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## The case of restricted locatives<sup>1</sup>

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**Abstract.** This paper examines the cross-linguistic phenomenon of locative case restricted to a closed class of items (L-nouns). Starting with Latin, I suggest that the restriction is semantic in nature: L-nouns denote in the spatial domain and hence can be used as locatives without further material. I show how the independently motivated hypothesis that directional PPs consist of two layers, Path and Place, explains the directional uses of L-nouns and the cases that are assigned then, and locate the source of the locative case itself in  $p^0$ , for which I then provide a clear semantic contribution: a type-shift from the domain of loci to the object domain. I then examine cross-linguistic restrictions on the use of locative case and show that the patterns observed can be accounted for on the same assumptions.

**Keywords:** locative, PP structure, case-assignment, directional, spatial.

### 1. Introduction

In Latin names of towns, cities, small islands (1a) and a few common nouns (1b) including *domus/domi* ‘home’, *rus/ruri* ‘countryside’ and *humus/humi* ‘ground’ (henceforth, *L-nouns*) can be marked with locative case and used as locative adverbials. All other toponyms and common nouns require a preposition for this purpose, even when appearing in apposition to a locative (1b):<sup>2</sup>

- (1) a. iacēre humi (Gildersleeve and Lodge, 1876:266)  
lie.INF ground.LOC  
‘to lie on the ground’
- b. Mīlitēs Albae cōstitērunt in urbe opportūnā.  
soldiers Alba.LOC halted in city.ABL convenient.ABL  
‘The soldiers halted at Alba, a conveniently situated town.’
- (2) a. Pompeius in Thessaliam pervenit. (Woodcock, 1959:4)  
Pompey in Thessaly.ACC arrived  
‘Pompey arrived in Thessaly.’
- b. Me potius in Hispania fuisse tum quam Formiis! (Woodcock, 1959:36)  
I.ACC able in Spain.ABL be.PERF.INF then than Formiae.LOC  
‘To think of my having been in Spain at that time rather than at Formiae!’

Locative case is systematically syncretic with other cells in the paradigm: in the plural it is always identical to ablative, whereas in the singular it coincides with genitive in the first two

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<sup>2</sup> Latin examples are given with the spelling conventions adopted by the sources from which they are taken and so long vowels are indicated inconsistently.

declensions and with ablative (or occasionally dative in Old Latin) in the third declension. This syncretism renders it unlikely that there is a morphological restriction on the distribution of the locative case suffix, which would also not explain the semantic restriction on the set of proper names compatible with locative. Furthermore, exactly the same set of lexical items can be used bare as the goal, with accusative case-marking, and as the source, with ablative case-marking (Gildersleeve and Lodge, 1876; Allen et al., 1903; Woodcock, 1959; Ernout and Thomas, 1964; etc.):<sup>3</sup>

- (3) a. Missī lēgātī Athēnās sunt. (Gildersleeve and Lodge, 1876:214)  
sent.PL envoys Athens.ACC are  
'Envoys were sent to Athens.'
- b. Innumerābilēs (philosophī) numquam domum revertērunt.  
innumerable philosophers never home.ACC returned  
'Innumerable philosophers never returned home'
- (4) a. (Verrēs) omnia domō ēius abstulit. (Gildersleeve and Lodge, 1876:249)  
Verres everything house.ABL his took.away  
'Verres took everything away from his home.'
- b. Dolābella Dēlō proficīscitur. (Gildersleeve and Lodge, 1876:251)  
Dolabella Delos.ABL depart  
'Dolabella sets out from Delos.'

Accusative and ablative case marking is not restricted in any way, since all nouns and proper names have these cells in the paradigm. It is therefore becomes clear that only L-nouns can make use of these cases to function as goals or sources, and the question is why.

The next alternative is that the locative interpretation and the locative case both arise from an underlying preposition. Indeed, two ways of ensuring that this preposition does not appear on the surface can be envisaged. Under one view the relevant preposition is phonologically null, as has been proposed (Emonds, 1976 and Camacho, 1996, though see also Kayne, 2005 and Collins, 2008) for English examples like (5)-(6). Under another view, the preposition conflates in the syntax with the locative-case noun.

- (5) a. She wants to move (to) someplace new. (Emonds, 1976)  
b. I'm leaving (on) the day after tomorrow.
- (6) a. I saw John [<sub>NP</sub> that day/someplace you'd never guess]. (Larson, 1985)  
b. John was headed [<sub>NP</sub> that way].  
c. Max pronounced my name [<sub>NP</sub> every way imaginable].

Several problems arise with this view. Firstly, the null preposition hypothesis would require the preposition to l-select its complement and would still need to account for the common

<sup>3</sup> The match is not altogether perfect. Accusative can be used for marking goal also with some country names (Woodcock, 1959:4-6), though it seems to be a matter of individual use rather than a generally available option. Likewise, as noted by Woodcock (1959:29-30), for some authors, the bare ablative of source seems to be in free variation with the preposition *ex* 'from'. I leave both issues for future research.

semantics of L-nouns. The same issue arises with the conflation view: why do the nouns that trigger conflation share common semantics?

A further problem with both views is that L-nouns are not incompatible with regular locative prepositions ((7), see also (5)). The choice of using an overt preposition or omitting it is not, however, without semantic consequences: as noted by Allen et al. (1903:270), with city names the use of the overt locative preposition *ab* ‘from’ and of *ad* ‘to’ leads to *apud*-locative semantics, with the meanings of ‘from the vicinity of’ and ‘to the vicinity of’, respectively:


- (7) a. ut a Mutina discederet (Latin sources, via Allen et al. 1903)  
 so.that from Modena.ABL retire.SBJ  
 ‘that he should retire from Modena (which he was besieging)’
- b. ad Alesiam proficiscuntur  
 to Alesia.ACC advance.3PL  
 ‘they set out for Alesia’

This observed change in the interpretation of the locative prepositions is unexpected under the syntactic accounts. A twofold question arises: why are only L-nouns possible as locatives without a preposition and why do they change interpretation in the presence of an overt preposition? Furthermore, as we will see below (section 5), Latin is not an isolated case: lexical-semantic restrictions on the use of locative cases are cross-linguistically very common. This is also why the solution I propose is based in semantics rather than syntax: I suggest that L-nouns denote in the spatial domain rather than in the entity domain.

