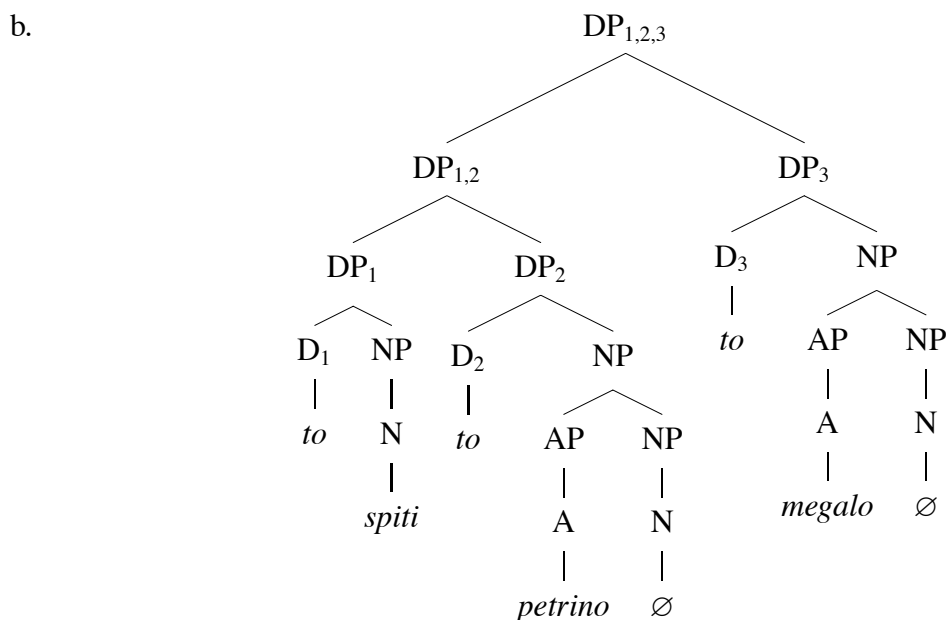
- (35) a. o aetos to puli
the.MASC eagle the.NEUT bird
- b. to puli o aetos
the.NEUT bird the.MASC eagle

- (36) a. Burns the poet
b. the poet Burns

The symmetric structure we propose for polydefinites/close appositives is perfectly consistent with their ordering freedom. Since the structure we propose is multiheaded, i.e. the two DPs are sisters, they can appear in either order.

Recall also that the ordering freedom persists when more than one adjective is present, so that the ordering possibilities multiply accordingly. Structurally, this means that we iterate R-role identification. The tree in (37b), for instance, represents the structure of (37a).⁸

- (37) a. *to spiti to petrino to megalo*
the house the stone the big



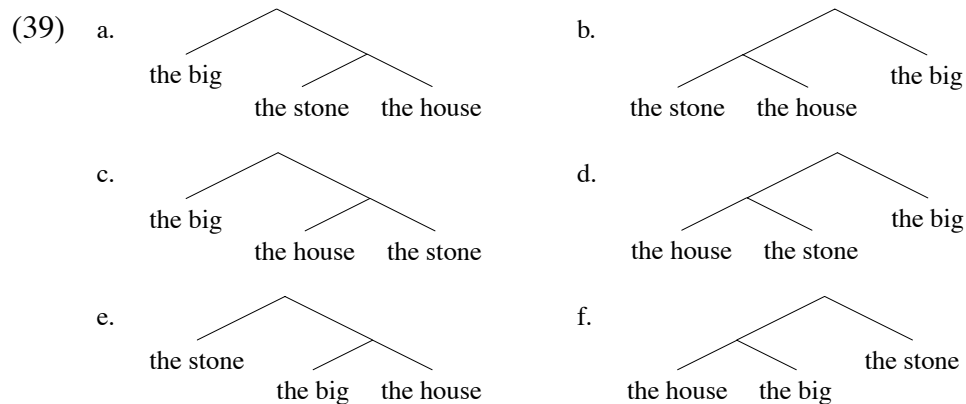
⁸Close apposition can also be recursive, given the right context:

- (i) (At a Greek Linguistics conference:)
- a. Gnorises ti Marina ti fonologo?
met-2sg the Marina the phonologist
'Did you meet Marina the phonologist?'
- b. Pja enois? Ti Marina ti fonologo tin Patrini i ti Marina ti fonologo tin
who-fem mean-2sg the Marina the phonologist the Patrasian or the Marina the phonologist the
Athenian
'Who do you mean? Marina the phonologist from Patras or Marina the phonologist from Athens?'

We thank Marcel den Dikken & Alexandra Ioannidou (p.c.) for raising this question.

Since the ordering within the appositive/polydefinite is free, we can (a) permute the order of DP_3 with respect to $DP_{1,2}$, (b) permute the order within $DP_{1,2}$ prior to combination with DP_3 , and (c) permute the order with which each adjective combines with the noun. The full paradigm is repeated in (38). The corresponding tree structures are given in a more abstract form in (39).

- (38) a. to megalo to petrino to spiti
the big the stone the house
- b. to petrino to spiti to megalo
the stone the house the big
- c. to megalo to spiti to petrino
the big the house the stone
- d. to spiti to petrino to megalo
the house the stone the big
- e. to petrino to megalo to spiti
the stone the big the house
- f. to spiti to megalo to petrino
the house the big the stone



As pointed out by Panagiotidis (2005), the ordering freedom of polydefinites is subject to the following restriction: an adjective (still) has to precede the noun if it is not preceded by a determiner. This is illustrated in (40):

- (40) a. *to spiti megalo to petrino
the house big the stone
- b. *to spiti to megalo petrino
the house the big stone

In the case of the ungrammatical example (40a), it is easy to see that it contains an independently illicit structure. Recall that in Greek monadic definites, the adjective can never follow the noun.

