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From syntagmatic to paradigmatic spatial zeroes: the loss of the preposition se in inner Asia Minor Greek

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From syntagmatic to paradigmatic spatial zeroes: The loss of the preposition *se* in inner Asia Minor Greek

Abstract: We trace the diachronic development of the preposition *se* in inner Asia Minor Greek from its use to mark a range of spatial functions to its ultimate loss and replacement by zero. We propose that, before spreading to all syntactic and semantic contexts, zero-marking was contextually-dependent on the presence/absence of a prenominal genitive modifying the head noun of Ground-encoding NPs and on the presence/absence of Region-encoding postpositions. We attribute these developments to an informational load relief strategy aimed at producing more economical utterances, as well as to language contact with Turkish, which favored structural convergence on the adpositional level between the two languages.

Keywords: Cappadocian, Asia Minor Greek, prepositions, spatial zeroes, language-internal continuity, contact-induced change

1 Introduction

Languages are known to mark spatial relations using both overt and non-overt elements. In Turkish, for example, location at a given Ground is encoded with the locative suffix *-DA*, motion towards a Ground with the dative suffix *-(y)A*, and motion from a Ground with the ablative suffix *-DAn*. In Egyptian Arabic, in contrast, only location at and motion from a Ground are overtly marked using the prepositions *fi* and *min*, respectively, as there is no overt element to mark motion towards a Ground. Ground-encoding NPs in this language appear bare, i. e. preposition-less, so that this specific spatial relation is zero-encoded (Woidich 2006).

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Work by Lestrade (2010, 2013) and Stolz et al. (2014) has recently drawn attention to the fact that zero marking of spatial relations is widely attested crosslinguistically. Stolz et al. identify two types of spatial zeroes, syntagmatic and paradigmatic, which they define thus:

> [a] syntagmatic zero contrast[s] with an overt alternative expression with virtually the same meaning. It is the result of a real-time pragmatic choice to leave out the overt expression of some communicated spatial relation [...]. A paradigmatic zero, on the other hand, is dependent on the paradigmatic contrast with other, overt markers. It is an empty but meaningful slot in a paradigm of spatial markers (Stolz et al. 2014: 38).

According to this definition, the zero used in Egyptian Arabic to mark motion towards a Ground is an example of a paradigmatic zero. Maltese provides an example of a syntagmatic zero. The Maltese prepositional inventory includes the prepositions *fi*, which is used to mark location at and motion towards a Ground, and *minn*, which marks motion from a Ground. However, while *minn* obligatorily accompanies every NP whose referent expresses the source of a motion, *fi* can be optionally omitted from NPs expressing location at or motion towards a Ground. Based on the analysis of a database consisting of 116 languages, Stolz et al. (2014) argue that, in such cases, the distribution of overt and zero markers is conditioned by a variety of factors pertaining to the properties of the different expressions that make up motion event encoding utterances, most notably the type of spatial relation encoded (location at, motion towards, motion from), the semantics of the Ground and the syntax of motion verbs. In other words, the optional omission of overt spatial markers, which gives rise to syntagmatic zeroes, is contextually conditioned.

Lestrade (2010, 2013) and Stolz et al. (2014) attribute the (syntagmatic or paradigmatic) omission of spatial markers to economy and predictability. They argue that the use of zero markers is driven by the speakers' preference to produce economical utterances, while at the same time ensuring communicative success. In utterances in which the spatial relation between a localized entity and a location is predictable – in that it can be recovered from the linguistic context, from world knowledge or a combination of the two – the overt marker that would otherwise be used to express this relation may seem redundant and be omitted by speakers in an attempt to save the effort required for its pronunciation. In the case of spatial relations that are not intra- or extra-linguistically predictable, and for which recoverability is for that reason impossible, overt markers are retained as their omission would lead to communicative failure.

Stolz et al. (2014: 45) hypothesize that paradigmatic zeroes develop from syntagmatic zeroes. If a language develops zero marking for a given spatial relation at a point in time, this will most probably first affect a small set of

structural, semantic and/or pragmatic contexts. At later stages, zero marking will extend to increasingly more contexts until it becomes the only means available for the encoding of the spatial relation at hand. From this perspective, the diachronic emergence of paradigmatic zeroes in a language that did not originally display them can be reasonably posited to have been preceded by a stage characterized by the presence of syntagmatic zeroes. Stolz et al.'s investigation, however, is synchronic, so it does not include any cases exemplifying this diachronic trajectory.

In this article, we examine exactly such a case-in-point; namely, the development of a paradigmatic spatial zero from a syntagmatic spatial zero in the Modern Greek dialects of inner Asia Minor. By inner Asia Minor Greek, we refer to the dialect group comprising three related dialects that were originally spoken by Greek Orthodox speaker communities in the Cappadocian plateau, in what today is south-eastern Turkey: (a) Cappadocian, a dialect cluster formed by the varieties of twenty villages scattered in the rural area between the towns of Nevşehir, Kayseri and Niğde; (b) Pharasiot, the dialect of Phárasa (present-day Çamlıca) and another five surrounding villages found between the Ala Dağ and Antitaurus mountains; and (c) Silliot, the dialect of Silli (present-day Sille), a village near the town of Konya. All three were spoken in their respective native locations until the early 1920s, when Greece and Turkey exchanged populations in accordance with the Treaty of Lausanne. Today, only a few Cappadocian and Pharasiot varieties survive in Greece, mainly in the north of the country, but all are severely endangered.

Compared to other dialects of Modern Greek, the inner Asia Minor Greek group exhibits an impressive number of grammatical innovations, which came about as a result of the centuries-long isolation and intense language contact with Turkish, the primary language spoken in the region in which it developed (see Janse 2002; Karatsareas 2011a, 2013 for an overview). In some cases, the innovations are so pervasive that one could argue that Cappadocian, Pharasiot and, to a lesser extent, Silliot belong to a completely different typological group from the one in which all other Modern Greek dialects are found and, crucially, to one that shares many features with Turkish. Suffice it to mention here the demise of grammatical gender distinctions, the development of differential case marking and the prevalence of head-final order for the constituents of NPs – a set of Turkish-like traits that Cappadocian and Pharasiot display.

We specifically focus on the diachronic development of the preposition *se*, a polysemous marker that is generally used in Greek to encode a wide range of spatial functions, among them location at and motion towards a Ground. We show how, in the inner Asia Minor Greek dialects, *se* initially came to be used in variation with a spatial zero of the syntagmatic type. At a later stage, the use of zero superseded that

of *se*, resulting in a paradigmatic zero and the loss of *se* altogether from the prepositional inventory of the variety of Cappadocian that was spoken in the village of Ulaghátsh. We discuss the language-internal factors and mechanisms that brought about these changes, and also highlight the role that language contact with Turkish – and also possibly Armenian – played in the process.

Our investigation is therefore diachronic, though it is faced with one important methodological problem, namely the lack of texts or any other type of documentation produced in any of the inner Asia Minor Greek dialects before the end of the nineteenth century, at which time many of the innovations defining the dialect group had already been completed (see Manolessou 2015). A solution to this is presented by the fact that different dialects within the group are found at different developmental stages with respect to specific innovations – including, crucially, the development of *se*. Some of the dialects are more conservative, while others are more innovative. This allows us to treat the synchronic stages in which the different dialects are found as different historical stages in the course of change, and on that basis to subsequently reconstruct the causes, factors and processes that led to grammatical innovation.

