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# The Asia Minor Greek Adpositional Cycle\*

## *A Tale of Multiple Causation*

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### Abstract

This paper examines the interplay of language-internal continuity and external influence in the cyclical development of the Asia Minor Greek adpositional system. The Modern Greek dialects of Asia Minor inherited an adpositional system of the Late Medieval Greek type whereby secondary adpositions regularly combined with primary adpositions to encode spatial region. Secondary adpositions could originally precede simple adpositions ([PREPOSITION + PREPOSITION + NP<sub>ACC</sub>]) or follow the adpositional complement ([PREPOSITION + NP<sub>ACC</sub> + POSTPOSITION]). Asia Minor Greek replicated the structure of Ottoman Turkish postpositional phrases to resolve this variability, fixing the position of secondary adpositions after the complement and thus developing circumpositions of the type [PREPOSITION + NP<sub>ACC</sub> + POSTPOSITION]. Later, some varieties dropped the primary preposition *SE* from circumpositional phrases, leaving (secondary) postpositions as the only overt relator ([NP<sub>ACC</sub> + POSTPO-

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SITION]) in some environments. In addition, a number of Turkish postpositions were borrowed wholesale, thus enriching the Greek adpositional inventory.

### Keywords

Greek – Turkish – Asia Minor – Cappadocian – adpositional cycle – prepositions – postpositions – circumpositions

## 1 Introduction

Consider the following diachronic scenario: at some point in its history, a linguistic element loses part of its phonological, semantic and functional content. A more salient element then starts to be used in combination with the original weakened one in order to reinforce it, initially only optionally but later obligatorily. Ultimately, the original element is lost while the most recent, salient one that came to its rescue—as it were—assumes its original function. The historical development of negation in a number of languages (among them French, English, German, Dutch, Welsh, Arabic and Berber) is the most well-known example of such a series of changes (for state-of-the-art descriptions of the phenomenon as well as for references, see Willis, Lucas & Breitbarth 2013). In Old French, for example, negation was marked by *ne*, which appeared preverbally as in *jeo ne dis* ‘I don’t say’. In Middle French, *ne* was reinforced by *pas* ‘step’, a minimizer used in expressions such as ‘I did not go a step’, resulting in expressions of the type *je ne dis pas*, which is what we still obligatorily find in Modern Literary French. In present-day colloquial French, however, *ne* has been lost, and postverbal *pas* is the only marker of negation: *je dis pas*. This diachronic trajectory has come to be widely known as Jespersen’s Cycle in that, through the constant renewal and replacement of older markers by new ones, a language moves from a stage in which negation is marked by a single element to one in which it is doubly marked, after which the language subsequently reverts to a single-marked stage again. As Willis, Lucas & Breitbarth (2013: 7) note, Jespersen (1917: 4) had observed that cyclical changes are not confined to the domain of negation but can also characterize the development of demonstratives, pronouns and other elements, as well; see, in that connection, van Gelderen’s (2009, 2011) recent work and references therein.

In this paper, I examine a set of cyclical changes that the Modern Greek dialects of inner Asia Minor (today’s central Turkey) underwent in the adpositional domain. I specifically focus on (a) Cappadocian, the dialect of twenty

villages located in the rural area between the cities of Nevşehir, Kayseri and Niğde; (b) Pharasiot, the dialect of the town of Phárasa (present-day Çamlıca) and five neighbouring villages in the area between the Ala Dağ and Antitaurus mountains; and, (c) Silliot, the dialect of the village of Silli (present-day Sille), found in the environs of the town of Konya. My analysis also draws upon data from Pontic, the dialect of numerous towns and villages dispersed along the long and narrow strip of land on the southern coast of the Black Sea traditionally known as Pontus, as well as from Crimeoazovian Greek, the dialect of the Ukrainian city of Mariupol on the coast of the Sea of Azov and of approximately fifteen villages in the surrounding area that were founded by Pontic settlers originating in Crimea.

For a variety of social and historical reasons (for details, see Janse 2002, Karatsareas 2011, 2013 and references therein), Asia Minor Greek developed for a significant amount of time in relative linguistic isolation from the Greek varieties that were spoken contiguously in other areas of the wider eastern Mediterranean basin (most notably, in the coastal regions of western Asia Minor, the Aegean islands and Cyprus, and the southern Balkan peninsula), and in the context of language contact with Turkish varieties, especially Seljuq and Ottoman Turkish. The intensity of contact was especially high in the case of Cappadocian, Pharasiot and Silliot, on which I concentrate here, and significantly lower—albeit by no means non-existent—in Pontic and Crimeoazovian Greek.

As a result, all modern Asia Minor Greek dialects exhibit, on the one hand, several grammatical features that are reminiscent of earlier stages in the history of Greek, especially the Late Medieval period (1100–1500 CE according to Holton & Manolessou 2010), and, on the other, a good number of linguistic innovations that distinguish them collectively from other Modern Greek dialects. Innovations can be classified into three distinct types: (a) innovations that emerged language-internally, such as the development of inflected and personal infinitives in Pontic (Sitaridou 2007, 2013, 2014a, 2014b); (b) innovations that were induced by contact with Turkish, such as the introduction of differential object marking in Cappadocian and Pharasiot (Janse 2004, Karatsareas 2011, Spyropoulos & Tiliopoulou 2004); and, (c) innovations that are attributed to a combination of language-internal and language-external factors, for example the loss of grammatical gender distinctions in Cappadocian, which followed the earlier development of a system of semantic gender agreement still evident in Pontic and Crimeoazovian Greek (Karatsareas 2009, 2011, 2014).