## 2. The core of the solution: the semantics of loci

While there are many technically different approaches to the semantics of spatial prepositions (Bierwisch, 1988; Wunderlich, 1991; Zwarts and Winter, 2000; Kracht, 2002; Bateman et al., 2010; etc.), they all agree that locative prepositions operate in the dedicated domain of loci (regions, sets of points, sets of vectors, etc.; a different domain of paths (e.g., ordered series of loci) has been proposed for directional prepositions), which makes available spatial relations between individuals.

What seems uncontroversial in all these different approaches is that what is minimally needed is a semantic type for loci (for our purposes, type *l*) and a function to map an entity to its locus. The latter, the *eigenspace* of an entity, has been defined by Wunderlich (1991) as the region that the entity occupies (obtained by the application of the primitive function **EIGEN**). A preposition applies to the locus that is the eigenspace of an entity and returns another locus standing in the appropriate spatial relation to it:<sup>4</sup>

- (8) the TV                  EIGEN ([[the TV]])                  *above* (EIGEN ([[the TV]]))
- 

<sup>4</sup> This description is necessarily simplified. It is more likely that **EIGEN** forms part of the meaning of a spatial preposition rather than an independent syntactic node or type shift. Evidence for this comes from prepositions like the Dutch *voor* ‘in front of’, which require access to the object. Prepositions can introduce additional restrictions (e.g., *on* requires contact rather than orientation) and may relate not to the object itself but only to its (relevant) boundaries (cf. Matushansky and Zwarts, 2017). But for our present purposes this is good enough.

Once it is established that there is a domain that deals with loci and their relationships to each other, it is natural to assume that noun phrases can do so as well. Evidence in favor of this view comes from Creary, Gawron, and Nerbonne (1989), who observe, following the insight of Jackendoff (1983) (see also Larson, 1987), that arguments and locatives behave very similarly where it comes to reference and quantification. Just like object-denoting arguments can be pronominalized, quantified over and give rise to ACD, so can locatives, and hence there are at the very least demonstratives and QPs that denote in this domain:

- (9) a. Bill sang **everywhere** Mary sang/did.  
 b. Al lives *on the Ohio*, and Ed works **there**.  
 c. Al lives *on the Ohio in Kentucky*, and Ed works **there**.

However, if an NP already denotes a locus, the (locative) preposition is not necessary, and this is, I claim, precisely what happens in Latin. In other words, I propose that it is by virtue of their interpretation as loci rather than objects that L-nouns can appear as locative modifiers without a preposition (or any other mechanism for the appropriate externally assigned theta-role, cf. Emonds, 1987; Barrie and Yoo, 2017) and that the assignment of locative case arises as the result of this environment. Conversely, other, regular nouns denote in the object domain, which means that they cannot appear in that syntactic environment and therefore cannot be assigned locative case in principle. As a result, we limit the variation to the lexicon (all and only nouns that denote in the locative domain can function as locative adverbials without a preposition) and reestablish the classical view of case as reflecting the syntactic environment in which the noun phrase finds itself. We furthermore naturally account for the fact that L-nouns form a closed lexical-semantic class and account for R-pronouns (e.g., *here*, *there*) as demonstratives denoting in the spatial domain, which also explains why they have the syntax of PPs rather than adverbials (Burton-Roberts, 1991).

Additional evidence in favor of treating L-nouns as not denoting in the object domain comes from the fact, noted by Donaldson (1860:314), that restrictive modification generally blocks the ability of the L-noun *domum* ‘home/house’ to function as a bare locative (e.g., *in domo regali* ‘in a royal house’). The contrast is not as sharp as one would have desired, since non-restrictive modification does not remove the ability to function as a locative (cf. *meae domi* ‘at my home’ (Plautus, *Aulularia* 432 via Calabrese (2008)); *proximae vicinia habitat* ‘s/he lives nearby’ (Plautus, *Bacchidae* 2, 2, 27)), yet it is definitely suggestive.

An alternative to the locus denotation of L-nouns is Kayne (2005), who claims that English locative adverbials should be derived from a more complex structure (*this here PLACE*). Conversely, Collins (2008) proposes (cf. Katz and Postal, 1964, but also Larson, 1985) that R-pronouns can also occur as complements of a null preposition, thus accounting for their bare uses, as in (9), and extends both hypotheses to the bare use of *home* and the light locative *place*. I believe, however, that this line of reasoning is on the wrong track and the starting point should be exactly the opposite one: namely, that it is due to their semantics as loci (spatial entities) that R-pronouns can be used without additional structure as locative adverbials and that similar locative use of items like *place* and *home* should be attributed to a change in their semantics. Clear evidence in favor of my proposal and against the views attributing a complex structure to locative demonstratives comes from French, where locative pronouns *en* and *y* are clitics, which necessarily entails that they are syntactically simplex.

### 3. Paths and directionals

Having established the fact that there can be locus-denoting nouns in a language, we can now turn to the directional uses of bare L-nouns in Latin: the ablative and the allative. To account for them, I will appeal to the hypothesis defended, among many others, by Jackendoff (1983), Bierwisch (1988), Koopman (2000), Tungseth (2003) and Zwarts (2005) that directional PPs are more complex (semantically and syntactically) than locative ones. The general consensus about the relation between locative and directional PPs is sketched in (10) and supported by the morphological structure of locative adpositions and cases (see, e.g., Zwarts, 2010):

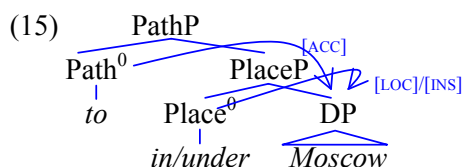


An appeal to Path<sup>0</sup> can explain the phenomenon of directional/locative case alternation in Indo-European (Bierwisch, 1988; den Dikken, 2003, 2010; Zwarts, 2005, 2006; Lestrade, 2006, 2010; Čaha, 2010, among others), which consists, in Latin as in other languages, of the semantically conditioned case marking with certain prepositions. For instance, as shown in (11) for Latin, when the PP *under Roman rule* functions as a locative adverbial, the NP is marked ablative, whereas when it is a goal, the NP is accusative. In German, exemplified in (12), locative PPs involve dative case, and in Russian ((13)-(14)), locative or instrumental, in function of the preposition. Whereas the ablative, dative, locative and instrumental cases here can reasonably be attributed to Place<sup>0</sup>, it is the allative Path<sup>0</sup> that is responsible for the case in their directional counterparts. The directional case that was originally assigned there became syncretic with accusative as a result of the historical development of Indo-European case morphology (cf., e.g., Meier-Brügger, Fritz, and Mayrhofer, 2003:266-267).

