# **Locative Prepositions and Place**

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September 2006

### 1 Introduction

The purpose of this work is to investigate the behavior of Locative P(preposition)s and offer an account of their syntactic properties that have not been yet fully understood. Locatives are those prepositions that pose various problems for treating all Ps alike along the functional vs. lexical dimension, and, in particular, for considering all Ps to be functional elements (Grimshaw 1991, Baker 2003, Botwinik-Rotem 2004). It comes as no surprise therefore, that van Riemsdijk (1990, 1998) has considered locative Ps to be semi-functional On the other hand, den Dikken (2003) and Svenonius (2004) propose that locative (and directional) Ps, in English, Dutch and German at least, are lexical heads associated with a number of functional projections on a par with verbs and nouns. Finally, there have been proposals which hinge on the lexical nature of locative Ps in a different manner, namely, by considering them to be nominals of some type, see Bresnan (1994) for English, Marácz (1984) for Hungarian, Collins (2004) for N Juu and Aboh (this volume) for Gbe. What seems to follow from the above therefore is that, although there are difficulties in pinning down the exact status of locatives, general trends emerge as well: first, while there is a tendency to consider locatives lexicalelements, it has been difficult to de ny their functional make up (or component). Furthermore, when it comes to the ir lexical status, various similarities between locatives and nouns have been pointed out, not only within what we tend to think of as exotic languages, but within languages of Europe as well. The account I will propose here sheds light on these issues, while offering a new analysis to explain the behavior and the syntactic structure of locatives.

Based initially on empirical evidence from Greek, I argue that there is indeed a lexical component to locatives, stemming from the fact that they are the modifiers of a lexical element, in particular, of a non-phonologically realized noun which I call *Place* and whose presence gives locatives a nominal flavor. Although it is beyond the scope of the current work to investigate the semantic content of it, it appears that *Place* denotes the physical space surrounding the reference landmark(i.e., what is considered the Ground argument of the locative). This physical space becomes more narrow when *Place* is modified by the locative, while it remains less precise when a locative modifier of *Place* is missing. I also claim that the DP containing *Place* is the complement of a functional head,  $P_{Loc}$ , and the latter is what contributes to the functional make up of locatives, hence to their overall oscillating status along the functional/lexical dimension.

My intention of course is to demonstrate that the structures I propose and justify for Greek hold for other languages as well and for this reason I investigate Spanish and English locatives here. I demonstrate that Spanish is a language whose locatives behave very similarly to those of Greek When English enters the picture, it

complicates things, while at the same time it poses interesting questions with respect to the relationship locatives bear with their complements. Naturally, this is the issue I subsequently address. It follows from the claims outlined above that what appears to be the object of locative Ps is the possessor of the unpronounced noun *Place*, an outcome that I elaborate in this work. English presents a more complicated picture than Greek and Spanish in this domain and raises questions as to whether the object of the locative participates in a possession or in a partitive relation with *Place*. I explore this question and conclude that there is no sufficient and convincing evidence to support the latter idea.

In the second section of the article I present the empirical evidence from Greek on which my claims are initially based. I demonstrate that locatives share the distribution of adjectives, and propose a nominal structure containing them (in which structure locatives modify the unpronounced noun *Place*) which is the complement of a P functional head. In the same section I present instances in which *Place* is not modified by a locative element (with the consequence that location is conveyed in a less precise manner). The third section discusses locatives in Spanish and demonstrates how the current proposal is preferable to previous accounts of Spanish locatives at both the empirical and the conceptual levels. Section 4 discusses English and dedicates a subsection to the relation of locatives with their complements. The fifth section constitutes the Conclusions section.

### 2 Greek Locative Ps

Greek locative Ps are encountered in two syntactic frames, which will constitute the empirical bulk of this study. In the first frame, locatives are followed by a smaller P, referred to as light P in the paper, which introduces their object with accusative Case. There are two such light Ps in Greek, *se* and *apo*, and they are both encountered in a number of other environments on their own as well. This frame is often referred to as complex preposition in the Greek literature (Theophanopoulou-Kontou 1992), a term that I will also employ here.

- (1) a. Stathika piso apo ti Maria. stood-1s behind *apo* the Mary-acc 'I stood behind Mary.'
  - b. Kathomun epano ston Petro. was-sitting-1s on se-the Peter-acc 'I was sitting on J ohn.'

In the other syntactic frame, locatives are followed directly by their complement, which now carries genitive Case however, and which can only appear as a cltic. In other words, a full DP as the immediate complement of locatives is not allowed, as is illustrated by (2) below:

(2) a. Stathika piso tis/\*tis Marias. stood-1s behind she-cl-gen/the Mary-gen 'I stood behind her/Mary.'

b. Kathomun epano tu/\*tu Petru was-sitting-1s on he-cl-gen/the Peter-gen 'I was sitting on him/Peter.'

One can potentially consider as a third frame the one in which locatives are not followed by a complement, (3). It is because of the existence of this frame that locatives are also referred to as intransitives prepositions and/or as adverbs in the traditional Greek literature (Tzartzanos 1945/1996).<sup>3</sup>

- (3) a. Stathika piso. stood-1s behind. 'I stood behind.'
  - b. Kathomun epano. was-sitting-1s on 'I was sitting on.'

In what follows I will start with the second frame in which locatives are encountered, as it is more revealing for their structure.

# 2.1 (Genitive) clitic complements: Locatives and the nominal domain

The fact that the clitic complement of locatives bears genitive Case, (2), and genitive is the Case associated exclusively with complements of nominals in Modern Greek, constitutes the first indication that Greek locatives may be part of some nominal structure. Construal of locatives with genitive complements does not mean that the locative per se is some type of noun however, and this is precisely the point at which the present account differs from previous accounts that attribute nominal properties to locatives. To anticipate the central claims of this section, I will argue that locatives are the modifiers of nouns (of some special type, as we will see), by virtue of the fact that their distribution is similar to the distribution of adjectives in the nominal domain (see also Terzi 2007).

The similarities in distribution between locatives and adjectives emerge once we compare the distribution of complements of locatives (either clitics or full DPs) with the complements of nouns (possessor clitics or full DPs) in the presence of an adjective. There are two positions in which possessors can be found in the nominal domain in the presence of an adjective in Greek: the possessor can either follow the noun in the form of a clitic or as a full DP, (4a), or it can follow the adjective, but only in the form of a clitic, (4b).

- (4) a. To oreo spiti tu/tu Petru. the nice house he-cl-gen/the-gen Peter-gen
  - b. To oreo tu/\*tu Petru spiti. the nice he -cl-gen/the-gen Peter-gen house 'His/Peter's nice house.'

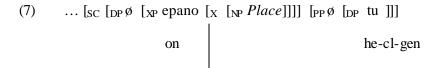
Notice that the ungrammatical second part of (4b) was grammatical in earlier stages of Greek, (5). Notice, furthermore, that during the same (earlier) stages of the language, locatives could be followed by a genitive DP as well, (6), while only a

genitive clitic can immediately follow them in contemporary Greek, as was illustrated in (2), which is repeated below:

- (5) To proton tis tragodias meros. the first the-gen tragedy-gen part 'The first part of the tragedy.' (Aristophanes, *Frogs* 1120)
- (6) estratopedefsanso ekso tis poleos ... camped-3p outside the-gen city-gen 'They camped outside the city.' (Xenophon, *Hellenica* 5.2.25)
- (2) a. Stathika piso tis/\*tis Marias. stood-1s behind she-cl-gen/the Mary-gen 'I stood behind her/\*Mary.'
  - b. Kathomun epano tu/tu Petru.
    was-sitting-1s on he-cl-gen/the Peter-gen
    'I was sitting on him/Peter.'