The development of the adpositional cycle was driven by both language-internal motivations and the effects of language contact with Turkish. The adpositional system that the Asia Minor Greek dialects inherited from Late

Medieval Greek included two sets of adpositional relators, one set of highly grammaticalised and semantically bleached prepositions and one set of ambipositions of a more lexical nature that combined with prepositions to encode topological meanings in a more salient fashion. Prepositions could only precede their complements. The position of ambipositions, however, was variable: they could appear either before prepositions or after the adpositional complement. In the Asia Minor Greek dialects, the similarity of the latter option with corresponding Turkish postpositional structures led to the promotion of postnominal order resulting in the formation of circumpositions. At a later stage and in a few varieties, the preposition *SE* was lost from circumpositions leaving postpositions as the only overt relators. In that, in their long history, the Asia Minor Greek dialects went from a stage in which specific spatial relations were single-marked by prepositions to a stage in which they were double-marked by two adpositional elements and, ultimately, reached a stage in which the same relations were single-marked, this time by postpositions. At the same time, the adpositional inventory of Asia Minor Greek was enriched by the wholesale borrowing of a number of Turkish postpositional elements.

In what follows, I describe these innovations in detail from a contact linguistics perspective with reference to the notions of matter replication, pattern replication and pivot matching as they were developed by Matras (2009), Matras & Sakel (2007) and Sakel (2007). By matter replication, I refer to the wholesale incorporation of Turkish forms into Asia Minor Greek alongside their grammatical meaning and function. Cases in which Asia Minor Greek has copied the structure of Turkish patterns without borrowing the actual forms are considered instances of pattern replication. I also address the wider implications of the Greek innovations for the theoretical understanding of contact-induced language change and especially for the question of whether or not there exist cross-linguistic constraints on the results of language contact with reference to Heine's (2008) and Stilo's (2009) proposals regarding the outcomes of contact between languages that differ in terms of constituent order, Moravcsik's (1978) Linear Order Preservation principle, and Elšik & Matras's (2006) and Matras's (2007) predictions on the borrowability of adpositions.

The paper is structured as follows: in Section 2, I lay out the theoretical premises of my study with respect to the class of adpositions. Section 3 provides a synchronic description of the adpositional systems of the two languages that came in contact with one another, namely Late Medieval Greek (3.1) and Ottoman Turkish (3.2). The outcomes of that contact as they are attested in Asia Minor Greek are illustrated and analysed in Section 4. Section 4.1 discusses pattern replication while Section 4.2 deals with matter replication.

Section 5 summarizes the main findings of the analysis, addresses their theoretical implications, and concludes the paper.

## 2 Theoretical Premises

In this paper, I follow Haug (2009) in adopting the definition of adpositions that Huddleston & Pullum formulate in *The Cambridge Grammar of the English Language*: “a relatively closed grammatically distinct class of words whose most central members characteristically express spatial relations or serve to mark various syntactic functions and semantic roles” (2002: 603). With this definition and in the discussion that follows it, Huddleston & Pullum capture the main characteristics of the linguistic elements that are usually classified as adpositions and which I accept here:

- (a) they generally license an obligatory or optional complement. Those adpositions that do not always license a complement are mainly used to express spatial relations;
- (b) their complements are normally NPs, but other elements such as declarative clauses can be found, as well;
- (c) they form adpositional phrases that function as non-predicative adjuncts and, in many cases, as complements to transitive and motion verbs; and,
- (d) adpositional phrases may be simple, when they contain only one adposition, or complex, when they contain more than one adposition.

Two types of adpositions are most commonly identified based on the position they occupy with respect to their complement: prepositions, which precede their complements, and postpositions, which follow them. There are, however, more adpositional types, though their occurrence in the world’s languages is less frequent than that of pre- and postpositions: ambipositions and circumpositions (Hagège 2010: 114–124).

The distinctive property of ambipositions is that they do not have a fixed position with respect to their complements and may either precede or follow them. I apply the term both to adpositions that occur equally frequently in the pre- and post-complement position, and to adpositions that may occur more frequently (or, preferentially) in one of the two positions and less frequently in the other. Classical Greek *peri* and German *ausgenommen* ‘except’ fall in that category (Libert 2006).

Circumpositions consist of two parts, both of which are used simultaneously to form an adpositional phrase, one preceding the adpositional complement

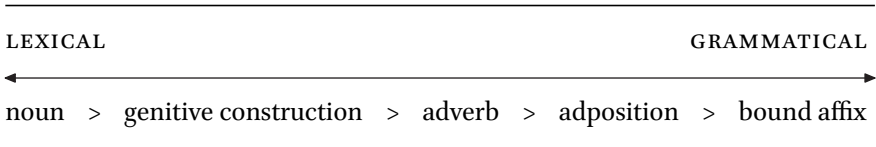


FIGURE 1 *Morphological evolution of locative expressions (Svorou 1986)*

and one following it. For the purposes of the present study, in order for a combination of two adpositional elements to qualify as a circumposition, both elements must necessarily be used for the encoding of the intended syntactic function or semantic role even if either one or both of them may occur independently to encode different functions and roles. This definition builds on the Iranian tradition (Thackston 2006a, 2006b, Windfuhr 2009) and especially on recent work by David (2014: 329–360) on the description of the Pashto adpositional system. David treats syntagms such as *pə* + NP<sub>OBL</sub> + *səra*, for example *pə ahmad səra* '(together) with Ahmad', in which the comitative function is jointly expressed by both *pə* and *səra*, as conventionalised discontinuous lexical items and not as combinations of prepositions with postpositions. She admits that most of the elements found in Pashto circumpositions may function independently as prepositions or postpositions, but a number of them cannot do so. These can only combine with other adpositions to form circumpositional phrases in order to express specific meanings and govern single complements.