- (11) a. Multos annos Gallia **sub imperio Romano** fuit. (locative)  
 many years Gaul under rule.ABL Roman.ABL be.PRET  
 ‘For many years Gaul was under Roman rule.’
- b. **Sub imperium Romanum** Gallia cecidit. (directional)  
 under rule.ACC Roman.ACC Gaul fall.PRET  
 ‘Gaul fell under the Roman rule.’
- (12) a. Alex tanzte **in dem Zimmer**. (German; Zwarts, 2006)  
 Alex dance.PST in the.DAT room  
 ‘Alex danced in the room.’
- b. Alex tanzte **in das Zimmer**.  
 Alex dance.PST in the.ACC room  
 ‘Alex danced into the room.’
- (13) a. Marina sprjatala knigu **pod stolom**. (Russian)  
 Marina hid book under table.INS  
 ‘Marina hid the book (somewhere) under the desk.’

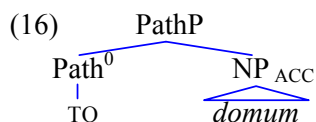
- b. Marina sprjatala knigu **pod stol**.  
 Marina hid book under table.ACC  
 ‘Marina hid the book under the (surface of the) desk.’
- (14) a. Marina sprjatala knigu **v stole**. (Russian)  
 Marina hid book in table.LOC  
 ‘Marina hid the book (somewhere) in the desk.’
- b. Marina sprjatala knigu **v stol**.  
 Marina hid book in table.ACC  
 ‘Marina hid the book in the desk.’

On the assumption that both Place<sup>0</sup> and Path<sup>0</sup> assign case,<sup>5</sup> it becomes necessary to accept multiple case assignment to the same goal (15) and to address the question of how this multiple case assignment ends up realized as accusative.



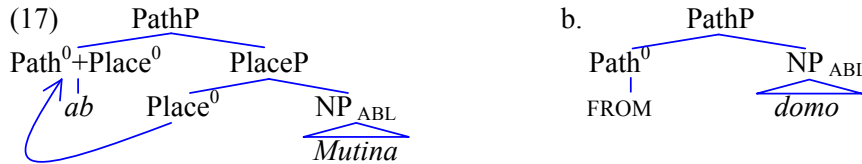
Several proposals are on the market to answer this question. One technical option is that the case assigned by Path<sup>0</sup> (accusative) overrides that assigned by Place<sup>0</sup>. A similar proposal has been advanced by Pesetsky (2013): he argues that the underlying case of a noun in Russian is genitive (corresponding to N<sup>0</sup>), which is overridden by the nominative assigned by D<sup>0</sup>, which in turn can be overridden by the accusative assigned by v<sup>0</sup> or by other cases. Čaha (2007, 2010) suggests that the DP is raised, shedding case layers – in the current context, it would be first to [Spec, PlaceP] and then to [Spec, PathP]. A third alternative is that the two cases are combined and the resulting set of case features is spelled out as accusative. This mechanism has been suggested by Matushansky (2008, 2010, 2012), who uses it to account for multiple case assignment to predicates. Yet a fourth option is that by Svenonius (2003), who proposes that the case assigned to the Ground is assigned by the complex p<sup>0</sup>+P<sup>0</sup> head. Béjar and Massam (1999), Merchant (2006), Richards (2007), and Brattico (2011) also consider other instances of case-stacking and ways of accounting for it, demonstrating that some mechanism for dealing with multiple case-assignment is independently required.

Whatever the mechanism adopted, it can also be used for the accusative used as allative with L-nouns: assuming that Path<sup>0</sup> in (10) is responsible for accusative case-marking in the PP in (11b), it is natural to extend the same explanation to (16), where case-assignment by Path<sup>0</sup> would be accusative in precisely the same way.



<sup>5</sup> Arsenijević and Gehrke (2008) propose that accusative is assigned by the verb. An obvious problem with this view are NP-internal directional PPs, such as *doroga v London<sub>ACC</sub>* ‘a road to London’.

The ablative PathP is more complicated, since there is no locative/directional syncretism here: in ablative PPs there is always an overt preposition (*ab, ex*), whereas ablative L-nouns are just marked with ablative case, suggesting that the ablative Path<sup>0</sup> is null. To resolve this issue I suggest that the overt preposition results from Place-to-Path movement:



Summarizing, I have proposed that the bare allative and ablative L-nouns can be explained by the mechanism independently needed to account for case assignment in allative and ablative PPs: the null Path<sup>0</sup> responsible for the assignment of the relevant directional case (accusative and ablative, respectively).

This leaves us with two more facts to account for: the source of the locative case on L-nouns and an explanation of what happens when L-nouns appear with overt prepositions, as in (7).

#### 4. The source of the locative case

The assumption that locative PPs denote in the spatial domain accounts for the semantics of locative Ps and their internal composition, but not for their external syntax. As is easy to see, locative PPs can function as modifiers of entities (NP-internally) or events (VP-internally). For the former case at least, direct composition is impossible and the denotation of a locative PP must shift from a locus (however defined) to a set of entities (type  $\langle e, t \rangle$ ). The existence of such a shift can then be used to account for the latter case as well:

- (18) a. a house in New York  
 b. to live/walk in New York

As shown by Zwarts and Winter (2000), in order for a locative PP to be usable as a location for other entities, it needs to change from a spatial denotation into the more standard property interpretation. The function  $EIGEN^-$  thus turns a locus-denoting PP into a predicate (type  $\langle e, t \rangle$ ) – the set of entities located at this locus:

(19)  $EIGEN^- =_{def} \lambda l . \lambda x . EIGEN(x) \subseteq l$                        $EIGEN^- (above (EIGEN ([the TV])))$