The advantages of the diatopy-as-diachrony method for the investigation of change in Asia Minor Greek were first outlined by Dawkins (1940: 12), and the method was later used by Karatsareas (2009, 2011a, 2011b, 2013, 2014) to provide diachronic accounts of such developments as the resemanticization and loss of grammatical gender distinctions, the development of neuter heteroclisis and agglutinative-like inflection in nouns, and the emergence of phonologically empty forms of the definite article.[1] In some of these cases, as for example in the resemanticisation of the gender system in Pontic and Crimeoazovian Greek (Karatsareas 2009, 2011a, 2014), there is independent evidence to suggest that the reconstructed stages are closely related in such a way that it can safely be assumed that one historically preceded the other. In other cases, though, as in the development of heteroclisis (Karatsareas 2011a, 2011b), this is not possible. Rather, what the individual reconstructed stages allow us to do is shed light on the linguistic factors that were involved in change and helped to promote the innovation evident in the most advanced varieties. They, however, cannot be safely taken to represent successive synchronies. The loss of *se*, which we deal with here, belongs to this latter type.

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[1] This method has been used in the diachronic study of dialectal innovations at least since Bloomfield (1933), who applied it to the distribution of the vowels occurring in the forms corresponding to 'mouse' and 'house' in the Dutch dialects (Bloomfield 1933: 328; see the chapter entitled Dialect geography in Bloomfield, 1933: 321–345; also Andersen 1988, König et al. 2015 [1978]). For more recent applications of the method, see Weiß (2012) and Cavirani (2015).

The article is structured as follows: Section 2 lays out the theoretical premises on which our study is based, in reference to the semantic and syntactic structure of motion event encoding utterances. In Section 3, we describe the semantics and syntax of *se* in the inner Asia Minor Greek varieties that preserve it in their prepositional paradigm, thus illustrating the pre-innovation stage (Stage I dialects). In Section 4, we turn to Phloïtá Cappadocian and Silliot, the two dialects in which the zero marker first makes its appearance (Stage II dialects). Applying the diatopy-as-diachrony method, we analyse the distribution of *se* and zero and formulate a proposal as to the syntactic and semantic contexts that favored the optional omission of *se,* and offer a functional explanation drawing on Lestrade's (2010, 2013) and Stolz et al.'s (2014) recent proposals. In Section 5, we examine Ulaghátsh Cappadocian, which has lost *se* altogether, focusing on the ramifications of this loss for the typological profile of this variety (Stage III dialect). Finally, in Section 6, we summarize our main findings and point towards possible avenues for future research.

2 Theoretical premises

The domain of localization typically contains two main participants: (a) an entity perceived as being localized, and (b) the place with respect to which the localized entity is located. Following Talmy (1985, 2000), we use the term Figure for the former object, and the term Ground for the latter object (cf. Langacker 2008: 70). The spatial relation between these two components can be either static or dynamic. In the former case, the relation is described by the term Place. In the latter case, the Figure can move either toward the Ground (allative spatial relation: GOAL or TO path), away from the Ground (ablative spatial relation: SOURCE or FROM path) or through the Ground (perlative spatial relation: PATH or VIA path; see Jackendoff 1983, 1990; also Fillmore 1971). Examples (1) and (2) describe a static and a dynamic relation, respectively.[2]

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2 Greek data in the article are given in broad phonetic transcription with the acute accent used to indicate stress. Turkish data are given in standard Turkish orthography. All data are glossed in accordance with the Leipzig Glossing Rules (see the abbreviations list at the end of the article). Note that *se* is conventionally glossed LOC throughout the article (and not ALL or DAT, depending on the example) following standard practice for highly grammaticalized prepositions of this type. Note also that most Cappadocian varieties have lost the tripartite gender distinction into masculine, feminine and neuter nominals that generally characterizes Greek. Gender values are therefore only given in the glossing of examples drawn from the Cappadocian varieties that preserve the distinction – albeit residually – as well as from other Modern Greek dialects, in which it shows no signs of decline.

(1) Phloïtá Cappadocian   [Dawkins 1916: 410]
     cimíθane   ***so***   ***skóʌo***
     sleep:PST.3PL LOC.DEF.SG.ACC school:SG.ACC
     'They slept at the school.'

(2) Delmesó Cappadocian   [Dawkins 1916: 312]
     írten   ***ecí***   ***son***   ***tópo***
     come:PST.3SG DEM.DIST LOC.DEF.M.SG.ACC place(M):SG.ACC
     'He came to that place.'

In these examples, the event is categorized as either static or dynamic on the basis of the type of spatial verbs used (*cimíθane* vs. *írten*). The prepositional element *se*, found as part of the amalgam *so* (see below), does not distinguish between motion and non-motion, thus adhering to a pattern that has characterized Greek since the Post-Classical period (Skopeteas 2008).

Another aspect that plays an important role in the act of locating an entity in space is the spatial sector in which the Figure may be found. We will use the term (spatial) Region for this, though see Talmy (2000) and Stolz et al. (2014) for alternatives. Lehmann defines Region as "an aspect of the topological structure associated with a physical object by virtue of its being three-dimensional and occupying a position in three-dimensional space" (Lehmann 2012: 484). This may refer to such notions as the front space, the top space, the inner space or the vicinity space.

With these considerations in mind, consider the following example illustrating all of the above basic components of a spatial situation. Note that in cases such as (3), the Figure is encoded by the spatial verb by means of the personal inflectional marker. Here, this is done by the first person singular suffix *-a*, which shows that the speaker is the Figure at hand.

(3) Delmesó Cappadocian   [Dawkins 1916: 308]
     anéva   *so*   *meiván*   *apáno*
     ascend:PST.1SG LOC.DEF.N.SG.ACC tree(N):SG.ACC SUP
     Figure   **Dynamic (Goal)** **Ground**   **Region:** SUPERIOR
     Spatial V/
     Dynamic (Goal)
     Region: SUPERIOR
     'I climbed up the fruit tree.'

Observe that the relation between form and meaning is not one-to-one, but one-to-many: the Goal relation is expressed by both the spatial verb *anéva* and the

preposition *se*, while the information relating to Region is encoded by both the verb and the spatial postposition *apáno*. This type of asymmetry has been described by Sinha and Kuteva (1995) using the term distribution. In their terms, spatial relational meaning is distributed over various elements of the motion event encoding utterance, both closed-class and open-class items. The opposite situation, whereby one formal element encodes more than one meaning, has been termed conflation by Talmy (1972).

Against this backdrop, we may now turn to our investigation of the diachronic development of *se* in the inner Asia Minor Greek dialects.

3 Stage I dialects: the pre-innovation stage

This group includes all Cappadocian varieties except the ones that were spoken in Phloïtá, Ulaghátsh (for which see below) and Pharasiot. These dialects continue the state of affairs of Late Medieval Greek as far as the semantics and syntax of *se* are concerned (Bortone 2010; Karatsareas 2013), and can therefore be considered to represent the pre-innovation stage in its diachronic loss. At this stage, *se* is a full member of the prepositional paradigm, which additionally includes six other prepositions as shown in Table 1.

Table 1: The prepositional paradigm of Stage I varieties.

Preposition	Attested forms	Main meaning(s)	Gloss
se	*se, s, z*	ALLATIVE, LOCATIVE	'to, at'
apó	*apó, apú, ap, ab, apé, pe, as, az, po*	ABLATIVE	'from'
ja	*ja*	PURPOSIVE	'for'
me(tá)	*met, me, mi, m, mo, móde*	COMITATIVE, INSTRUMENTIVE	'with'
xorís	*xorís, xóris, xors*	EXCLUSIVE	'without'
ðéxus	*ðéxus*	EXCLUSIVE	'without'
os	*os, us, oz, sos*	TERMINATIVE	'up to, until'
tʃax	*tʃax, tʃáus*	TERMINATIVE	'up to, until'

Having undergone a long series of developments in previous stages in the history of Greek (see Georgakopoulos 2011, 2014 and references therein for details), *se* is found here as a highly grammaticalized, polysemous element that encodes a wide range of spatial functions expressing both dynamic (Goal) and static (Place) relations. Like all elements in Table 1, it is always preposed to its complements, which are uniformly marked by the accusative, and is attested in two types of adpositional phrase: (a) Prepositional Phrases (PrepPs) of the

Table 2: The postpositions of inner Asia Minor Greek.

