LICENSING SILENT STRUCTURE: THE SPATIAL PREPOSITIONS OF SHUPAMEM

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ABSTRACT

This article offers a systematic account of the spatial expressions of Shupamem, a Grassfields Bantu language of Cameroon that has very few items clearly identified as spatial prepositions, a good number of nouns that are used to denote locational relations, and a small and well-defined set of items in the extended projection of spatial Ps that denote speaker's point of view, but often give the impression of locative or directional Ps.

It is proposed that the structure of Shupamem locative PPs consists of two core components: (a) a functional head, P_{Loc}, and (b) a nominal complement. Either component may surface without phonetic content once specific requirements are met, namely, once the Edge of the PP is minimally overt. We claim that the nouns denoting location, unlike referential nouns, depend on P_{Loc} for their interpretation, as a result of which they may move to its Edge and license a silent P. A silent P is also licensed by the elements that denote speaker's point of view, via movement of the silent P to the point of view head; this results in phase extension, and explains the obligatory presence of view markers in some contexts, giving the impression they are Ps. The account proposed for Shupamem offers a unified treatment of the functional structure of spatial Ps across typologically different languages, while it investigates how silent parts of the spatial P structure are licensed.

Keywords: Shupamem, Grassfields Bantu, Spatial Prepositions, Point of View Markers, Phases, Edge, light nouns

INTRODUCTION

Research on spatial expressions during recent years has revealed that the syntactic structure of spatial P(reposition)s is much richer than was previously assumed (Koopman 2000, den Dikken 2010, Svenonius 2008, 2010, Terzi 2008, 2010, a.o., and Cinque 2010 for an overview). A consensus that has emerged with respect to locative Ps in particular is that their structure consists of two core components, Place and AxPart, Svenonius (2006, 2010), roughly corresponding to a higher functional domain, followed by a lower lexical component with nominal properties, Terzi (2008, 2010a). As for directional Ps, despite differences among accounts (cf. Koopman 2000, den Dikken 2010), it is generally agreed that they embed a locative P, even when the latter is not directly observable.

We begin this article by taking up the latter approach to locative Ps and investigate in detail each of the two components that make up the structure of a number of locative expressions in a language that seems to instantiate both components, and, moreover, to instantiate them in a more transparent manner than we are accustomed to. The language we are studying is Shupamem, also known as Bamun, a Grassfields Bantu language spoken by about a million people in northwestern Cameroon (in what used to be the pre-colonial Kingdom of Bamun). In a manner shared by many African languages, including Niger Congo and Chadic,

Shupamem utilizes mostly nouns in order to express location. These nouns are sometimes introduced by a particle, as is also the case for other languages of this type (see Aboh 2004, 2010 and Holmberg 2002).

We argue that Shupamem provides direct support to the idea that locative prepositions are indeed the combination of a functional component, P_{Loc}, and a nominal lexical one, *Place*, as proposed in Terzi (2008, 2010a) on the basis of typologically different languages such as Greek and Spanish. Furthermore, Shupamem demonstrates all logical possibilities that fall out of this approach in terms of which component is overt or silent. Naturally, 'all logical possibilities' include the one in which neither component is overt. We demonstrate that this possibility is indeed attested and it amounts to locative Ps that are syntactically present but are devoid of phonetic content. We argue that such Ps are licensed when their Edge becomes (minimally) overt, following Collins' (2007) ideas on this issue, based primarily on English spatial expressions. We show that similar licensing conditions hold for Shupamem directional Ps as well, which are always silent.

We seek to show that the spatial prepositions of Shupamem are less exotic than they seem at first glance, and in fact are structurally similar to the prepositions of several much better studied, but typologically very different languages. This is not the only unifying approach to spatial expressions available; another one has been offered recently by Aboh (2010), who, however, focuses on partially different languages and follows a partially different route. The approach proposed in this article is concerned in addition with the licensing conditions for silent spatial Ps, which we claim to be abundant in Shupamem. As a result of this concern, we investigate a set of elements that modify spatial Ps for speakers' point of view, yet, which themselves look a lot like spatial Ps, especially when the latter are (apparently) absent. We point out that English may not be much different from Shupamem in this respect and that some facts demonstrated by English elements that express speaker's point of view may be the outcome of similar (if not identical) processes.

The paper is organized as follows: section 1 presents the basic facts about Shupamem locatives, namely, the various types of locative PPs, the properties of the nouns that participate in their structure and express location, the properties of the particles that introduce the PPs in certain syntactic frames, and the elements that modify them for speaker's point of view. In section 2 we provide a structure for the Shupamem locative Ps which takes all the previous constituents into consideration. In section 3 we discuss a subset of directional expressions, primarily associated with speaker's point of view markers, and argue that directional Ps are syntactically present in the language, despite the fact that they are always phonetically empty. Section 4 focuses on how silent Ps are licensed, which amounts to an investigation of how the Edge of the spatial Ps becomes overt. We argue that this is accomplished via head movement of the locative nouns, phrasal movement of the silent noun PLACE (with its modifiers), or movement of the silent Ps to the immediately dominating heads that mark speaker's viewpoint. In the last part of the same section, we discuss locative nouns and assimilate them into the broader category of light nouns, properties of which we try to understand and formulate. Section 5 summarizes our findings and claims.

1. THE FACTS

Shupamem utilizes various means to express location. This section presents the linguistic expressions we have identified as locative PPs in the language, and contains the core empirical domain on which this work is based.

1.1 TYPES OF LOCATIVE EXPRESSIONS

In order to express a locational relation, Shupamem may employ a noun, a particle which resembles the familiar functional Ps of the Indo-European languages, or a combination of the two. Hence, it ends up having three types of overt transitive locative expressions, namely, locative Ps which have phonetic content and are construed with a (DP) *ground argument*. The first is exemplified in (1), where the locational meaning is expressed by a common noun, i.e., 'top' or 'roof' and 'root'.

(1) a. lérwà pâ ndún tèbɛ̀
book is top/roof table
'The book is on/above the table.'

b. lérwà pâ nʃin tèbɛ̀
book is root table
'The book is under the table.'

Another noun of the same paradigm is the noun *nkəp* 'coast', which has the meaning of 'near' as a locative. (1a) also demonstrates that Shupamem does not distinguish between 'on' and 'above', which are interpreted according to context. 'on' is the most plausible interpretation in (1a), but see (3a) and (4) for alternative expressions, where 'above' is more plausible due to context. (2) immediately below shows that the nouns that express location can also be used otherwise. Thus, the noun *ŋʃin* 'root' of (1b), for instance, is a common referential noun in (2) and, as such, it may be preceded by the indefinite article and be modified by an adjective.[1]

(2) í kwáté mó? pɔ̀kɛ́t ŋgbàm nʃin máŋgù
he found a nice big root mango
'He found a nice big mango root.'

Examples as in (3) constitute the second type of locative Ps, namely, those in which the noun that denotes a locational relationship is preceded by a particle, in this case *mə*. Other nouns that participate in this frame are *sɨ* 'sex', *jí* 'nose', nʃút 'door/mouth', *mí* 'face', all of which mean 'in front (of)', and *nkwə̀n* 'back' for 'behind', all body-part nouns. In fact, *mə* is construed predominantly with body-part nouns, although it is not limited to them, (4).[2]

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[1] Shupamem does not have a definite determiner, and N-to-D movement is assumed for definite nouns (see Carstens (2000) for Bantu and Nchare (2008a, 2012) for Shupamem in particular).

[2] The particle ***mə*** can be traced to the 1st person personal pronoun, as illustrated by the following example.

(i) mə jún màtwá **ŋ**kùrə
I bought car yesterday
'I bought a car yesterday.'

In section 3.2, example (30) and footnote 6, we will refer in passing to another instance of spatial expressions where ***mə*** is encountered (albeit not in the presence of a locative noun).

(3) a. màsí pâ mə tú john
bird is *mə* head John
'The bird is on/above John.'

b. í pí tɛ́nə mə yé lérà?/ndáp
he past stand *mə* forehead teacher/house
'He was standing in front of the teacher/the house.'

(4) màsí pâ mə ndún ndáp
bird is *mə* top house
'The bird is on/above the house.'

(5) below shows that the noun ***yè*** 'forehead' of (3b) can also be used as a common noun, in which case it may be followed by the possessive pronoun and be modified by an adjective. Similar behavior is manifested by the other nouns of this group.

(5) í kúm pɔ̀kɛ́t yé ʃì
he hurt nice forehead his
'He hurt his nice forehead.'

For ease of reference, we will label all nouns above *locative nouns* when denoting a locational relation. Moreover, we will label the spatial expressions that consist of a locative noun introduced by a particle *complex locatives*, a term that has no theoretical significance, as will become obvious from the syntactic analysis to be offered, but serves as a convenient term to describe the facts. By the same token, we will call *simplex locatives* those that consist of just one overt item (either a locative noun, or a particle).

Finally, (6) demonstrates that there are also locative expressions which consist of just a particle. Just like *mə*, this particle is an element that bears no resemblance to the nouns presented so far, but is reminiscent of the Indo-European type of functional Ps in the sense of taking a ground argument as its complement, without the mediation of some other element.

(6) a. món swó mbʉ́m tə̀ pàm
child put money *tə̀* bag
'The child put the money in the bag.'

b. í pâ/ʃù tə̀ ndáp
he is/stayed *tə̂* house
'He is/stayed in the house/at home.'

The only member of this category is *tə̀* and its meaning is 'in'. *tə̀*, besides taking a ground argument as its immediate complement, can also precede locative nouns to form a complex locative, hence, patterning with *mə* in this respect. In this context the meaning of *tə̀* as 'in' is lost. The origin of *tə̂* is traced to the 1st person plural (dual) personal pronoun. Hence, neither one of the two particles that introduce locative nouns bear resemblance to verbs, unlike the elements construed with relational/locative nouns in the languages discussed by Aboh (2010).

(7) a. màsí pâ tə́ ntʉ̀ ndáp
bird is *tə́* heart house
'The bird is inside the house.'

b. í ʃù tə́ nkwə̀n ndáp
he stayed *tə́* back house
'He stayed behind the house.'

c. màsí ʃù tə́ ndún ndáp
bird stayed *tə́* top house
'The bird stayed on/above the house.'

It emerges so far, therefore, that the difference between *tə́* and *mə́* is that the latter appears only with some other spatial element, in particular, with some locative noun, and, primarily, with a body-part noun, as mentioned. This is misleading however, since, when *mə́* is followed by a body-part noun, cf. 'head' for instance, as in example (3a) repeated below as (8), the body-part noun can also be employed as a common referential noun. As a result, unlike what was described by (3a), the complex that consists of the particle *mə̀* and the body-part noun 'head' does not convey the meaning of 'on/above'. The same holds true for all body-part nouns preceded by *mə̀*. *mə̀* in such contexts has the meaning of 'on' (or 'above'), which is not any different from the meaning of *ndún* in (1a), or of *mə́ ndún* in (4).

(8) màsí pâ mə̀ tú john
bird is *mə̀* head John
'The bird is on/above John's head.'

Since the noun 'head' is not a locative noun in (8), it is expected to be able to be modified by an adjective, and this is indeed the case, as (9) demonstrates.

(9) màsí pét mə̀ ŋgbə̀m tú john
bird sat *mə̀* big head John
'The bird is on/above John's big head.'