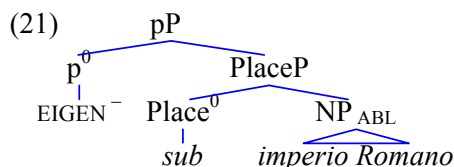
Unlike  $EIGEN$ ,  $EIGEN^-$  cannot be hypothesized to be a lexical part of spatial prepositions, since spatial PPs can be augmented by directional prepositions and modified:

- (20) a. [from [under the bed]]  
 b. [[six feet] [behind the house]]

Because the measure phrase and the directional preposition need access to the spatial representation, they clearly do not combine with something of the type  $\langle e, t \rangle$ , which means that transition to the predicate type happens at a higher level than where the measure phrase



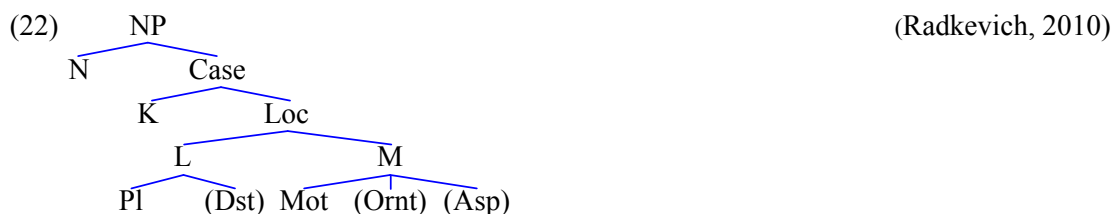
and the directional preposition are merged. One reasonable assumption is then that  $EIGEN^-$  is a functional head: the  $p^0$  of Svenonius (2003) (cf. Kratzer, 1996 for  $v^0$ ):



Adopting once again the assumption that the case assigned to the Ground in a PP results from the combination of features assigned by two heads (here, by  $p^0$  and  $Place^0$ ), we can now explain both the locative case of L-nouns and the fact that in the locative/directional case alternation, more than one surface case can be used, as illustrated in (13)-(14) for Russian.

Given that a specific  $Place^0$  can determine the features it assigns, the combination  $p^0+Place^0$  could also assign different cases in function of the choice of a  $Place^0$ . Conversely, in case of the combination  $Path^0+Place^0$  the specific preposition in  $Place^0$  may be unimportant, since the surface accusative is a reflection of the presence of a  $Path^0$ .

The hypothesis that a stative locative involves a decomposition  $p^0+Place^0$ , where  $p^0$  encodes the independently needed  $EIGEN^-$  type-shift but does not contribute a true change in meaning makes it possible to reconcile the  $Path^0+Place^0$  approach to directionals adopted here with the apparently radically different decomposition in Mel'čuk (1994), Kracht (2002) and Radkevich (2010). These authors argue for distinguishing *configuration* and *mode* components for both locative and directional cases (and PPs), as in [Mode [Loc DP]]. The *static* Mode yields simple locatives, all others are dynamic.<sup>6</sup> Radkevich (2010) argues for a yet more complex morphological picture in locative case encoding, suggesting the features Distal, Motion, Orientation and Aspect:



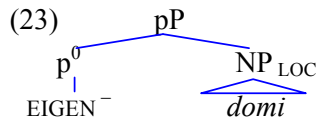
What is crucial in all these approaches is that locative and directional PPs or cases are equally syntactically complex, whereas in the  $Path^0+Place^0$  approach directionals contain locatives.

The hypothesis that locative PPs contain a pP layer introducing the independently necessary  $EIGEN^-$  type-shift reconciles the two positions: while directional PPs are semantically more complex, consisting of a  $PathP$  and a  $PlaceP$ , they do not comprise the totality of locative tree because directionals, which are not modifiers of either events or objects, do not include the

<sup>6</sup> Kracht's dynamic modes are the *co-final* (the object moves into the configuration during event time), the *co-initial* (the object moves from the configuration during event time), the *transitory* (the object moves in and out of the configuration during event time) and the *approximative* (the object approaches the configuration during event time). Mel'čuk codes the first three modes as, respectively, *prolative*, *elative* and *perlative*, and adds the *recessive* mode (the reverse of the approximative) and the *terminative* mode (movement up to the location). Kracht's *static* mode corresponds to Mel'čuk's *essive*, reflecting the standard locative case labels.

pP. The static mode, which would otherwise be semantically empty in Kracht's, Mel'čuk's and Radkevich's approach, now introduces the non-vacuous  $EIGEN^-$  type-shift.

Given that L-nouns, in our view, denote in the spatial domain, just like locative PPs, they also need the pP layer with the  $EIGEN^-$  type-shift in order to compose with the rest of the structure. For them as well, then, it is  $p^0$  that is the source of the locative case:



Summarizing, we have accounted for the restrictions on the use of the locative case in Latin with a combination of two independently needed hypotheses: there exist nouns and noun phrases that denote in the spatial domain (L-nouns) and the case that they surface with (i.e., locative) is assigned by the functional head  $p^0$  with the semantics of the  $EIGEN^-$  type-shift.

However, an obvious problem with the solution proposed above are cases like (7), where an L-noun combines with a preposition, but also like (24), where an L-noun functions as an argument. On the assumption that L-nouns denote loci, how can they be used in contexts requiring objects?

(Gildersleeve and Lodge, 1876:260)

- (24) duobus annis postquam **Roma** condita est  
 two years after.that Rome.NOM founded is  
 'two years after Rome was founded'

To account for such cases it is necessary to pass from a locus to the unique object occupying that locus. Given the existence of  $EIGEN^-$  we only need a maximization operation akin to the regular definite article:  $EIGEN^+$  returns the maximal object occupying the relevant region:

- (25)  $EIGEN^+$ : maps a locus to the unique entity located at this locus  
 $\lambda l . \iota x . EIGEN(x) = l$

$EIGEN^+$  converts the locus *Rome* to the object constituting that locus, which can then function as a complement to a preposition or appear in an argument position.

## 5. The bigger picture

The hypothesis that some nouns can denote in the spatial domain explains multiple puzzles in a number of languages that do not restrict their locatives in precisely the same ways. To begin with some examples similar to the Latin pattern above, in Russian, the true locative case is only available for demonstratives, simplex wh-words and their existential derivatives, the universal quantifier, as well as the noun *dom* 'home':<sup>7</sup>

<sup>7</sup> What I have been glossing as LOC in traditional Russian grammar is called "the prepositional case". Its variant, the so-called *locative II*, is restricted to location-denoting nouns of the second (consonantal) declension and only to prepositions that are cognitively default for each particular noun. This phenomenon is therefore very much different from the focus of this paper, but see Haspelmath (2018).