Preposition	Attested forms	Spatial region	Gloss
(a/e)páno	apáno, abáno, apánu, abánu, apán, epáno, pánu, bánu	SUPERIOR	'on top of, above'
(apo)káto	apokáto, apkáto, aptágo, pokáto, pokátu, káto, kádo, kátu, kat	INFERIOR	'under'
(e/o)mbrós	embró, embrón, ombró, bro, bron, mbro, mbron, ambrós	ANTERIOR	'in front of'
(o)píso	opíso, opísu, obísu, píso, písu, bísu, apopíso, apapíso, apísu, popísu	POSTERIOR	'behind'
apéso	apéso, apés, béso, pésu	INTERIOR	'inside'
mésa	mésa, emésa, méʃi, meʃ	INTERIOR	'inside'
ókso	ókso, óksu	EXTERIOR	'outside'
kondá	kondá, kundá	PROXIMATE	'near'
anámesa	anámsa	MEDIAL	'between'
péra	péra	ULTERIOR	'beyond'
dáma	dáma	COMITATIVE	'together'
ístera	ístera, ísteris, istér, isterʝás, isterʝanás, stéru	TEMPORAL POSTESSIVE	'after'

type [*se* + NP$_{ACC}$] (4); and, (b) Circumpositional Phrases (CircumPs) of the type [*se* + NP$_{ACC}$ + POSTPOSITION] (5). The postpositional elements in CircumPs encode Region; see Table 2 for the inventory. Note that *se* fuses with the definite article, resulting in forms such as *so* (< *se* + *to*) and *son* (< *se* + *ton*).

(4) PrepP
   a. Delmesó Cappadocian   [Dawkins 1916: 304]
      cínde   **[*so*   *filán   son*   *tópo*]**
      lie:PRS.3PL LOC.DEF.N.SG.ACC such LOC.DEF.M.SG.ACC place(M):SG.ACC
      'They are found in such and such a place.'
   b. Pharasiot   [Dawkins 1916: 484]
      píʝe   *tʃe* **[*so*   *spílo*]**
      go:PST.3SG and LOC.DEF.M.SG.ACC cave(M):SG.ACC
      'And he went to the cave.'

(5) CircumP
   a. Araván Cappadocian   [Dawkins 1916: 334]
      batírsen = do   **[*so*   *leró*   *mésa*]**
      dip:PST.3SG = 3SG.ACC LOC.DEF.SG.ACC water:SG.ACC INT
      'She dipped her into the water.'

b. Ghúrzono Cappadocian [Dawkins 1916: 342]

stáji **[*so* *tirpí* *ombró*]**
stand:PST.3SG LOC.DEF.SG.ACC hole:SG.ACC ANT
'She stood in front of the hole.'

Our analysis of the combinations of *se* with the postpositions in Table 2 as forming single adpositional units follows Karatsareas (2016b), and is based on the fact that both elements must obligatorily be used in tandem for the encoding of spatial region. For example, in (5), the only grammatical means to express the spatial relations 'into the water' and 'in front of the whole' is to combine *mésa* and *ombró* with *se* to form the syntagms *s(e)…mésa* and *s(e) …ombró*. Crucially, Region cannot be encoded solely by the combination of postpositions with accusative-marked NPs in these varieties (*to leró mésa, *to tirpí ombró). Of course, *se* may well form simple PrepPs such as *so leró* and *so tirpí*, but these do not encode the interior and anterior, respectively. Rather, they express the more general relations of Goal and Place; cf. David's (2014: 329–330) criteria for circumpositionhood in Pashto.

In Cappadocian, in addition to the spatial functions mentioned, *se* may also encode two social functions (in the sense of Georgakopoulos 2011, 2014), namely the Recipient and the Addressee (6).

(6) Ferték Cappadocian [Dawkins 1916: 328]

a. *édeke* *ta* *paráija* **[*so***
give:PST.3SG DEF.PL.ACC money:PL.ACC LOC.DEF.SG.ACC
***mána* = *t*]**
mother:SG.ACC = 3SG.GEN
'He gave the money to his mother.'

b. *ce* *ípe* **[*so* *pedí* = *t*]**…
and say:PST.3SG LOC.DEF.SG.ACC boy:SG.ACC = 3SG.GEN
'And she said to her son…'

However, this use is marginal and may be due to influence from other Greek varieties introduced through schooling. The standard means of expression is the bare accusative (*to mána* = *t*, *to pedí* = *t*), following the transfer of these functions from the dative to the accusative in the Late Medieval period (Humbert 1930; Trapp 1965; Lendari and Manolessou 2003; Manolessou and Beis 2006; Georgakopoulos 2011, 2014). In Pharasiot, the bare accusative is the only grammatical option for the encoding of the Recipient and the Addressee (Anastasiadis 1976: 89).

4 Stage II dialects: The emergence of the innovation

This group includes the variety of Cappadocian that was spoken in the village of Phloïtá, and Silliot. In these dialects, *se* is preserved as a member of the prepositional paradigm, and is still used to form PrepPs and CircumPs of the type introduced in (4) and (5) for the encoding of the same spatial relations as the ones seen above. Crucially, however, it may be optionally omitted in contexts in which its use is obligatory in conservative dialects (Kostakis 1968: 105). Its omission yields two innovative types of spatial expression: (a) bare, accusative-marked NPs of the type [NP$_{ACC}$] (7); and, (b) Postpositional Phrases (PostPs) of the type [NP$_{ACC}$ + POSTPOSITION] (8).

(7) bare, accusative-marked NPs
  a. Phloïtá Cappadocian   [Dawkins 1916: 416]
  ben   **[koritʃçú to   spit]**
  enter:PRS.3SG girl:SG.GEN DEF.SG.ACC house:SG.ACC
  'He goes into the girl's house.'
  b. Silliot   [Kostakis 1968: 118]
  kátsam   tris   mínes   **[tʃin   trípoli]**
  stay.PST.1PL three.M month(M):PL.ACC DEF.F.SG.ACC PN(F).SG.ACC
  'We stayed in Tripoli for three months.'

(8) PostPs
  a. Phloïtá Cappadocian   [Dawkins 1916: 414]
  ístera   sémen   na   delastí
  afterwards enter:PST.3SG   COMP   walk_about:PNP.3SG
  [to   xorjó   mésa]
  DEF.SG.ACC village:SG.ACC INT
  'Afterwards he went into the village to walk.'
  b. Silliot   [Dawkins 1916: 298]
  érʃiti   **[tʃin   enékan = tu   kondá]**
  come:PRS.3SG   DEF.F.SG.ACC wife(F):SG.ACC=3SG.GEN PROX
  'He comes to his wife's side.'

Phloïtá Cappadocian and Silliot, therefore, display variation between *se* and zero, and represent an intermediate stage in the loss of the preposition. From a historical linguistic perspective, the two dialects exhibit what Hopper (1991: 22) has termed layering, namely, the coexistence on a synchronic level of old and

new means for the expression of the same function. According to the diatopy-as-diachrony method that we adopt here, an investigation of the factors that condition the distribution of the two variants, old and new, can shed light on the diachronic trajectory *se* followed before its complete demise as evident in Ulaghátsh Cappadocian.