The similarity between the two domains continues, in the sense that the genitive DP complements of locatives ceased to exist during the same period DP possessors ceased to exist after an adjective in the nominal domain, namely, around 12<sup>th</sup> to 16<sup>th</sup> centuries (see Alexiadou 2005 and Theophanopoulou-Kontou 2000 respectively).

I propose that we make sense of the above synchronic and diachronic distributional similarities between locatives and the extended nominal domain if we consider locatives to be part of a structure similar to that of nominals. Rather than considering locatives to be nouns however, I am claiming that they are the modifiers of nouns and, in particular, of a very specific type of noun. Their status as modifiers follows from the fact that they share the distribution of (attributive) adjectives, that is, of elements that are typical modifiers of nouns. I propose therefore that locatives modify a noun which is not phonologically realized, and which I call *Place*. This noun is the head noun of a DP with an empty determiner, as we see in (7) below. The small clause we also see in (7) is the structure I tentatively adopt for nominal possession, see den Dikken (1998, 1999), since I also hold that what surfaces as the complement of the locative is the possessor of *Place*:



Remember from (4) that the possessive clitic may surface in two positions in the nominal domain, namely, either following the adjective or following the noun. Ideally, one would expect the same to hold for locatives, if we adopt (7) to be their structure. It is not necessarily the case that the situation is identical in the domain of locatives, however, since, when following the noun, i.e., *Place*, clitics would have to cliticize on a non-phonologically realized element, and the latter is not a legitimate host for clitics. <sup>9</sup> I propose therefore that the genitive clitic in (7) obligatorily moves from the position after *Place* to the position after the locative.

Once we hold that the position at which clitics surface when they follow locatives is the one after the locative, rather than the one after *Place*, we are able to account for additional similarities between the clitic complements of locatives and the

possessors of mainstream DPs, in further support of the proposed structure in (7). Notice that we have no reasons to assume movement of the possessive clitic from the postnominal to the postadjectival position in the DP domain, since clitics can appear either after the noun, (4a) or after the adjective, (4b). Moreover, each of these positions in the DP is associated with different properties with respect to animacy restrictions imposed on clitics, as we will see shortly.

One of the advantages of considering clitics that follow locatives to surface at the position after the locative, rather than after *Place*, namely, at a position counterpart to the post-adjectival position in the DP, is that a full DP complement of locatives is not expected to be possible, (2), (just as a possessor full DP cannot replace a possessive clitic after the adjective in the nominal domain, (4b)). We remind that both options were available in earlier stages of Greek, as (5) and (6) have illustrated.

Moreover, if we consider clitics that follow locatives to be the counterparts of clitics that follow adjectives we can account for one more property exhibited by clitics in this position exhibit. Alexiadou & Stavrou (1999) have observed that, when possessive clitics follow the adjective, they can only refer to an animate entity, by contrast to the possessive clitics that follow the noun, (8a) vs. (8b). The authors associate animacy with higher positions for clitics in the DP structure.

- (8) a. O trelos tu odigos the crazy his driver 'His crazy driver.'
  - O trelos odigos tu the crazy driver his 'His/its crazy driver.'

As (9) below demonstrates, clitics that follow locatives are also subject to animacy restrictions. Hence, the clitic in (9a) cannot refer to 'the church', although the context is entirely appropriate. On the other hand, the full pronoun, associated with the complex preposition frame, is perfectly acceptable when referring to 'the church', (9b). This finding indicates that clitics following locatives are also placed in a higher position in the structure, in line with my claim that they occupy the position after the locative rather than the position after *Place*.

(9) a. \*I Eleni perimene brosta apo tin eklisia; ke i Maria mesa tis; the E. was-waiting in-front of the church and the Mary inside she-cl-gen b. I Eleni perimene brosta apo tin eklisia; ke i Maria mesa se afti, the E. was-waiting in-front of the church and the M. inside se she-pron.-acc 'Eleni was waiting in from of the church and Mary inside it.'

A word of clarification is in order at this point: a number of Greek speakers, although agreeing with the judgments in (9), can accept clitics construed with prepositions even when they refer to an inanimate entity, especially in contexts such as in (10b) below:

(10) a. Ides tin efimerida?
saw-2sg the newspaper
b. Ne, kathome epano tis.
yes, sit-1s on it-cl-gen
'Did you see the newspaper?'
'Yes, I am sitting on it.'

I believe that the confused judgments with respect to the animacy of the above clitics reflect precisely the steps of the analysis I am advocating. If we assume that there are two positions for possessive clitics in the nominal domain, a higher one which is associated with animacy restrictions and a lower one which is not (Alexiadou & Stavrou 1999), it is plausible that when a clitic moves from the lower to the higher position it demonstrates mixed behavior as a consequence of the different properties of each of the two positions with respect to animacy. Since no comparable (mixed) behavior is demonstrated in the nominal domain with respect to animacy, it is possible that both positions for clitics are base generated in nominals. On the other hand, the obligatory movement of the clitic from the lower to the higher position in the domain of locatives follows from the fact that clitics cannot be hosted a non-phonologically realized element such as *Place*.

To summarize, in this section I have accumulated empirical evidence in favor of the claim that the syntactic structure of Greek locatives involves some type of nominal, in particular, that it parallels in several ways the structure of a DP in the presence of an adjective that modifies its head noun. I have proposed that the parallelism suggests that locatives resemble adjectives in that they also modify a noun, the noun *Place*. The latter is a non-phonologically realized lexical element and the DP in which it is contained has a non-phonologically realized determiner as well. Moreover, what appears to be the complement of the locative is the possessor of *Place*. I do not embark into the semantics of *Place* in this work. I believe, however, that it follows naturally from the syntactic structure I have proposed, that *Place* denotes the physical space surrounding the Ground (i.e., the landmark for location, or else, what appears to be the complement of the locative). It also follows, I believe, that w hat locatives achieve by modifying the noun *Place*, is to restrict the range of its reference, hence, restrict the physical space denoted by it to, let's say the front, the back, the behind, etc. (of the Ground). We will see the consequences of this modification in subsequent sections, when we investigate structures in which *Place* is not modified.

The similarities between locatives and adjectives are striking, especially in view of the fact that Greek locatives do not carry nominal/adjectival (or any other) inflectional morphology, neither do they derive from nouns historically (see Skopeteas 2002, 2006, for ancient Greek locatives). It is nevertheless a behavior consistent with the generalcrosslinguistic observation that locatives have some type of nominal flavor, an observation which is not always precisely articulated or correctly argued for however. <sup>11</sup>

## 2.1.1 The $P_{Loc}$ functional head

There are reasons to believe that considering (7) to be the full structure of Greek locatives is not sufficient. This is so because, if the structure of locatives was just that of an adjectival element modifying an (unpronounced) noun, locatives should not be modified by adverbs/degree phrases such as *akrivos* 'right/precisely', since these do not modify adjectives.

(11) \*To vivlio ine akrivos kokino/megalo the book is right red/big.

Nevertheless, *akrivos* can modify locatives, as the example below demonstrates;

(12) O Petros kathise akrivos dipla/brosta/piso mu. the Peter sat right besides/in front/behind me

The above modification possibility available to locatives leads me to propose that the nominal structure of which locatives are part is in turn the complement of an (non-phonologically realized, in this case) functional head, P<sub>Loc</sub>, as below:

(13) ... [PPLoc [PLoc  $\emptyset$  [SC [DP $\emptyset$  [XP piso [tis [X [NP Place]]]]] [PP $\emptyset$  [DP tis-]]]]] behind she-cl-gen

Hence, modifiers such as *akrivos* modify  $PP_{Loc}$ , rather than the locative, conceivably occupying the specifier position of  $PP_{Loc}$ .

There is one more piece of empirical evidence in favor of taking the DP that contains Place to be the complement of  $P_{Loc}^{12}$  Let us consider an adverb such as diametrika 'diametrically', which can modify adjectives, (14):

(14) Exi diametrika anditheti apopsi. have-3s diametrically opposed view 'S/he is of diametrically opposite view.'