- (26) a. *gde* ‘where’, *kudá* ‘[to] where’, *otkúda* ‘wherefrom’  
 b. *zdes’/tut* ‘here’, *sjudá* ‘[to] here’, *otjúda* ‘from here’  
 c. *tam* ‘there’, *tudá* ‘[to] there’, *ottúda* ‘from there’  
 d. *vezdé, vsjúdu* ‘[to] everywhere’, *otovsjúdu* ‘from everywhere’

(27) *dóma* ‘at home’, *domój* ‘homeward’

The locative preposition *te* in Modern Dutch is used only in highly formal register with city names and with the noun *huis* ‘home’ (Broekhuis, 2013:88, minor variation exists):

- (28) a. Jan vestigt zich te Amsterdam. (Broekhuis, 2013:88)  
 Jan settles REFL in Amsterdam  
 ‘Jan is settling in Amsterdam.’  
 b. \*Jan vestigt zich te Frankrijk/deze stad.  
 Jan settles REFL in France this city

The suffix  $\pi$  was productive in Biblical Hebrew as the directional/locative case marker (Hoftijzer, 1981; Waltke and O’Connor, 1990; Arnold and Choi, 2003; Medill, 2013), but in Modern Hebrew this suffix is purely allative and limited to a handful of location-denoting nouns and place names (e.g., *arc.a* ‘to the home country’, i.e., ‘to Israel’, *yemin.a* ‘to the right’, *kadim.a* ‘forward’, etc., Zewi, 2013):<sup>8</sup>

(Zewi, 2013)

- (29) *ka-aseret alafim iš higu le-latrun be-darkam yerušalaym.a*  
 like-ten thousands person arrived to-Latrun in-way.POSS<sub>3PL</sub> Jerusalem.DIR  
 ‘About ten thousand people arrived at Latrun on their way to Jerusalem.’

It turns out that locative cases frequently have restricted distribution and that this restriction follows only four cross-linguistically attested patterns:<sup>9</sup>

- (i) locative case restricted to L-nouns (Latin; Russian and English L-pronominals as discussed above; the Modern Hebrew directional  $\pi$ ; Maltese: Borg, 1987-1988; Itzaj Maya: Hofling, 2000:219)<sup>10</sup>  
 (ii) the reverse of the above: locative case-marking optional or absent for L-nouns (Biblical Hebrew: Waltke and O’Connor, 1990; Gurr-goni: Green, 1995:35; Tswana: Creissels, 2009; Western Armenian: Guekguezian, 2011; Yimas: Foley, 1991:165, 170-171)

<sup>8</sup> Examples like (29) show that restricted locatives can be used NP-internally; same evidence can be drawn from Russian (*doroga domoj* ‘a road home’).

<sup>9</sup> It is not the case that locative case is always restricted: in Turkish for instance, no restrictions are reported. We also set aside the fact that in a number of languages animate nouns cannot combine with locative cases (see, e.g., Anderson, 2003:355 on Basque, more examples are provided by Haspelmath, 2018).

<sup>10</sup> French would also appear to fit into this category with its locative clitics in addition to the usual repertoire of L-demonstratives and L-pronominals, but see also Matushansky (2015) for the hypothesis that proper names of countries in French are L-nouns.

- (iii) special locative case forms for L-nouns (Hungarian (a handful of toponyms and a few common nouns): Rounds, 2001:118; Agul, Archi, Avar and Lezgian: Daniel and Ganenkov, 2009; Basque: de Rijk, 2007:57)
- (iv) the case paradigm for L-nouns restricted to locative cases and genitive (Bagvalal: Daniel and Ganenkov, 2009; Diyari: Austin, 2013:53)

The hypothesis that L-nouns can denote locations (and paths) can explain these patterns. For the Latin case in (i), I proposed that only L-nouns denote loci. For the reverse scenario in (ii), I assume the same, but hypothesize that the locative case-marking in these languages is not the reflection of the syntactic environment (i.e., it is not assigned by  $p^0$ ) but either instantiates EIGEN itself or indicates the presence of a null preposition that instantiates EIGEN and assigns it. In other words, L-nouns are locus-denoting in both in (i) and (ii), it is the locative marking that has different functions in the two types of languages. The third type of languages (iii) represent a mix of the properties of the preceding two: only L-nouns denote loci, as in both (i) and (ii), and have it marked with special morphology due to  $p^0$ , as in (i). For all others the default locative case is the same as in (ii): it is assigned by a null preposition that instantiates EIGEN.

Finally, to understand what is going on in the languages in (iv), it is necessary to recall that locus-denoting nouns cannot be used in argument positions and the EIGEN<sup>+</sup> type-shift was required to pass from a locus to the corresponding object. The crucial property of languages in the class (iv) is then the unavailability of EIGEN<sup>+</sup>: either as a type-shifting mechanism or as a syntactic node. To obtain the corresponding object a sortal is required, combining with the locus-denoting toponym in the genitive case, as in Bagvalal:<sup>11</sup>

(Daniel and Ganenkov, 2009)

- (30) di-č'            k'wan-ł            han            raq'wa-łi            ek'wa.  
 I.OBL-CONT Kvanada-GEN village.NOM heart-INTER COP  
 'I remember Kvanada. (*lit.* The village of Kvanada is in my heart)'

The structure exemplified in (30) seems to be the historical source of the appositive genitive (*the city of New York*).

To summarize, it is the basic lexical dichotomy between locus-denoting and object-denoting nouns that is responsible for the patterns in (i) through (iv). In function of what locative cases stand for in a given language (a marker of locus denotation vs. the functional head encoding EIGEN) and whether the shift from a locus denotation to the corresponding object is available the four patterns above are obtained. Importantly, it is the formal domain distinction as opposed to the simple intuition that there are places and there are things (Mackenzie, 1992; Haspelmath, 2018) that makes possible for me to explain the distribution of L-nouns.