This is what goes wrong in (40a), which contains the illicit DP ‘the house big’. As for (40b), the ‘adjectival’ DP contains an elided noun which is modified by two adjectives. We believe that the ungrammaticality of (40b) is due to an independent ban in Greek on noun ellipsis with more than one adjective when the DP is definite (see also Velegrakis (2008) for discussion):⁹

- (41) * To mikro ksilino spiti aniki sto Niko ke to megalo petrino sto Jani.
 the small wooden house belongs to.the Nikos and the big stone to.the Janis

3.3 The lack of polyindefinites

One question that has not received a satisfactory answer in previous treatments of polydefinites is the absence of polyindefinites, see the examples in (42) repeated from earlier. Note that licensing of the elided noun cannot be the problem with (42), because noun ellipsis is licensed in Greek with indefinite determiners, as well as with no determiner at all (Giannakidou and Stavrou, 1999; Panagiotidis, 2005).

- (42) a. ena megalo (*ena) spiti
 a big a house
 b. ena spiti (*ena) megalo
 a house a big

We believe that the present proposal can shed some new light on this issue. In particular, what is interesting from our perspective is that exactly the same restriction applies in the case of nominal close apposition: close apposition necessarily involves two definite DPs. As noted by Stavrou (1995), it is not possible for either one to be indefinite. (The examples in (43) are fine as loose appositives.)

- (43) a. * o Nikos enas kathijitis
 the Nikos a professor
 b. * enas kathijitis o Nikos
 a professor the Nikos

⁹Note that with bare nominals or with indefinites there does not seem to be such a difficulty (Giannakidou and Stavrou, 1999, their example (10c)):

- (i) I Theodora agorase tria palia galika servitsia ke i Elena agorase dio kenurja italika.
 the Theodora bought-3SG three old French tea-sets and the Elena bought-3SG two new Italian
 ‘Theodora bought three old French tea sets and Elena bought two new Italian ones.’

Some speakers do not find (41) completely ungrammatical. As expected under the present analysis, these speakers also do not strongly object to (40b).

Since polydefinites are an instance of close apposition, the ban against indefinites is expected here too. On an approach that takes polydefinites to be an instance of close apposition, the lack of polyindefinites follows as a special case of this constraint. The source of this constraint is a matter we leave for future research.¹⁰

3.4 The source of the ‘extra’ determiner

In a certain sense, the essence of the polydefinite construction is that it involves multiple instances of the definite determiner. We explain this by assuming that polydefinites are instances of close appositives, albeit with N-ellipsis. Given that the two (or more) subparts of the polydefinite are full DPs, the double (or multiple) occurrence of the article follows in a straightforward way. Let us take a brief overview of the proposals available in the literature from this perspective.

We start with perhaps the most influential analysis of polydefinites on which many others build on, namely the one proposed by Alexiadou and Wilder (1998). According to these authors, the structure of polydefinites involves a Kaynean-style relative clause, whose subject is itself is a DP, rather than an NP. This base structure is given in (44a). The DADN order is derived as shown in (44b): ‘predicate raising’ takes place and moves the AP to [Spec, CP]. The DNDA order is derived by an additional (optional) step of DP raising to [Spec, DP], as shown in (44c).

- | | | | |
|------|----|---|-----------------------|
| (44) | a. | $[_{DP} D \textit{ the } [_{CP} [_{IP} DP \textit{ the book AP red}]]]$ | base structure |
| | b. | $[_{DP} D \textit{ the } [_{CP} AP \textit{ red } [_{IP} DP \textit{ the book } t_{AP}]]]]$ | ‘predicate-raising’ |
| | c. | $[_{DP} DP \textit{ the book } D \textit{ the } [_{CP} AP \textit{ red } [_{IP} t_{DP} t_{AP}]]]]$ | DP raising to Spec,DP |

¹⁰One could argue, as in fact Kariaeva (2004) does, that what we treat as the indefinite determiner, *enas-mia-ena*, is in fact a quantifier (cf. Giusti (1997)), and is therefore not expected to spread. By hypothesis then, the indefinite determiner in Greek is phonetically null. On these assumptions, it is actually not the case that indefinite determiners do not spread, as witnessed at least by the ordering possibilities of modified, seemingly ‘bare’ nouns.

- (i) a. spiti megalo
house big
- b. megalo spiti
big house

As far as we know the option of treating (i) as involving spreading of a null determiner has not been pursued in the literature, nor are we aware of arguments that would compel one to assume the existence of null indefinite determiners in Greek. In all, it is far from clear that (i) has anything to do with polydefinites. For the purposes of this paper we will assume that there is no spreading of the indefinite determiner, be that *ena* or a phonetically null one.

The occurrence of multiple determiners is baked into the analysis, in that by assumption the subject of the reduced relative clause is a DP, and not an NP, as in Kayne's original work. The motivation for this crucial departure from the Kaynean analysis is the general theoretical point that the subject of the relative must be a fully-fledged DP given its argumental status (Alexiadou and Wilder, 1998, 305, fn.2). Setting this aside, Alexiadou and Wilder provide a comprehensive treatment of polydefinites, without relying on the postulation of any novel functional projections inside the DP. Their analysis also offers an account of the set of admissible adjectives, linking it to predicative adjectives. However, as we will see in section 4.2, any analysis of polydefinites which assumes that the adjective and the noun are related via predication needs additional machinery in order to derive the full set of data concerning the distribution of adjectives in polydefinites.