Hence, the property that differentiates the two particle-type elements that participate in locative expressions boils down to the fact that while *tə́* may take a noun complement as its ground argument, *mə́* cannot, unless this is a body-part noun. Therefore, our survey showed that there are essentially two types of locative expressions that employ locative nouns and they are divided according to whether a noun alone may be used to express location, (1), or whether it must be introduced by a particle, (3), (4), (7). At the same time, a particle alone can express location, (6), (8), regardless of whether it may also do so in combination with a locative noun, (7), (3) respectively. As a result, examples such as (3a) and (8), which involve the very same lexical items, convey different meanings. In subsequent sections it will emerge that our analysis maps each of the two meanings to a different syntactic structure. For the time being, let us summarize the above facts in the Table that follows.

Table 1: Types of locative expressions

Simplex locatives	*Complex locatives*
Locative noun, (1)	*tə̀* + locative noun, (7)
mə̀, (8)	*mə̀* + locative noun, (3)-(4)
(only with body-part noun ground arguments)	
tə̀, (6)	

Before closing this section, let us comment briefly on the status of *pâ* that appears in several of the previous examples. *pâ* is the copula in Shupamem, as demonstrated by the following example from Nchare (2012: 325).

(10) gbáj̃ì pâ lá?ʃə́ mə́ŋàm
1-lion COP.pres wild animal
'The lion is a wild animal'

Given the example in (10), in which *pâ* cannot conceivably be considered as anything other than the copula, we see it as highly implausible that examples such as in (7a), for instance, repeated below, are the counterparts of the Zina Kotoko examples of Holmberg (2002), (11). Aboh (2010:241) holds that *má* in (11), which is a relator, in the sense of den Dikken (1998) and much subsequent work, assumes the function of a copula.

(7a) màsí pâ tə̀ ntʉ̀ ndáp
bird is *tə̂* heart house
'The bird is inside the house.'

(11) kàrtà dé má gmá tábə̀l
letter the P1 P2 table
'The letter is on the table.'

If Shupamem *pâ* were also a relator that assumed the role of a copula in (7a), one would expect it to also be available as a relator in the minimal pair below, where it does not assume the role of a copula, since no copula is involved. This is not the case however, as the ungrammaticality of (12) demonstrates.

(12) màsí ʃù (*pã̂) tə̀ ntʉ̀ ndáp
bird stayed *pâ* *tə̂* heart house
'The bird stayed inside the house.'

Finally, *pâ* is not a (present) tense marker, despite its resemblance with *pí*, cf. (14) below, which stands for the intermediate past tense marker, P3 in Nchare's (2012: 258, 267) terms. With this background information in mind let us now proceed to some further properties of the locative Ps presented so far, focusing on the locative nouns.

1.2 THE LOCATIVE NOUNS

That various African languages may utilize nouns in order to express a locational relation is a well-known fact (Aboh 2004, 2010, Holmberg 2002, Svenonius 2007 a.o.), and the properties of such nouns have been discussed to a varying extent in the literature. In what follows, we contribute to this discussion by focusing on two aspects of Shupamem locative nouns that are relevant for the rest of the analysis: modification and extraction of their ground argument.

1.2.1 Modification

We mentioned in passing that locative nouns can also be employed as common referential nouns and that in this case they may be preceded by the determiner, (2), or may be modified by an adjective, (2), (5). It was left implicit that these possibilities are not available when the same nouns are used as locative nouns, and this is indeed the case, as (13) and (14) below demonstrate. Modification by the adjective 'nice' renders the expressions incomprehensible. Construal of the locative nouns with the indefinite determiner is also impossible.

(13) *lérwà pâ pɔ̀kɛ́t nʃ̀in tɛ̀bɛ̀
book is nice root table cf. (1b)

(14) *í pí tɛ́nə̀ mə̀ pɔ̀k**ɛ́**t yé lérà?
he past3 stand *mə̀* nice forehead teacher cf. (3b)

Construal of locative nouns with the possessive pronoun is licit, however, (15)-(16). Nevertheless, the interpretation of the possessive pronoun is no longer possessive. Instead, the pronominal possessors act as the ground arguments of the locative Ps.

(15) lɛ́rwà pâ nʃ̀in ø-í
book is root his
'The book is under him.'

(16) í pí tɛ́nə̀ mə̀ yé **ʃ**-í
he past3 stand *mə̀* forehead his
'He was standing in front of him.'

Similar properties characterize the locative nouns of the Gbe-type languages that Aboh 2004, 2010 discusses (see also Holmberg (2002) for Zina Kotoko, a Chadic language of Cameroon). According to Aboh (2010), the impossibility of modification by an adjective follows from the fact that locative nouns are not full DPs, but (truncated) possessives. We return to these issues in section 4.3. Finally, let us note that the variable form of the possessive pronoun 'his' in the examples above depends on the noun class of the locative noun, and is also found when they are used as ordinary referential nouns: *nʃ̀in ø-í* 'his/its root' and *yè**ʃ**-í* 'his forehead', see Nchare (2012).

1.2.2 Extraction of the ground argument

Wh-extraction of the ground argument of each of the three (types of) locative expressions in section 1.1 reveals interesting similarities and differences among them,

as well as in comparison to locative Ps crosslinguistically. Shupamem wh-questions are formed either in situ, or via a clefting strategy which implicates movement according to Nchare (2008b, 2012). We are obviously not concerned with the former strategy here. The latter strategy makes use of the expletive pronoun ***á***, the relativizer ***jwó,*** the associated complementizer ***nə̀*** in the end of the sentence, and the Q(uestion) particle ***è***. The sentence final position of the last two elements is considered the result of movement of the whole sentence to the Specifiers of the phrases they head (see Nchare 2012, chapter 6, for details on these issues).

(17) below demonstrates that extraction of the ground argument of a simplex locative that employs a locative noun is perfectly grammatical. The ungrammaticality of extracting from an island in (18a) suggests that (17) is a genuine instance of movement, rather than base generation of the wh-element/cleft. The grammaticality of (18b) shows that long distance extraction is allowed in Shupamem, and hence, the ungrammaticality of (18a) cannot conceivably follow from a ban on long-distance movement in the language.

(17) á ǰìjà **tɛ̀bɛ̀** jwó mbɯ́m pâ ndún nə́ ə́
it (is) which table rel.zer money is on COMP Q
'Which table is the money on?'

(18) a. *á ǰìjà **tɛ̀bɛ̀** jwó john píshé mí kwə́ pâ ndún nə́ ə́
it (is) which table rel.zer John asks that what is on COMP Q
'Which table does John ask what is on.'

b. á ǰìjà **tɛ̀bɛ̀** jwó john rié mí mbɯ́m pâ ndún nə́ ə́
it (is) which table rel.zer John says that money is on COMP Q
'Which table does John say that the money is on?'

Extraction of the ground argument of a complex locative requires the presence of a (possessive) resumptive pronoun, raising the question of whether it is indeed an instance of movement. The requirement for a resumptive pronoun holds regardless of the type of particle that participates in the structure (i.e., *mə̀* or *tə̀*) or the type of locative noun (i.e., body-part noun or not). Note that a resumptive pronoun is not allowed in (17), presumably for economy reasons.

(19) a. á ǰìjà ndáp jwó mátwá pâ mə̀ yé *(ʃĩ̀) nə́ ə́
it (is) which house rel.zer car is *mə̀* forehead its COMP Q
'Which house is the car in front?'

b. á jija ndáp jwó mátẃa pâ tè nkwə̀n *(ʃĩ̀) nə́ ə́
it (is) which house rel.zer car is *tè* back its COMP Q
'Which house is the car behind?'

The minimality effects of (19) arise even in the presence of the resumptive pronoun, (20), suggesting that the pronoun spells out the trace of the ground argument, which, therefore, has indeed moved in (19) (see Aoun et al. 2001).

(20) a. *á jíjà ndàp jwó john píshé mí kwə́ pâ mə̀ yé ʃǐ nə́ ə́
it (is) which house rel.zer John asks that what is *mə̀* forehead its COMP Q
'Which house does John ask what is in front?'

b. *á jíjà ndàp jwó john píshé mí kwə́ pâ tè nkwə̀n ʃǐ nə́ ə́
it (is) which house rel.zer John asks that what is *tè* back its COMP Q
'Which house does John ask what is behind?'

Finally, extraction of the ground argument of a simplex locative that employs a particle is illicit, (21), and no resumptive strategy is able to rescue it. In order to extract the ground argument of ***tə̀*** 'in', the form *tə̀ ntʉ̀* 'inside', cf. (7a), is used instead.

(21) *á jíjà pàm jwó mbʉ́m pâ tə̀ nə́ ə́
it (is) which bag rel.zer money is *tə̀* COMP Q
'Which bag is the money in?

To sum up, the locative nouns of Shupamem, unlike common nouns, cannot be modified by an attributive adjective or be preceded by a determiner. On the other hand, extraction of the ground argument of the locative P is possible only when it includes a locative noun in its structure (although the presence of a resumptive pronoun is required with complex locatives). Extraction of the ground argument of a particle locative is illicit. We believe that the picture that emerges is not unfamiliar: the pattern is very much reminiscent of the stranding possibilities that are available for locative Ps of Greek and Spanish, in which extraction is licit from some locatives, despite the fact that the languages do not allow for Preposition stranding. These are the locatives known as 'substantives Ps' in Spanish (Campos 1991, Plann 1985), whose stranding possibilities, (22), are precisely what led Campos (1991) to attribute to them nominal properties.

(22) a. De qué edificio$_i$ está cerca t$_i$ la facultad?
what building is near the school
'What building is the school near (to)?'

b. La pastelería de la cual$_i$ vivo detrás t$_i$ es buenísima.
the pastry shop of which I live behind is excellent (Campos 1991: 741)

Much in the same spirit, Terzi (2008, 2010a) considers the Spanish locatives above, along with what seem to be their Greek counterparts, as elements that modify the silent noun *Place*, hence their nominal 'flavor' and the possibility of extracting their ground argument in the absence of P stranding in both languages. That the Shupamem locative expressions involving a locative noun allow extraction of their ground argument should not come as a surprise therefore, especially since they are indistinguishable in phonetic shape from ordinary nouns (unlike in Greek and Spanish, for instance, where no such similarity is immediately obvious).

1.3 VIEWPOINT MARKERS

There is one more feature of Shupamem spatial expressions that is necessary to introduce from the outset, as it plays a central role in what we are going to propose in this article. This is a set of elements that modify the spatial expression according to

the relationship that the speaker bears with respect to spatial location, or else, a set of elements that denote speaker's point of view.

We have identified four elements of this type, which we call *Viewpoint Markers*. The examples in (23) show that all three (types of) locative Ps presented so far may be preceded by any of these four elements. The presence of the Viewpoint Markers is optional; their meaning is given in (24).

(23) a. lérwà pâ (má/mfʉ́/nkú/nʒí) ndún tɛ̀bɛ̀
book is top table
'The book is on the table.'

b. mátwá pâ (má/mfʉ́/nkú/nʒí) mə jé adam
car is *mə* forehead Adam
'The car is in front of Adam.'

c. món swó mbɨ́m (má/mfʉ́/nkú/nʒí) tə̀ pàm
child put money *tə̀* bag
'The child put the money in the bag.'

(24)
má: the locative describes a scene far away or at a lower level from the speaker
mfʉ́ the locative describes a scene across from and at the same level as the speaker
nkú: the locative describes a scene at a higher level than the speaker
nʒí: the locative describes a scene at an elevated surface across from another elevated surface on which the speaker is located.

While perhaps exotic at first glance, the Viewpoint Markers in (23)-(24) appear to have close counterparts in English, as the italicized items in (25), from Svenonius (2010), demonstrate.

(25) a. The boat drifted from *back* behind the hill.
b. The boat drifted from *down* inside the cave.
c. The boat drifted from *up* above the dam.