A central theme in the crosslinguistic study of adpositions, regardless of the theoretical framework adopted, is the distinction between grammatical (or, primary) and lexical (or, secondary) adpositions (see, among others, Baker 2003, Cann 1993, 2000, Déchaine 2005, den Dikken 2010, Hagege 2010, Kortmann & König 1992, Rauh 1991, 1993, Svenonius 2010; Tseng 2001). The main idea is that, crosslinguistically, adpositional inventories tend to be considerably heterogeneous. On the one hand, we find so-called primary adpositions that encode a wider array of meanings, which can be spatial or non-spatial, and may mark syntactic functions that in other languages are marked by such means as case affixes. These tend to be smaller in size and monomorphemic (or, unanalyzable). On the other hand, we find so-called secondary adpositions that encode a more limited set of functions, which tend to be more concrete and predominantly spatial. These are generally larger in size and often polymorphemic or analyzable into constituent parts, either synchronically or diachronically. Hewson & Bubenik (2006: 48) capture this heterogeneity by means of a grammatical–lexical continuum of adpositions, which is reminiscent of the more general pathway of morphological evolution that Svorou (1986: 516) has proposed for the diachrony of locative expressions shown in Figure 1.

What Svorou and Hewson & Bubenik describe is a grammaticalisation path from more lexical/less grammatical linguistic elements to less lexical/more grammatical ones. Different members of a given adpositional inventory can be found on different points on this path, that is, they can be more or less grammaticalised depending on the degree of semantic bleaching, morphological reduction, phonetic erosion and obligatorification that they exhibit (see, among others, Heine 1989, Heine, Claudi & Hünemeyer 1991, Lehmann 1990, 1995, Rubba 1994).

### 3 The Adpositional Systems of the Languages in Contact

In many works in contact linguistics, in order to establish and account for the development of contact-induced innovations, the standard forms of two languages are compared. King (2005: 235) and Poplack & Levey (2010), however, have shown this to be a fundamental methodological flaw as very often contact involves varieties that are geographically and/or historically distanced from their respective standards and therefore naturally different in terms of their grammar. With this in mind, they stress the importance of comparing “appropriate reference varieties” (Poplack & Levey 2010: 395) in order to arrive at sound conclusions regarding the diachrony of contact-induced change. In the case of Asia Minor Greek, it is clear that present-day Standard Modern Greek and Standard Modern Turkish cannot form the two bases of comparison. Rather, if one considers the history of the area under examination and of the demographic groups that interacted culturally, economically and politically within its confines, it is Late Medieval Greek and Ottoman Turkish that emerge as the appropriate reference varieties and their adpositional systems that are therefore described in this section.<sup>1</sup>

The description of the Greek system draws on the work of Bortone (2010), Horrocks (2010), Tachibana (1994a, 1994b) and Theophanopoulou-Kontou (1992, 1995, 2000). The Turkish system is illustrated on the basis of Deny (1921), Gilson (1987), Göksel and Kerslake (2011), Kabak (2006), Kornfilt (1997), Lewis (2000), Turan (1996, 1998) and Vaughan (1709). In addition to valuable data, these sources provide detailed synchronic analyses of the adpositional systems

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1 As one anonymous reviewer correctly notes, a more accurate investigation would require comparing the adpositional systems of the historical regional varieties, namely Late Medieval Asia Minor Greek with Central Anatolian Turkish and Black Sea Turkish. However, there is a dearth of texts written in dialectal Greek or Turkish in the period before the 19th century, which is why I use the sources mentioned above for the purposes of the present study.

TABLE 1 *Late Medieval Greek prepositions*

Preposition	Main function(s)	Gloss
EIS	ALLATIVE, LOCATIVE	'to, at'
APO	ABLATIVE	'from'
GIA	PURPOSIVE	'for'
ME	COMITATIVE, INSTRUMENTIVE	'with'
KHŌRIS	EXCLUSIVE	'without'
ŌS	ESSIVE, MOTIVATIVE	'as, because of'

of the two languages from both a formal and a non-formal point of view; the interested reader is referred to them for more information.

### 3.1 *The Late Medieval Greek Adpositional System*

The adpositional system of Late Medieval Greek consists of two sets of adpositional relators: (a) one set of (primary) prepositions, and (b) one set of (secondary) ambipositions. The former set, which is the older of the two, is rather small in size and includes only the six members shown in Table 1.<sup>2</sup>