<sup>11</sup> Daniel (1999) indicates that this constraint is not in force for all and any place names: e.g., *mosku* 'Moscow' in the unmarked citation form can be used both as nominative or as essive (*in Moscow*), and individual variation is rife.

## 6. Conclusion and further questions

An examination of the Latin locative case and the corresponding directional uses of ablative and accusative argues for adopting locus denotations for some proper names and common nouns (L-nouns). As the dedicated spatial domain is required at any rate to account for the meaning of locative prepositions, it is unsurprising that there should be nominals that denote in that domain.

To explain how bare directional L-nouns work, I have appealed to the independently needed hypothesis that directional PPs contain a PathP layer on top of a locative (PlaceP) denotation. As a result of this assumption, the bare directional accusative and bare ablative NPs can be treated as a PathP on top of an L-noun and the cases can be argued to be assigned by the appropriate Path<sup>0</sup>.

The need for a type-shifting p<sup>0</sup> layer on top of locative PlacePs that would enable a locative PlaceP to function as a VP- or NP-modifier can then explain locative case-marking on bare L-nouns: the same p<sup>0</sup> is needed to pass from a spatial denotation to a set denotation enabling further composition. In addition to this functional head with the semantics of EIGEN<sup>-</sup>, another type-shifter, EIGEN<sup>+</sup>, is necessary to account for the fact that in most languages loci naturally have entity-correlates.

As a result of these independently motivated assumptions, we can account for a set of cross-linguistic generalizations about restrictions on the use of locative case. More specifically, I proposed the following three points of variation:

- whether a language has locus-denoting nouns at all
- whether each given locative case (form) indicates the presence of more structure (when corresponding to a hidden preposition) or less (when corresponding to the default case-marking on lexical loci resulting from the presence of p<sup>0</sup>)
- whether coercion to object-denotation is available

Among potential extensions of this line of research I consider the hypothesis (Matushansky, 2016) that French core locative prepositions *à* ‘at/to’ and *de* ‘from’ should be treated as locative case markers on L-nouns, which would make it possible to account for the famous *en/au* alternation (Cornulier, 1972; Zwicky, 1987; Miller, Pullum, and Zwicky, 1997) in the terms of case, explaining the sensitivity of this alternation to locative semantics, gender and phonology. Another case of interest is temporal bare nominals (e.g., *Monday*, *next week*; cf. also Bresnan and Grimshaw, 1978; McCawley, 1988), which not only fall into the same lexical-semantic class, but also provide some insights into how loci should be encoded. Once this is done, the question arises whether other instances of nominal locatives (e.g., unmarked definite locatives in Modern Greek (Ioannidou and Dikken, 2009; Terzi, 2010; Gehrke and Lekakou, 2012), Rapa Nui (Kieviet, 2017), French (Stolz, Lestrade, and Stolz, 2014) or Western Armenian) can be explained along the same lines and what the connection might be to the fact that so many weak definites (e.g., *to school*, *downhill*, see Stvan, 1998, 2007; Carlson and Sussman, 2005; Aguilar-Guevara and Zwarts, 2013, 2010; Aguilar-Guevara, 2014; etc.) are locative (for a functionalist explanation in the terms of differential marking see Haspelmath, 2018).

Finally, the proposed treatment of directional bare L-nouns and multiple case-assignment and multiple case-marking in the directional/locative case alternations supports a decompositional

Jakobsonian approach to syntactic and morphological case in the terms of complexes of case features assigned by the functional heads in the immediate environment (Matushansky, 2008, 2010, 2012).

## References

- Aguilar-Guevara, A. (2014). *Weak Definites: Semantics, Lexicon and Pragmatics*. Utrecht University, LOT.
- Aguilar-Guevara, A., and J. Zwarts (2010). Weak definites and reference to kinds. In Nan Li and David Lutz (Eds.), *Proceedings of Semantics and Linguistic Theory (SALT) 20*, 179–196.
- Aguilar-Guevara, A., and J. Zwarts (2013). Weak definites refer to kinds. *Recherches linguistiques de Vincennes* 42:33-60.
- Allen, J.H., J.B. Greenough, G.L. Kittredge, A.A. Howard, and B.L. D'Ooge (1903). *Allen and Greenough's New Latin grammar for schools and colleges, founded on comparative grammar*. London: Ginn & Company.
- Anderson, J.M (2003). On the structure of names. *Folia Linguistica* 37 (3-4):347–398.
- Arnold, B.T., and J.H. Choi (2003). *A Guide to Biblical Hebrew Syntax*. Cambridge University Press.
- Arsenijević, B., and B. Gehrke (2008). Accusative case in PPs. IATL 24, The Hebrew University of Jerusalem, October 26-27, 2008.
- Austin, P.K. (2013). *A Grammar on Diyari, South Australia*. London: SOAS, University of London.
- Barrie, M., and I.W.H. Yoo (2017). Bare nominal adjuncts. *Linguistic Inquiry* 48 (3):499–512. doi: 10.1162/ling\_a\_00251.
- Bateman, J.A., J. Hois, R. Ross, and T. Tenbrink (2010). A linguistic ontology of space for natural language processing. *Artificial Intelligence* 174 (14):1027–1071. doi: <http://dx.doi.org/10.1016/j.artint.2010.05.008>.
- Béjar, S., and D. Massam (1999). Multiple case checking. *Syntax* 2 (2):65-79. doi: 10.1111/1467-9612.00015.
- Bierwisch, M. (1988). On the grammar of local prepositions. In *Syntax, Semantik und Lexikon*, edited by Manfred Bierwisch, Wolfgang Motsch and Ilse Zimmermann, 1-65. Berlin: Akademie.
- Borg, A. (1987-1988). To be or not to be a copula in Maltese. *Journal of Maltese Studies* 17-18:54–71.
- Brattico, P. (2011). Case assignment, case concord, and the quantificational case construction. *Lingua* 121 (6):1042–1066. doi: <http://dx.doi.org/10.1016/j.lingua.2011.01.004>.
- Bresnan, J., and J. Grimshaw (1978). The syntax of free relatives in English. *Linguistic Inquiry* 9:331–391.
- Broekhuis, H. (2013). *Syntax of Dutch: Adpositions and Adpositional Phrases*. Amsterdam: Amsterdam University Press.
- Burton-Roberts, N. (1991). Prepositions, adverbs, and adverbials. In Ingrid Tieken, Boon van Ostade and John Frankis (Eds.), *Language: Usage and Description*, pp. 159-172. Amsterdam: Rodopi.
- Caha, P. (2007). Case Movement in PPs. In Monika Bašić, Marina Pantcheva, Minjeong Son and Peter Svenonius (Eds.). *Nordlyd: Tromsø Working Papers on Language & Linguistics*, pp. 239–299. Tromø: CASTL.