Kariaeva (2004) follows earlier work by Androutsopoulou (1995) in that she proposes an analysis of polydefinites in a split-DP framework. To be precise, she assumes that the Greek DP is split into a DeicticP and a DP with an additional FocusP sandwiched inbetween the two, as in (45). She takes AP modifiers to be base-generated at a high (FocP) or low (NumP) functional position within the DP.

(45) [_{DeP} [_{FocP} [_{DP} [_{NumP} [_{NP}]]]]]

If an AP modifier is base generated low, it will enter into an agreement relationship with the N in terms of number and gender agreement. However, if a modifier is merged high, i.e. in the FocP above DP, then it has to enter an agreement relation with the DP, so it will show definiteness agreement with the DP alongside gender and number agreement. According to Kariaeva, this gives rise to a phonological copy of the definite article on the modifying adjective. This is how the presence of the extra determiners is accounted for. However, no independent argumentation is offered to support the assumption that high merger of the adjectival modifier would trigger definiteness agreement on the adjective. So, in effect, the account stipulates the existence of polydefinites, rather than explains it.^{11,12}

Another approach that introduces a new functional head in the DP is due to Campos and

¹¹In contrast to Alexiadou & Wilder, Kariaeva does not assume a predicative analysis, so her proposal does not face the criticism brought up in section 4.2 concerning the restrictions on the types of adjectives that can appear in polydefinites. This also means, however, that her analysis has nothing to offer on the subject of the set of admissible adjectives.

¹²The analysis of Kolliakou (2003) faces problems that are in important respects similar to those facing proposals that involve a split DP. Her HPSG framework allows for an elegant solution to the problem that multiple instances of the determiner in a single DP give rise to a single definite meaning. But her assumption that, phonologically, any N or A head can sport a clitic-like determiner is not independently motivated. She notes a parallel with the genitive

Stavrou (2004). They argue that polydefinites involve the structure in (46) (Campos and Stavrou 2004: 157, ex (37a)).

(46) [DP *the-pen*_D [FP [PredP *pro the*_{Pred} [AP *silver*]]]]

These authors propose that the nominal head of the construction is base-generated under D (forming a complex head with the determiner), while the head of the small clause-like PredP is by assumption another determiner. But here too no independent motivation is provided as to why this head would take the form of the determiner. In addition, the analysis faces the problems discussed in section 4.2, as it assumes that the adjective in the polydefinite is predicative.

Ioannidou and den Dikken (2008) also present a split-DP proposal. In addition, they also assume a predicative analysis for the adjective, so they face the same problems that we bring up in section 4.2. They propose a basic structure as in (47) with the definite article *to* ‘the’ occupying the lower, Dx head.

(47) [DP D [D_{xP} Dx^{PERSON} [... N ...]]]

Following Pesetsky & Torrego’s (2001) proposal concerning T-to-C movement, Den Dikken and Ioannidou assume that the higher head, D, is phonologically empty unless Dx raises to it. But departing from Pesetsky and Torrego (2001), they assume that in case Dx-to-D-raising occurs, the phonological shape of D is identical to that of Dx; this merits an explanation. With some further necessary technicalities aside (which the interested reader can find in Ioannidou and den Dikken 2008:6), this is the mechanism that gives rise to the extra determiner in the polydefinite construction. As no independent motivation is given for the assumption that head-raising would result in identical phonological forms in the Dx and D positions, in our view the proposal remains stipulative.

To sum up, it seems to us that no existing account fares well with respect to explaining the occurrence of multiple determiners. On the other hand, this feature falls out straightforwardly from our close appositive analysis: since Greek allows close apposition whose both subparts feature a definite determiner, this is the expected pattern.¹³

clitic, which indeed enjoys a relative freedom of placement within the DP. But crucially, genitive clitics cannot be doubled. So, the fact that determiners can be is not independently motivated in her analysis either.

¹³Panagiotidis (2005) also proposes that the adjectival part of polydefinites includes a DP with noun ellipsis. As a result, Panagiotidis too can account for the presence of the extra determiner(s). One important difference, however, is that on his proposal one DP is the subject of the other DP in a small clause structure. Thus, under his analysis, one of the DPs, and not necessarily the adjectival one, is a predicate. But this claim is neither independently

4 Polydefinites in context

In this section we discuss the semantic and pragmatic properties of polydefinites and focus in particular on delimiting the set of admissible adjectives and on fleshing out the contribution of noun ellipsis.

4.1 The Proper Subset Constraint in polydefinites and close appositives

A well known fact about close apposition (see among others Kolliakou (2004: 274) for discussion and for references) is that there is a restrictive relation between the DPs that form its subparts. We refer to this constraint as the proper subset constraint:¹⁴

(48) *The Proper Subset Constraint (PSC)*

In a close appositive, the denotation of one of the DPs must be a proper subset of the denotation of the other DP.

Recall the following data, which contrast close to loose apposition:

(49) Tonight I will speak of a great French artist.

- a. Guillem, the dancer,
- b. # Guillem the dancer

(50) Tonight I will speak of the Van Gogh brothers, the painter and the critic.

- a. Van Gogh the painter
- b. # Van Gogh, the painter,

In (49) our context involves only one person by the name ‘Guillem’, so ‘dancer’ cannot be restrictive on ‘Guillem’. Therefore the close appositive fails. In (50) we introduce a set of two

justified nor helpful. It is not entirely clear whether Panagiotidis intends to explain the restrictions on the set of admissible adjectives on the basis of the adjectival DP being predicative. To the extent that this is intended, it gives the incorrect prediction that such restrictions only apply in the DNDA order, as it is in this order that the adjectival DP is predicative. If no such explanation is intended, then the proposal fails to offer an account for the restrictions on the set of admissible adjectives.