As Svenonius (2010: 142) notes "particles that modify locative PPs do not restrict the space denoted by the PP, but introduce viewpoint for the space", and this is precisely the case for the Shupamem particles in (23) and (24). A difference between (25) and (23)-(24) is that such particles only encode speaker's point of view in Shupamem, while they may encode more than that in English. In particular, as a reviewer pointed out and we subsequently confirmed, the particles in (25) can also refer to individuals other than the speaker. This observation was essentially made by Svenonius (2010: 142) as well, when referring to the notion 'logophoric center'. Hence, if (25a) is uttered by the speaker to Mary, then 'back' is defined either with respect to him or with respect to Mary. The situation is not the same in Shupamem, where the particles in (23)-(24) are uttered only in relation to the speaker. In the analysis we offer, we do not consider the interpretation of the Viewpoint Markers to be of crucial importance for their role in the syntactic structure of the spatial expressions in which they occur.

2. THE STRUCTURE OF SHUPAMEM LOCATIVES

This section will introduce the syntactic structure we propose for the Shupamem locative expressions that have been described so far, starting with the core assumptions we adopt for the structure of locative Ps crosslinguistically. It will emerge in the end that, although the views on which the current proposals are based come from typologically different languages, Shupamem fits well with them, and, most importantly, it contributes to developing these proposals further.

2.1 BACKGROUND ASSUMPTIONS

Drawing upon various distributional properties that a number of locative Ps share with adjectives in Greek, Terzi (2008, 2010a) proposes that they are indeed like adjectives in the sense that they modify a noun, albeit one without phonetic content. On analogy with a similar element that is associated with the demonstrative locatives 'here' and 'there' in English (Kayne 2004), Terzi calls this noun *Place*, or PLACE in its silent manifestation, and holds that the ground argument of locatives is the possessor of *Place*. However, since the locative expressions under consideration also demonstrate properties that differentiate them from ordinary nominals, it is subsequently proposed that the nominal phrase that has *Place* as its head noun is the complement of a functional head, P_{Loc}, as in (26). XP in (26) is an agreement like projection that hosts the locative element that modifies the noun PLACE.

(26) $[_{PPLoc}[_{PLoc}[_{DP}[_{XP}$ *locative* $[_{NP}$ PLACE $[_{DP}$ *ground argument* $]]]]]]$

Similar ideas concerning the functional structure of locative Ps are present in Botwinik (2008), Botwinik and Terzi (2008), Noonan (2010), and Pantcheva (2008), who also consider the ground argument of locatives to be the possessor of PLACE. Note that, before settling on this idea, Terzi (2010a: 215) explores the possibility that the locative argument is in a partitive relation with PLACE, a possibility which is set aside due to insufficient evidence.

Several advantages fall out from the approach to locative Ps illustrated in (26). Most importantly, adopting this structure enables us to explain the oscillating status of locative Ps across the functional vs. lexical dimension, alluded to by van Riemsdijk (1990, 1998) when he considers some Ps to be semi-lexical. Moreover, the nominal component in the structure of locative Ps provides the tools to account for the special Binding properties of anaphoric elements within locative PPs, pointed out by Reinhart and Reuland (1993) and investigated in Botwinik (2004, 2008).

Terzi (2008, 2010a) extends her claims based on Greek to account for locative PPs in Spanish and (to some extent) in English, while maintaining that PLACE is silent and P_{Loc} has the option of having phonetic content. Beyond the languages of Europe, Watanabe (2009) discusses similarities shared by measure phrases associated with locative PPs and measure phrases associated with adjectival projections in Japanese (see also Winter 2005 for English and Dutch), and concludes that a subset of locative Ps indeed share a certain portion of their syntactic structure with adjectives. As a result of his different objectives, however, Watanabe does not offer a detailed structure for the lower part of the locative PP, and, therefore, is not concerned with whether there is some nominal element implicated in it.

2.2 THE STRUCTURE OF SHUPAMEM LOCATIVES

In this work we propose that the Shupamem locative expressions that have been presented so far essentially instantiate the structure in (26). Moreover, we will argue

that either core component of this structure, namely, either P_{Loc} or PLACE, can surface with (or without) phonetic content.

To start with, taking into account that Shupamem expresses location via items that are phonetically identical to nouns, we will hold that these nouns, i.e., the *locative nouns*, instantiate the (otherwise) silent noun PLACE. Thus, we depart from (26) in which the locative elements were considered to modify PLACE, although nothing crucial hinges upon this departure, as it will become clear in the remainder of the paper. Hence, the structure we propose for Shupamem locatives is (27) below, which additionally provides a position for the Viewpoint Markers to the left of P_{Loc}. Immediately to the left of the Viewpoint Markers are to be found the Degree expressions familiar from the Indo-European languages (Koopman 2000, Svenonius 2007, 2009, den Dikken 2010). Appearance of a Degree expression is contingent upon the presence of a Viewpoint Marker in Shupamem, a fact that we take to suggest that Viewpoint Markers head a projection of their own that hosts Degree expressions in its Specifier, (28).

(27) $[_{ViewP}\,[_{View}\,[_{PPLoc}\,[_{PLoc}\,[_{DP/NP}$ locative noun/PLACE $[_{DP}$ *ground argument*]]]]]]

(28) $[_{ViewP}$ ndàà $[_{View}$ nkú $[_{PPLoc}\,[_{PLoc}\,[_{DP/NP}$ ndún $[_{DP}$ ndáp]]]]]]

right *nkú* on house

'Right up on the house.'

The structure we propose for the Shupamem locative Ps in (27)/(28) takes the Viewpoint Markers to precede the higher part of the structure, $P_{Loc,}$ contrary to the order in the detailed cartographic schema of Cinque (2010), where his comparable RelViewP positions appear between P_{Loc} (his P_{stat}) and PLACE. Our structure is based on empirical evidence that the Viewpoint Markers precede P_{Loc} when the latter is overt in Shupamem – provided, of course, that our view of (3)=(31b) later is on the right track. Cinque's (2010) order, on the other hand, although based primarily on (admittedly well-founded) conceptual grounds, draws on empirical evidence in which P_{loc} is silent. Notice, however, that the structure we propose in (27) suffers from an important drawback, from which (26) earlier did not suffer: given that the spatial expression in (27) is presumably selected by a preceding verb, it looks as if the verb selects for ViewP rather than for PP_{Loc}, an entirely erroneous consequence. This shortcoming is overcome once we take (27) to be the complement of a CPlace head, as in den Dikken (2010), who considers this projection the complementizer of the adpositional domain. The head of this projection, which is always null, moves and incorporates into the preceding verb, capturing the verb's selectional requirements. For reasons of simplicity, we will not depict this additional structure in the remainder of this paper; besides, since we are focusing on lower parts of the P domain, these considerations will not affect our analysis.

An additional difference between (26) and (27) is that there is no XP projection in the latter. This should not come as a surprise, since XP in (26) essentially served the purpose of a place holder for those locatives that were encountered exclusively as modifiers of PLACE. Finally, given the paradigm in (15)-(16), which shows that possessive pronouns are in fact the ground arguments of the locative Ps, we extend the claims made on the basis of other languages in Terzi (2008, 2010a), and consider the ground arguments of Shupamem locatives to be in a possession relation with the locative nouns. We take the DP ground

argument/possessor to be the complement of the locative noun, as in Botwinik & Terzi (2008).

At this point we should clarify that, although we fully support the idea that the ground arguments of locatives are the possessors of the locative nouns in Shupamem, we remain neutral as to whether this possession relationship involves a complex predicate structure, as in Aboh (2010). We also remain neutral as to whether a predicate inversion operation is involved, as also argued by Aboh (2010) for similar expressions in West African languages (and beyond), despite the fact that there may be some evidence to this effect, as we discuss below.

There are a number of reasons why we follow a different, although not incompatible, route from that of Aboh (2010): first, the approach according to which possession amounts to predication is not the only approach to possession (see Alexiadou et al. 2007: 563, for a review). Moreover, even if this were the case, it is not entirely clear how a syntactic element such as PLACE, or the locative nouns of Shupamem, can be licensed via predication, nor do we find clear criteria for such a licensing mechanism in Aboh (2010). What we admittedly find in Aboh's account, is plenty of evidence for predicate inversion in possessive constructions involving ordinary DPs, and, to a lesser extent, with nominals employed as locative nouns.

Within this line of reasoning, locative expressions that employ locative nouns, whose ground arguments are (possessive) pronouns, can conceivably offer evidence for predicate inversion in Shupamem. Note, first, that possessive pronouns with ordinary DPs may either precede or follow the head noun in the language. When pronominal possessors follow the DP, they show noun class agreement, (29a); when they precede the DP, they do not (29b). Such facts are discussed in Nchare (2012: chapter 3.4), and the account offered there can be reinterpreted as predicate inversion, with the order in (29a) to derive from (29b) via movement of the possessum over the possessor, giving rise to noun class agreement.

(29) a. n-tàm ø-pàm ø-à
3.long 3.bag 3.1sg.poss
'My long bag.'

b. *(ø)-à ǹ-tàm ø-pàm
3.1sg.poss 3.long 3.bag
'MY (own) long bag.'

The paradigm in (15)-(16), repeated below with glosses including noun class, shows that pronominal possessors demonstrate noun class agreement with the locative nouns as well. If noun class agreement arises from movement of the locative predicate over the possessor, this movement must be obligatory, since only one order is available for pronominal possessors and locative nouns (the order locative-ground argument/possessor).

(15) lɛ́rwà pâ nʃ̀in ø-i
book is 3a.root 3a.3sg.poss
'The book is under him.'

(16) í pí tɛ́nə̀ mə̀ yé ʃ-í
he past3 stand-past *mə̀* 6.forehead 6.3sg.poss.
'He was standing in front of him.'

Note that when the ground argument is a full DP, no noun class agreement is demonstrated, and the order locative-ground argument/possessor is (the only) possible order again, as seen in the various examples of section 1. The same order is the only one available when possession involves ordinary nouns in the language (Nchare 2012).

(30) a. mɔ̂n mfɔ̂n
son king
'The king's son.'
b. *mfɔ̂n mɔ̂n
king son
'The king's son.' (ok as 'the king who is a child').

All in all, if the contrast in (29) is the overt manifestation of predicate inversion, as conceivably suggested by the noun class agreement of the pronominal ground argument, there is obviously a predication relationship involved. Extending this type of evidence to locative nouns, whose ground arguments/possessors also bear noun class agreement as seen in (15)-(16), we could sustain the view that locative expressions implicate obligatory predicate inversion in Shupamem, along the lines of Aboh (2010). If predicate inversion were indeed involved, subsequent extraction of the ground argument of locatives should not be possible (see den Dikken 1998). This is contrary to fact however, as the grammaticality of (17) demonstrates; we are therefore reluctant to adopt Aboh's (2010) view for Shupamem.

Having proposed (27) as the structure of Shupamem locative PPs, let us see where each of the locative expressions of section 1.1 stands. Starting with the simplex locatives that employ a locative noun, we attribute to them the structure in (31a). The locative noun instantiates PLACE, which therefore is not silent, and P_{Loc} is without phonetic content. The structure of locatives that involve a locative noun introduced by a particle, which we have called 'complex locatives, is shown in (31b). Here the locative noun resides in PLACE and P_{Loc} hosts the particle. Finally, we attribute the structure in (31c) to those simplex locatives that employ a particle followed directly by the ground argument. In (31c), the particle occupies P_{Loc}, while PLACE is without phonetic content, on analogy with (31a) and (31b), see section 4.3 for the precise position of PLACE within the nominal structure that contains it.