2 Throughout the paper, Medieval Greek data are transliterated from the original into Latin characters on the basis of the following Latin-to-Greek graphemic correspondences: <A a> = <Α α>, <B b> = <Β β>, <D d> = <Δ δ>, <E e> = <Ε ε>, <Ē ē> = <Η η>, <G g> = <Γ γ>, <I i> = <Ι ι>, <K k> = <Κ κ>, <Kh kh> = <Χ χ>, <L l> = <Λ λ>, <M m> = <Μ μ>, <N n> = <Ν ν>, <O o> = <Ο ο>, <Ō ō> = <Ω ω>, <P p> = <Π π>, <Ph ph> = <Φ φ>, <R r> = <Ρ ρ>, <S s> = <Σ σ>, <T t> = <Τ τ>, <Th th> = <Θ θ>, <U u> = <Υ υ>, <X x> = <Ξ ξ>, and <Z z> = <Ζ ζ>. Asia Minor Greek data are given in broad phonetic transcription. The transliteration of Ottoman Turkish and Central Anatolian Turkish data into Latin follows the so-called Turcological notation (Johanson and Csató, 1998). Modern Turkish data are given in standard Turkish orthography. The following glossing abbreviations are used in the examples: 1: first person, 2: second person, 3: third person, ABL: ablative, ACC: accusative, ALL: allative, ANT: anterior, ART: article, COM: comitative, COMP: complementiser, COP: copula, CTLAT: contra-lateral, DAT: dative, DEF: definite, DEM: demonstrative, DIM: diminutive, F: feminine, FUT: future, GEN: genitive, IMP: imperative, INDF: indefinite, INF: inferior, INFV: infinitive, INT: interior, IPFV: imperfective, LIM: limitative, LOC: locative, M: masculine, MED: medial, N: neuter, NEG: negation, NOM: nominative, OBL: oblique, PL: plural, PN: proper name, PNP: perfective non-past, POSS: possessive, POST: postessive, PROX: proximal, PROXT: proximate, PRS: present, PST: past, PURP: purposive, ROB: roborative, SG: singular, SUP: superior, TERM: terminative. The preposition EIS/SE is conventionally glossed LOC in all examples, and not ALL or DAT depending on the example. In addition to grammatical category labels, small capitals are used for inherited Greek adpositions to cover diachronic and diatopic variation in their form.



Prepositions always license obligatory complements, which are uniformly marked by the accusative case. They are always preposed and form Prepositional Phrases (PrepPs) of the type [PREPOSITION + NP<sub>ACC</sub>]. In terms of their semantics, they encode a wide range of functions, both spatial and non-spatial. For example, EIS is used in this period to express, among other functions, direction, location and recipient (for a detailed account of the history of EIS, see Georgakopoulos 2011, 2014). Consider, in that connection, the examples in (1). Note that EIS fuses with the definite article yielding forms such as *ston* (1a) and *stēn* (1c, d).

- (1) a. *esebēn ston koitōnan tou*  
 enter.PST.3SG LOC.DEF.M.SG.ACC chamber(M).SG.ACC 3SG.M.GEN  
*kathetai monakhos tou*  
 sit.PRS.3SG alone.M.SG.NOM 3SG.M.GEN  
 ‘He entered into his chamber and sat by himself’ (*Imperius* (13/14c), 155)

- b. *den ein’ korasia eis ton*  
 NEG COP.PRS.3 girl(N).PL.NOM LOC DEF.M.SG.ACC  
*Pada eis tou Pastra to*  
 PN(M).SG.ACC LOC DEF.M.SG.GEN PN(M).SG.GEN DEF.N.SG.ACC  
*kastron*  
 fortress(N).SG.ACC  
 ‘Are there no girls in Baghdad, in the fortress of Basra?’ (*Digenes Akrites*  
 E (?11c CE, ms. 15c), 233)

- c. *palin graphēn apesteilen o*  
 again letter(F).SG.ACC send.PST.3SG DEF.M.SG.NOM  
*Libistros stēn korē*  
 PN(M).SG.NOM LOC.DEF.F.SG.ACC girl(F).SG.ACC  
 ‘Libistrus sent a letter to the girl again’ (*Libistrus* (13/14c), 1352)

When prepositions govern the personal pronoun, this has to appear in the strong accusative form ([PREPOSITION + PRONOUN<sub>ACC</sub>]):

- (2) *eis emena(n)*  
 LOC 1SG.ACC

Due to developments that affected their semantic content in earlier stages of the language, Late Medieval Greek prepositions can only be used to encode abstract spatial relations and are not able to express specific spatial region. This

TABLE 2 *Late Medieval Greek ambipositions*

Ambiposition	Spatial region	Gloss
(A/E)PANŌ	SUPERIOR	'on top of, above'
(APO/YPO)KATŌ	INFERIOR	'under'
EMPROS	ANTERIOR	'in front of'
OPISŌ	POSTERIOR	'behind'
(AP)ESŌ	INTERIOR	'inside'
MESA/-ON	INTERIOR	'inside'
EXŌ	EXTERIOR	'outside'
KONTA	PROXIMATE	'near'
SIMA	PROXIMATE	'near'
ANAMESA/-ON	MEDIAL	'between'
(TRI)SGYRŌ	CIRCUMFERENTIAL	'around'
PERA	ULTERIOR	'beyond'
ANTIKRY	CITERIOR-ANTERIOR	'opposite'
MAZI	COMITATIVE	'together'
ANTAMA	COMITATIVE	'together'

function is fulfilled by the second set of relators, which contains the ambipositions shown in Table 2. Unlike prepositions, which tend to be monosyllabic, ambipositions are polysyllabic (or polymorphemic; Bortone 2010: 118) and are often the result of historical derivational processes.

Ambipositions cannot take a full noun as their complement, at least not in this period. Instead, they always have to combine with a preposition as shown in (3). In this period, ambipositions most commonly combine with EIS, as in (3a). They combine with APO when an ablative is licensed by the verb (3b) while comitative ambipositions combine with ME, as in (3c).