¹⁴The PSC stated in (48) is reminiscent of Kolliakou’s (2004: 273) Polydefiniteness Constraint given in (i) below:

- (i) Greek polydefinites are unambiguously non-monotone anaphoric expressions: the discourse referent Y of a polydefinite is anaphoric to an antecedent discourse referent X, such that $Y \subset X$.

Kolliakou notes that (i) applies to close appositives as well, but does not elaborate on why that should be.

people, the Van Gogh brothers. One of them is a painter and the other is a critic. ‘Painter’ can thus act restrictively on ‘van Gogh’. We may therefore felicitously use a close appositive to refer to one of them.

There is a different way in which the obligatorily restrictive interpretation in close apposition can fail to arise. This is when the two DPs are independently identical in reference. Stavrou (1995: 225) notes the ill-formedness of examples like (51a), where *sikaminja* is a dialectal synonym of *murja*. (The examples are glossed as in the original source.) As expected, loose apposition, which is not subject to anything like the PSC, is fine in such cases, hence the contrast between (51a) and (51b). The same pattern is illustrated in the English examples in (52): *the Bard* conventionally refers to Shakespeare, so no close appositive can be formed with those two terms.

- (51) a. *i sikaminja i murja
the blueberry tree the mulberry tree
- b. i sikaminja, (diladi) i murja
the blueberry tree namely the mulberry tree
- (52) a. *Shakespeare the Bard
- b. Shakespeare, the Bard

Given that we argue that polydefinites involve close apposition, the proper subset constraint should hold for polydefinites as well. We mentioned already in the introduction that this is the case: Kolliakou observed that pragmatically non-restrictive adjectives cannot participate in the construction. The example is repeated in (53). The reasoning behind the deviance of (53) is identical to the reasoning behind the deviance of (49b): the set picked out by ‘the poisonous ones’ does not pick out a proper subset of the set of cobras.

- (53) #i dilitiriodis i kobres
the poisonous the cobras

More generally Kolliakou (2004: 216-217) provides the following data to show that polydefinites are used in more restricted contexts than monadics. She shows that the example in (55), which involves a monadic, may be used as a continuation of (54) under all the scenarios listed in (54a)-(54d). By contrast, (56), with a polydefinite, is only consistent with scenarios (54a) and (54b), i.e. only the situations in which the adjective is interpreted restrictively. This is, of course, consistent with the idea that the adjectival part of the polydefinite must provide a restriction on the nominal part: the set of young cats is a proper subset of the set of cats in both (54a) and (54b), but not in (54c) and (54d).

- (54) O Yanis taise ta zoa.
 the Yanis fed the animals
 ‘Yanis fed the animals.’
- The animals that Yannis fed were cats and there were young and non-young cats
 - The animals that Yannis fed were cats and non-cats and there were young and non-young cats
 - The animals that Yannis fed were cats and there were only young cats
 - The animals that Yannis fed cats and non-cats and there were only young cats
- (55) I mikres gates itan pinasmenes.
 the young cats were hungry
 The young cats were hungry.’
- (56) I mikres i gates itan pinasmenes.
 the young the cats were hungry
 ‘The young cats were hungry.’

One thing to note about these data is that a restrictive interpretation of the noun in the polydefinite (‘cats’) with respect to the noun in the context sentence (‘animals’) is optional: only in situation (54b) is this observed, and not in (54a). In other words, in the polydefinite construction the PSC applies obligatorily to the ‘adjectival’ part; in addition, it applies optionally to the ‘nominal’ part): the set denoted by the nominal can be included in the denotation of a previously mentioned set (i.e. the set of animals, in this case), but it does not have to be a proper subset of it. Note that no such asymmetry presents itself in the case of nominal apposition: there is no particular part of the close appositive that is designated as the restrictive term. In the examples below, either the definite DP or the proper name can act as the ‘restrictive’ DP (see also Keizer (2005) for the same observation with respect to English):¹⁵

- (57) a. o Solomos o piitis (oxi to psari)
 the Solomos the poet not the fish
 ‘Solomos the poet (not the fish)’
- o Solomos o piitis (oxi o Kalvos)
 the Solomos the poet not the Calvos
 ‘Solomos the poet (not Calvos)’

¹⁵We thank Melita Stavrou (p.c.) for providing this very natural example of a Greek close appositive, based on the homophony of the name of the Greek national poet Dionisios Solomos and the common noun *solo’mos* which refers to the fish salmon.

- (58) a. o piitis o Solomos (oxi to psari)
 the poet the Solomos not the fish
 ‘the poet Solomos (not the fish)’
 b. o piitis o Solomos (oxi o Kalvos)
 the poet the Solomos not the Calvos
 ‘the poet Solomos (not Calvos)’

We will now show that this asymmetry between polydefinites and close appositives follows from the fact that the former involve noun ellipsis.

We know at least since Williams (1997) (see also Giannakidou and Stavrou (1999) specifically for Greek noun ellipsis), that in the case of ellipsis the remaining non-elided elements must be informative (disanaphoric in Williams’ terms). Thus noun ellipsis is licensed in (59a), where the adjective is informative (or disanaphoric), but odd in (59b), where it is not.