- Caha, P. (2010). The German locative-directional alternation. *The Journal of Comparative Germanic Linguistics* 13 (3):179-223. doi: 10.1007/s10828-010-9039-3.
- Calabrese, A. (2008). On absolute and contextual syncretism. Remarks on the structure of paradigms and on how to derive it. In Andrew Nevins and Asaf Bachrach (Eds.), *The Bases of Inflectional Identity*, pp. 156–205. Oxford: Oxford University Press.
- Camacho, J. (1996). Comitative coordination in Spanish. In Claudia Parodi, Carlos Quicoli, Mario Saltarelli and Maria Luisa Zubizarreta (Eds.), *Aspects of Romance Linguistics: Selected Papers from the Linguistic Symposium on Romance Languages XXIV March 10-13, 1994*, pp. 107–122. Washington, D.C.: Georgetown University Press.
- Carlson, G.N., and R. Sussman. (2005). Seemingly indefinite definites. In Stephan Kepser and Marga Reis (Eds.), *Linguistic Evidence: Empirical, Theoretical, and Computational Perspectives*, pp. 26–30. Berlin: Mouton de Gruyter.
- Collins, C. 2008. Home sweet home. In Lisa Levinson and Oana Savescu-Ciucivara (Eds.), *NYU Working Papers in Linguistics*, 1–34. New York: New York University.
- Cornulier, B.d. (1972). A peeking rule in French. *Linguistic Inquiry* 3 (2):226-227.
- Creary, L.G., J.M. Gawron, and J. Nerbonne. (1989). Towards a theory of locative reference. In *Proceedings of the 27th Annual Meeting of the Association for Computational Linguistics*, 42–50. Association for Computational Linguistics.
- Creissels, D. (2009). Spatial cases. In Andrej Malchukov and Andrew Spencer (Eds.), *The Oxford Handbook of Case*, pp. 609–625. Oxford: Oxford University Press.
- Daniel, M. (1999). Bagvalal place names: A case study in part-of-speech typology. RSUH, Moscow.
- Daniel, M., and D. Ganenkov. (2009). Case marking in Daghestanian: limits of elaboration. In Andrej Malchukov and Andrew Spencer (Eds.), *The Oxford Handbook of Case*, pp. 668–685. Oxford: Oxford University Press.
- den Dikken, M. (2003). On the syntax of locative and directional adpositional phrases. Ms. CUNY.
- den Dikken, M. (2010). On the functional structure of locative and directional PPs. In Guglielmo Cinque and Luigi Rizzi (Eds.), *The Cartography of Syntactic Structure*, pp. 74–126. New York: Oxford University Press.
- Donaldson, J.W. (1860). *A Complete Latin Grammar for the Use of Students*. Cambridge: Deighton, Bell, & Co.
- Emonds, J. 1976. *A transformational approach to English syntax: Root, structure-preserving, and local transformations*. New York: Academic Press.
- Emonds, J. (1987). Parts of speech in Generative Grammar. *Linguistic Analysis* 17 (1):3–42.
- Ernout, A., and F. Thomas. (1964). *Syntaxe Latine*. Paris: Klincksieck.
- Foley, W.A. (1991). *The Yimas Language of Papua New Guinea*. Stanford, California: Stanford University Press.
- Gehrke, B., and M. Lekakou (2012). How to miss your P. *33rd Annual Meeting of the Department of Linguistics*, Thessaloniki, April 26-27, 2012.
- Gildersleeve, B.L., and G.B. Lodge. (1876). *Latin grammar*. London: Macmillan Education Ltd.
- Green, R. (1995). *A Grammar of Gurr-goni (North Central Arnhem Land)*. Australian National University.
- Guekguezian, P.A. (2011). Bare locatives in Western Armenian. Ms. USC.
- Haspelmath, M. (2018). Differential place marking and differential object marking. Ms. Leipzig University.
- Hofling, C.A. (2000). *Itzaj Maya Grammar*. Salt Lake City: University of Utah Press.