To that end, we looked at the distribution of *se* and zero in one Phloïtá Cappadocian corpus, and two Silliot corpora compiled exclusively from published sources. The Phloïtá corpus consists of eight short stories recorded by Richard M. Dawkins in 1909 and 1911, and published in Dawkins (1916: 410–441). The first, chronologically earlier Silliot corpus consists of seven short stories also recorded by Dawkins in 1909 and published in Dawkins (1916: 284–304). This will be referred to as the Sílli (D) corpus. The second, chronologically later Silliot corpus consists of nine short stories recorded by Thanasis Kostakis and Georgios Mavrochalyvidis in Greece some years after the relocation of the Silliot speakers, and published in Kostakis (1968: 116–130). This will be referred to as the Sílli (K) corpus. The approximate sizes of the three corpora are given in Table 3. As can be seen in the table, the corpora are rather small. They are, however, exhaustive in including all Phloïtá Cappadocian and Silliot texts that have been published to date.

Table 3: The size of the Phloïtá, Sílli (D) and Sílli (K) corpora.

Corpus	Size in words (approximation)
Phloïtá	5,300
Sílli (D)	2,850
Sílli (K)	2,310

Our analysis included all clauses containing a syntactic phrase in which *se* encodes a spatial function. This encompasses both phrases that appear as complements to spatial verbs, and phrases that function as spatial adjuncts to other types of verbs. Phrases encoding the Recipient or the Addressee functions were excluded from our study because, strictly speaking, we are not in a position to say with certainty whether the use of bare, accusative-marked NPs in such contexts is the diachronic result of the historical transfer of the dative (see above) or to the omission of *se*, which is a much more recent development. We also excluded all instances of pseudo-incorporation found in our corpora. We follow Gehrke and Lekakou (2013) in using pseudo-incorporation to refer to constructions such as the ones shown in (9), in which a Goal- or Place-encoding NP appears bare – that is, without being introduced by *se* and also without a(n) (in)definite article (see also Ioannidou and den Dikken 2009 and Terzi 2010 for alternative terminology and approaches to the phenomenon).

(9) Phloïtá Cappadocian   [Dawkins 1916: 434]
     epsés   **spit=mas**   *írten*
     last_night house:SG.ACC=1PL.GEN come:PST.3SG
     saráfos
     moneychanger:SG.NOM
     'Last night, a moneychanger came to our house.'

Despite superficial similarities, pseudo-incorporating constructions and *se*-less NPs of the type exemplified in (7)–(8) constitute distinct phenomena as evidenced by the fact that the omission of *se* in Phloïtá and Sílli is not subject to the restrictions that Gehrke and Lekakou (2013) identify for pseudo-incorporation. Specifically, *se* can be omitted when it precedes nouns denoting both locations and parts thereof; it can be omitted in both complements and adjuncts. Goal- or Place-encoding NPs can introduce discourse referents and be modified by adjectives. Most importantly, the omission of *se* in the two Asia Minor Greek dialects is not contingent upon the omission of the article. On the contrary, in pseudo-incorporation, *se* can only be omitted if the determiner is also omitted. In this light, we consider pseudo-incorporating constructions to be qualitatively different from *se*-less NPs of the type under investigation here.

Overall, 211 token clauses were gathered from the Phloïtá corpus, 58 clauses from the Sílli (D) corpus and 62 clauses from the Sílli (K) corpus. The distribution of *se* and zero in the three corpora is presented in Table 4. Note that the counts in the table contain the sum of the occurrences of all four constructions under investigation, [*se* + NP$_{ACC}$], [*se* + NP$_{ACC}$ + POSTPOSITION], [NP$_{ACC}$], and [NP$_{ACC}$ + POSTPOSITION].

Table 4: The frequency distribution of *se* and zero in the three corpora.

	Phloïtá		Sílli (D)		Sílli (K)	
	n	%	n	%	n	%
se	194	91.9	17	29.3	7	11.3
zero	17	8.1	41	70.7	55	88.7
Total	211	100	58	100	62	100

The degree of variation in the use of *se* and zero differs considerably between the two dialects. There is also a statistically significant difference between the two Silliot corpora; in the Sílli (D) corpus, the use of *se* is significantly more frequent than in the Sílli (K) corpus: χ^2 (1) = 3.97, $p < .05$. We interpret this difference as an effect of the fact that the Sílli (D) data were collected in the early 1910s, while the Sílli (K) data were collected in the late 1950s and early

1960s. In our view, what we are dealing with here is an illustration of change that naturally occurred in the dialect over the course of the fifty year interval that separates the two corpora.

In Phloïtá, the use of *se* predominates. The frequency of zero marking is rather low but is certainly not negligible. Rather, it is comparable with the frequency with which *fi* is dropped in two Maltese corpora analyzed by Stolz et al. (2014). This picture changes in the Sílli (D) corpus, in which zero out-numbers *se* by a ratio of 2.4 : 1, and is completely reversed in the Sílli (K) corpus. Phloïtá Cappadocian can therefore be taken as capturing an incipient stage in the loss of *se*, and Silliot a more advanced stage that precedes its complete demise. Despite their differences, all three corpora represent stages in which the use of zero for the encoding of spatial relations is syntagmatic in that it is in complementary distribution with *se*, and no other means are used for the encoding of the spatial relations at hand.

In contrast to Stolz et al.'s (2014) findings, the distinction between Goal and Place does not play a role in the frequency distribution of the two variants in any of our corpora. The statistical analysis of the token clauses reveals that zero occurs equally frequently in Goal- and Place-encoding utterances, and that the frequency distribution of *se* and zero within the two different utterance types is comparable to their overall distribution in the respective corpora; see Table 5. Chi-square tests of independence (Fisher's exact test) were performed to examine the association between the Goal vs. Place distinction and the use of *se* or zero. The association between these variables was not significant in any of our corpora: in Phloïtá, χ^2 (1) = .219, *ns*; in Sílli (D), χ^2 (1) = .847, *ns*; and, in Sílli (K), χ^2 (1) = 1.549, *ns*.

Table 5: The frequency distribution of *se* and zero in Goal- and Place-encoding utterances.

| | Phloïtá | | | | Sílli (D) | | | | Sílli (K) | | | |
| | Goal | | Place | | Goal | | Place | | Goal | | Place | |
	n	%	n	%	n	%	n	%	n	%	n	%
se	138	91.4	56	93.3	14	32.6	3	20.0	6	15.0	1	4.5
zero	13	8.6	4	6.7	29	67.4	12	80.0	34	85.0	21	95.5
Total	151	100	60	100	43	100	15	100	40	100	22	100

There are, however, two other factors that do favor the omission of *se* and the concomitant use of zero: (a) the presence/absence of a prenominal genitive modifying the head noun of the Ground-encoding NP; and, (b) the presence/absence within the motion event utterance of a Region-encoding postposition.

The effect of the former is evident in Phloïtá Cappadocian. Chi-square tests of independence were again performed to examine the association between the presence/absence of a prenominal genitive and the use of *se* or zero. The association between these variables was significant: χ^2 (1) = 91.3, p < 0.001 (see the results in Table 6). In particular, if a prenominal genitive modifies the head noun of the Ground-encoding NP, the odds of dropping *se* and using zero are 76.92 times higher than if no prenominal genitive modifes the head noun. This is exemplified in (10): zero is used to mark the allative function with *to spit*, which is modified by *devreſú*, while *se* marks the same function with *(t)o tecé*, which is not modified by a genitive NP.

Table 6: The frequency distribution of *se* and zero with respect to the presence/absence of a prenominal genitive in Phloïtá.