- (59) a. I Maria forese to ble fustani ke i Eleni forese to prasino Ø.
 the Maria wore the blue dress and the Eleni wore the green
 ‘Maria wore the blue dress and Eleni wore the green one.’
 b. #I Maria forese to ble fustani ke i Eleni forese to ble Ø.
 the Maria wore the blue dress and the Eleni wore the blue
 ‘Maria wore the blue dress and Eleni wore the blue one.’

There are other ways in which an adjective can be uninformative in a noun ellipsis context. For instance, if the adjective is (pragmatically) non-restrictive, it will fail to be informative in the relevant sense:

- (60) a. #O Janis taise ta mikra zoa. Ta mikra itan pinasmena.
 the Jannis fed the young animals. the young were hungry.
 ‘Yanis fed the small animals. The small ones were hungry.’
 b. #Edo de tha vris kobres. I dilitiriodis zune alu.
 here NEG FUT find-2SG cobras. the poisonous live elsewhere.
 ‘You won’t find any cobras here. The poisonous ones live elsewhere.’

In other words, noun ellipsis makes obligatory the restrictive interpretation of an adjective (cf. Alexiadou (2001) for this observation). Since polydefinites involve noun ellipsis, polydefinites are also inappropriate if their adjectival part is uninformative in the above way. This is shown in (61).

- (61) a. #O Janis taise ta mikra zoa. Ta mikra ta zoa itan pinasmena.
 the Jannis fed the young animals. the young the animals were hungry.
 ‘Yanis fed the small animals. The small animals were hungry.’

- b. # Edo de tha vris kobres. I dilitiriodis i kobres zune alu.
 here NEG FUT find-2SG cobras. the poisonous the cobras live elsewhere.
 ‘You won’t find any cobras here. The poisonous cobras live elsewhere.’

To sum up what we have discussed in this section: in a polydefinite construction, the denotation of one of the nominals must be a proper subset of the denotation of the other—this is because the polydefinite is a close appositive and as such subject to the PSC. That this part *must* be the adjectival part is due to the fact that the adjectival part has an independent requirement to be informative, since it involves noun ellipsis. This accounts for the asymmetry between polydefinites and close appositives.

4.2 The set of admissible adjectives in polydefinites

In the previous section we showed that it follows from the noun ellipsis inside the adjectival DP of polydefinites that the adjective will be interpreted restrictively in the construction. In this section we argue that noun ellipsis also determines what kind of adjective can in principle appear in the polydefinite. On our view, what is expected is a parallel with the types of adjectives that can take part in noun ellipsis.

The PSC in (48) in effect states that only adjectives that can partition the noun denotation (receive a restrictive interpretation) will be licit in the polydefinite construction. In general, this rules in subsective and intersective adjectives, and rules out non-intersective ones. (62) provides the crucial semantic properties of these three major adjective categories (adapted from Partee (1995):¹⁶

- (62) a. intersective, e.g. *carnivorous*
 $\llbracket \text{carnivorous N} \rrbracket = \llbracket \text{carnivorous} \rrbracket \cap \llbracket \text{N} \rrbracket$
 b. subsective, e.g. *skillful*
 $\llbracket \text{skillful N} \rrbracket \subseteq \llbracket \text{N} \rrbracket$
 c. non-intersective, e.g. *former*
 $\llbracket \text{former N} \rrbracket \not\subseteq \llbracket \text{N} \rrbracket$

¹⁶As Partee points out, intersective adjectives are a subset of subsective adjectives: all intersective adjectives are subsective but not vice versa. The so-called non-intersective adjectives are rather non-subsective. It would therefore be enough to say that the PSC entails, in the general case (see the discussion in the main text), a restriction to subsective adjectives. However, it seems to have become standard practice to refer to adjectives such as *former* as non-intersective. For the sake of facilitating comparability with other accounts, we retain this essentially misconstrued terminology.

From the list above, non-intersective adjectives are the only ones whose denotation does not interact with the noun denotation: a former president is not a president. Therefore such adjectives cannot partition the noun denotation and therefore are in principle illicit in polydefinites.

Interestingly, there is a way to override the ban on non-intersective adjectives, which is to contextually force an ‘intersective’ interpretation of the adjective, i.e. to set up the context in a way, such that an otherwise non-intersective adjective picks out a proper subset of the noun denotation. For instance, Leu (2007) has pointed out that (63) is possible (for some speakers).

- (63) O PROIGUMENOS o prothipurgos pethane.
 the previous the president died
 ‘It is the previous president that died.’

(63) is licit in a context where the speaker corrects another interlocutor (hence the heavy stress on the adjective, notated by capitals), who thought she overheard that the current president is dead. In this particular context, the noun denotation comprises two disjoint subsets, one containing the current president and the other the previous one. What makes the polydefinite available is that the mention of the current president in the previous discourse discourse-links the set of presidents in a salient way, and thus subsequent reference to the previous president satisfies the proper subset constraint in (48). In other words, in the case of non-intersective adjectives the context must provide the superset in a salient and more or less explicit way, because these adjectives do not support inferences of the type stated in (62c). So, context must provide a set which the adjective can partition (in the example above, the set of past and present presidents).¹⁷

This kind of example is crucial, because it argues against an alternative way of deriving the set of adjectives in the polydefinite, namely one which invokes a correlation with predicative adjectives. The position held (if only tacitly) by all predicative accounts of polydefinites and explicitly argued for by Alexiadou and Wilder (1998) and Alexiadou (2001), is that only adjectives that can appear in predicative position are licit in polydefinites. Leu’s example shows that