If we modify the locative with diametrika, it has to follow rather than precede akrivos.

- (15) a. Kathotan akrivos diametrika piso mu. was-sitting right diametrically behind me
  - b. ??Kathotan diametrika akrivos piso mu. was-sitting diametrically right behind me

The order of the adverbial modifiers above and the fact that only diametrika can modify adjectives (hence locatives as well, according to my claims) is consistent with the structure in (13). In (13), a DP whose head noun is Place is the complement of the functional head  $P_{Loc}$ , therefore, it is lower in the structure than  $P_{Loc}$ . As a result, the modifier of (the modifier of) Place appears lower in the structure than the modifier of  $P_{Loc}$ , namely, we get akrivos 'right'>diametrically 'diametrically', but not the other way around.

In conclusion, what I have argued for so far, and is subsumed under (13), is that there is both a lexical and a functional component to the structure of Greek locatives. The functional component is contributed by the head  $P_{Loc}$  that I proposed in this section and the lexical component is contributed by the (unpronounced) noun *Place*. I believe that, if on the right track, the current proposal is in the spirit of van Riemsdijk (1990, 1998), who considers locatives to be semi-lexical. One of the advantages of the proposed analysis, however, is that it demystifies the notion semi-lexical, demonstrating that it reflects the simultaneous presence of a lexical and a functional element. Greek instantiates overtly both components, via the morphosyntactic distributional evidence I have presented. An additional advantage of the proposed analysis, also made readily available via the empirical evidence from Greek, is that locatives are part of a nominal structure in a very specific way, i.e., not by being nouns, but by modifying a noun. As a result, the current analysis also sheds light on the nominal flavor often associated with locatives.

Before closing this section let me also note that by considering the unpronounced noun *Place* as one of the core ingredients of my analysis, my proposals

share a number of similarities with recent views of Noonan (2005, this volume) on the structure of locative and directional prepositions and particles, with particular reference to German. Noonan also proposes a silent PLACE and she also considers the complement of the locative preposition to be the possessor of PLACE in various instances. Although a valid comparison between the two views deserves more space that this article allows, let me observe a couple of points with respect to which the two proposals differ however: while I do not assume any special structure between P<sub>I oc</sub> and *Place*, Noonan takes PLACE to be associated with a special PlaceP projection, embedded in one more projection,  $R_{Place}P$ . The latter is what hosts dr-shadow Ps in German, a property of which is to contribute a specific spatial interpretation of the locative. As I will demonstrate in subsequent sections, I consider specific spatial interpretation to result directly from the modification of *Place* by the locative. At the same time, I have not found evidence for the rich structure that surrounds PLACE in Noonan's proposal. It would be interesting to see therefore, whether the simpler structure that I believe I advocate, is in a position to accommodate Noonan's facts in a satisfactory manner. This is a task undoubtedly worth considering in the future.

With the above in mind, let us now turn to the other frame in which Greek locatives are encountered, the complex preposition structure.

# 2.2 The Complex Preposition structures

I mentioned in the Introduction that, in the complex preposition frame, Greek locatives are followed by the prepositions *se* or *apo*, which are followed by the DP complement of the locative, now carrying accusative Case. <sup>15</sup> One may notice that we use the term 'complement of the locative' in a broad sense from this point on, since, according to the present analysis, what is standardly taken to be the syntactic complement or the Ground argument of the locative is considered the complement (or argument) of *Place* here.

- (1) a. Stathika piso apo ti Maria. stood-1s behind *apo* the Mary-acc 'I stood behind Mary.'
  - b. Kathomoun epano ston Petro. was-sitting-1s on *se*-the Peter-acc 'I was sitting on J ohn.'

Some locatives are construed with either se or apo, with no obvious difference in meaning, while others are construed only with apo. Alternatively put, while all locatives are followed by apo not all of them can be followed by se.

- (16) a. (e)pano se/apo 'on'/'above', b. mesa se/apo 'inside'/'from within', c. brosta se/apo 'in front of', d. konda se/??apo 'near', e. dipla se/apo 'besides'.
- (17) a. *kato apo/\*se* 'under', b. *ekso apo/\*se* 'outside', c. *piso apo/\*se* 'behind', d. *makria apo/\*se* 'away', e. *aristera apo/\*se* 'left', f. *deksia apo/\*se* 'right'.

I propose that the structure of complex preposition structures is not much different from the structure of the genitive clitic frame, (13) (see also Terzi 2007). In fact, it is

essentially the same, with the difference that the empty P that heads the small clause is now lexicalized by one of the two 'light' Ps.

(18) ... [PPLoc [PLoc 0 [SC [DP 
$$\emptyset$$
 [NP piso Place]] [PP apo/se [DP ti Maria ]]]]] behind apo/se the Mary-acc

It is not clear how (13) and (18) are related, and if they are indeed related transformationally. The idea that the complex preposition in (18) derives from the clitic structure in (13) via the process of Predicate Inversion (which would attribute *apo* and *se* the status of linkers familiar from other languages, see den Dikken & Singhapreecha 2004 for a recent thorough study) is not on the right track, as I have demonstrated in Terzi (2007). <sup>17</sup>

In Botwinik-Rotem & Terzi (2006) we propose that the light Ps following Greek (and Hebrew) locatives are responsible for checking the Case feature of the DP complement of the locative. In Greek, this is a consequence of the fact that the locative, by virtue of being an XP modifier, is not able to check the genitive Case of the DP, neither can the non-phonologically realized *Place* or its determiner. <sup>19</sup>

Consistent with the above proposal is the observation that the light Ps do not carry semantic content. It is demonstrated in Terzi (2007) that *se* never has semantic content when following locatives, while *apo* carries semantic content only in two instances: when it follows *epano*, (16a), and when in follows *mesa*, (16b) (see also footnote 15). Interestingly, in precisely these two contexts *apo* cannot be omitted, as a result of which the genitive clitic frame is not available in the manner we have described it.

## 2.3 The Preposition se and the realization of $P_{Loc}$

At this point it is worth considering another syntactic frame in which the 'light' P se can be encountered. Notice that in the example below se can be employed on its own to convey location:

(19) To vivlio ine sto grafio. the book is *se*-the desk 'The book is on the desk'

Thus, (19) is similar in meaning to (20):

(20) To vivlio ine epano sto grafio. the book is on *se*-the desk.'

(19) and (20) are not identical in meaning however: there is a literal interpretation of location in (20), which is missing from (19). In other words, while (19) can be true even if the book is in one of the drawers of the table, this can not be the case in (20). Likewise, (21) is true even if Peter was at the balcony of the house when the earthquake took place, while this is not the case in (22):

- (21) O Petros itan sto spiti otan egine o sismos. the Peter was *se*-the house when happened the earthquake 'Peter was in the house when the earthquake occurred.', or 'Peter was at home when the earthquake occurred.'
- (22) O Petros itan mesa sto spiti otan egine o sismos. the Peter was in *se*-the house when happened the earthquake 'Peter was in the house when the earthquake occurred.'

I claim that the different interpretation of location between (19), (21) and (20), (22) reflects first, a different syntactic status of se. While in the latter two sentences se simply checks the Case of the complement DP, in the first two sentences se lexicalizes  $P_{L\infty}$ .

In earlier stages of this work I held that the structure of (19) (and (21)) was as in (23) below, namely, that the  $P_{L\infty}$  head, phonologically realized by se, was immediately followed by its DP complement.