(31)

noun locatives, (see (1))

a. [$_{ViewP}$ [$_{View}$ (má/mfú/nkú/nʒí) [$_{PPLoc}$ [$_{PLoc}$ [$_{DP/NP}$ ndún [$_{DP}$ tɛ̀bɛ̀]]]]
top table

'on the table'

complex locatives, (see (3))

b. [$_{ViewP}$ [$_{View}$ (má/mfú/nkú/nʒí) [$_{PPLoc}$ [$_{PLoc}$ mə̀/ tə̀ [$_{DP/NP}$ nkwɛ̀n [$_{DP}$ john]]]]
mə̀/tə̀ back John

'behind John'

particle locatives, (see (6))

c. [$_{ViewP}$ [$_{View}$ (má/mfɯ́/nkú/nʒí) [$_{PPLoc}$ [$_{PLoc}$ tə̀ *tə̀* [$_{DP/NP}$ PLACE [$_{DP}$ pàm]]]]
bag

'in the bag'

We see above that both *mə̀* and ***t*ə̀** can enter (31b), which is the structure of complex locatives. A question that arises is whether *mə̀* can also enter (31c). We believe this is indeed so, as demonstrated in (32), and that it corresponds to the structure of (8), namely, the case in which a body-part noun such as *tú* 'head' does not form a spatial expression with the preceding particle *mə̀*, but is an ordinary noun, hence the spatial expression has the interpretation 'on John's head'.

(32) [$_{ViewP}$ [$_{View}$ (má/mfɯ́/nkú/nʒí) [$_{PPLoc}$ [$_{PLoc}$ mə̀ *tə̀* [$_{DP/NP}$ PLACE [$_{DP}$ tù john]]]]
head John

'on John's head'

Let us note here a puzzle that arises with respect to the selectional restrictions of *mə̀* which, as already mentioned, may only have a body-part noun as its ground argument, and it is followed (predominantly) by locative body-part nous when it introduces a complex locative. Notice that while one may be able to capture this selectional property of *mə̀* when the body-part noun is a locative noun, (since it is then the complement of *mə̀*, cf. (31b)), when the body part-noun is the possessor of a (silent) locative noun that is the complement of *mə̀,* this selectional property is not trivial.

Before closing this section we should mention that an apparently similar view to ours, and particularly similar to the views as expressed by (31c), is entertained by Carstens (1997) in her analysis of Chichewa locative expressions. Carstens also postulates a silent 'place' noun in Chichewa, but her analysis does not incorporate any element of the type $P_{Loc,}$ at least not in any obvious manner (Carstens, p.c.). Carstens considers the silent 'place' nouns to be licensed by the noun class prefixes construed with them, in a similar manner to that by which rich subject agreement morphology licenses *pro* in null-subject languages. It is difficult to evaluate from the data provided in the paper whether the noun class prefixes of Chichewa can be reinterpreted as our P_{Loc} particles. If this were possible the two proposals might be similar to one another, although licensing of the empty noun is taken to be accomplished via 'rich' (gender) agreement in Chichewa. We also found no reference in the paper to overt locative nouns, counterparts of the silent one we propose. We are unable at this time to evaluate the significance of this omission for the overall proposal.

To conclude, in this section we proposed the structure in (27) for the Shupamem locative expressions presented in section 1.1, and argued that they instantiate three of the four logical possibilities that fall out of this structure in terms of whether P_{Loc} or *Place* has phonetic content or not. In (31a) P_{Loc} is silent and *Place* is overt, in (31b) both P_{Loc} and *Place* are overt, and in (31c) and in (32) P_{Loc} is overt and *Place* is silent. In the next section we will argue that the fourth possibility, in which both P_{Loc} and *Place* are silent, is also available, although in disguise.

2.3 A SILENT LOCATIVE: *AT*

When we try to elicit the Shupamem locative expression that is the counterpart of the English preposition 'at', the first response obtained is (33a). When excluding containment, however, the same locative expression is ungrammatical, (33b) (by contrast to English, for instance, where 'in', a P that is used for containment, can also be employed). We conclude therefore that *tə̂* is not the Shupamem counterpart of English 'at', which would otherwise be homophonous to 'in' in (6a)=(33c).

(33) a. í ʃù tə̀ ndáp
he stayed *tə̂* house
'He stayed in the house/at home.'

b. *í ʃù tə̀ brooklyn
he stayed *tə̂* Brooklyn
'He stayed in Brooklyn.'

c. món swó mbɯ́m tə̀ pàm
child put money *tə̂* bag
'The child put the money in the bag.'

Searching for a grammatical counterpart of the quintessential English locative 'at' in (33b), we discover that several alternatives are possible, as shown in (34). What (34) demonstrates is that there are four manners in which one can answer the out-of-the-blue question 'Where did he remain?', and choice of response depends solely on speaker's point of view.

(34) a. í ɤɯ́tnɔ́ má ndàlɛ̀rwà/brooklyn
he remained *má* school/Brooklyn

b. í ɤɯ́tnɔ́ mfɯ́ ndàlɛ̀rwà/brooklyn
he remained *mfɯ́* school/Brooklyn

c. í ɤɯ́tnɔ́ nkú ndàlɛ̀rwà/brooklyn
he remained *nkú* school/Brooklyn

d. í ɤɯ́tnɔ́ nʒ́í ndàlɛ̀rwà/brooklyn
he remained *nʒ́í* school/Brooklyn
'He remained at school/in Brooklyn.'[3]

[3] A question that has often been raised with respect to examples such as the above concerns the meaning of the Viewpoint Markers when the ground argument is a place name, e.g. Brooklyn. For someone familiar with the map of New York City, (34a) would be uttered by a speaker in the Bronx, by virtue of the fact that they are located further north, i.e., 'higher up', than Brooklyn, and *má* is used to describe a scene (far away from or) at a lower level from the speaker (see (24)). On the other hand, (34c) would be uttered by someone in Staten Island for the opposite reasons, given that *nkú* is used to describe a scene at a higher level from the speaker. Obviously, in a lot of other contexts things are not that straightforward, with the result that some Viewpoint Markers are less felicitous than others, despite the fact that all four have been used in (almost all) the examples throughout the article for reasons of simplicity. Besides, it is not always easy to translate them, and it is not important for the syntax of the expression that we try to understand their semantic distinctions – with the exception of the interpretation of direction, which we discuss immediately below (39). Notice, nevertheless, that only *má* has been used in (42), since it describes a scene 'far away from the speaker', cf. (24), regardless of any other orientation. Moreover, *má* is definitely the most felicitous Viewpoint Marker in examples

The same options are available for 'at' when the locative P it heads is an adjunct, (35). Importantly, the elements that are employed in both paradigms are the *very same* we have identified as Viewpoint Markers in section 1.3.

(35) a. Adam jànkè lɛ́rwà má ndàntèn
Adam read book *má* store

b. Adam jànkè lɛ́rwà mfú́ ndàntèn
Adam read book *mfú́* store

c. Adam jànkè lɛ́rwà nkú ndàntèn
Adam read book *nkú* store

d. Adam jànkè lɛ́rwà nʒ́ ndàntèn
Adam read book *nʒ́* store
'Adam read the book at the store.'

We believe the above sets of facts suggest that Shupamem has a silent locative preposition 'at', i.e., AT, and that what we see in (34) and (35) are the modifiers of this silent P. Therefore, in line with our proposals in (26) and (27), we take the structure of Shupamem 'at' to be as in (36), which essentially amounts to the fourth option made available by (26) and (27), namely, the one in which both P_{Loc} and *Place* are syntactically present but are devoid of phonetic content (hence, the upper case letters).

(36) $[_{ViewP}\,[_{View}$ *(má/mfú́/nkú/nʒ́) $[_{PPLoc}\,[_{PLoc}$ AT $[_{DP/NP}$ PLACE $[_{DP}$ ndàntɛ̀n]]]]
store

'at the store'

Note, however, a salient difference between the locatives in (31a-c) and the silent locative in (36): while the Viewpoint Markers are optional in (31), as is standardly expected of modifiers, they are obligatory in (34)-(35). We return to this important issue in section 4. Before doing so, we will present in the following section additional environments in which the Viewpoint Markers are obligatory, a task that leads us to the realm of directional/Path Ps.

3. DIRECTIONAL PS

There are various ways to express direction in Shupamem. Nevertheless, there is no evidence that any lexical item(s) are designated as directional, or Path, Ps in the language (the terms *directional* and *Path* will be used interchangeably throughout the article). Directed motion is expressed via a motion verb followed by its goal or source argument and preceded by a Viewpoint Marker, or via some verbal complex that includes a motion verb. Here we will focus on the former type of directional expressions, and refer only in passing to the latter, since, besides constituting a whole research topic of their own, they are not of immediate relevance for our current purposes.

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(51) and (52), given that the ground arguments are Brooklyn or Greece. All in all, it follows from the previous discussion that *má* is the default, or most common, Viewpoint Marker in the language.

3.1 SILENT DIRECTIONAL PS: *TO* AND *FROM*

The quest for Shupamem directional Ps reveals a picture similar to the one obtained for 'at'. There are four ways in which the language expresses 'to', all of which involve the obligatory presence of a Viewpoint Marker, which retains its prototypical meaning of referring to speaker's point of view.

(37) a. ɨ̀ wə̀n *(má/mfʉ́/nkú/nʒɨ́) ndàntɛ̀n
he went store
'He went to the store.'

b. ɨ̀ pí twó *(má/mfʉ́/nkú/nʒɨ́) ndàntɛ̀n
he past3 come(proximal) store
'He came to the store.'

c. ɨ̀ pí mèe *(má/mfʉ́/nkú/nʒɨ́) ndàntɛ̀n
he past3 come(distant) store
'He came to the store.'

'from' may also be expressed in the same manner, that is, via some Viewpoint Marker that obligatorily follows the motion verb.

(38) ɨ̀ pí lɔ̀ʔ *(má/mfʉ́/nkú/nʒɨ́) ndàntɛ̀n
he past3 start/leave store
'He left (from) the store.'

The Shupamem 'come from', (39), is not what one would perhaps expect on the basis of (37b), and constitutes the alternative manner to express source Path. This time a verbal complex is employed, in which the second verb, identical to the one in (38), is preceded by the particle *mə̀*.[5]

(39) lɛ́rə̀ʔ pí twó mə̀ lɔ̀ʔ *(má/mfʉ́/nkú/nʒɨ́) ndáp
teacher past3 come *mə̀* start house
'The teacher came from the house.'

It is important to note here that the Viewpoint Markers in sentences such as the above modify direction with respect to the speaker, *not* location. Hence, (37b), for instance, may use *nkú*, which describes a scene at a higher level from the speaker, cf. (24), in a

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[5] The language utilizes serial verb constructions to express spatial information. These verbal complexes consist of a manner of motion verb, i.e., 'walk' in (i), followed by a verb of directed motion, i.e., 'enter', and are used to express directed manner of motion. Example (40b) in the main text below is such an instance.

(i) món pí ŋ̀ŋ̀ ŋ́ *(má/mfʉ́/nkú/nʒɨ́) ndáp
child past3 walk enter house
'The child walked into the house.'

Son and Svenonius (2008, 2009) discuss extensively such serial verb constructions, primarily in Malay/Indonesian and Tetun Dili. Their comparison with Shupamem is not of much relevance for our current purposes, since these languages do not seem to involve elements such as the Viewpoint Markers. See also Aboh (2009) for verb series including motions verbs in Gungbe.

scenario where the speaker is standing in front of a store that is at the top of a hill and is reporting on a person who came to the store from the bottom of the hill. Moreover, *nkú* may be used in (39) if the speaker is standing on the top of the hill and is reporting on a person, in this case, the teacher, who came from a house at the bottom of the hill.