¹⁷Leu seems to take *proigumenos* to mean ‘former’, though actually it corresponds to ‘previous’. For reasons we do not at this point entirely understand, *proin*, ‘former’, and *nin*, ‘current’, seem unable to partake in a polydefinite. We suspect this has to do with the adverbial nature of these elements. Note also that, to the extent that *proin* and *nin* can occur as elliptical DPs, they have undergone substantivization (in the sense of Giannakidou and Stavrou (1999)) and, contrary to *proigumenos*, cannot freely pick out a contextually available noun to resolve the ellipsis, but rather conventionally refer to a previous/current romantic partner (cf. English *my ex*). *Ipotithemenos* ‘alleged’ has been claimed to be illicit in the polydefinite (Alexiadou and Wilder, 1998), but we have found speakers that accept it in a similarly contrastive context as the one constructed for (63). Since in this context the adjective is also marginally possible in predicative position, we do not discuss it any further.

the proposed correlation breaks down: *proigumenos* ‘previous’ can appear in the polydefinite in the particular context discussed above, but even in this context the adjective is illicit in the post-copular position, as shown in (64a). (64b) is the variant with noun ellipsis and no polydefinite, which is, as expected under our analysis, perfectly fine.

- (64) a. * *Aftos o prothipurgos itan PROIGUMENOS.*
 this the prime minister was previous
 ‘This prime minister was previous.’
 b. *O PROIGUMENOS pethane.*
 the previous died
 ‘It is the previous who died.’

What is more, there are predicative adjectives which are not felicitous in the polydefinite. We have already discussed the infelicity of ‘poisonous’ applied to cobras in the polydefinite construction. The adjective is, however, licit in predicative position:

- (65) a. *#i dilitiriodis i kobres*
 the poisonous the cobras
 b. *I kobres ine dilitiriodis.*
 the cobras are poisonous
 ‘Cobras are poisonous.’

In other words, we believe that a parallel between the types of adjectives that can be present in the polydefinite and those that can appear as predicates in a copular construction is only partial and basically accidental. If this is on the right track, then any analysis that takes the polydefinite construction to involve predication (such as Alexiadou and Wilder (1998); Alexiadou (2001); Campos and Stavrou (2004); Panagiotidis (2005); Ioannidou and den Dikken (2008)) faces an empirical challenge. This is an important point, as in many of these proposals the correspondence between the set of adjectives in polydefinites and copular predication is the *only* argument for assuming a predicative analysis for polydefinites.

There are other restrictions on what kind of adjectives and adjective interpretations are possible in the polydefinite construction, which we now turn to. The facts have been derived by invoking predication (see in particular Alexiadou and Wilder (1998); Alexiadou (2001)), since all of the illicit adjective types also fail to appear in predicative position. As we show in the remainder of this section, these facts also fall out from an analysis involving noun ellipsis. Therefore no argument can be based on these cases that would favour one analysis over the other.

Alexiadou and Wilder (1998); Alexiadou (2001) note that, in addition to non-intersective

adjectives (for which we have seen that they are not always excluded), there are two more categories that the polydefinite construction does not admit: relational adjectives like *civil* (as in *civil engineer*), and adjectives in proper names. In addition, Alexiadou (2001) observes that certain adjectives which in attributive position give rise to more than one reading lose their ambiguity in the polydefinite construction.¹⁸

As far as proper names are concerned, Alexiadou & Wilder claim that these have a compound-like structure. Proper names can also not occur either in the polydefinite construction or in predicative position (Alexiadou and Wilder, 1998, 315):

- (66) a. o Lefkos (*o) Ikos
the White the House
b. *O Ikos ine Lefkos.
the House is White

We agree with these authors in taking such adjectives to form a compound with the noun. It seems to us that this suffices to rule them out in polydefinites, without invoking predication. Compoundlike A-N collocations are not amenable to taking part in constructions that would require their adjectival part (or the nominal one) to act as an independent syntactic head. It is worth noting that, as (67) shows, such adjectives are also impossible in noun ellipsis contexts.

- (67) Kita tin idrojo. Aftos ine o Vorios Polos ke ekinos ine o
look-IMPER.2SG the.ACC globe this.NOM is the North Pole and that-NOM is the
Notios *(Polos).
South Pole
'Look at the globe. This is the North Pole and that is the South Pole/*one.'

A similar case can be made for relational adjectives, which cannot appear in polydefinites, as shown in (68):

¹⁸Alexiadou and Wilder further claim that ethnic adjectives such as 'Italian' are also disallowed in the polydefinite construction. We have found speakers who can, however, use such adjectives in a polydefinite, provided the context forces a restrictive interpretation of the adjective. For instance, (ia) is possible in a context where the Dutch invasion is only one of the invasions endured. In such a context the predicative use of the adjective is also marginally possible:

- (i) a. I OLANDIKI i isvoli mas kseklirise.
the dutch the invasion us wiped out
'The dutch invasion wiped us out.'
b. ?I isvoli ekini itan olandiki.
the invasion that was dutch
'That invasion was dutch.'