- (3) a. *ekei oi anthropoi ekeitontan apokatō eis*  
 there DEF.M.PL.NOM person(M).PL.NOM lie.PST.3PL INF LOC  
*ta phulla*  
 DEF.N.PL.ACC leaf(N).PL.ACC  
 'There the people lay under the leaves' (*Alexander Romance* E (16c), 80.3.3)

b. *ekbalan*            *to*                    *kormitsin*                    *tou*  
 take\_out.PST.3PL DEF.N.SG.ACC body.DIM(N).SG.ACC 3SG.M.GEN  
*mesa apo tous*                    *ippous*  
 INT LOC DEF.M.PL.ACC horse(M).PL.ACC  
 ‘They took his body out from among the horses’ (*Troy* (13/14c), 5070)

c. *thelō*            *kai ta*                    *pharia*                    *sas*            *mazi*  
 want.PRS.1SG and DEF.N.PL.ACC horse(N).PL.ACC 2PL.GEN COM  
*me t’*                    *armata*                    *sas*  
 COM DEF.N.PL.ACC chariot(N).PL.ACC 2PL.GEN  
 ‘I want your horses together with your chariots’ (*Achilleid* O (16c), 163)

(3) shows the regular positioning of ambipositions, which is on the left of prepositions in forming complex PrepPs of the type [PREPOSITION + PREPOSITION + NP<sub>ACC</sub>]. Occasionally, though, ambipositions may also be placed after the adpositional complement, most probably as a result of some kind of movement, resulting in a circumposition of the type [PREPOSITION + NP<sub>ACC</sub> + POSTPOSITION]. This is a clearly marked option that in many attested cases appears to be used to satisfy metrical requirements. Nevertheless, its use in examples such as (4), in which the placement of the ambiposition on the left of the preposition would make an equally good verse meter-wise, and—not least—its survival in spoken Greek until the present-day suggest strongly that circumpositional ordering must have been a marginal yet legitimate feature of the Late Medieval Greek vernacular. The linguistic and/or social factors conditioning the variation between the prepositional and circumpositional orders are, however, yet to be established.

(4) *kai eis to*                    *spathi*                    *sou*            *omnuō*  
 and LOC DEF.N.SG.ACC sword(N).SG.ACC 2SG.GEN swear.PRS.1SG  
*se eis t’*                    *armata*                    *sou*            *apanou*  
 2SG.ACC LOC DEF.N.SG.ACC chariot(N).SG.ACC 2SG.GEN SUP  
 ‘I swear to you by your sword and by your chariots’ (*Libistrus* (13/14c), 3148)

There are two more important differences between the two sets of Late Medieval Greek adpositions. The first concerns pronominal complements. As mentioned above, pronominal complements of prepositions appear in the strong accusative form. In the case of ambipositions, pronominal complements appear in the weak genitive form ([PREPOSITION + PRONOUN<sub>GEN</sub>]), which is also the form used for the expression of possession. Compare the pronominal form in (5a) with that in (5b).

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Stage I	Classical Greek	PREPOSITION + NP
Stage II	Hellenistic Greek	(PREPOSITION +) PREPOSITION + NP ~ PREPOSITION + NP (+ POSTPOSITION)
Stage III	Medieval Greek	PREPOSITION + PREPOSITION + NP ~ PREPOSITION + NP + POSTPOSITION

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FIGURE 2 *Stages 0, I and II of the adpositional cycle*

(5) a. *konta mou*

PROXT 1SG.GEN

'Near me'

b. *to*

*teknon*

*mou*

DEF.N.SG.NOM/ACC child(N).SG.NOM/ACC 1SG.GEN

'My child'

The second difference has to do with the fact that ambipositions do not always license a complement and can therefore appear without one as shown in (6). In cases such as these, they can be considered as functioning adverbially.

(6) *alla pote ouk esēkōse to prosōpon*

but never NEG lift.PST.3SG DEF.N.SG.ACC face(N).SG.ACC

*tou apanou*

3SG.M.GEN SUP

'But he never lifted his face up' (*Troy* (13/14c), 8400)

In terms of the the adpositional cycle, Late Medieval Greek illustrates the regularisation of the use of ambipositions to reinforce prepositions that have by now lost part of their ability to encode spatial region. This stage is schematically represented in Figure 2. In Classical Greek (Stage I), the precursors of Late Medieval Greek prepositions normally sufficed for the expression of a wide range of spatial meanings, including region. In the Hellenistic period (Stage II), they begin to lose that ability, and ambipositions start to be optionally used with prepositions, positioned either before or after the adpositional complement, until they become the regular means for the expression of spatial region in the Medieval period (Stage III).

### 3.2 *The Ottoman Turkish Adpositional System*

In Ottoman Turkish, we also find two sets of adpositional relators: (a) bare postpositions, and (b) relational nouns. It is important to note, however, especially in regard to the former set, that the difficulty of drawing the line between adpositions and other elements (case affixes, adverbs, converbs) that Hagège (2010) discusses in length is, according to Libert (2008, 2013), particularly pronounced in the Turkic languages. In this section, I discuss those relators whose adpositional status is widely accepted in the relevant Turkic literature as far as the Ottoman period is concerned.

Bare postpositions are defined on the basis of two morphosyntactic characteristics: (a) they always appear in the same, invariable form, and (b) they select the case of their complements. Based on the latter characteristic, they are usually classified into three groups: (i) postpositions that take a zero-marked or genitive complement; (ii) postpositions that take a dative complement; and, (iii) postpositions that take an ablative complement. The three groups are shown in Table 3. Examples of usage are given in (7).

- (7) a. *aq aqçe qara gün-Ø içün-dür*  
 white money black day-Ø PURP-COP  
 ‘White money is for a black day’ (Deny 1921: 589)
- b. *meze-ler-i bir-e qadar ye-di*  
 meze-PL-ACC one-DAT TERM eat-PST  
 ‘He ate all the mezes until last’ (Deny 1921: 611)
- c. *siz-den sojra*  
 2PL-ABL POST  
 ‘After you’ (Deny 1921: 624)

Relational nouns form a construction of the possessive type with their complements. They bear a possessive suffix that agrees with their complement, which is in turn typically marked by the genitive. An oblique case marker is further added to the possessive-marked noun as required by the syntactic role of the whole phrase in the sentence (for the structural bare-bones of Turkish possessive constructions, see Hayashi 1996, van Schaak 1992, Yüксеk 1998). As shown in Table 4, relational nouns predominantly express specific spatial region. Examples of their usage are given in (8).