Conceivably, one may doubt the existence of a silent preposition 'from' modified by some Viewpoint Marker in (38), and suggest instead that the source reading is part of the lexical semantics of the verb (with the obligatory presence of the Viewpoint Marker pending an explanation). It is difficult to defend the same idea for verbs such as 'take' or 'jump land' below, however, in which the spatial PP with the 'from' reading is an adjunct. Note that no overt 'from' is present in (40), but the presence of a Viewpoint Marker is required.

(40) a. mə̀ pǐyé lɛ́rwà *(má/mfú/nkú/nʒ́) nʃ̀ìn tɛ̀bɛ̀
I took book under table
'I took the book from under the table.'

b. mè tét nshúm *(má/mfú/nkú/nʒ́) nʃ̀ìn làrè
I jump land under bridge
'I jumped from under the bridge.'

Based on the above facts, we will conclude for now, and return in section 4.2 with more evidence and discussion, that, just like with the locative 'at', the Shupamem directional Ps 'to' and 'from' are also silent. i.e., TO and FROM. Hence, the tentative structure we propose for them is as in (41).

(41) $[_{ViewP}\ [_{View}$ *(má/mfú/nkú/nʒ́) $[_{PPDir}\ [_{PDir}$ TO/FROM $[_{DP}$ ndàntɛ̀n]]]]
store
'to/from the store'

An immediate consequence of the claim that both 'to' and 'from' are syntactically present but have no phonetic content, hence, they are (trivially) homophonous, is that goal vs. source Path ambiguities should arise. This is indeed the case, as (42) demonstrates: the manner of motion verb 'fly', followed by one of the Viewpoint Markers, can mean either 'fly to' or 'fly from'.

(42) pá ɤ́ámnjɨ̃ tɛ̌t *(má) Paris/tə lá?.
plane flew *má* Paris/in village
'The plane flew to/from Paris/the village.'[6]

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[6] An alternative manner to express 'fly from' is via the verbal complex with *mə lǒ?* that we encountered in (39). Therefore, one cannot conjecture that the source reading in (42) follows from the lack of an alternative means to express source Path.

(i) pá ɤ́ámnjɨ̃ tɛ̌t mə lǒ? Paris/tə lá?.
plane flew *mə* start Paris /in village
'The plane flew from Paris/the village.'

It may not be an accident that the ambiguity in (42) is found with a manner of motion, rather than a directed motion verb. It should be noted nevertheless that 'fly' is the only (manner of motion) verb that

Another prediction related to 'fly' above, in association with the claim in section 2.3 that 'at' is also silent in Shupamem, is that it should also have the interpretation 'the plane flew at Paris/the village'. This prediction is also borne out: in fact, (42) is three way ambiguous.

Commenting a bit on the structure in (41), we note that it contains no silent nominal comparable to *Place*. As a matter of fact, no account in the existing literature has decomposed directional Ps per se in terms of including some nominal element in their structure, and we believe this is rightly so, since no evidence to this effect has ever been provided (see, for instance, the recent work on directional/Path Ps by Pantcheva 2011). Nevertheless, by virtue of the fact that directional Ps are higher in the structure than locatives, and, as is currently assumed, the latter are embedded into the former even when this is not directly observable (see Koopman (2000), den Dikken (2010), Svenonius (2006, 2010), a.o., and Cinque (2010)), it follows that the full structure containing PLACE should be present in (41) as well. Therefore, a more accurate structure for a Shupamem directional P is the one in (43):

(43)

$[_{ViewP}\ [_{View}$*(má/mfʉ́/nkú/nʒí) $[_{PPDir}\ [_{PDir}$ TO/FROM $[_{PPLoc}\ [_{PLoc}$ AT $[_{DP/NP}$ PLACE $[_{DP}$ Brooklyn]]]]]]]]

'to/from Brooklyn'

Just like with the locative Ps in (27), we will assume that (43) is the complement of a CPath head, which moves and incorporates into the selecting verb. We do not depict this movement in order to keep the structure short and manageable; moreover, since we focus on lower parts of this structure, this movement has no effect on our arguments. Let us now move on to the other important issue that emerged in the course of our investigation of Shupamem spatial Ps, the obligatory presence of Viewpoint Markers in a number of syntactic environments.

4. THE OBLIGATORY 'MODIFIERS'

In section 1.3, we identified a distinctive set of elements in the structure of spatial PPs as Viewpoint Markers. They denote speaker's point of view and optionally modify the locative expressions for this aspect. It turns out, however, that the Viewpoint Markers are obligatory in a number of contexts. This discovery raises questions as to what exactly these markers are, since their behavior is certainly not typical of modifiers. This is the topic of the current section.

A question to be asked from the outset is whether we ought to consider obligatory Viewpoint Markers to be spatial Ps, rather than modifiers of a silent spatial P. Alternatively put, is it possible that the Viewpoint Markers are homophonous, and, consequently, ambiguous, between elements that are modifiers of a spatial P – in contexts such as in (23), where they clearly modify an overt locative P, hence, their presence is optional – and spatial Ps in (33)-(35) and (37)-(42), where they are obligatory? We believe that such a view is highly unlikely, as it would be too much of a coincidence that all four Viewpoint Markers – and only them – are employed as spatial Ps precisely when a designated lexical entry is missing. Hence, we will look

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was found to manifest this ambiguity. 'swim', for instance, uses *mə lǒʔ* for 'swim from' and a Viewpoint Marker for 'swim to', while 'run' employs a Viewpoint Marker for 'run from' and a serial verb construction for 'run to'.

elsewhere in order to understand what is responsible for this aspect of the markers' behavior.

4.1 THE EDGE OF SPATIAL PS

We believe we can obtain an understanding of the Viewpoint Markers, and, consequently a better understanding of the structure of the spatial Ps in which they participate, by exploring ideas developed by Collins (2007) which were meant to explain, among other things, contrasts such as (44) in English:

(44) a. I'm going [$_{PP}$ home [$_{P}$ (*to) [$_{NP}$ ~~home~~]]]
b. I'm going [$_{PP}$ [$_{P}$ to [$_{NP}$ the university]]]

These ideas go back to the Doubly Filled Comp Filter (Keyser 1975, Chomsky and Lasnik 1977), as Collins himself acknowledges, but are articulated in the form of requirements imposed by the Edge of XPs, (45), where X refers to strong phases, limited to PPs in the above work.

(45) a. Edge(X) must be phonetically overt.
b. the condition in (a) applies in a minimal way, so that either the head or the Specifier, but not both, are spelled out overtly.

The ingredients that make up the requirements imposed by (45) obviously suggest that P is a phase, a view that Collins explicitly adopts, although without much discussion. The phase status of P is corroborated by the extraction facts of the Dutch r-pronouns via Spec, P (van Riemsdijk 1978), which carry over to English by virtue of the fact that the Dutch r-pronouns are close counterparts of (some of) the English elements that render the Edge of P overt. The idea that P is a phase, and, moreover, that it is a phase in every language, is also advocated for explicitly in Drummond et al. (2010), and we will adopt it here as well.

Dwelling a bit more on (45), we note that Collins attributes the impossibility of an overt 'to' in (44a) to the special status of the English noun *home*, which he considers a 'light noun', and which, as a consequence of this status, raises to the Specifier position of the PP headed by 'to'. The only way for (45) to be respected in this case is for 'to' to be left unpronounced. When, on the other hand, the goal argument of the spatial P is an ordinary referential noun such as *the university* in (44b), no raising to Spec, P takes place and the directional 'to' is (and must remain) overt in order for (45a) to be respected. Other elements that behave like *home* in the relevant respects are the locative adverbials *here* and *there*.[7] To be more precise, given that directional Ps embed a locative one, *home* first moves to the Specifier of P_{Loc} in (44a), and then the ensuing PP_{Loc} moves to the Specifier of the directional P. The resulting PP subsequently moves to the Specifier of PredP, a projection immediately dominating the lowest VP-shell. This last step of the operation is responsible for the different behavior of argument and adjunct PPs with respect to the

[7] See also Cattaneo (2009) for similar facts in a number of Northern Italian dialects, and a similar analysis. Very similar facts are manifested in Greek, but Ioannidou and den Dikken (2006) account for them in a different manner, to which we return in section 4.3. Terzi (2010b) expands the previous study in order to include a large number of (silent) spatial Ps and their bare noun complements in Greek. According to her analysis, the bare nouns, which are by no means restricted to *home* in Greek, are special types of elements, able to make the Edge of Ps overt, just like *home* in English.

pronunciation of P, according to Collins, i.e., *I went (*to) home*, *I stayed (at) home*, *I did my homework *(at) home*.

If we assume that the requirement for a phonetically Overt Edge holds for the Shupamem locative PPs, and that the locative nouns are light nouns, a view we will substantiate and develop in the following section, we arrive at the following scenario for each of the locative expressions we have identified: for those simplex PPs that express location via a locative noun, this locative noun, cf. *ndún* below, moves to P_{Loc} in an instance of head movement, and the Edge of PP_{Loc} thus becomes phonetically overt, (46a).

(46) a. *noun locatives*, (1)

$[_{ViewP}[_{View}\ [_{PPLoc}[_{PLoc}\quad [_{DP/NP}$ ndún $[_{DP}$ tèbè]]]]]]

‘on the table’

On the other hand, complex locative expressions satisfy (45) by virtue of the particle residing in P_{Loc}. If this analysis is on the right track, we probably have to assume that movement of the locative noun does not take place in this case, since otherwise (45b) would be violated.

b. *complex locatives*, (3)

$[_{ViewP}[_{View}\ [_{PPLoc}[_{PLoc}$ mə $[_{DP/NP}$ tú $[_{DP}$ john]]]]]]

‘above John’

When location is expressed by a simplex locative that employs a particle, (45) is satisfied without movement of the locative noun, since the particle itself occupies P_{Loc}, and hence, the Edge of PP is overt. Movement of the locative noun could not save the structure in this case anyway, since the noun is now covert PLACE and thus cannot provide phonetic content to the Edge of PP.

c. *particle locatives*, (6)

$[_{ViewP}[_{View}\ [_{PPLoc}[_{PLoc}$ tə $[_{DP/NP}$ PLACE $[_{DP}$ pàm]]]]]]

‘in the bag’

Finally, when neither P_{Loc} nor the locative noun have phonetic content, namely, when the locative expression in question is ‘at’, cf. (36), the Edge of P is not overt and the outcome is ungrammatical, (46d). As before, movement of PLACE cannot save (46d), since PLACE has no phonetic content. Moreover, the ungrammaticality of (46d) leads us to conclude that the ordinary nominal ground argument of the locative, ‘store’, is not able to render the Edge of PP_{Loc} overt, presumably because it does not move to P_{Loc}, just as ‘the university’ does not move in (44b).

d. *at*, (34)-(36)

*$[_{ViewP}[_{View}\ [_{PPLoc}[_{PLoc}\quad [_{DP/NP}$ PLACE $[_{DP}$ ndàntɛ̀n]]]]]]

‘at the store’

The presence of a Viewpoint Marker is obligatory precisely in environments such as (46d), that is, when (45) cannot be satisfied via some other means. This leads us to

believe that when neither P_{Loc} nor *Place* have (or, have obtained) phonetic content, what renders the Edge of P_{Loc} overt are the Viewpoint Markers.