- (68) o ekdotikos (*o) ikos
 the publishing the house
 ‘the publishing house’

Ralli and Stavrou (1998) provide several arguments to the effect that relational adjectives form a (syntactic) compound with the noun they modify (an A-N construct, in their terminology), in the sense that the adjective does not behave like an independent syntactic head, but rather forms a unit with the noun. For example, Ralli & Stavrou (*op.cit.*) observe that such adjectives cannot be conjoined, modified, extended or complemented, and that in indefinite DPs the order of the adjective with respect to the noun is fixed (unlike the case of adjectives in indefinite DPs in general). It is then hardly surprising that these constructs cannot give rise to polydefinites. On the other hand, what we do expect is for these collocations to occur in a polydefinite as the (lexically realized) nominal subpart, and this is indeed true. Note that examples such as (69a) cannot be taken to involve attributive modification inside this nominal DP, since re-ordering of the adjectives, which is otherwise possible in the polydefinite (cf. (70)), is impossible in this case, as shown in (69b):

- (69) a. o diasimos o ekdotikos ikos
 the famous the publishing house
 ‘the famous publishing house’
 b. *o ekdotikos o diasimos ikos
 the publishing the famous house
- (70) a. to megalo to kokino podilato
 the big the red bicycle
 b. to kokino to megalo podilato
 the big the red bicycle
 ‘the big red bicycle’

Finally, let us consider loss of readings in polydefinites with otherwise ambiguous adjectives. It has been observed that for instance the adjective *poor* in attributive modification has a literal meaning ‘impoverished’ and in addition one which can be paraphrased as ‘pitiable’. In polydefinites only the more transparent reading is present (Alexiadou and Wilder, 1998, 315). The same loss of ambiguity is observed when the adjective appears in predicative position, but also in noun ellipsis contexts, cf. the Spanish example (73) from Alexiadou (2001).

- (71) a. the poor man (‘impoverished’/ ‘pitiable’)
 b. the man is poor (‘impoverished’/ *‘pitiable’)

- (72) a. o ftochos o anthropos
 the poor the man
 'the impoverished/*pitiable man'
- b. o anthropos o ftochos
 the man the poor
 'the impoverished/*pitiable man'
- c. o ftochos anthropos
 the poor man
 'the impoverished/pitiable man'
- (73) uno pobre –
 a poor
 'an impecunious/*unfortunate one'

There is the more general case of adjectives that give rise to an ambiguity between an intersective and a non-intersective reading (Siegel, 1976). An example is given in (74):

- (74) Mary is a beautiful dancer.
- a. Mary is a dancer and she is beautiful (intersective reading).
- b. Mary is beautiful *qua* dancer (non-intersective reading).

It has been observed (Alexiadou, 2001; Campos and Stavrou, 2004) that in polydefinite constructions only the intersective reading survives. The data below are from Campos and Stavrou (2004):

- (75) a. Gnorises tin oreá tragudistria?
 met-2sg the-acc.fem beautiful-acc.fem singer-fem
 'Did you meet the beautiful singer?' (intersective & non-intersective 'beautiful')
- b. Gnorises tin oreá tin tragudistria?
 met-2sg the-acc.fem beautiful-acc.fem the-acc.fem singer-fem
 'Did you meet the beautiful singer?' (intersective 'beautiful' only)

Note, however, that the non-intersective reading is also lost in the case of ellipsis (see Branco and Costa (2006) for the observation on the basis of Romance). Therefore, an account based on ellipsis can derive this fact just as well as one based on predication.

- (76) Gnorises tin oreá?
 met-2sg the-acc.fem beautiful-acc.fem
 'Did you meet the beautiful one?' (intersective only)

Incidentally, we believe that these data provide evidence against the deletion approach to ellipsis and in favour of the *pro*-account. For the non-intersective reading to arise, we need the semantic content of the to-be-elided noun to be available: Mary is beautiful *qua* dancer. Since the deletion approach purports that it is only at PF that the elided noun is not interpreted, at LF it should be available. In other words, the prediction of the deletion approach to ellipsis is that both the intersective and the non-intersective reading should exist. If, on the other hand, we analyze the ellipsis site as *pro*, the observation is derived without further ado: the ‘adjectival’ DP denotes the set of beautiful entities, and is intersected with the DP that denotes the set of singers. The result is the intersective reading, namely the set of singers who are beautiful.

To sum up, we have seen in this section that, for the most part, predicative and ellipsis-based analyses of polydefinites fare equally well in accounting for the observed restrictions on the adjective (interpretations) available in polydefinite constructions. A challenge for predicative analyses, which our own noun-ellipsis account does not face, comes from non-intersective adjectives, which are admissible in certain contexts in polydefinites but never in copular constructions. In addition, the obligatorily restrictive interpretation of the adjective in the polydefinite construction does not fall out automatically in predication analyses, although it does so in our proposal.

4.3 Non-anaphoric or focused?

Most authors have argued that the adjectival part of the polydefinite construction is focused (see e.g. Kariaeva (2004), Ntelitheos (2004), Leu (2007) and many others). There is a conceptual problem with this position. As Szendrői (2006) stresses, it is theoretically impossible to think of a focus-background partitioning DP-internally, as such notions are intrinsically propositional. (Independently of this, Lekakou (2000) has argued for Greek and Szendrői (2001) for Hungarian and Italian that it is questionable whether a designated focus position exists even in the main clause projection line.)

In contrast, we believe that the adjectival part in polydefinites is not obligatorily focused, just non-anaphoric, precisely as the noun ellipsis account we have been pursuing predicts.¹⁹ There is an empirical argument in favour of this position and against the idea that the adjective is focused in the polydefinite. The argument is based on the contrast between (77a) and (77b).

¹⁹Contrary to Schwarzschild (1999) and much subsequent work, we do not think that non-anaphoric is the same as focused. Rather, we follow Reinhart (2006) in assuming that givenness and focus are orthogonal notions. The adjectival part in a construction with noun ellipsis cannot be given or anaphoric, but at the same time it need not be focused.