(23) 
$$[_{PPLoc} [_{PLoc} se [_{DP} to trapezi]]]$$
 se the table

A crucial difference between (23) and (13), therefore, was that the DP with *Place* as its head noun was not part of (23). By attributing the locative *se* of (19) and (21) the structure in (23) I aimed to capture two facts: first, the literal interpretation of location in (20) and (22), which I took to be related to the fact that their structure is as in (13), namely, it includes *Place*. That is, I took literal interpretation to be related to the presence of the unpronounced noun *Place* and its referential properties, and since no such noun was present in (23) the literal interpretation of location was missing from both (19) and (21). Then, I also meant to account for the fact that those locatives whose structures contain *Place*, do not have to have an overt complement (just as nouns do not have to be followed by their overt complements either). Remember that the locatives in (20) and (22) are able to also occur without a complement, as was illustrated in (3) and (25) below, a possibility which is not available for *se*, (24).

- (24) \*O Petros itan se otan egine o sismos. the Peter was *se* when happened the earthquake 'Peter was in when the earthquake occurred.'
- (25) O Petros it an mesa otan egine o sismos. the Peter was inside when happened the earthquake 'Peter was inside when the earthquake occurred.'

I now believe that this was not the right direction however. First, because it is not clear how the presence of *Place* (or else, the presence of a noun and its associated referential properties) is in a position to explain the literal interpretation of location in (20) and (22) (by contrast to the more general interpretation in (19) and (21). Moreover, it does not look satisfactory to ascribe locatives two different syntactic structures, one with *Place* and the other without, especially after having argued explicitly for the existence of such a (non-phonologically realized) noun and having claimed that the behavior of locative Ps derives to a large extent from the combination of this lexical element with a functional one.

What I propose instead is that when the preposition *se* is used alone to convey location **i** also takes a DP complement whose determiner is non-phonologically

realized and whose head noun is *Place*. Hence the structure of the PP locative in (19) and (21) is as in (26):

(26) ... [PPLoc Se [SC [DP 
$$\emptyset$$
 [NP Place]] [PP  $\emptyset$  [DP to trapezi ]]]]] on/at the table

We gain a number of welcome results if we replace (23) with (26). First, we obtain a uniform account of the structure of locatives, namely, that all locatives consist of a head P<sub>Loc</sub> that takes as its complement a DP containing the non-phonologically realized noun *Place*. Moreover, associating (19) and (21) with the structure in (26), we end up in a better position to explain the literal interpretation of location in sentences such as in (20) and (22). Location, as expressed in (20) and (22), is actually more precise or narrow (rather than more literal) than in (19) and (21) not because of the presence vs. absence of *Place*, but because *Place* is modified in the first pair of sentences, while it is not in the second. Following ideas of Chierchia & Turner (1988), as adopted by Baker (2003) in his discussion of adjectives, we consider (attributive) modification, to be the conjunction of the predicate that corresponds to the noun (*Place*) and the predicate that corresponds to the adjective (locative). As a consequence, mesa (Place) 'inside', for instance, is something that is both mesa 'inside' and Place. In other words, the reference of Place becomes more precise when modified by a locative by virtue of the fact that it is narrowed down, since it is now the result of its intersection with the locative. By contrast, when location is expressed by se alone, as in (19) and (21), Place is not modified, hence its interpretation (or else, of the physical space surrounding the Ground) is not the result of intersection with some locative element, therefore, it is less narrow. It is conceivable that the interpretation of location in such cases is left to pragmatics or language use. Notice for instance that se has a somehow different interpretation in (19) than in (21), presumably related to the fact that the Ground is a desk in (19) but a house in (21).

The second issue, namely, that only the modifier type locatives can stand without a complement is more difficult to answer under the current proposal, and I will leave it aside for the time being. A fact that is worth pointing out, however, is that not all modifier type locatives are able to stand without a complement to the same extent and under identical conditions. Moreover, even locatives of the  $P_{L\infty}$  type can occur without a complement: if we consider the English locative in, for instance, to be comparable to se in (24), in the sense of being a  $P_{Loc}$  head as well, as will emerge from the discussion of English in section 4, we see that it can be employed without an overt complement, (27), by contrast to Greek, (24):

# (27) Peter was in when the earthquake occurred.

Moreover, there can also be morphophonological reasons that do not allow a locative to occur without a complement. Such is the case with the majority of Hebrew locatives, which are construct states, as we argue in detail in Botwinik-Rotem & Terzi (2006).

# 3 Spanish Locative Ps

With the above in mind, let us now turn to Spanish, a language with locatives which share a number of properties with those of Greek At the descriptive level at least, it is interesting to note that Spanish locatives have also been called intransitive Ps and even adverbials.<sup>20</sup>

Campos (1991) notices that Spanish locatives, to which he refers as *substantive prepositions*, can be stranded and wonders whether this is a manifestation of the P-stranding phenomenon known from the Germanic languages:

- (28) a. *De qué edificio i* está cerca t<sub>i</sub> la facultad? 'What building is the school near (to)?'
  - b. La pastelería *de la cual<sub>i</sub>* vivo detrás t<sub>i</sub> es buenisima 'The pastry shop behind which I live is excellent.'

He concludes that this is not so, and that, although what is involved in structures like the above is indeed movement, it is comparable to movement of/from nominals as in (29).

- (29) a. *De qué libro* i no sabes por qué censuraron la reseña ti? of which book don't you know why they censored the review ti
  - b. *De cuál hija* i no sabes por qué está orgullosa t<sub>i</sub>? of which daughter i you don't know why she is proud t<sub>i</sub>

In order to support his arguments, Campos utilizes claims of Plann (1985) who considers Spanish locatives +N neutralized categories. Plann notices similarities locatives share with both nouns and adjectives, and since the common property of these two lexical categories is the binary distinctive feature +N (Chomsky 1970), she concludes that they are specified for +N, but only for +N, hence, the term '+N neutralized categories'.

While I agree with Campos in that extractions such as in (29), which are also possible in Greek, are not instances of P-stranding, I do not agree with the details of his analys is neither do I find the term neutralized categories appealing. Apart from the fact that the latter term does not make much sense theoretically, it also follows from the wrong considerations, namely, as a consequence of considering Spanish locatives to share similarities with nouns (and adjectives). The latter part of the argumentation is based on misleading evidence however, which may be justified if we think that it predated the work on the full structure of DPs initiated by Abney (1987) and Szabolsci (1983). Examples such as the ones below, for instance, were considered by Plann (1985) as evidence that locatives share similarities with nouns. More precisely, the fact that the substantive *debajo* follows a preposition, such as *desde* in (30), on a par with nouns, was considered as evidence that *debajo* shares the distribution of nouns. Likewise, the fact that *detrás* in (31) is followed by a possessive adjective, just like nouns are, was also taken as evidence that locatives parallel the distribution of nouns.

(30) El gato me espiaba [P desde] [SP debajo de la mesa] 'The cat was spying on me from under the table.' (31) Venía un hombre detrás mío. was-coming a man behind mine 'A man was coming behind me.'

Within subsequent developments of syntactic theory on the structure of DP, however, unless one is able to argue convincingly that the complement of a preposition such as *desde* in (30) is a bare noun, we can safely assume that it is a full DP. If so, then *debajo* does not have to be the noun of this DP, but it can occupy any of a number of positions in the DP structure. Such a position is the position of the modifier of the empty noun *Place* that I have proposed on the basis of Greek locatives. Furthermore, it seems plausible to consider the locatives of examples such as in (31) comparable to the Greek frame in (2), in which the locative is also followed directly by a possessive (although by a clitic, rather than by a possessive adjective).

Therefore, I propose to extend the account developed on the basis of Greek locatives to Spanish, herce, consider the Spanish locatives under investigation to also be the modifiers of an unpronounced *Place*, as in (32) below:

(32) ... 
$$[PPLoc\ [PLoc\ [DP\ [Place\ cerca]_i\ [D\ de\ [AgrP\ la\ pasteleria\ [QP/NP\ t_i\ ]]]]]]$$
 near de the pastry shop

In (32) I also consider the DP complement of the locative to be the possessor of *Place*, adopting and slightly simplifying the structure Bernstein (2005) proposes for possession in Spanish nominals. Bernstein considers the possessum to raise to SpecDP in Spanish, triggering the presence of *de* in D, most probably for Case reasons, as she notes. We remind that the preposition *de* that follows Spanish locatives, (28) earlier and (33a) below, is also the preposition associated with the genitive of possession in the Spanish DP, (33b). It is interesting to also note that Chomsky (1989:112), in a brief discussion of Spanish locatives, considers the *de* that follows them to be a genitive Case marker, on a par with the *de* in (33b).