This line of reasoning allows us to explain the obligatory presence of Viewpoint Markers with verbs of motion: we attribute the ungrammaticality of (37)-(42) in the absence of a Viewpoint Marker to the fact that a silent TO and a silent FROM are syntactically present and that the Viewpoint Markers constitute the means by which their Edge becomes phonetically overt. Note, again, that an ordinary DP that is the goal or source argument of TO or FROM is not able to render the Edge of P_{Dir} phonetically overt, just as it is not able to do in the English directional P in (44b), and just like the ground arguments of the Shupamem locative Ps in (46d) cannot do either. This is another important difference between ordinary referential nouns that are the arguments of spatial Ps and the elements we have called locative nouns, which will be addressed in section 4.3.

To sum up, if we hypothesize that the Edge of locative PPs must *minimally* have phonetic content in Shupamem, a reasonable hypothesis judging from English, we are able to understand the properties of the first three types of Shupamem locative PPs identified in the beginning of the article, namely, the ones with which the presence of Viewpoint Markers is optional: in these contexts, the Edge of PP is overt either because the head P_{Loc} is occupied by a particle locative, or because a locative noun has moved to it. Most importantly, however, we also understand why the Viewpoint Markers are obligatory in the fourth type of locatives, those that are radically devoid of phonetic content, as well as with directional Ps: in these syntactic environments the Viewpoint Markers, in addition to contributing speaker's point of view to the spatial expression, supply the Edge of PP with phonetic content which cannot be obtained otherwise, meeting the conditions of (45) and licensing a silent spatial P. In the following section we will present the mechanism by which we claim this is accomplished.

Before doing so however, let us address a question that arises as a result of the background assumptions we have adopted here (and the subsequent claims we have made so far and will make in what follows). A reviewer in fact asks whether and how Overt Edge compares to the EPP, and, if the two principles are indeed similar, why is it that the EPP allows both Spec and head positions to be filled at the same time (see Alexiadou and Anagnostopoulou 1998, for instance), but the Overt Edge requirement that we make use of does not. Admittedly, we do not have clear answers to these questions, and the issues raised deserve discussion that is probably beyond the scope of this paper. We are tempted to say however that the difference between the two principles with respect to this aspect most likely follows from the fact that they handle different phenomena. The way we understand the condition on Overt Edge in Collins (2007), and see also Collins and Postal (2012), is that it is concerned with how certain elements, or parts of the syntactic structure, (manage to) remain silent, not to say, with even 'discovering' such silent elements. Crucially, it is concerned with silent elements that do not have an antecedent, hence, do not fall into the territory of ellipsis. What emerges over and over in the relevant linguistic expressions is that, although part of the structure(s) under investigation may look radically silent, this is not actually so but some element is syntactically present in the structure, although minimally so phonetically. It may then be, as the reviewer suggests, that this much phonetic content is necessary for the phase to be sent to spell out, this is why it has to be overt. We add to this idea that only this much should be allowed in order for the element to still appear as silent within the linguistic expression. The EPP on the other hand, handles structure/phenomena that we know

are present and we know they cannot remain silent. In this case one expects that it does not really matter how much material with phonetic content is used for this purpose. An interesting subsequent question, of course, is whether there is overlap of the domains that the two principles take care of, but this would also take us too far afield to investigate here. Another related issue, worth investigating in the same context, is whether, granted that Landau (2007) is on the right track in that the EPP is always satisfied by virtue of some other element that satisfies its own needs, this is also true for Overt Edge.

4.2 VIEWPOINT MARKERS WITH *HERE* AND *THERE* AND LICENSING OF SILENT PS

The idea that when the Viewpoint Markers are obligatory they provide phonetic content to parts of the Shupamem PP structure and license a silent P gains further support from the interaction of these markers with the locative demonstratives ***ŋǐ/ŋǎ*** 'there/'here'.

Locative demonstratives are not compatible with the locative particle *tə̀* 'in' in Shupamem, as the following example demonstrates.

(47) món swó mbɨ́m (*tə̀) **ŋǐ/ŋǎ**
child put money in there/here
'The child put the money in there/here.'

This incompatibility can be accounted for under the current approach if we consider ***ŋǐ*** and ***ŋǎ*** also to be 'light nouns' in Shupamem, as Collins does for English 'here' and 'there'. The ungrammaticality of (47) then follows from the fact that the Edge of the spatial PP is not minimally overt in the presence of ***ŋǐ/ŋǎ***, since *tə̀* 'in' occupies P_{Loc}, cf. (31c), and ***ŋǐ/ŋǎ*** move to Spec, P_{Loc}, (48), by virtue of their 'light noun' status. (This status will constitute the main content of the following section).[8]

(48) $[_{ViewP}\ [_{View}\ [_{PPLoc}\ [_{PLoc}$ tə̀ $[_{DP/NP}$ **ŋǐ/ŋǎ**]]]]]

*

What the above reasoning predicts is that ***ŋǐ/ŋǎ*** should be possible when P_{Loc} (or P_{Dir}) are silent, a prediction that is indeed borne out in (49) and (50). Recall that in the previous section we reached the conclusion that the verb is followed by the silent locative AT in contexts such as (49) and by the silent directionals TO and FROM in contexts such as (50).

---

[8] Two issues arise for this explanation of the status of (47). First, why is (47) ungrammatical in the presence of an over P_{Loc}, while (46b) is not? One would expect that movement of the locative noun to P_{Loc} would also give rise to ungrammaticality in (46b), since the Edge of P is not minimally overt. We will address this issue in the following section, where we will discuss the difference between light nouns such as the locative nouns on one hand, and 'here'/ 'there' on the other.

The other issue has to do with the ungrammaticality of (47), as compared to its English counterpart, which is grammatical, cf. *he put the money in there*. We believe that this difference suggests a different status of 'in' in the two languages. Note that Collins (2007) takes 'in' to be a modifier of PLACE in English on the basis of expressions such as *we went in* (analyzed as *we went in PLACE*), which are impossible in Shupamem (along with very many other languages). It is an interesting coincidence that Cinque (2010) also takes English 'in' to be lower in the structure than P_{Loc} (although not for the same reasons as Collins (2007)).

(49) í ɤɯ́tnɔ́ (má/mfɯ́/nkú/nʒí) **ŋ̌i/ŋ̌ă**
he remained there/here
'He remained there.'

(50) a. í wɔ̀n (má/mfɯ́/nkú/nʒí) **ŋ̌i/ŋ̌ă**
he went there/here
'He went there.'

b. í lɔ̌ʔ (má/mfɯ́/nkú/nʒí) **ŋ̌i/ŋ̌ă**
he started/left there/here
'He left from there.'

Not only are ***ŋ̌i/ŋ̌ă*** licit when the spatial Ps are silent, but the Viewpoint Markers are optional in their presence. This optionality follows from our analysis because, in this case, some element other than the Viewpoint Marker renders the Edge of the spatial Ps overt and licenses the spatial P that we claim to be present. This element is the locative adverbial ***ŋ̌i*** or ***ŋ̌ă*** which moves to Spec, P_{Loc} in an instance of phrasal movement to which we will return in the following section.[9]

Notice next the grammaticality contrast between the previous set of sentences and the ones that follow (which are (34) and (37a)-(38) slightly altered for easiness of comparison). (51)-(52) differ from (49)-(50) only in that their ground and goal/source arguments are ordinary DPs (importantly, Shupamem *ndáp* is like the English noun 'house' syntactically, despite its translation as 'home'). Unlike in (49)-(50), the Viewpoint Markers in (51)-(52) are obligatory. The line we are pursuing is able to account for this contrast, since ordinary nouns, such as 'house' or 'Brooklyn', do not seem able to supply the Edge of the spatial P with phonetic context, presumably because they do not move to this domain. We will discuss in the following section why this is so, but it bears repeating here that since the only means by which the Edge of the silent Ps in (51)-(52) can be rendered overt is through the use of the Viewpoint Markers, it should not come as a surprise that their presence is indispensable.

(51) í ɤɯ́tnɔ́ *(má/mfɯ́/nkú/nʒí) ndáp/brooklyn
he remained house/Brooklyn
'He remained at home/in Brooklyn.'

(52) a. í wɔ̀n *(má/mfɯ́/nkú/nʒí) ndáp/brooklyn
he went house/Brooklyn
'He went home/to Brookly.'

b. í pí lɔ̌ʔ *(má/mfɯ́/nkú/nʒí) ndáp/grèce
he past3 leave/start house/Greece
'He left home/Greece.'

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[9] In a similar manner, as Cinque (2010) reports from de Melo (2005), *ke* 'there' seems to license a silent spatial P in Grebo (a Kru language), thus rendering *ke* obligatory in (i), but optional in (ii):

(i) Ne yi-da nə ne ke London
I see-past him affirm. there London
'I saw him in London.'

(ii) Ne yi-da nə ne (ke) kae yɛ
I see-past him affirm. there house in-front-of
'I saw him in front of the house.'

Let us now examine two more sets of related facts in further support of a silent 'from' and a silent 'to', licensed by a Viewpoint Marker that renders their Edge (minimally) overt. Example (53) below is example (40a), for which we have proposed that the obligatory presence of a Viewpoint Marker signals the presence of a silent P_{Dir} 'from'. Surprisingly, (53) appears to be possible even without a Viewpoint Marker, (54). But notice that the interpretation of the spatial P is now different, namely, (54) is unambiguously a locative – something that is expected if no silent P is present. On the other hand, when a Viewpoint Marker is required, there has to be a silent P, and we infer from the meaning of the spatial expression in (53) that this is the directional P 'from'. Our analysis predicts that when a Viewpoint Marker is present, the interpretation of the spatial expression should be ambiguous between a directional, (54), and a locative, (53) – a prediction that is confirmed. It should be stressed that this is not an isolated pair of sentences; pairs such as *he jumped from under the bridge*, (40b), and *he jumped under the bridge* behave identically in this respect.

(53) mə̀ pïyé lérwà *(má/mfú/nkú/nʒí) nʃ̀in tɛ̀bɛ̀
I took book under table
'I took the book from under the table.'

(54) mə̀ pïyé lérwà nʃ̀in tɛ̀bɛ̀
I took book under table
'I took the book under the table.'

Finally, the following minimal pair offers further support for the presence of a silent P_{Dir} 'to' licensed via a Viewpoint Marker. In (55), which is (33a) slightly altered in order to include the Viewpoint Marker *má*, the presence of the latter is optional, a behavior which is expected since it modifies an overt P, *tə̀* 'in'. But notice that *má* is not optional when the very same PP, i.e., *tə̀ ndáp* 'in the house', is the complement of the verb 'went', (56).

(55) ì ʃù (má) tə̀ ndáp
he stayed *má tə̀* house
'He stayed in the house/at home.'

(56) ì wən *(má) tɛ̀ ndáp
he went *má tə̀* home
'He went to the house.'

The ungrammaticality of (56) in the absence of *má* follows if the Viewpoint Marker is required in order to render some silent P overt – presumably a directional 'to'. If one wanted to claim that Path is part of the lexical semantics of the verb *went* in (56) and no silent P_{Dir} is present, one would also have to explain why *mə̀* is not optional, contrary to (55).

To sum up, after looking closely at the distribution of Viewpoint Markers in Shupamem, we argued in the last two sections that, while these markers retain their meaning as defined in section 1.3, their presence is obligatory in spatial expressions that are not mapped onto Ps with phonetic content. We suggested that this aspect of

their behavior follows from the fact that, precisely in such contexts, some spatial P is syntactically present but has no phonetic content and the Viewpoint Markers constitute the means by which this covert preposition is licensed. Having proposed explicitly that licensing amounts to rendering the Edge of PPs overt, we now have to describe the precise mechanism by which we believe this is accomplished.