- (77) a. O Yannis taise ta zoa. I mikres i gates itan pinasmenes, opos episis ke
the Yannis fed the animals. the young the cats were hungry as also and
i megales (i gates).
the old the cats
‘Yiannis fed the animals. The young cats were hungry, as were the old ones.’
- b. O Yannis taise ta zoa. I MIKRES i gates itan pinasmenes, # opos episis
the Yannis fed the animals. the young the cats were hungry as also
ke i megales (i gates).
and the old ones

In (77a) the polydefinite is licensed even in the absence of contrastive stress and an exhaustive interpretation. The absence of exhaustivity is forced by continuing the sentence ‘the young cats were hungry’ with ‘as were the old ones’. The resulting discourse in (77a) is coherent, which suggests that it is wrong to view the adjectival part as obligatorily focused in a polydefinite, since the effects that are usually associated with focus (e.g. exhaustive interpretation, contrastive stress) are not present. Now consider (77a), with a polydefinite whose adjective is contrastively stressed. In this case it is impossible to continue with ‘as were the old cats’. This shows that it is stress that provides the effects of focus, and not the polydefinite construction in and of itself.²⁰

Finally, we would like to briefly address the issue of the pragmatic import of the different word orders in the polydefinite (DADN vs. DNDA). For us the different orders do not have different information-structural effects.²¹ But it is worth noting that some authors associate different orders with different focal properties. In particular, Kariaeva (2004:25) claims that the DNDA order is less acceptable than the DADN order whenever the nominal part cannot be interpreted restrictively. The following examples reflect her judgments. The native speaker author and our informants did not indicate such a contrast.

- (78) a. O Janis taise tis gates. I mikres i gates itan pinasmenes.
the Janis fed the cats the small the cats were hungry.
‘John fed the cats. The SMALL cats were hungry.’
- b. ?? O Janis taise tis gates. I gates i mikres itan pinasmenes.
the Janis fed the cats the cats the small were hungry
‘John fed the cats. The SMALL CATS were hungry.’

According to Kariaeva, the DNDA order is only felicitous if both the adjectival and the nominal

²⁰Another empirical problem with the claim that the adjective is necessarily focused in a polydefinite is noted by Kolliakou (2004:276). Her point is that the whole polydefinite itself can have other discourse functions. For instance in (77a), *i mikres i gates* ‘the young the cats’ is most likely a contrastive topic.

²¹See Stavrou and Campos 2004:147) for a claim that the N cannot bear contrastive stress in either order.

part are restrictive, as in the context in (79):

- (79) O Janis taise ta zoa. I gates i mikres itan pinasmenes.
the Janis fed the animals the cats the small were hungry
'John fed the animals. The SMALL CATS were hungry.'

We would like to point out that our analysis is compatible with this judgment to the extent that the adjectival part is still necessarily restrictive. This is because in an analysis that takes the polydefinite construction to involve nominal ellipsis, the adjective must be restrictive. In addition, for some speakers there could be further restrictions that associate a particular order with a particular interpretation of the noun.²²

5 Concluding remarks

In this paper we have argued for an approach to polydefinites in Greek on a par with close appositives. For both cases we have posited a mechanism of 'complex argument formation' via R-role identification, whereby the R(eferential) roles of two nominals get identified. In the case of polydefinites, one nominal is null, whereas in close appositives both are lexically filled. We have argued that our approach can successfully address the syntactic, semantic and pragmatic questions that polydefinites pose.

Since we capitalize on the affinity between polydefinites and close appositives, our account leads us to ask in a more pronounced way the following question: why do we seem to find polydefinites of the Greek type only in Greek, even though appositives are attested elsewhere?²³ We do not have the definitive answer at this point; there seem to be several different factors which may prove relevant. For instance, Greek requires definite determiners with proper names, Greek

²²What we cannot accommodate are the judgments reported in Ioannidou and den Dikken (2008). These authors agree with Kariaeva that the DNDA order is felicitous in the context given in (79), where both the adjective and the noun are restrictive. In fact, according to Ioannidou and den Dikken, the distribution of the DNDA order is freer: DNDA is felicitous just as long as the nominal part is restrictive, even if the adjectival part is not restrictive (i.e. in a situation where Janis fed small animals). Regarding the DADN order, the claim of Ioannidou and den Dikken (2008:8) is that it is only felicitous when only the adjectival part is restrictive, as in (78a). DADN, according to these authors, is not felicitous in the context in (79). This is contrary to our own and to Kolliakou's original judgments, which to the best of our knowledge have not been contested elsewhere in the literature.

²³It is important to note in this connection that constructions that look similar to Greek determiner spreading exist in for instance Scandinavian languages, Hebrew and Albanian. Alexiadou (2003, 2006) shows that the Greek construction is substantially different from its apparent counterparts in these languages.

requires spreading of ϕ -features throughout the DP, and so on. Although at this stage we cannot formulate a full answer that would explain the contrast between Greek and the other languages, we do have a direction to point towards as a way to resolve the contrast between English and Greek.

Keizer (2005) provides the following paradigm to illustrate the possible combinations in a close appositive in English:

- (80)
- a. the actor Orson Welles
 - b. the word recession
 - c. my friend Orson Welles
 - d. my friend the actor
 - e. Orson Welles the actor
 - f. actor Orson Welles

What we would like to draw attention to is the fact that, although in English too close appositives need to be definite, it is impossible to combine in a close appositive two definite DPs that are both headed by a definite determiner, as in (81).

- (81)
- a. * the cannon the gun
 - b. * the gun the cannon

We believe that the answer to the ungrammaticality of (81) can inform us on why at least English lacks the Greek polydefinite. This direction becomes available only on an approach that treats polydefinites as an instance of close apposition.

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