- (33) a. Detrás de la casa. behind *de* the house 'Behind the house.'
  - b. El libro de Juan. the book *de* John 'John's book.'

I will also consider (32) to be the structure of Spanish locatives followed by a possessive adjective, as seen in (34). Note that (34) is a simplification of Bernstein's (2005), who attributes this particular type of Spanish possessives the structure of a reduced relative clause instead (contrary to their counterparts in English or French, for instance, Bernstein & Tortora (2005)), explaining the non-appearance of the preposition de with possessive adjectives:

(34) ... [PPLoc [PLoc [DP [Place detrás]<sub>i</sub> [D [AgrP suyo [QP/NP 
$$t_i$$
]]]]]] behind his

There are several advantages in extending to Spanish locatives the proposals I made on the basis of their Greek counterparts. First, as I have already pointed out, it is not clear that Spanish locatives share similarities with nouns, contrary to what was argued

by Plann (1985), therefore the present account is empirically more accurate. Furthermore, one does not have to resort to the obscure notion 'neutralized categories' in order to understand the behavior of Spanish locatives. Finally, one does not have to employ categorial features either in order to explain the behavior of Spanish locatives, in the spirit of Chomsky (2001).

Before closing this section I should point out that in Spanish as well there is a difference in interpretation between the locatives we have discussed, i.e., what Campos (1991) and Plann (1985) identify as *substantives*, and a locative P such as *en* 'in/on'. While the former convey a precise interpretation of location, the latter does not. The examples below are the counterparts of the Greek examples in (21) and (22) and the same considerations hold for them: that is, (35) is true even if Pedro was at the balcony when the earthquake took place, while (36) is not.

- (35) Pedro estaba en su oficina cuando sucedio el terremoto.

  Peter was *en* his office when happened the earthquake 'Peter was in/at his office when the earthquake took place.'
- (36) Pedro estaba dentro de su oficina cuando sucedio el terremoto. Peter was in inside de his office when happened the earthquake 'Peter was inside his office when the earthquake occurred.'

Just as with the Greek preposition se, I will hold that the Spanish preposition en occupies the  $P_{Loc}$  position, taking as its complement a DP whose head noun is the unpronounced noun *Place*. That is, I consider the structure of (35) to be as in (37a) below. The fact that *Place* is not modified by some locative element in (37a), renders the interpretation of location in (35) less precise. By contrast, the structure of (36) is as in (37b), where we see *Place* modified by 'dentro'. <sup>21</sup>

To summarize, I have demonstrated in this section that the locatives known as *substantives* in Spanish are very similar to the ir Greek counterparts, hence they are also accommodated by the proposal according to which they are the modifiers of an unpronounced noun *Place* (which is part of a DP with an empty determiner, the complement of a functional head  $P_{Loc}$ ). The complement of the locative is in a possession relation with *Place* and the preposition *de* that interferes is most probably involved in licensing the Case of this complement. I have already laid out the advantages of the present account compared to previous ones of Spanish locatives. Finally, I have also shown that in Spanish as well there are locative structures in which  $P_{Loc}$  is phonologically realized, but *Place* is not modified, with the consequences that the interpretation of location is less precise.

## 4 English Locatives

English locative Prepositions appear to differ in various ways from those of Greek and Spanish, at least at first glance. They are not usually referred to as 'adverbials' in the traditional literature (although they very often can appear without a complement, as we will see) neither have they been associated with nominal behavior in the sense discussed so far.<sup>22</sup>

It is, therefore, interesting that a small set of English locative elements has recently been associated, on independent grounds, with a non-phonologically realized noun very similar to *Place*. More precisely, Kayne (2004) proposes that 'here' and 'there' in English are demonstratives which modify a non-phonologically realized noun ('unpronounced PLACE' in his terminology). As he notes, in some dialects of English this unpronounced noun even has an overt counterpart:

- (38) a. This here place
  - b. That there place

The Greek counterparts of 'here' and 'there', *edo* and *eki* respectively, resemble English in that they can also be construed with an overt *Place* 'meros' (and, by contrast to English, are widely accepted).

- (39) a. Afto edo to meros this here the place 'This here place'
  - b. Ekino eki to meros that there the place 'That there place'

What is more interesting, however, is that the Greek locative Ps we have been discussing can also be construed with an overt *Place*.

- (40) a. To kato meros the under place
  - b. To brosta meros the in front place

The facts in (40) offer support to my initial proposal concerning the structure of Greek locatives, hence, the examples in (40) should also be analyzed as DPs whose head noun, *meros* 'place', and its determiner, *to* 'the', are now overt. Presumably (40) is not embedded in a  $P_{Loc}$  and this is confirmed by the fact that it cannot be modified by a degree phrase such as 'akrivos', (41). By contrast, it can be modified by *poli* 'very', (42), a standard modifier of adjectives.

- (41) a. \*To akrivos kato meros the precisely under place
  - b. \*To akrivos brosta meros the precisely in front place
- (42) a. To poli kato meros the very under place
  - b. To poli brosta meros the very in front place

The counterparts of (40) are ungrammatical in English, (43). Therefore, it seems at first glance that the parallelism I had hoped to establish between English locative prepositions and locative elements such as 'here' and 'there' breaks down at this point.

- (43) a. \*This/the under place
  - b. \*This/the in front place

However, it is not clear that the presence of a null *Place* in the structure depends on the availability of its overt manifestation, although the issue deserves further investigation. Here I will assume that the ungrammaticality of (43) is neutral with respect to whether 'under' or 'in front' are able to modify a phonetically null *Place* in English. On the other hand, I will consider the presence of an overt 'place' in (38), (39) and (40) to strengthen the independently motivated claims for the presence of an unpronounced counterpart of it in both Greek and English. <sup>23</sup>

Furthermore, notice that, although (43b) is ungrammatical, (44) below is not:

(44) The (very) front part/side.

It seems, therefore, that 'front' is more like *brosta* 'front' of (40b) than what is indicated by (43b), in the sense that it can also be part of a nominal construction, modifying the nouns 'part' or 'side' in this case.

This leads me to propose that 'in front' has a structure similar to that of Greek and Spanish, in the sense of modifying the noun Place, in a DP which is the complement of  $P_{Loc}$ , and what surfaces as the complement of 'in front' is the possessor of Place. As for the structure of possession in English nominals, I adopt proposals of Bernstein & Tortora (2005):

(45) ... [PPLoc in [DP front  $Place_i$  [D of [AgIP the house [QPNP  $t_i$ ]]]]]]

What (45) also tells us is that the  $P_{Loc}$  functional head is now phonologically realized by the preposition 'in'. I believe it is absolutely safe to assume that 'in back of' and other locatives of this type behave identically.

A further similarity between 'in front (of)' and its counterparts in Greek and Spanish is that it can also be used intransitively, as in the following example from Svenonius (2004):

(46) I saw a line of soldiers. The one in front (of it) was talking on the phone.

Note at this point that a number of other locatives can be used intransitively as well in English, as in the examples below, also from Svenonius (2004), and see Huddleston & Pullum (2002) for a complete list.

- (47) a. As the group approached the final summit, Espen stayed behind (them).
  - b. There was a box in the table. Inside (it) was fine Swiss chocolate.
  - c. We stood on a bridge. Below (it) we could see barges laden with port wine
  - d. Nils looked over the snowdrift. The frozen fjord beyond (it) was dotted with seals.