Recall that when we first provided a structure for locative PPs, we considered Viewpoint Markers to head a functional projection immediately preceding P_{Loc}, i.e., (27), repeated below as (57). We preferred this structure to one in which the Viewpoint Markers are placed in Spec, P_{Loc}, primarily on the basis of their interaction with Degree phrases such as *ndàà* 'right'. Since the latter can be present only if a Viewpoint Marker is also present, we took them to occupy the Specifier of a phrase headed by the Viewpoint Marker.

(57) $[_{ViewP}\,[_{View}\,[_{PPLoc}\,[_{PLoc}\,[_{DP/NP}$ locative noun/PLACE $[_{DP}$ *ground argument*]]]]]]

Here we propose further that in (58), which is a slightly simplified version of (57), the silent P_{Loc} moves and incorporates into the Viewpoint Marker, which is the immediately dominating head. Given that PP_{Loc} is a phase, movement of the phase head P_{Loc} to the dominating head has the consequence of phase extension, in the sense of den Dikken 2006, 2007.

(58) $[_{ViewP}\,[_{View}$ *(má/mfʉ́/nkú/nʒí) $[_{PPLoc}\,[_{PLoc}\,[_{DP/NP}$ PLACE $[_{DP}$ ndàntɛ̀n]]]]]]
store

'at the store'

A welcome result of the process of phase extension above is that the Edge of the new/extended phase is now overt, hence, (45) is satisfied and the silent P_{Loc} is licensed.[10]

Moving on to directional/Path Ps, it is easy to notice that their structure is more complex, given that they embed a locative P. Shupamem P_{Dirs} are always silent, as has already been pointed out in section 3. Based on the meaning of Viewpoint Markers when they modify directional Ps followed by a silent locative (as discussed right below (39)), we can safely hold that they occupy the position immediately above $P_{Dir,}$ as in (43), repeated below:

(43)
$[_{ViewP}\,[_{View}$*(má/mfʉ́/nkú/nʒí) $[_{PPDir}\,[_{PDir}$ TO/FROM $[_{PPLoc}\,[_{PLoc}$ AT $[_{DP/NP}$ PLACE $[_{DP}$ Brooklyn]]]]]]]

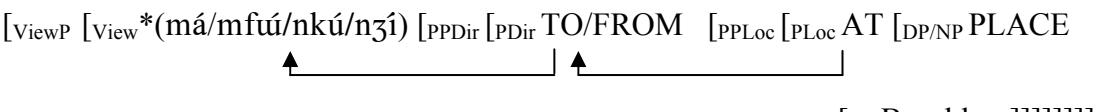
'to/from Brooklyn'

In this case, we consider P_{Loc} to raise to P_{Dir}, as in (59), and, subsequently, the complex head P_{Loc}+P_{Dir} to move and incorporate into the Viewpoint Marker head. By

[10] Den Dikken (2010) employs incorporation of silent Ps into a higher head extensively as a licensing mechanism for silent P, although not in the context of his phase extension proposals. It would constitute a full separate task, definitely worth undertaking, to investigate whether the many instances in which this process takes place in the Dutch spatial Ps discussed by den Dikken (2010) can be made to follow from the Overt Edge requirement that we adopt in this work.

so raising, P_{Loc} extends up to View with the beneficiary consequence that the Edge of the extended phase is now overt.

(59)

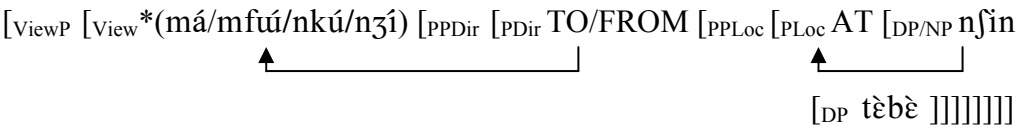


'to/from Brooklyn'

Let us now proceed to directional Ps that are built on a locative P with phonetic content. This is the case of (53), repeated below, for which we have evidence that P_{Loc} does not move to $P_{Dir.}$ If it did, the Edge of the new (i.e., extended) phase would be overt and the presence of the Viewpoint Marker would not be obligatory, contrary to fact. We suggest that in (53) P_{Loc}, which is overt by virtue of the locative noun that has moved to it, cf. (46a), remains in place. P_{Dir} alone moves and incorporates into the Viewpoint Marker, resulting in phase extension, and satisfying (45). This is exemplified in (60).

(53) mə̀ pïyé lérwà *(má/mfʉ́/nkú/nʒí) nʃin tɛ̀bɛ̀
I took book under table
'I took the book from under the table.'

(60)



'from under the table'

If our line of reasoning is on the right track, it follows from the processes we have described, and especially from the different manner in which a (silent) directional P that embeds a silent locative P, (59), and a (silent) directional P that embeds an overt locative P, (60), are licensed, that each of the two Ps that comprise a directional P, i.e., P_{Dir} and P_{Loc}, is a phase that has to meet its own requirements for an Overt Edge as posed by (45). Note that the picture would not be crucially different if we considered PP_{Loc} to be the complement of a (null) CPlace head, as in the discussion below (27). CPlace would move to TO or FROM in satisfaction of the selectional properties of the latter, which, nevertheless, would still have to obtain phonetic content in the manner we demonstrated.

A somewhat different picture arises for the licensing of silent Ps when their arguments are 'here' or 'there' in Shupamem. This is also true for English, as will become clearer once we discuss the properties of these elements in the following section. For the sake of completeness however, let us point out that we take it to be the case that when the silent spatial P is a locative, c.f. (49) repeated below, 'here' or 'there' moves to Spec, P_{Loc}, rendering its Edge overt. To be precise, as we will see in the following section, what actually moves to Spec, P_{Loc} is the XP or DP that contains 'here'/'there' and the empty noun PLACE modified by them.

(49) í ɤ́ítnɔ́ (má/mfɯ́/nkú/nʒí) **ŋ̌i/ŋ̌ă**
he remained there/here
'He remained there.

(61) [$_{ViewP}$ [$_{View}$ [$_{PPLoc}$ [$_{PLoc}$ [$_{DP}$ [$_{XP}$ there [$_{NP}$ PLACE]]]]]]]

Finally, when the spatial P is a silent directional P, as in (50), and its goal or source argument is 'here' or 'there', we adopt the proposal in Collins (2007) for English, according to which 'here' and 'there' move to Spec, P_{Loc}, and the PP_{Loc} moves to Spec, P_{Dir}, rendering it overt. Note that, since 'here' and 'there' are contingent upon P_{Loc} (by virtue of modifying PLACE, which is contingent upon P_{Loc}, as argued independently in sections 2.1 and 2.2), we obtain novel evidence that directional Ps do embed a locative P even when that locative is not directly observable, as has already been proposed elsewhere (Koopman 2000, Svenonius 2008, 2010, den Dikken 2010). A reviewer wonders whether the English Viewpoint Markers in (24) should be considered more similar to their Shupemam counterparts than we have considered them to be so far, in terms of licensing a silent spatial P. This is an interesting thought, since, if we are willing to accept that the English counterparts of the Shupamem Viewpoint Markers perform a similar role, we will be able to explain why *down*, for instance, is optional in *down beside the road*, but obligatory in *down the road*. We are propose that in the latter expression *down* cannot be omitted for the same reason that the Shupamem Viewpoint Markers cannot be omitted in some of the contexts we have presented, namely, because it provides phonetic content to the Edge of a silent P. This amounts to saying that the Viewpoint Markers in the two languages, apart from having a similar contribution to the interpretation of spatial Ps, i.e., speaker's point of view, also play a similar role in the syntax of the spatial expressions in which they occur, in terms of rendering the Edge of PP overt and licensing a spatial P. We leave the details of what other elements pattern with English *down* in this respect, and the precise operation(s) by which they do so to native speakers to investigate. The same reviewer also asks whether elements such as *beside* in English can be associated with a similar structure as Shupamem complex Ps, cf. (31). That *beside* is the combination of a P (*by*) and a locative noun (*side*) has in fact been proposed in Terzi (2010a). Moreover, *-side* is considered a Place light noun in Collins (2007), and see Aboh (2010: 251) for a discussion along similar lines.

4.3 Locative Nouns and Light Nouns

In this section we will revisit the other set of elements that supply the Edge of PPs with phonetic content and license a silent P in Shupamem, namely, the locative nouns, (46a), and the locative adverbials 'here/there', (49)-(50). In our analysis so far we have drawn heavily upon the central notion of 'light nouns' that Collins (2007) utilizes in accounting for the contrast in (44), and have attributed this status to both elements. But what are light nouns, and how legitimate is it to consider the locative nouns of Shupamem (and of other typologically similar languages presumably) to be such elements?

Although a thorough understanding of the nature and properties of 'light nouns' is certainly needed, since the literature on them is rather scattered, nevertheless, such a task cannot be fully undertaken in this work. Therefore, what we

will do in this section instead, is to pinpoint aspects of light noun behavior that are relevant for our purposes, relegating a thorough investigation of the topic to future research. Collins (2007) coins the term 'light nouns' from work on elements that are similar to the ones he discusses, although not exactly identical.[11] What he considers light nouns in his work on spatial Ps are essentially the noun *home* in (62) and the locative adverbials *here* and *there*, the latter by virtue of modifying the silent noun PLACE, which he also considers a light noun. He concludes that light nouns have a reduced syntactic structure, since they cannot be modified (62b).

(62) a. I'm going home.
b. *I'm going my home/new home.

We do not think it is immediately obvious, however, that what Collins labels light nouns are structurally impoverished elements. Moreover, even if they were, this does not necessarily follow from the fact that they resist modification. For one thing, although *home* cannot be modified, as illustrated above, other elements, which pattern with *home* can, and, in fact, are, modified. Such a case is the silent noun PLACE, also considered a light noun by Collins. Recall that 'here' and 'there', which are widely considered to be modifiers of the silent noun PLACE in English after Kayne (2004), are shown to behave similarly to *home* in the relevant contexts, thus satisfying (45). There is, therefore, some discrepancy in Collin's claims on this issue, which is also noted by him: namely, although we are dealing with what is considered a light noun in (63) below, as confirmed by the fact that it behaves like *home* in terms of being able to satisfy (45), it is nevertheless a noun that *is* modified (by 'there'), on a par with ordinary referential nouns.

(63) I am going $[_{DP}\,[_{XP}$ there $[_{NP/N}$ PLACE]

Since the light noun PLACE does not seem to resist modification, it is inaccurate to hold that light nouns cannot be modified, and, moreover, to conclude on the basis of this assumption alone that they have a reduced syntactic structure.[12] Why, then, cannot *home* be modified? The very same question pertains to the Shupamem locative nouns, which, contrary to (even phonetically identical) ordinary referential nouns, (64)=(2), cannot be modified by an adjective, (65) and section 1.2.

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[11] See Kishimoto (2000) and Larson and Marušič (2004) for some*thing*, some*body*, some*place*, etc. in English. What Collins (2007) considers light nouns are similar in syntactic behavior to the italicized parts of the above, in the sense that they are also taken to raise higher than common nouns. On the other hand, in his follow up to Kishimoto (2000) and Larson and Marušič (2004), Leu (2004) considers such elements in English, French and Swiss German to be generated higher than common nouns, potentially a consequence of the fact that they are functional. It turns out that our view of light nouns is much in the spirit of Leu (2004), since we consider them to be more like functional elements, despite the fact that they often look identical in shape to common nouns (and often occur in a higher position in the structure than common nouns, as a result of movement).