	Without prenominal genitive		With prenominal genitive	
	n	**%**	**n**	**%**
se	188	97.4	6	33.3
zero	5	2.6	12	66.7
Total	193	100	18	100

(10) Phloïtá Cappadocian   [Dawkins 1916: 416]

   *ce   ben   [**devreſú   to   spit**],*
   and enter:PRS.3SG dervish:SG.GEN DEF.SG.ACC house:SG.ACC
   [so   tecé]
   LOC.DEF.SG.ACC   convent:SG.ACC
   'And he goes into the dervish's house, to the convent.'

The effect of the second factor is found in the more advanced Sílli (D) corpus. The association between the presence/absence of a Region-encoding postposition and the use of *se* or zero was significant: χ^2 (1) = 6.37, p < 0.05 (see the results in Table 7). In particular, if a postposition is present in the motion event encoding utterance, the odds of dropping *se* and using zero are 10.25 times higher than if no postposition is present. Compare, in that connection, the two utterances in (11): in (11a), *se* is preserved to mark Goal in the absence of a Region-encoding postposition; in contrast, in (11b), in which *apésu* specifies the interior Region, *se* is omitted and the Goal function is marked by zero. Note that there is no association between the presence/absence of a postposition and the

Table 7: The frequency distribution of *se* and zero with respect to the presence or absence of a Region-encoding postposition in Sílli (D).

	Without postposition		With postposition	
	n	%	n	%
se	16	39	1	5.9
zero	25	61	16	94.1
Total	41	100	17	100

semantics of the utterance in terms of the Goal vs. Place distinction. *Se* is omitted 12 times in Goal contexts and four times in Place contexts. A similar distribution is found when no postposition is present in the motion-event encoding utterance: 17 omissions in Goal contexts, eight omissions in Place contexts.

(11)   Silliot   [Dawkins 1916: 286, 300]
     a. *mɲa*   *iméra*   *mána = tus*
       INDF(F).ACC day(F):SG.ACC mother(F):SG.NOM = 3PL.N.GEN
       aftá   *ta*   *tékna*
       DEM.PROX.N.PL.ACC DEF.N.PL.ACC child(N):PL.ACC
       vémbi=ta   [*st'*   *ambéʎa*]
       send:PRS.3SG = 3PL.N.ACC LOC.DEF.N.PL.ACC vineyard(N):PL.ACC
       'One day, their mother sends the children to the vineyard.'
     b. *kónis=ta*   [*tʃin*   *kúpa*   *apésu*]
       pour:IMP.2SG=OBJ DEF.F.SG.ACC cup(F):SG.ACC INT
       ci   *pçén:u=ta*
       and drink:PRS.1SG=OBJ
       'Pour it (i.e., the water) into the cup and I will drink it.'

Two additional chi-square tests (Fisher's exact test) were subsequently performed to examine (a) the association between the presence/absence of a Region-encoding postposition and the use of *se* or zero in Phloïtá, and (b) the association between the presence/absence of a prenominal genitive and the use of *se* or zero in Sílli (D) in order to establish whether the two factors are active in both dialects, or whether each of them has an effect in only one dialect. The results of both tests were non-significant: (a) χ^2 (1) = 1.0052, *ns*; (b) χ^2 (1) = 3.2134, *ns*; see Tables 8 and 9.

Table 8: The frequency distribution of *se* and zero with respect to the presence or absence of a Region-encoding postposition in Phloïtá.

	Without postposition		With postposition	
	n	%	n	%
se	166	96	28	87.5
zero	13	4	4	12.5
Total	179	100	32	100

Table 9: The frequency distribution of *se* and zero with respect to the presence/absence of a prenominal genitive in Sílli (D).

	Without prenominal genitive		With prenominal genitive	
	n	%	n	%
se	16	34.8	1	8.3
zero	30	65.2	11	91.7
Total	46	100	12	100

These findings suggest that the two dialects should not be interpreted as representing successive synchronies (Phloïtá Cappadocian > Silliot), but should rather be viewed as independent historical stages, each providing evidence for the effect that different linguistic factors had on the optional omission of *se* before it was completely lost from the prepositional inventory of Ulaghátsh Cappadocian (see Section 5).

In accounting for the positive effect that the presence of prenominal genitives and postpositions has on the omission of *se* in Phloïtá Cappadocian and Silliot, we first observe that both seem to result in more informative motion event encoding utterances in the sense of Ariel (1985, 1990, 1991, 2001). Ariel classifies referring expressions along an accessibility marking scale with respect to the degree to which the mental representations of their referents are retrievable from speakers' memories. Three criteria determine the degree of accessibility of a given referring expression: (a) informativity, which corresponds to the amount of lexical information provided by the expression; (b) rigidity, which refers to the ability to pick a unique referent based on the form of the expression; and, (c) attenuation, which concerns the phonological size of the expression

(Ariel 2001: 32). More informative, rigid and unattenuated expressions are considered to display a low degree of accessibility, whereas less informative, rigid and more attenuated expressions encode highly accessible referents.

Prenominal genitives are used to identify a specific referent of the kind denoted by the head noun of the Ground-encoding NP by anchoring it to another referent that has already been mentioned in the textual discourse. For example, *devreʃú to spit* in (10) refers to the house of a known dervish that was introduced earlier in the story from which the example was drawn (the relevant mention reads: *ístera θori éna devréʃis* 'afterwards he sees a dervish', Dawkins 1916: 414). Genitives therefore provide additional information on the reference object of the spatial relation, which needs to be retrieved from the more or less immediate context. Therefore, NPs that are modified by a prenominal genitive are more informative, more rigid and less attenuated than unmodified NPs, whose phonological size is naturally smaller (*devreʃú to spit* as opposed to *to spit*).[3]

As mentioned in Section 3, postpositions are used to encode a specific spatial Region in relation to the Ground of the motion event. In some cases, the encoding of Region is necessary for the successful communication of the intended meaning. In (5b), for example, including *ombró* in the utterance is

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3 An anonymous reviewer suggests that the omission of *se* in the context of prenominal genitives could be related to the lack of a definite article preceding the genitive noun (*devreʃú to spit* and not *tu devreʃú to spit*). Dawkins (1916: 87–89) documents genitive forms for the definite article only in Sinasós, Delmesó and Potámia Cappadocian. In all other varieties, genitive nouns that take a definite reading appear bare. This, however, does not seem to be connected to the omission of *se* as evidenced by examples such as (i) and (ii) from Ghúrzono and Sílata Cappadocian:

(i)   Ghúrzono Cappadocian   [Dawkins 1916: 340]
       soŋgrá   to   ɣaíx   ípe   [patiʃaçú
       afterwards   DEF.SG.NOM stag:SG.NOM say:PST.3SG king:SG.GEN

       so   perí]
       LOC.DEF.SG.ACC son:SG.NOM
       'Afterwards, the stag said to the son of the king.'

(ii)   Sílata Cappadocian   [Dawkins 1916: 446]
       múlosen   éna méra   [odaðjú   so   jyklýk]
       hide:PST.3SG INDF day:SG.ACC room:SG.GEN LOC.DEF.SG.ACC closet:.SG.ACC
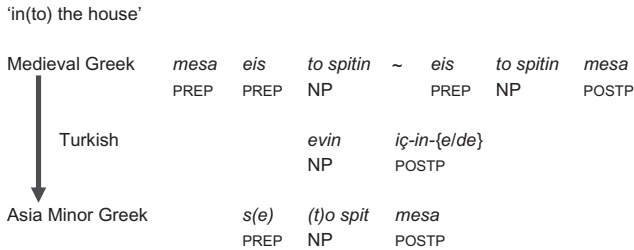   'One day, he hid in the closet of the room.'