As already mentioned when discussing Greek locatives in section 2, it is not entirely clear how the omission of the Ground argument of locatives is to be evaluated. The purpose of the above examples therefore was to simply identify one more similarity between the two languages even this domain (also shared by Spanish, as discussed by Campos 1991). With this much said, let us now turn to another characteristic of locatives that also holds for all three languages, but for which we have provided an explanation already and wish to extend it to English.

Just like in Greek and Spanish, along with complex prepositions denoting location, there is a parallel structure with a 'small' P in English as well, which also conveys a less precise denotation of location than complex prepositions. In the pair below, for instance, (48a) is true even if the box is not large enough to contain Mary, but this is not the case in (48b). The Greek counterparts in (49) display the same properties.

- (48) a. Mary is in the box.
  - b. Mary is inside the box.
- (49) a. I Maria ine sto kuti. the Mary is *se*-the box 'The Mary is in the box.'
  - b. I Maria ine mesa sto kuti. the Mary is mesa *se*-the box 'Mary is inside the box.'

Svenonius (2004) attributes the precise interpretation of (48b) to the contribution of the containing *side*. I believe it is more accurate to say that the precise interpretation of the (b) sentences above is due to the fact that *Place* is modified by 'inside'. Notice, furthermore, that the literal interpretation of the complex P is also present in the Greek locative *epano* 'on', in (20) earlier, although no containing *side* is involved. Therefore, taking into account the similarities between Greek and English locatives discussed in this section, I propose that the structure of (48a) is as in (50a) and the structure of (48b) as in (50b). Notice, that as in the Spanish counterpart pair in (37), we do not consider *Place* to move to SpecDP in (50a), as we have neither evidence nor the necessity for such a movement. Furthermore, we will assume that the P<sub>Loc</sub> 'in' is responsible for the Case of 'the house' in (50a).

One can imagine a number of objections to the above claims concerning English locatives, at least when it comes to locative s such as 'inside' or 'behind'. First, by contrast to 'in front' earlier, the preposition 'in' that I consider to occupy  $P_{Loc}$  in (50) forms a compound with the modifiers of *Place*, i.e., with the 'side' or 'hind' parts of 'inside' or 'behind', (50b). Therefore, one may wonder how it is possible that each part of the compound occupies a different syntactic position. I will consider this compounding to be the consequence of some morphophonological process that does not bear on my claims and the proposed structure in (50b) in any crucial manner.

Moreover, it is even plausible that this morphological compounding, at least as evidenced by English spelling, is able to make interesting predictions with respect to the Case of the complement of locatives. At first inspection we notice that those locatives which keep the P head and the modifier locative apart, require 'of' to

precede their complement, (51a). Those which do not keep  $P_{Loc}$  and the modifier of *Place* apart, such as 'inside', 'behind', 'below', 'beyond' not only do not require the presence of 'of', (51b), but they may even disallow it, (51c):

- (51) a. in front/in back \*(of) the house.
  - b. inside (of) the house.
  - c. below/beyond/behind (\*of) the house.

It is tempting to think that the pattern is surprisingly clean, in the sense that the locatives in (51a) require 'of' because the modifier locative is not able to check the Case features of its complement, since it is a phrasal modifier. For the same reason, we claim in Botwinik-Rotem & Terzi (2006), the modifier locatives in Greek cannot check the Case of their DP complements, a role that is performed by the light Ps se or apo. On the other hand, it is phusible that the compounding which forms 'below', 'beyond' and 'behind' in (51c) results in a new syntactic object that occupies  $P_{Loc}$ , hence, is able to check the Case of a DP complement (therefore, 'of' is disallowed). As for the locative in (51b), it is reasonable to assume that it is at an intermediate or transitional stage: if 'side' is phrasal, just like 'front' or 'back', the presence of 'of' is required for the Case of the DP complement. If, on the other hand, it forms with 'in' a compound that occupies  $P_{Loc}$ , it is able to check the Case features of the DP complement, hence 'of' is disallowed

Another conceivable objection for analyzing locatives such as 'inside' or 'behind' as the modifiers of *Place* may stem from the fact that the second part of 'inside' and 'behind', that is, 'side' and 'hide' is a noun rather than an adjective. Therefore, one can potentially argue that the locative is not the modifier, but the phonological realization of *Place*, in these instances (at least). A satisfactory answer against this line of reasoning is twofold: first, there are conceptual reasons which render it unlikely. The se require further research on the nature of unpronounced elements, in the sense of Kayne (2005b), in order to be complete but here is the direction to take. Kayne (2005a:15) proposes the following principle of compositionality:

(52) UG imposes a maximum of one interpretable syntactic feature per lexical or functional item.

If (52) is right, and if we consider *Place* to denote the physical space surrounding the Ground argument of the locative, the locative modifying *Place* should carry the interpretable feature that corresponds to the position or interval in this physical space (see Kayne's discussion of 'red COLOR car' in this respect). If however, one considers the locative to be the phonological realization of *Place*, this lexical item would now carry both features, namely, one corresponding to the physical space surrounding the Ground argument and the other corresponding to the position in this physical space. Therefore, it is not only inconsistent to consider locatives to sometimes modify *Place* and sometimes to realize *Place*, but it is also against the principle in (52).

There are also are empirical reasons that render the above idea not an ideal alternative however. Notice that, although there are indeed a number of English locatives whose second part is a noun, rather than an adjective, there are also a number of locatives whose second part is clearly an adjective (either synchronically or diachronically), i.e., 'below', 'beneath', 'underneath', etc. Hence, if we decide to

pursue a uniform approach to the syntactic structure of English locatives, as I think we should, I cannot see any convincing reason why to choose the noun rather than the adjective (i.e., modifier) in their morphological make up as the relevant evidence for their relation with *Place*. Notice, furthermore, that even if we want to take seriously the resemblance of some of these locatives to nouns, nouns can also modify nouns in English, i.e., 'a man of honor'. Finally, even a noun such as 'side', present in the locative 'inside', can modify other nouns, as in 'side dish'.

To conclude, the above discussion suggests that considering (even some) English locatives to be the phonological realization of *Place* is not unproblematic. Therefore, given the account of locatives that I have developed on the basis of the much more transparent facts of Greek, also supported by their Spanish counterparts, the less clear facts of English will be accounted for by the same analysis. The available empirical evidence from English does not seem able to support a solid alternative proposal (at least along the lines that English locatives, rather than modifying *Place*, are the phonological realization of it) neither can it pose serious counterarguments.

# 4.1 The relation of locatives with their complements

Recall that we have tacitly assumed all along that the Ground arguments of locatives enter a possession relation with the unpronounced noun *Place* present in their structure, in the sense that they are the possessors of *Place* (which may or may not be modified by some locative). Considering the complements of English locatives, along with those of Greek and Spanish, to be the possessors of *Place*, raises at least one more question.

If we consider the preposition *of*, which follows a number of English locatives, as the counterpart of the genitive *of* encountered with possessed nominals (see Bernstein & Tortora (2005) for the latter) we notice that the two differ in that when followed by a pronoun, the morphological Case of the pronoun is accusative with locatives, (53a), by contrast to the familiar genitive of nominals, (53b):

- (53) a. In front of him/\*his.
  - b. A book of his/\*him.

The above contrast makes one wonder therefore whether it is right to propose that the locative and its complement are part of a possession structure in (50). Needless to say that the above piece of disturbing evidence dictates a more careful investigation of the Greek and Spanish counterpart structures as well.

A plausible alternative candidate structure that emerges for (53a) is that of a partitive construction and this is so for a number of reasons: first, English partitives also involve the preposition *of*, which, unlike the possessive *of* is followed by a pronoun/DP with morphological accusative Case:

### (54) I have met two of them.

Moreover, the preposition of Greek partitives is *apo* (Alexiadou & Stavrou 1999), namely, the same light P that follows locatives in complex prepositions (along with *se*).