- Hoftijzer, J. (1981). *A Search for Method: a Study in the Syntactic Use of the H-Locale in Classical Hebrew*. Leiden: Brill.
- Ioannidou, A., and M.d. Dikken. (2009). P-drop, D-drop, D-spread. In C. Halpert, J. Hartman and D. Hill (Eds.), *Proceedings of the 2007 Workshop in Greek Syntax and Semantics*, pp. 393–408. Cambridge, Massachusetts: MIT Press.
- Jackendoff, R. (1983). *Semantics and Cognition*. Cambridge, Mass: MIT Press.
- Katz, J.J., and P.M. Postal. (1964). *An Integrated Theory of Linguistic Descriptions*. Cambridge, Massachusetts: MIT Press.
- Kayne, R.S. (2005). Here and there. In *Movement and Silence*, pp. 65–84. Oxford: Oxford University Press.
- Kieviet, P. (2017). *A Grammar of Rapa Nui, Studies in Diversity Linguistics*. Berlin: Language Science Press.
- Koopman, H. (2000). Prepositions, postpositions, circumpositions, and particles. In H. Koopman (Ed.), *The Syntax of Specifiers and Heads*, pp. 204–260. London: Routledge.
- Kracht, M. (2002). On the semantics of locatives. *Linguistics and Philosophy* 25:157-232.
- Kratzer, A. (1996). Severing the external argument from its verb. In J. Rooryck and L. Zaring (Eds.), *Phrase Structure and the Lexicon*, pp. 109–137. Dordrecht: Kluwer.
- Larson, R.K. (1985). Bare-NP adverbs. *Linguistic Inquiry* 16 (4):595–621.
- Larson, R.K. (1987). "Missing prepositions" and the analysis of English free relative clauses. *Linguistic Inquiry* 18 (2):239–266.
- Lestrade, S. (2006). Adpositional case. Radboud University Nijmegen.
- Lestrade, S. (2010). Finnish case alternating adpositions: a corpus study. *Linguistics* 48 (3):603–628. doi: 10.1515/ling.2010.019.
- Mackenzie, J.L. (1992). "Places and things." In M. Fortescue, P. Harder and L. Kristoffersen (Eds.), *Layered Structure and Reference in a Functional Perspective: Papers from the Functional Grammar Conference, Copenhagen, 1990*, pp. 253–276. Amsterdam: John Benjamins.
- Matushansky, O. (2008). A case study of predication. In F. Marušič and R. Žaucer (Eds.), *Studies in Formal Slavic Linguistics. Contributions from Formal Description of Slavic Languages 6.5*, pp. 213–239. Frankfurt am Main: Peter Lang.
- Matushansky, O. (2010). Russian predicate case, *encore*. In G. Zybatow, P. Dudchuk, S. Minor and E. Pshehotskaya (Eds.), *Proceedings of FDSL 7.5*, pp. 117–135. Frankfurt: Peter Lang.
- Matushansky, O. (2012). On the internal structure of case in Finno-Ugric small clauses. *Finno-Ugric Languages and Linguistics* 1 (1-2):3–43.
- Matushansky, O. (2015). Locative case in French? *Séminaire de l'équipe LaGraM (Langues, Grammaire, Modélisation)*, SFL, Paris, June 8, 2015.
- Matushansky, O. (2016). The definite article in proper places. *Workshop on the semantic contribution of Det and Num. (In)definiteness, genericity and referentiality*, UAB, May 27-28, 2016.
- Matushansky, O., and J. Zwarts. (2017). Making space for measures. In A. Lamont and K. Tetzlo (Eds.), *NELS 47: Proceedings of the Forty-Seventh Annual Meeting of the North East Linguistic Society*, pp. 261–274. Amherst, Massachusetts: GLSA (Graduate Linguistics Student Association).
- McCawley, J.D. (1988). Adverbial NPs: Bare or clad in see-through garb? *Language* 64:583–590.
- Medill, K.M. (2013). Directional strategies in Biblical Hebrew: influences on the use of locative *hey*. Indiana University.



- Meier-Brügger, M., M. Fritz, and M. Mayrhofer. (2003). *Indo-European Linguistics*. Berlin: De Gruyter.
- Mel'čuk, I. (1994). *Cours de morphologie générale (théorique et descriptive)*. Vol. 2. Montréal: Presses Universitaires de Montréal.
- Merchant, J. (2006). Polyvalent case, geometric hierarchies, and split ergativity. In J. Bunting, S. Desai, R. Peachey, C. Straughn and Z. Tomkova (Eds.), *Proceedings of the 42nd annual meeting of the Chicago Linguistics Society*. Chicago, Illinois: Chicago Linguistics Society.
- Miller, P.H., G.K. Pullum, and A.M. Zwicky. (1997). The principle of phonology-free syntax: four apparent counterexamples in French. *Journal of Linguistics* 33 (1):67–90.
- Pesetsky, D. (2013). *Russian Case Morphology and the Syntactic Categories*. Cambridge, Massachusetts: MIT Press.
- Radkevich, N. (2010). On Location: The Structure of Case and Adpositions. Ms. University of Connecticut.
- Richards, N. (2007). Lardil “case stacking” and the structural/inherent case distinction. MIT.
- de Rijk, R.P.G. (2007). *Standard Basque: A Progressive Grammar*. Cambridge, Massachusetts: MIT Press.
- Rounds, C. (2001). *Hungarian. An Essential Grammar*. London: Routledge.
- Stolz, T., S. Lestrade, and C. Stolz. (2014). *The Crosslinguistics of Zero-Marking of Spatial Relations*. Berlin: De Gruyter.
- Stvan, L.S. (1998). The Semantics and Pragmatics of Bare Singular Noun Phrases. Ms. Northwestern University.
- Stvan, L.S. (2007). The functional range of bare singular count nouns in English. In E. Stark, E. Leiss and W. Abraham (Eds.), *Denominal Determination: Typology, Context Constraints, and Historical Emergence*, pp. 171–187. Amsterdam: John Benjamins.
- Svenonius, P. (2003). Limits on P: *Filling in holes vs. falling in holes*. In A. Dahl, K. Bentzen and P. Svenonius (Eds.), *Proceedings of the 19th Scandinavian Conference of Linguistics*, pp. 431–445. Tromsø: University of Tromsø.
- Terzi, A. (2010). On null spatial Ps and their arguments. *Catalan Journal of Linguistics* 9 167–187.
- Tungseth, M. (2003). Two structural positions for locative and directional PPs in Norwegian motion constructions. In A. Dahl, K. Bentzen and P. Svenonius (Eds.), *Proceedings of the 19th Scandinavian Conference of Linguistics*, pp. 473–487. Tromsø: University of Tromsø.
- Waltke, B.K., and M.P. O'Connor. (1990). *An Introduction to Biblical Hebrew Syntax*. Winona Lake, Indiana: Eisenbrauns.
- Woodcock, E.C. (1959). *A New Latin syntax*. Cambridge: Harvard University Press.
- Wunderlich, D. (1991). How do prepositional phrases fit into compositional syntax and semantics? *Linguistics* 29 (4):591–622. doi: 10.1515/ling.1991.29.4.591.
- Zewi, T. (2013). Directive *he*. In G. Khan (Eds.), *Encyclopedia of Hebrew Language and Linguistics*. Leiden: Brill.
- Zwarts, J. (2005). The case of prepositions: Government and compositionality in German PPs. *Israel Association for Theoretical Linguistics* 21, The Technion, Haifa, June 22–23, 2005.
- Zwarts, J. (2006). Case marking direction: The accusative in German PPs. *Chicago Linguistics Society* 42, Chicago, April 6–8, 2006.
- Zwarts, J. (2010). A hierarchy of locations: evidence from the encoding of direction in adpositions and cases. *Linguistics* 48 (5):983–1009.

- 
- Zwarts, J., and Y. Winter. (2000). Vector space semantics: a model-theoretic analysis of locative prepositions. *Journal of Logic, Language and Information* 9:169–211.
- Zwicky, A.M. (1987). French prepositions: no peeking. *Phonology Yearbook* 4:211–227.