TABLE 3 *Ottoman Turkish bare postpositions*

Postposition	Main function(s)	Gloss
<b>I. Zero-marked or genitive complement</b>		
<i>ile, ilen</i>	COMITATIVE, INSTRUMENTIVE	'with, by means of'
<i>birle</i>	COMITATIVE, INSTRUMENTIVE	'with, by means of'
<i>için, içün</i>	PURPOSIVE	'for'
<i>gibi</i>	ASSIMILATIVE	'like, as'
<i>teg</i>	ASSIMILATIVE	'like, as'
<i>qadar</i>	EQUATIVE	'as ... as'
<i>üzere, üzre</i>	PURPOSIVE, ROBORATIVE	'for, according to'
<b>II. Dative complement</b>		
<i>qadar</i>	TERMINATIVE	'until, as far as'
<i>dek, degin</i>	TERMINATIVE	'until, up to'
<i>doğru</i>	ALLATIVE	'towards'
<i>qarşı</i>	ALLATIVE	'towards, forward'
<i>göre</i>	ROBORATIVE	'according to'
<b>III. Ablative complement</b>		
<i>evvel</i>	PREESSIVE	'before'
<i>soñra, sora</i>	POSTESSIVE	'after'
<i>berü, beri</i>	ABESSIVE (TEMPORAL)	'since'
<i>dolayî</i>	MOTIVATIVE	'because of'
<i>başqa</i>	EXCEPTIVE	'except for'
<i>mada</i>	EXCEPTIVE	'except for'
<i>dişari, dişari</i>	ABESSIVE (SPATIAL)	'outside'
<i>içeri</i>	INESSIVE	'inside'
<i>yoqari</i>	SUPERESSIVE	'above'
<i>aşagi</i>	SUBESSIVE	'under'

TABLE 4 *Ottoman Turkish relational nouns*

Relational noun	Spatial region	Gloss
<i>üst-, üzer-</i>	SUPERIOR	'on top of, above, on'
<i>alt-</i>	INFERIOR	'under, underneath, below'
<i>ön-</i>	ANTERIOR	'in front of'
<i>arka-, art-</i>	POSTERIOR	'behind'
<i>iç-</i>	INTERIOR	'inside, in'
<i>dış-</i>	EXTERIOR	'outside'
<i>ara-</i>	MEDIAL	'between, among'
<i>yan-</i>	LATERAL	'beside, next to'
<i>qarşı</i>	CONTRA-LATERAL	'opposite'

- (8) a. *öküz-ün alt-in-da* *buzag-i ara-yor*  
 ox-GEN bottom-POSS.3SG-LOC calf-ACC look\_for-IPFV  
 'He is looking for the calf under the ox' (Deny 1921: 655)
- b. *bir magara-niñ iç-in-e* *gir-mek*  
 INDF cave-GEN interior-POSS.3SG-DAT enter-INV  
 'To enter into a cave' (Deny 1921: 657)
- c. *gel yan-ım-a*  
 come side-POSS.1SG-DAT  
 'Come next to me' (Deny 1921: 661)

A distinctive characteristic of the syntax of relational nouns that we see in (8c) is that their complement can be omitted if it is a personal pronoun, thanks to the presence of the possessive suffix. This is not possible in the case of bare postpositions whose pronominal complements always need to be overtly expressed (7c).

#### 4 The Asia Minor Greek Adpositional System: Language-internal Continuity and Contact-induced Change

In its defining characteristics, the adpositional system of the Asia Minor Greek dialects continues the state of affairs of the Late Medieval Greek period. First and foremost, it comprises two sets of adpositions: (a) one set of (primary)

TABLE 5 *Asia Minor Greek prepositions*

Preposition	Attested forms	Main function(s)	Gloss
SE	<i>se, s, z</i>	ALLATIVE, LOCATIVE	'to, at'
APO	<i>apo, po, apu, ap, ab, ape, pe, as, az, op</i>	ABLATIVE	'from'
GIA	<i>ja</i>	PURPOSIVE	'for'
ME(TA)	<i>met, me, mi, m, mo, mode</i>	COMITATIVE, INSTRUMENTIVE	'with'
KHORIS	<i>xoris, xors</i>	EXCLUSIVE	'without'
OS	<i>os, us, oz</i>	TERMINATIVE	'up to, until'
TSAX	<i>tfax, tfaus</i> (Misti Cappadocian)	TERMINATIVE	'up to, until'

TABLE 6 *Asia Minor Greek postpositions*

Postposition	Attested forms	Spatial region	Gloss
(A/E)PANO	<i>apano, abano, apanu, abanu, apan, epano, panu, banu</i>	SUPERIOR	'on top of, above'
(APO)KATO	<i>apokato, apkato, aptago, pokato, pokatu, kato, kado, katu, kat</i>	INFERIOR	'under'
(E/O)MBROS	<i>embro, embron, ombro, ombro, bro, bron, mbro, mbron, ambros</i>	ANTERIOR	'in front of'
(O)PISO	<i>opiso, opisu, obisu, piso, pisu, apisu, apopiso, apapiso, popisu</i>	POSTERIOR	'behind'
APESO	<i>apeso, apesu, apes, beso, pesu</i>	INTERIOR	'inside'
MESA	<i>mesa, emesa, mefi, mef</i>		
OKSO	<i>okso, oksu</i>	EXTERIOR	'outside'
KONDA	<i>konda, kunda</i>	PROXIMATE	'near'
ANAMESA	<i>anamsa</i>	MEDIAL	'between'
PERA	<i>pera</i>	ULTERIOR	'beyond'
DAMA	<i>dama</i>	COMITATIVE	'together'
ISTERA	<i>istera, isteris, ister, isterjas, isterjanas, steru</i>	TEMPORAL POSTESSIVE	'after'

prepositions shown in Table 5, and (b) one set of (secondary) postpositions shown in Table 6. These correspond to Late Medieval Greek prepositions and ambipositions, respectively.