[12] On the other hand, Ioannidou and den Dikken (2006), in their analysis of Greek *spiti* 'home' – which behaves much like its counterpart in English and in Northern Italian Dialects, i.e., it is the complement of a silent locative or directional P – consider *spiti* to be part of a DP with full blown structure. They claim that it raises to Spec, D in order to check its case feature (since P is silent, hence, unable to provide case and Greek is a language with rich case morphology), as a result of which the EPP feature they propose for the Greek D is also checked. Lack of an overt determiner or impossibility of modification follows from the specifics of their account, rather than from a reduced syntactic structure of Greek 'home'.

(64) í kwáté móʔ pɔ̀kɛ́t ŋgbə̀m nʃ̀in máŋgù
he found a nice big root mango
'He found a nice big mango root.'

(65) lérwà pâ (*pɔ̀két) nʃ̀in tɛ̀bɛ̀
book is nice root table
'The book is under the table.'

We find it unmotivated to hold that PLACE can be modified, cf. (63), just because it is silent, while an overt counterpart of it, namely, *home*, (62b), cannot. Consequently, we have to look elsewhere for the reasons that make light nouns resist modification, and we suggest they are to be found within the content of these nouns and their associated modifiers. 'root', as a locative noun in (65), is a spatial relation; whatever its semantic type, it is certainly not a simple NP predicate of the type <e, t>, by contrast to the homophonous noun in (64). Hence, unlike the latter, 'root' in (65) is not suitable for modification by an attributive adjective. Note similarly that although the (silent) light noun PLACE is modified in (63), it is not modified by an attributive adjective. That light nouns may be modified, but by different elements than ordinary nouns, is still consistent with the idea that they are a different type of elements, despite the fact that light nouns and regular nouns are often phonetically identical. We believe it is reasonable to consider this difference, which we have not delimited yet, as relevant for the fact that only light nouns may move within the PP structure in which they are found, with the consequence that they may provide phonetic content to the PP's Edge and license a silent P.

Interestingly, the realm of locative expressions is not the only one in which phonetically identical nouns behave differently with respect to modification. In their study of the silent noun PERSON and its overt counterpart in Dutch, Corver and Kranendonk (2009) focus on elements that are similar to the light nouns discussed in this work, and make similar observations. They note that the referential noun 'person' in (66), for instance, may be modified by the adjective 'friendly', but modification by the very same adjective is impossible for 'person' in (67). Corver and Kranendonk conclude that elements such as *persoon* in (67) are *grammatical nouns*, licensed by the interpretable feature [+human] that resides in D.

(66) In de taalkunde werken alleen vriendelijke personen.
in the linguistics work only friendly persons
'In linguistics, only friendly people are employed.'

(67) Op het internet staat veel over zijn (*vriedelijke) persoon.
at the internet stands a-lot about his friendly person
'The internet contains a lot of information about him.'

Much in the same spirit, we propose that PLACE and its overt manifestations (c.f., the locative nouns of Shupamem) are 'light', or grammatical, nouns licensed by an interpretable feature in $P_{Loc.}$ Recall that it has been argued independently for the locative nouns of Shupamem that they are the overt counterparts of the (silent) noun PLACE, whose existence is contingent upon $P_{Loc.}$ By considering PLACE, or its overt counterparts, to be light nouns, that is, as essentially less 'lexical' than ordinary referential nouns, we can understand why they cannot be modified by the same elements that modify the latter. Furthermore, by associating PLACE, along with the elements that modify or instantiate it, with a higher functional head P_{Loc}, we can

understand why these elements may move higher than referential nouns, in particular, to the Edge of P_{Loc}: they do so because they share a feature with the functional head P_{Loc} which needs to be checked. The consequence of movement is that they render the Edge of PP overt. Referential nouns, such as the arguments of spatial Ps, are obviously different in this respect, as is amply demonstrated by the fact that they can easily be modified by attributive adjectives. Therefore, we have no reason to believe that they move to some higher position in the PP structure that contains them, most crucially to the Edge of P_{Loc}. As a result, we do not expect them to be able to license a silent P, and, indeed, they do not seem to. Notice that if all that was required for a silent P_{Loc} in order to be licensed was that it somehow be associated with an element with a [loc] feature, it would be difficult to see why 'Brooklyn' is not a good candidate, given that it refers to a location. Yet, 'Brooklyn' cannot license a silent P, cf. (51)-(52), precisely because, although it refers to a location, it is not a light noun.

Let us now address another issue related to (differences between) light nouns, raised in footnote 8. There it was noted that the ungrammaticality of (47), repeated below, cannot be explained in a satisfactory manner on the grounds of a violation of *minimally* Overt Edge, induced by movement of 'here' or 'there' to Spec, P, unless the grammaticality of (46b) is explained at the same time. In (46b), a locative noun, which we also consider a light noun, does not seem to induce ungrammaticality. The question arises why movement to Spec, P_{Loc} of 'here' and 'there' is obligatory in (47), but movement of the locative noun to P_{Loc} is optional in (46b).

(47) món swó mbɨ́m (*tə̀) **ŋ̌/ŋ̌**
child put money in there/here
'The child put the money in there/here.'

(46) b. complex locatives, (3)
[$_{ViewP}$ [$_{View}$ [$_{PPLoc}$ [$_{PLoc}$ mə̀ [$_{DP/NP}$ tú [$_{DP}$ john]]]]
'above John'

Unfortunately, the answer we are able to provide here is only tentative. We conjecture that the above contrast has to do with the marked property of the noun PLACE that is involved in (47), namely, with the fact that it is a noun without phonetic content. As already mentioned a few times, according to Kayne (2004, 2005) English 'here' and 'there' are the modifiers of the silent noun PLACE, which is introduced by an (also silent) demonstrative: *THIS here PLACE* and *THAT there PLACE* respectively. Kayne (2005: 69-71) also holds that 'here' and 'there' are the outcome of 'here/there PLACE' having moved past the demonstrative, as in (68) below for 'here', in an instance of movement that seems to be forced by the presence of the unpronounced PLACE.

(68) [here PLACE]$_i$ THIS t_i

Unusual though this idea may look, it is supported by subsequent proposals, (Kayne 2006), according to which an element must be in the Specifier of a phase in order to surface without phonetic content. When it comes to PLACE, this Specifier is presumably the Specifier of the DP in which it is found, and to which it moves with its modifier, as in (68). It may be that this particular set of assumptions regarding PLACE, which is a light noun that is always associated with 'here' and 'there', render it different from other light nouns in the sense that, while both (types of) light nouns,

namely, locative nouns and PLACE depend upon P_{Loc} for feature checking, the latter have to end up in Spec, P_{Loc}, because they first have to move to the Specifier of the containing DP. No similar requirements hold for the locative nouns, which may remain in situ and check the interpretable feature they share with P_{Loc} via Agree when P_{Loc} is overt.

It should be noted that this is not the only instance in which 'here'/'there' behave differently from other light nouns with respect to licensing a silent P, or, more precisely, with respect to being incompatible with an overt one. Greek has a wealth of light nouns like *home* (Ioannidou and den Dikken 2006, Terzi 2010b), which one is tempted to consider as the intransitive counterparts of the Shupamem locative nouns. As Terzi (2010b, ftn. 18) shows, however, although they all appear compatible with a silent P (which is licensed in the manner advocated here), careful investigation shows that Greek light nouns are actually more conservative than 'here' and 'there' in terms of allowing for a silent P in all contexts.

English presents a good counterpart to the Greek cases above, making the same point: while the locative P 'at' is optional with 'home', which is an overt light noun in English, (69a), it always has to be silent with 'there', (69b).

(69) a. They stayed (at) home.
b. They stayed (*at) there.

This, according to our views, means that the phrase containing PLACE and its modifier 'there' has to move to Spec, P; the ungrammaticality in (69b) thus follows from the fact that the Edge of P is not minimally overt. By contrast, 'home' can remain in situ when the selecting P, 'at', is phonetically realized. As to whether this difference is indeed related to the fact that PLACE is first required to move to the Edge of the phase that contains it, by virtue of being a silent noun, and, furthermore, how compatible this requirement is with Overt Edge, these are issues that require much more attention than the scope of this article allows for.

To conclude, we believe we have demonstrated that extending the status of light nouns – properties of which we attempted to understand and articulate in this section – to the locative nouns of Shupamem, is a move to the right direction. Light nouns appear to comprise various elements: Collins' light nouns, including the silent noun PLACE, the locative nouns of Shupamem that constitute a central topic of this work, but also the silent noun PERSON and its overt instantiation in Dutch[13]. We hold that all these items have little lexical content and depend on some higher functional head with which they check some interpretable feature(s) they have in common. We consider this property, which clearly differentiates light nouns from referential nouns, as crucially responsible for their movement to the Edge of spatial Ps. As a result of this movement, which is either an instance of head movement, for the locative noun in (46a), or phrasal movement, for PLACE with 'here' or 'there' in (47), the Edge of the spatial PP obtains phonetic content and a silent P is licensed.

[13] And conceivably many of the silent elements discussed extensively in Kayne (2005) and Kayne (2006). As for other environment argued to involve a silent P, see also Caponigro and Pearl (2008), although the latter authors are not concerned with the licensing of silent Ps. It is interesting, however, that the context in which they consider silent Ps to be present is that of (English) free relatives, a context standardly taken to involve movement. Finally, see Landau (2009) for an innovative use of silent locative Ps, which are taken to code experiencers syntactically and explain a number of their puzzling properties.

5. SUMMARY AND CONCLUSIONS

This work investigated the properties of spatial expressions in Shupamem, with the objective of finding out where they fit within current views of spatial Ps and what they are able to contribute to the theory. The study was motivated by three robust phenomena that the language manifests: the existence of very few items that one can clearly identify as spatial prepositions, the existence of a number of items that look a lot like nouns but denote locational relations, and the existence of a restricted set of items in the extended projection of spatial Ps which denote speaker's point of view, but give the impression of locative or directional Ps in certain contexts, in which, moreover, they are obligatory.

We argued that the locative nouns of Shupamem are *light nouns*. These find close counterparts in other languages, and even in domains of grammar besides spatial expressions. We took a quick look at light nouns, and concluded that they comprise various nominals that differ from common referential nouns, with which they are often phonetically identical, not necessarily in terms of a reduced syntactic structure, but in terms of how lexical/referential they are and, most importantly, in terms of being contingent upon a higher functional head. We proposed that the fact that they are able to move within the broader structure in which they occur, to positions higher than referential nouns, follows precisely from their need to match an interpretable feature they share with the functional head with which they are associated. In the case of spatial expressions, this is the functional head P_{Loc}. As a result of this movement, light nous are able to license a silent P, by rendering its Edge phonetically overt. Referential nouns do not pattern with light nouns in this respect; they cannot render the Edge of spatial PPs overt, and thus cannot license a silent P in any of the environments we studied.

When it comes to licensing a silent P, we argued that light nouns are matched by another set of elements in Shupamem, those that modify spatial Ps for speakers' point of view. The latter render the Edge of spatial P overt via a different means, however: the silent P moves and incorporates into the Viewpoint Marker, which heads the phrase that immediately dominates the P, giving rise to phase extension, and, most importantly, to a new phase whose Edge is overt. The strange obligatoriness of Viewpoint Markers in certain environments is thus explained: they are obligatory when they provide phonetic content to the Edge of an immediately following spatial PP, hence, license a silent P. We discovered that very similar properties are associated with English Viewpoint Markers, which have heretofore gone unnoticed. In the overall, it was demonstrated throughout the paper that many of the structures and processes we discussed with reference to Shupamem are not limited to it, but are also encountered in various guises among better known and better studied languages.

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