As shown in (i) and (ii), the lack of a genitive article before *patiʃaçú* and *odaðjú* does not block the use of *se* and its amalgamation with the accusative article preceding *perí* and *jyklýk*. Based on data of this kind, we see no compelling reason for establishing a connection between the two phenomena.

indispensable in order to make clear that the Figure stood in front of the hole and not behind it, inside it, beside it etc. In other cases, however, the semantic contribution of postpositions is arguably redundant, either because Region is inherently encoded in the spatial verb or because the intended Region can be retrieved pragmatically based on world knowledge. This is the case of utterances such as (5a) and (11b). In (5a), *batirdó* 'to dip' inherently encodes the interior Region so that its expression by *mésa* is redundant. As far as (11b) is concerned, it is produced as a response to an invitation to have some water addressed to the speaker by her stepmother (*op tʃça tʃi ɟatúxa pçe éna ciɾɟó ɲaró* 'drink some fresh water out of this bottle', Dawkins 1916: 300). In this context, the pragmatically expected Region in which the end point of the pouring event is to be found is again the interior of the cup. From this point of view, its overt encoding by means of *apésu* brings about a motion event utterance that is more informative, more rigid and less attenuated than an utterance that would not include a Region-encoding postposition.

The omission of *se* therefore seems to be the preferred option in motion event utterances in which the Ground-encoding expressions display high degrees of informativity, and also possibly redundancy. The hypothesis that we formulate on that account and in line with Lestrade's (2010, 2013) and Stolz et al.'s (2014) recent proposals is that the omission is the result of an informational load relief strategy that helps to produce more economical utterances by dropping that constituent, which is formally and semantically most dispensable in the sense that it makes the smallest contribution to the spatial relational meaning. Recall from Sections 2 and 3 that Goal and Place are often encoded by more than one of the constituents of motion event utterances. Specifically, the two spatial relations can be encoded by both *se* and the spatial verbs, many of which obligatorily take Goal or Place complements in the form of PrepPs. The idea is that speakers deem the use of *se* to be redundant in such utterances, and consequently drop it for the sake of economy and without running the risk of communicative failure, thus producing utterances in which Goal and Place are solely encoded by the spatial verb. The high degree of polysemy of *se,* combined with its minimal phonological size, must only have facilitated this process.
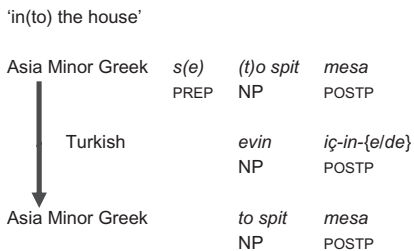
Another factor that facilitated the omission of *se* in the context of postpositions is language contact with Turkish. Karatsareas (2016b) has argued that the positioning of Region-encoding expressions after the prepositional complement in Asia Minor Greek CircumPs is modeled on Ottoman Turkish PostPs formed with relational nouns such as *üst-* 'top', *iç-* 'interior' and *ön-* 'front', which also encode Region. In Medieval Greek, these expressions typically preceded primary prepositions and formed compound PrepPs of the type [PREP + PREP + NPACC]; for

example, *mesa eis to spitin* 'in(to) the house'. As a marked alternative, they could also follow the phrasal complement, resulting in CircumPs of the type [PREP + NPACC + POSTP] (*eis to spitin mesa*). In Asia Minor Greek, the similarity of the latter, marked order with corresponding Turkish PostPs (as in *ev-in iç-in-{e/de}* 'house-GEN interior-POSS.3SG-{DAT/LOC}') led to its promotion to the status of unmarked default. This diachronic scenario is shown in Figure 1.

'in(to) the house'

Medieval Greek	*mesa*	*eis*	*to spitin*	~	*eis*	*to spitin*	*mesa*
	PREP	PREP	NP		PREP	NP	POSTP
Turkish			*evin*		*iç-in-{e/de}*		
			NP		POSTP		
Asia Minor Greek		*s(e)*	*(t)o spit*	*mesa*			
		PREP	NP	POSTP			

Figure 1: From compound PrepPs to CircumPs in inner Asia Minor Greek.

As a result of this, Asia Minor Greek converged with Turkish on the structural level as far as the encoding of Region is concerned, though only to a certain extent. On the one hand, Region-encoding expressions appeared postpositionally in both languages. On the other hand, however, Greek retained a prepositional element, *se*, to encode a range of Goal and Place functions – whereas Turkish lacked it, marking these by means of the dative and locative suffixes. Against this backdrop, the omission of *se* in CircumPs may also be understood as promoting structural convergence between the two contact languages even further by giving rise, for the first time in Greek, to PostPs in full alignment with the Turkish model. This more recent development is schematically illustrated in Figure 2.

'in(to) the house'

Asia Minor Greek	*s(e)*	*(t)o spit*	*mesa*
	PREP	NP	POSTP
Turkish		*evin*	*iç-in-{e/de}*
		NP	POSTP
Asia Minor Greek		*to spit*	*mesa*
		NP	POSTP

Figure 2: From CircumPs to PostPs in inner Asia Minor Greek.

Evidence in support of the contributing role language contact must have played in these developments can be found in the pidgin variety of Greek that is spoken by the Muslim community of the island of Rhodes, whose dominant language is Turkish. Similarly to what we find in Phloïtá Cappadocian and Silliot, Georgalidou et al. (2004) document the omission of *se* in the context of Region-encoding adpositions in this variety, which, as can be seen in (12), is also accompanied by the omission of the definite article.

(12)   Rhodian pidgin Greek   [Georgalidou et al. 2004]
    a. *spíti = tu*   *ítan*   **[ðípla minaré]**
      house(N):SG.NOM=3SG.M.GEN   COP.PST.3SG   ADS   minaret(M):SG.ACC
      'His house was next to the minaret.'
    b. *úlo*   *rúxa*   *évale*   **[neró   mésa]**
      all:N.SG.ACC clothe(N):PL.ACC put:PST.3SG water(N):SG.ACC INT
      'S/he put all the clothes in the water.'

Note that Region appears encoded both by prepositions (12a), the typical option for the local Greek dialect, and by postpositions (12b), most probably due to contact with Turkish (cf. the Asia Minor Greek development shown in Figure 1).
    Another language that could be reasonably argued to have served as a model for the omission of *se* is Armenian. In Armenian, both Goal- and Place-encoding nouns may appear zero-marked as opposed to Source-encoding nouns, which are always marked by an ablative suffix. This is the case in both dialects of Armenian, Eastern and Western.[4]
    Consider the examples in (13):

(13)   Eastern Armenian   [adapted from Dum-Tragut 2009: 82, 102]
    a. *gjułatsi-nɛr-ə*   *gnats^h-in* **daʃt**
      farmer-PL.NOM-DEF go-AOR.3PL field
      'The farmers went to the field.'
    b. *aram-ə* **jɛrɛvan** *ɛ*
      PN-DEF   PN   COP.PRS.3SG
      'Aram is in Yerevan.'

While it is uncontroversial that speakers of inner Asia Minor Greek did come in contact with speakers of Armenian, the extent of their contact and the degree to which the different Greek dialects of the area were influenced by Armenian are

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4 According to Stolz et al. (2014: 76–80), zero marking for Place is only used with place names in Eastern Armenian.

limited. To date, the only known instances of borrowing from Armenian into the inner Asia Minor Greek dialects are confined to a handful of loanwords collected by Dawkins (1916: 196–197), whose small number makes any extensive grammatical replication seem fairly unlikely.