Despite considerable formal variation, the two sets are strikingly similar to their Late Medieval Greek predecessors in terms of relative class size, member size, morphology, semantics and syntax. The two adpositional systems are, however, not identical. As mentioned in the introduction, the Asia Minor Greek dialects underwent a series of innovations in the order of ambipositions. They also expanded their adpositional inventory by the addition of new members mainly to the postpositional but also to the prepositional set; see, for example, Misti Cappadocian TSAX in Table 5. The diachrony of these developments is described in detail in the remainder of this section.

#### 4.1 *From Complex Prepositions to Circumpositions to Postpositions*

The Asia Minor Greek dialects continue Stage III of the adpositional cycle in that region-encoding adpositions combine regularly with prepositions to encode spatial region (with SE as a general rule, with APO when an ablative is licensed by the verb, with ME if they are comitative). Unlike Late Medieval Greek, however, there is no variation with respect to their positioning. In Asia Minor Greek, they appear strictly after the adpositional complement as shown in (9). Note that, in most varieties, the fusion of SE and of the variant *as* of APO with the definite article yields forms beginning with *s-* and *as-*, respectively.

(9) a. Araván Cappadocian

*ena manaxo pomne sa çires*  
 one alone.SG.NOM remain.PST.3SG LOC.DEF.PL.ACC door.PL.ACC  
*apkato*  
 INF  
 ‘Only one was left under the doors’ (Dawkins 1916: 332)

b. Pharasiot

*iyrepsen ci so*  
 see.PST.3SG COMP LOC.DEF.N.SG.ACC  
*dzufalin=tu panu eni a meyo*  
 head(N).SG.ACC=3SG.M.GEN SUP COP.PRS.3 INDF big.N.SG.NOM  
*puli*  
 bird(N).SG.NOM  
 ‘He saw that above his head there is a big bird’ (Dawkins 1916: 470)

## c. Silliot

*vavas=tfis* *tfin* *kori*  
 father(M).SG.NOM=3SG.F.GEN DEF.F.SG.ACC girl(F).SG.ACC  
*sekyni=tfi* *sta* *kfila*  
 put.PRS.3SG=3SG.F.ACC LOC.DEF.N.PL.ACC wood(N).PL.ACC  
***anamsa***

MED

'Her father sets the girl in the midst of the wood' (Dawkins 1916: 284)

There is, however, strong evidence that the Asia Minor Greek dialects went through a synchronic stage of the Late Medieval Greek type when region-encoding adpositions appeared on the left of prepositions. This is found in rare occurrences of [PREPOSITION + PREPOSITION + NP<sub>ACC</sub>] sequences in Cappadocian texts, as in (10); in the variation between [PREPOSITION + PREPOSITION + NP<sub>ACC</sub>] and [PREPOSITION + NP<sub>ACC</sub> + POSTPOSITION] sequences in the more conservative Pontic varieties, as in (11); and, in the fact that the even more conservative Crimeoazovian Greek exhibits only the [PREPOSITION + PREPOSITION + NP<sub>ACC</sub>] order, as in (12).

## (10) Delmesó Cappadocian

*ce anevin* *apano so* *spitf*  
 and go\_up.PST.3SG SUP LOC.DEF.SG.ACC house.SG.ACC  
 'And he went up to the house' (Dawkins 1916: 316)

## (11) Kotýora Pontic

*đeson* *to* *petsin* *sa*  
 tie.IMP.2SG DEF.N.SG.ACC skin(N).SG.ACC PREP.DEF.N.PL.ACC  
*mesa=s,* *apan sin*  
 waist(N).PL.ACC=2SG.GEN SUP LOC.DEF.F.SG.ACC  
*cilia=s* (...) *s' ato* *apan*  
 belly(f).SG.ACC=2SG.GEN LOC DEM.PROX.N.SG.ACC SUP  
*o* *đrakon* *a span*  
 DEF.M.SG.NOM dragon(M).SG.NOM FUT break.PNP.3SG  
*aso* *kakon=at*  
 ABL.DEF.N.SG.ACC evil(N).SG.ACC=3SG.M.GEN  
 'Tie the skin at your waist, on your belly (...) then the dragon will eat his heart out' (Lianidis 2007: 186)

## (12) Crimeoazovian Greek

*pis stu ksenu tu*  
 INT LOC.DEF.N.SG.ACC foreign.N.SG.ACC DEF.N.SG.ACC  
*spit*  
 house(N).SG.ACC  
 ‘Inside somebody else’s house’ (Symeonidis & Tompaidis 1999: 95)