(55) Exo sinandisi dio apo aftous. have-1s met two *apo* they-acc 'I have met two of them.'

Similarly, Spanish partitives also employ the preposition *de* that is encountered with locatives.

(56) Me gustan muchos de los cuadros que hay en el Prado. me please-3p many *de* the paintings that are in the Prado 'I like many of the paintings in the Prado.' (from Vos 1999)

Perhaps most importantly, however, one may be able to detect a *part-whole* relation involved in locatives, in the sense of a higher DP which is a subset of a set denoted by the noun phrase in the second part of the construction. In other words, within the analysis I have proposed for locatives, it is conceivable to interpret *in front of John*, for instance, as one of the places, in particular, the *front Place*, of (all) *John's Places*. <sup>25</sup> Unfortunately, the problem raised by (53a) remains however, because, even under this analysis, we expect the complement of the locative to also bear genitive Case, as it is now simply considered the possessor of *Places* (instead of the possessor of *Places*).

Notice moreover that locatives fail a syntactic test available in the literature for distinguishing partitives from possessives. Zamparelli (1998) points out that partitives differ from possessives in that the former can be split at the *of* PP, (57a), while the latter cannot, (57b):

- (57) a. Of those people, I have just met two.
  - b. \*Of John's, I often encounter a good friend.

When we apply the above test to locatives with *of* PP, they pattern the behavior of possessives:

(58) \*Of Mary, I usually sit in front.

I take the above to indicate that there is no convincing evidence that locatives (with *Place*) participate in a partitive relation with their complements. Therefore, I will not pursue any further the idea that the unpronounced *Place* present in the syntactic structure of locatives participates in a part-whole relation with their complements. Instead, I will follow the initial idea I advocated, according to which what appears to be the object of the locative is the possessor of *Place*. For the same reasons, I will not proceed with reexamining the structure of the Greek complex prepositions either. This is rendered less pressuring perhaps if we take into account that several analyses essentially consider the same structure to underlie both possessives and partitives, see Zamparelli (1998) for English and Alexiadou and Stavrou (1999) for Greek. Admittedly, the lack of genitive morphological Case on the pronoun that follows *of* in English examples such as in (53a), will have to remain a mystery. The synthesis of the synthesis of the synthesis of the pronoun that follows of in English examples such as in (53a), will have to remain a mystery.

### 5 Conclusions

The purpose of this paper was to accomplish the following two objectives: to provide a detailed account of the behavior of Greek locative prepositions and use the evidence and insights they provide in order to understanding the properties and behavior of locatives crosslinguistically. My contribution to the latter objective was made possible via the study of Spanish and English locatives.

I proposed that locative prepositions involve both a lexical and a functional element in their structure, in a very specific manner. Namely, I argued that, in their majority, locatives are the modifiers of a non-phonologically realized noun, *Place*, which is the head noun of a DP with a non-phonologically realized determiner. In its turn, this DP is the complement of a functional head  $P_{Loc}$  P<sub>Loc</sub> can also be phonologically realized, as in the case of *se* in Greek, *en* in Spanish or *in* in English. When *Place* is not modified, but is present, as indicated by the presence of a phonologically realized  $P_{Loc}$ , a less precise interpretation of location is conveyed (compared to when *Place* is modified by a locative).

Finally, I investigate the relation of locatives with their complements, and hold that what we see as complements of locatives are the possessors of the noun *Place*, hence the genitive Case they carry. Greek and Spanish offer straightforward evidence to this effect, but English raises the question of whether there is a patitive relation involved between *Place* and the complement of locatives. I explore d this idea to some extent, but did not find convicing evidence to support it, therefore I abandoned it for the time being.

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#### NOTES

<sup>1</sup> Se is always contracted on the definite determiner, but it can be found uncontracted in other environements, (ia). It can also be used alone to indicate location, (ia), as I will discuss in detail in subsequent section of the paper, or direction, (ib).

Pigeno stin Athina

'I go to Athens.'

go-1s se-the Athens

(i) a. Zo se mia megali poli. b. live-1s *se* one big city 'I live in a big city.'

*Apo* is used in a number of other contexts as well: it is the by-phrase of passives, the preposition of partitives, and a directional/source P, (ii):

(ii) Epestrepsa apo to grafio noris. returned-1s *apo* the office early 'I returned early from the office.'

Finally, se and apo are the prepositions of ditransitives, 'to' and 'from' respectively (see Anagnostopoulou 2003, 2005).

- In Terzi (2006) I demonstrate why locatives which are not followed by an overt complement should not be considered adverbs (in the sense of elements that lack a syntactic object). Looking at examples of ellipsis, (i) below, we see that the second conjunct can have a sloppy reading, an indication that there is a copy (with an internal structure) present after the second locative:
- (i) I Maria stathike brosta apo tin karekla tis ke o Petros piso. the Mary stood in-front *apo* the chair her and the Peter behind 'Mary stood in front of her chair and Peter behind his/her chair.'
- See Terzi (2005) for evidence as to why the Case of the clitic that follows locatives is genitive rather than its homophonous dative in Modern Greek.
- The direction of the argumentation should be kept in mind: I am not claiming that locatives are modifiers of a noun, hence consider them to be similar to adjectives because of this property. Such a reasoning would not be right, because adjectives are

<sup>\*</sup> Various versions of this work have been presented at the University of Utrecht (February 2005), at the CUNY Graduate Center (March 2005), at the University of Thessaloniki (April 2005), at the LSA *Worskshop on Greek Morphosyntax* (Harvard University, July 2005) and at the *Workshop on Prepositional Phrases* (University of Venice, November 2005). I would like to thank the audiences of these events for their comments and suggestions. For written comments on various earlier versions I would like to thank Irena Botwinik-Rotem, Guglielmo Cinque, Marcel den Dikken, Richard Kayne, Tom Leu, Phoevos Panagiotidis and Stavros Skopeteas. Shortcomings are my own responsibility, of course. Research on this topic has been supported by the *Archimedes I* grant 2.2.(3), co-funded by the European Social Fund and National Resources.

not the only modifiers of nouns neither is modification of nouns the characteristic property of adjectives (see Baker (2003: 4.2) for a thorough discussion of these issues). Instead, considering the empirical evidence according to which locatives share the distribution of (attributive) adjectives, I am claiming that the y also modify nouns.

I say 'tentatively adopt' because a small clause structure is not compatible with the idea that clitics following locatives move from the lower position indicated in (7) to the higher one, unless one resorts to some version of sideward movement in the spirit of Nunes (2004). As will be discussed shortly afterwards, one has to assume obligatory movement of clitics from the post-*Place* to the post-locative position because: a) clitics cannot be hosted by non-phonologically realized elements and b) in order to explain the inconsistent judgments native speakers have with respect to the animacy restrictions on clitics following locatives. Here I have used a small clause structure to represent possession, simply because it is the structure also adopted by Alexiadou & Stavrou (2000) for possession in Greek nominals.

An alternative, suggested to me by Tom Leu, is to consider a (phrasal) larger lower part of the structure to move higher taking the clitic along, as in Noonan (2005, this volume). This is certainly a possibility to investigate, although it is not clear that it would be consistent with the behavior of clitics with respect to animacy. In the present account clitics are considered to cliticize between the locative and *Place*, a position known to be associated with animacy restrictions in the nominal domain.

- Since *Place* is not phonologically realized, it is not controversial to assume that its interaction with clitics will be subject to similar considerations as those holding for clitics and other, well-established, non-phonologically realized elements, such as traces and empty categories. These are not visible by phonology, hence cannot constitute hosts for phonologically weak elements such as clitics (see Selkirk 1986, Nespor & Vogel 1986).
- Hence the reactions to those accounts which consider locatives similar to nouns. Szabolsci (1994), for instance, criticizes Marancz (1984) who considers Hungarian locatives to be nominals, on the grounds that although they may derive from nouns, and they bear similarities to noun phrases, they also bear differences that need to be understood.