5 Stage III dialect: The completion of the innovation

From the initially favorable syntactic and semantic contexts in Ulaghátsh Cappadocian that we described in the previous section, the omission of *se* spread to the less favorable contexts: from utterances in which the head nouns of Ground-encoding NPs were modified by a prenominal genitive to utterances in which no genitive was present; from utterances in which Region was overtly specified by a postposition to utterances in which Region was not expressed in this way. In short, the innovation progressed from informationally loaded motion event utterances to informationally lighter ones. The ultimate result of this across-the-board spread was the complete loss of *se* from the prepositional inventory of the variety (Dawkins 1916: 83, Kesisoglou 1951: 54), which includes only the three overt members shown in Table 10. In Stolz et al.'s (2014) terms, the syntagmatic zero that we find in Phloïtá Cappadocian and Silliot developed into a paradigmatic zero in Ulaghátsh. On this basis, we can add a fourth, phonologically empty member to the variety's prepositional paradigm. In Sinha and Kuteva's (1995) terms, we move from overtly distributed spatial semantics to more covertly distributed spatial semantics.

Table 10: The prepositional paradigm of Ulaghátsh Cappadocian.

Preposition	Main meaning(s)	Gloss
ap, as	ABLATIVE	'from'
me	COMITATIVE, INSTRUMENTIVE	'with'
os	TERMINATIVE	'up to, until'
∅	ALLATIVE, LOCATIVE	'to, at'

Following the loss of *se*, all the spatial functions that it originally encoded came to be encoded by bare, accusative-marked NPs of the type [NP$_{ACC}$]; see (14). In the cases in which Region needs to be additionally specified, this is done by PostPs of the type [NP$_{ACC}$ + POSTPOSITION]; see (15).

(14)   Ulaghátsh Cappadocian   [Kesisoglou 1951: 138, 156]

     a. *do*   *korítʃ*   *édeke*   *emír*   *na*
        DEF.SG.NOM girl:SG.NOM give:PST.3SG order:SG.ACC COMP

        mun   [***do***   ***cellér***]
        enter:PNP.3PL DEF.SG.ACC basement: SG.ACC

        'The girl ordered them to go into the basement.'

     b. [***ekú***   ***do***   ***xorjó***]   *nískoton*   *éna*
        DEM.DIST DEF.SG.ACC village:SG.ACC become:PST.IPFV.3SG INDF

        gámos
        wedding:SG.NOM

        'A wedding was taking place in that village.'

(15)   Ulaghátsh Cappadocian   [Dawkins 1916: 348]

     émi   [***ta***   ***qonáca***   ***mésa***], *ciríʃde*
     enter:PST.3SG DEF.PL.ACC house:PL.ACC INT   hide:PST.3SG

     [***to***   ***ɟasdúq***   ***píso***]
     ART.DEF.SG.ACC cushion:SG.ACC POST

     'She went into the houses, she hid behind the cushions.'

The loss of *se* had a number of ramifications for the typological profile of Ulaghátsh Cappadocian. Firstly, the various spatial functions were added to the set of functions that were already encoded by bare accusative-marked NPs. This includes not only the Recipient and Addressee functions (16a), which are normally found in the indirect object position, but also Patient and Theme (16b), which normally occupy the direct object position as complements of (di-)transitive verbs. In that respect, Ulaghátsh Cappadocian belongs to the rare type of language in which the same means of formal marking is used for the encoding of the direct object, the indirect object, the goal and the locative. Other languages that show similar kinds of catch-all marking are Guaraní, in which the suffix *-pe* is used to encode all four functions, and Tahitian, in which the prepositional marker *'i/'ia* is used in the same way (Blansitt 1988; for Guaraní, see Guash 1956, Gregores and Suárez 1967, Shain and Tonhauser 2011; for Tahitian, see Lazard and Pelzter 1991, 2000, Potsdam and Polinsky 2012).

(16)   Ulaghátsh Cappadocian   [Kesisoglou 1951: 156, 160]

     a. *do*   *nif*   *no = o = décit*   [***do***
        DEF.SG.ACC bride:.SG.ACC FUT = 3SG.ACC = give:PNP.2PL DEF.SG.ACC

        peí = m]?
        child:SG.ACC = 1SG.GEN

        'Will you give the bride to my child?'

b. [***do   arkadáʃ*=*ut***]   *do*=*skótose*
    DEF.SG.ACC friend:SG.ACC=2SG.GEN 3SG.ACC=KILL:PST.3SG
    'He killed his friend.'

Before we proceed to the second set of major ramifications of the loss of *se*, a few notes on the morphology of accusative marking in Ulaghátsh Cappadocian are relevant. Following a series of inflectional developments (Janse 2001, 2004, Karatsareas 2011a, 2016a, Spyropoulos and Kakarikos 2011), accusative forms are identical to nominative forms in both numbers across all inflectional classes; see Table 11. In addition, as a result of the loss of grammatical gender distinctions and the use of historically neuter forms for all agreement targets (articles, adjectives, participles, numerals) in all Cappadocian varieties, nominative/accusative syncretism also applies to other form classes that may be found within (in)direct object, goal and locative NPs.

Table 11: The nominal inflectional classes of Ulaghátsh Cappadocian.

		IC1		IC2		IC3	
SG	NOM/ACC	*çeríf-os*	'man'	*papá-s*	'priest'	*néka*	'woman'
	GEN	*çerif-iú*		*papa-iú*		*néka-iu*	
PL	NOM/ACC	*çeríf-ia*		*papá-ia*		*néc-es*	
	GEN	*çerif-iú*		*papa-iú*		*néc-ez-iu*	

		IC4		IC5		IC6	
SG	NOM/ACC	*leró*	'water'	*met*	'shirt'	*púma*	'cover'
	GEN	*lero-iú*		*met-iú*		*púma-iu*	
PL	NOM/ACC	*ler-á*		*mét-ia*		*púmat-a*	
	GEN	*lero-iú*		*met-iú*		*púma-iu*	

This has the even more rare consequence that, in Ulaghátsh Cappadocian, the marking used for the direct object, indirect object, goal and locative functions is always the same as the one used for the subject. Consider, for example, the form of the definite article and of the head noun in the NP *do koríʃ* in (17).

(17) Ulaghátsh Cappadocian   [Kesisoglou 1951: 140]
    a. [***do   koríʃ***]   *írte*   *éna isíz*
       DEF.SG.NOM girl:SG.NOM come:PST.3SG INDF deserted:SG.ACC
       tópos
       place:SG.ACC
       'The girl came to a deserted place.'

b. *do*   *aráp*   *píren = do*   **[*do***
   DEF.SG.NOM   Arab:SG.NOM   take:PST.3SG = 3SG.ACC   DEF.SG.ACC

   koríʃ]   *pal*   *pétasen = do*
   girl:SG.ACC   again   throw:PST.3SG = 3SG.ACC

   'The Arab took the girl again and threw her away.'

c. **[*do***   ***koríʃ]***   *épe*   *ci* (...)   *na*   *se = páro*
   DEF.SG.ACC   girl:SG.ACC   say:PST.3SG   COMP   FUT   2SG.ACC = take:PNP.1SG

   'He said to the girl: "I will marry you".'

Semantic disambiguation in this dialect is therefore heavily dependent upon pragmatic inferencing, as well as syntactic devices such as word order and clitic doubling (Janse 1994, 1997, 1998a, 1998b, 2006, 2008).