On the other hand, Bresnan (1994) who considers English locatives in subject and object position to be nominals, proposes that they are the complements of nominals, as below:

(i) [NP (A PLACE)][PP under the bed] is a good hiding place.

Matsubara (2001) points out that such an account is problematic because it considers semantic, contextual or pragmatic rather than morphological requirements to be accessible to syntax.

The analysis developed in this paper does not suffer from the defects of the above proposals. Furthermore, not only does the proposed analysis recognize the resemblance of locatives to nominals, but sheds light on the source of this resemblance.

This argument resulted from a response to a comment by Marcel den Dikken, for which I would like to thank him.

- There is also one more light P, *me*, which is construed with the substantive *mazi* 'together' only. It is not clear whether *mazi* is a locative, hence, whether it should be accounted for by the analysis provided in this work. One may be able to adhere directly to nominal properties of *mazi* in order to understand its genitive (clitic) complement by drawing on its historical origin from the noun *maza* 'mass' (see Babiniotis 1998)). Pertinent at this point is the discussion of Longobardi (2001) for French *chez*.
- (i) a. Piga (mazi) me ton Petro went-1s together me the Peter 'I went with Peter.'
  - b. Piga mazi tu/\*tu Petru. went-1s with he -cl-gen/the Peter-gen 'I went with him.'
- epano se means 'on' while epano apo means 'above' and mesa se means 'inside' while mesa apo means 'from inside', and there are no genitive clitic frames for epano apo or mesa apo:
- (i) a. \*Petuse ikosi metra epano tu. was-flying twenty meters on he-cl-gen '(It) was flying 20 meters above him.'
  - b. \*Den evgene foni mesa tis.

    Neg coming voice inside she-cl-gen
    'No voice was coming out of her.'

Interestingly, there is a strategy for the clitic frame to be construed with these two locatives, which utilizes the option that the light P *apo* has to (also) precede the locative (see Terzi 2007 for details). As Terzi notes, the presence of *apo* before the locative is optional with all other locatives in the clitic frame, except for the following two.

- (ii) a. Petuse ikosi metra \*(apo) epano tu. was-flying twenty meters *apo* on he-cl-gen '(It) was flying 20 meters above him.'
  - b. Den evgene foni \*(apo) mesa tis.
    neg coming voice apo inside she-cl-gen
    'No voice was coming out of her.'
  - c. Stathike pende metra (apo) piso tis. stood five meters *apo* behind she-cl-gen 'He stood five meters behind her.'

Notice that this strategy is also in line with my idea that *apo* carries semantic content in these two instances, as a result of which, presumably, it cannot be omitted.

The optionality of the pre-locative apo, in all other contexts except from (ii) above, is also manifested in the complex preposition frame, (iii), (Terzi 2007). Note that the obligatory presence of the second apo below, is due to different reasons,

namely to the Case checking needs of the DP complement of the locative (Botwinik-Rotem & Terzi 2006).

- (iii) a. Petuse ikosi metra (apo) epano \*(apo) ton Petro. was-flying twenty meters *apo* on *apo* the Peter '(It) was flying 20 meters above Peter.'
  - b. Den evgene foni (apo) mesa \*(apo) ti Maria. neg coming voice *apo* inside *apo* the Mary 'No voice was coming out of Mary.'
  - c. Stathike pende metra (apo) piso \*(apo) ti Maria. stood five meters *apo* behind *apo* the Mary 'He stood five meters behind Mary.'
- If the complex preposition structure, i.e., (18), was the result of predicate inversion from (13), subsequent extraction of the light PP should be ungrammatical, since the light PP that is the result of such a process is not a constituent. Extraction of the light PP is fully grammatical however, as (i) below demonstrates:
- (i) Se ti to evales epano? se what it put-2s on 'What did you put it on?'
- In Botwinik-Rotem & Terzi (2006) we further propose that the corresponding possessive clitics can check their Case in the PF, by virtue of fact that they are part of the same prosodic word with the locative.
- Campos (1991) reports that 'traditional grammarians have not agreed on the status of these prepositions. Thus, although Bello (1847) classifies them as adverbs, Ramsey (1956) considers them complex prepositions when they are used transitively and adverbs when used intransitively'. Chomsky (1988:110), refers to Spanish substantives as intransitive prepositions, but notices the difference between Spanish alrededor 'around' and English 'around' in terms of being able to assign Case to their DP complement.
- Notice the difference with respect to the position of Place in the two structures. In (37b) we have considered Place to move to SpecDP, just as in the standard nominal domain. An indication of this movement is the appearance of the preposition de in D, as argued by Bernstein (2005) for Spanish nominals. We have no reasons to believe that a similar type of movement occurs in (37a) however: first, because de is not present. Then, because it is reasonable to assume that the Case requirements of the possessor DP, i.e., the complement of the locative, can now be satisfied by the  $P_{Loc}$  head en.
- With the exception of Bresnan (1994) who, however, looks at English locatives (and temporals) in subject and object position but does not investigate their internal structure. As already mentioned, she argues that locatives are the complements of a nominal, as in (i) below:
- (i) [NP (A PLACE)][PP under the bed]] is a good hiding place.

Similar in spirit is the proposal of Davies and Dubinsky (2001) who postulate a DP-shell in English in order to capture the presence of locatives in subject position, (iia), along with all other types of non-DP subjects, (iib)-(iic).

- (ii) a.  $[DP[D \emptyset][PP]$  under the bed ]] is a good hiding place.
  - b.  $[DP[D \emptyset] [CP]$  that Shelby lost is]] is true.
  - c.  $[DP[D \emptyset]][AP]$  very tall ]] is just how he likes his bodyguards.
- Kayne's recent work on unpronounced elements shares this line of reasoning. It is demonstrated in Kayne (2005a), for instance, that an overt *-aine* is present in French, (i), while only the unpronounced counterpart of it is encountered in English, (ii).
- (i) une vingtaine d'articles  $a_{fem}$  twenty -aine of articles
- (ii) hundred + -AINE + -s of articles

On the other hand, both an overt and an unpronounced PLACE may occur with English 'here' and 'there'. The examples in (41), repeated below as (iii), constitute the overt option, while the (simplified) structure of 'here' and 'there', argued to be as in (iv) in Kayne (2004), manifests the unpronounced counterpart.

- (iii) a. This here place
  - b. That there place
- (ix) a. ø here PLACE
  - b. ø there PLACE
- An interesting piece of data to bring up at this point is Svenonius' (2004) observation that those English locatives able to occur without an overt complement coincide with those that are able to take *there* as their Ground argument.
- (i) a. Go behind/inside/below/beyond/in front of/above there.
  - b. \*Get among/upon/between/beside/next to there.
- This approach does not present problems for the much discussed Partitivity Constraint, according to which the embedded DP/NP must be definite (Jackendoff 1977 and see de Hoop 1998 for a recent overview) since, even if one considers the lower DP to be essentially interpreted as 'all Places', the universal quantifier *all* is one of those elements allowed in partitive constructions.
- That is, locatives would presumably fall under the second type of standard partitives in the terminology adopted by Barker (1998), i.e., *I saw two of John's friends*.
- I am referring to Greek Complex Ps in particular, because they are the ones that involve the light P *apo*, also present in partitives.
- A last attempt would be to attribute the above ungrammaticality to the presence of the unpronounced element, *Place*. Notice, for instance, that one can say

(ia) but not (ib) in English (considering (ia) and (ib) to also involve an empty *Place*, as in Kayne (2004)).

- (i) a. I'm going to John's.
  - b. \*I'm going to his.

Nevertheless, one would then have to answer why (ii), by contrast to (ia), is also ungrammatical under the intended reading:

(ii) \*...in front of John's