6 Summary and avenues for further research

In this article, we described the diachrony of the preposition *se* in the inner Asia Minor Greek dialects, taking advantage of the fact that different dialects within the group are found at different points along the developmental trajectory of *se*. We first showed that, in the conservative dialects – namely, in all Cappadocian varieties except for Phloïtá, Ulaghátsh Cappadocian, and Pharasiot – *se* is preserved as a full member of the prepositional paradigm. At this pre-innovation stage, *se* encodes a wide range of mainly spatial functions and occurs in two syntactic types of adpositional phrases: PrepPs ([*se* + NP$_{ACC}$]) and CircumPs ([*se* + NP$_{ACC}$ + POSTPOSITION]).

 We then examined Phloïtá Cappadocian and Silliot, in which *se* is optionally omitted in contexts in which its use is obligatory in the more conservative dialects. In these dialects, zero is used instead of *se*, which results in two novel syntactic means for the expression of spatial relations: bare, accusative-marked NPs ([NP$_{ACC}$]) and PostPs ([NP$_{ACC}$ + POSTPOSITION]). The analysis of the data gathered from one Phloïtá Cappadocian corpus and two Silliot corpora suggested that zero marking is the preferred option in two types of motion event utterances: (a) in utterances in which the head noun of the Ground-encoding NP is modified by a prenominal genitive, and (b) in utterances in which Region is overtly encoded by a postposition. In both dialects, the zero marker is of the syntagmatic type in Stolz et al.'s (2014) terms in that its use is conditioned by specific syntactic and semantic factors. We explained these seemingly disparate findings in terms of high levels of informativity, so that the innovative omission of *se* and the concomitant use of zero to mark spatial relations may be

understood as an informational load relief strategy intended to produce more economical motion event utterances. We also attributed the latter finding to the effect of language contact with Turkish, and argued that the omission of the prepositional element from Asia Minor Greek CircumPs was brought about in order to promote structural convergence between the two languages with respect to the encoding of Region in the form of PostPs. We also briefly examined the possibility that language contact with Armenian may also have favoured the loss of *se*.

We finally looked at Ulaghátsh Cappadocian, in which zero marking was generalized in all syntactic and semantic contexts, and subsequently became paradigmatic. As a result, bare, accusative-marked NPs and PostPs are the only available options for the encoding of spatial relations. We examined the ramifications of this unique development, the most important of which was that, in this dialect, the same type of formal marking is used for all basic syntacticosemantic functions: subject, direct object, indirect object, goal and locative.

In this article, we limited our investigation to three modern Asia Minor dialects. Future research, however, is needed to establish whether there is a connection between the omission and loss of *se* in this group and similar developments attested not only in Modern Greek dialects spoken in other areas, but also in the Medieval Greek historical record. With respect to the former, Pantelidis (forthcoming) has collected a non-negligible number of documented examples from the Regions of Arcadia, Corinthia and Laconia in the Peloponnese that evidence the omission of *se* in both Goal and Place contexts, and in both simple and compound PrepPs. An illustrative example from Vrésthena in northeastern Laconia is given in (18). The phenomenon is also found in Cyprus (19), Chios (20) and Karpathos (21), which might be an indication of a southeastern innovation.

(18) Vrésthena Greek   [Koukoules 1908: 249]
   emís   sikoθíkame kamɲá   katostí
   1PL.NOM rise:PST.1PL PRN.INDF.F.SG.NOM hundred(F):SG.NOM
   faveʎés   ce   páme   [ta   tzíntzina]
   family(F):PL.NOM and go:PRS.1PL DEF.N.PL.ACC PN(N):PL.ACC
   apó ci   vʝénome   [ton   ái vasíli]
   ABL   DEM.DIST arrive:PRS.1PL DEF.M.SG.ACC PN(M):SG.ACC
   [ti   rematçá   mésa]
   DEF.F.SG.ACC stream(F):SG.ACC INT
   'A hundred families of us rose and went to Tzíntzina, from there we arrived at Saint Vasileios, inside the stream.'

(19) Cypriot Greek [Christodoulou 2015: 27]

ejóni (...) *pu* *páo* *i* **[*ton* *káθikan*]**
1SG.NOM when go:PRS.1SG or DEF.M.SG.ACC PN(M):SG.ACC
i **[*tin* *páfo*]**
or DEF.F.SG.ACC PN(F):SG.ACC
'When I go to either Kathikas or Paphos...'

(20) Chiot Greek [Pernot 1907: 449, 450]

a. **[*óla* *ta* *kástr'*]** *epíɣa*
all:N.PL.ACC DEF.N.PL.ACC city(N):PL.ACC go:PST.1SG
'I have been to all the cities.'

b. *kuvalúsamen* *ta* *stafíʎa*
carry:PST.IPFV.1PL DEF.N.PL.ACC grape(N):PL.ACC
[*tun* *liména*]
DEF.M.SG.ACC port(M):SG.ACC
'We would carry the grapes to the port.'

(21) Karpathiot Greek [Minas 1970: 108]

o *m* *etráviksen* **[*tin* *potamía*]**
DEF.M.SG.NOM PN set_out: PST.3SG DEF.F.SG.ACC PN(F):SG.ACC
'M. set out for Potamia.'

With respect to the latter set of attested cases, Tachibana (1994) documents the use of zero instead of *se* in compound PrepPs formed with one of the following secondary prepositions in several manuscripts of the *Alexander Romance* (written between the fifteenth and seventeenth century), as well as in a number of other medieval texts from the same period: *apanōthen*, *apanōtheon*, *epanōthen*, *katapanō* 'SUPERIOR'; *apokatō*, *apokatou*, *ypokatō* 'INFERIOR'; and, *empros*, *emprosthen* 'ANTERIOR'. In all cases, Tachibana finds simple PrepPs of the type shown in (22).

(22) Medieval Greek, *Alexander Romance*

ēlthen *aetos* *megas* **[*apanōtheon***
come:PST.3SG eagle(M):SG.NOM big(M):SG.NOM SUP
***tēn* *tentan* *tou* *vasileōs*]**
DEF.F.SG.ACC tent(F):SG.ACC DEF.F.SG.GEN king(M):SG.GEN
'A big eagle came above the king's tent.' [Recensio F 12, 3, 2]

Tachibana (1994: 41) argues that (a) the occurrence of this type of PrepP in more than one manuscript of the *Alexander Romance*; (b) its occurrence in other texts as

well; and (c) the fact that the use of zero instead of *se* is systematically found with only a subset of secondary prepositions suggest that what we are dealing with here should not be attributed to scribal error; rather, it constitutes a substandard construction of some vernacular variety of Late Medieval Greek. If that is indeed confirmed to be the case, then future research should examine whether this substandard variant could have paved the way for the developments that we find in the Modern Greek dialects of inner Asia Minor, the Peloponnese, Cyprus, Chios and Karpathos, and whether the dialectal innovations are related by simply originating in the same diachronic source – or in some different way, perhaps by undergoing the same innovations independently.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person
ABL	ablative
ACC	accusative
ADS	adessive
ANT	anterior
AOR	aorist
COMP	complementizer
COP	copula
DAT	dative
DEF	definite
DEM	demonstrative
DIST	distal
GEN	genitive
IMP	imperative
IPFV	imperfective
INDF	indefinite
INT	interior
LOC	locative
M	masculine
N	neuter
NOM	nominative
OBJ	object
PL	plural
PN	proper name
PNP	perfective non-past
PREP	preposition
PRN	pronoun
POST	posterior
POSTP	postposition
POSS	possessive

PROX	proximate
PRS	present
PST	past
SG	singular
SUP	superior

Textual sources

Recensio F = cod. Flor. Laurentianus Ashburn 1444. Konstantinopulos, Vasileios L. & Anastasios C. Lolos. 1983. *Ps.-Kallisthenes: Zwei mittelgriechische Prosa-Fassungen des Alexanderromans*, 2 volumes. Meisenheim am Glan: Hain.

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