We can therefore conclude that, in Asia Minor Greek, Late Medieval Greek complex PrepPs of the type [PREPOSITION + PREPOSITION + NP<sub>ACC</sub>] developed into Circumpositional Phrases (CircumPs) of the type [PREPOSITION + NP<sub>ACC</sub> + POSTPOSITION]. Asia Minor Greek CircumPs fulfil the requirement for circumpositionalhood proposed in Section 2 as the combination of postpositions with prepositions is obligatory when the intended meaning includes spatial region. Examining the examples in (9), the only grammatical means to express the inferior, superior and medial spatial relations (‘under the doors’, ‘above his head’, ‘in the midst of wood’) is to combine *apkato*, *panu* and *anamsa* with SE to form the discontinuous syntagms *s(e) ... apkato*, *s(e) ... panu* and *s(e) ... anamsa*, which are conventionalised. What is crucial here is that spatial region cannot be encoded solely by the combination of postpositions with accusative-marked NPs (*\*ta çires apkato*, *\*to dżufalin=tu panu*, *\*ta ksila anamsa*) as postpositions simply do not have the ability to function independently of SE and form region-encoding Postpositional Phrases. SE may well form simple PrepPs such as *sa çires*, *so dżufalin=tu* and *sa ksila*. These, however, do not encode the inferior, superior, and medial regions but, rather, more abstract spatial relations such as location and goal; cf. David’s (2014) distinction between (a) elements that are found both independently as prepositions and postpositions, and as parts of discontinuous syntagms; and, (b) elements that cannot function independently as adpositions but always have to combine with another adposition to form phrases of the circumpositional type.

Circumpositions are generally considered to be a cross-linguistically rare type of adposition, “a rather uncommon phenomenon” according to Hagege (2010: 115). It is indicative that Dryer’s (2013) WALS sample, which totals 1185 languages, does not include any languages with circumpositions. As one anonymous reviewer points out, however, various types of circumpositions have been identified in German, Dutch, Pashto, Kurdish and other Iranian languages; see, for example, the Pashto circumpositions discussed in Section 2. The reason why these are not mentioned by Dryer is that WALS only records dominant word orders disregarding more marginal variants attested in the crosslinguistic sample (Huber and the APiCS Consortium 2013: 15). In any case, circumpositions remain an infrequent adposition type crosslinguistically, which, according to

Stilo (2004, 2009), tends to be found in border areas where speakers of head-initial, prepositional languages come in contact with speakers of head-final, postpositional languages. The social and geographical circumstances of the Asia Minor Greek dialects fit this description perfectly.

In this light, it seems reasonable to assume that language contact with Turkish was one of the factors that contributed to the development of circumpositions in Asia Minor Greek. As we have already seen, however, circumpositional order was not unknown to Late Medieval Greek but was a marked—albeit available—grammatical option. It can therefore be proposed that contact with Turkish did not introduce a completely new order but, rather, favored an already existing option promoting it to the status of unmarked default. This type of contact-induced development has been described in the literature with the use of a few different terms (as is often the case in contact linguistics): frequential copying (Johanson 1999: 52, 2002: 306), enhancement (Aikhenvald 2002: 238), rise of major use patterns from minor use patterns (Heine & Kuteva 2005: 50), all cited in Pakendorf 2013: 200.<sup>3</sup>

The generalization of circumpositional order as the only grammatical possibility in Asia Minor Greek was the result of pattern replication, a mechanism that according to Matras & Sakel (2007: 836) involves the following steps:

- (13) a. Identify constructions with parallel functions in the two languages;
- b. Identify a functional ‘pivot’ on which the model construction rests;
- c. Identify a parallel ‘pivot’ in the recipient language;
- d. Identify their functional scope and its necessary extension;
- e. Identify features that cannot be compromised (constraints);
- f. Accommodate accordingly.

In our case, Late Medieval Greek ambipositions paralleled Ottoman Turkish relational nouns in terms of semantics as they both encoded specific spatial region; for example, superior (A/E)PANŌ :: *üst-*, anterior EMPROS :: *ön-*, interior (AP)ESŌ :: *iç-* (step (13a)). As seen in 3.2, the pivotal feature on which the use of relational nouns as postpositions rested in Ottoman Turkish was that they formed possessive constructions with their complements, which differentiated them from postpositional phrases (PostPs) formed with bare postpositions (step (13b)). The parallel pivot in Late Medieval Greek was that pronominal complements of ambipositions appeared in the weak genitive

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3 See also the early discussion of Semitisms in New Testament Greek by Moulton (1906: 10–19). I thank one anonymous reviewer for bringing this material to my attention.

form, which was the form used for the expression of possession. This syntactic characteristic was matched with possessive marking on Ottoman Turkish relational nouns (step (13c)). As can be seen in (14), the order of the region-encoding element in relation to the possessive marker is the same in both languages. Another similarity is that, in both languages, full pronominal complements could be used optionally for focalization and other pragmatic purposes. These parallelisms can only have facilitated the process of pivot matching.

- (14) Late Medieval Greek                      Ottoman Turkish  
 (*emena(n)*) *apanō mou*            :: (*ben-im*) *üst-üm*-{*e/de*}  
 1SG.GEN    SUP    1SG.GEN    1SG-GEN top-1SG-{DAT/LOC}  
 ‘on (top of) me’

Based on these similarities, the postpositional order of Ottoman Turkish relational nouns was replicated in Asia Minor Greek for ambipositions. This involved the extension of the functional scope of region-encoding constructions from the domain of pronominal complements to that of full NP complements (step (13d)).

There is some evidence to suggest that at its initial stages the replication process possibly involved an attempt to extend the distributional contexts of use of possessive marking to include postpositions, an innovation when compared with Late Medieval Greek. This resulted in constructions that paralleled Ottoman Turkish PostPs in a more complete way. Compare (15a) with (15b).

- (15) a. Axó Cappadocian  
*sto*                      *provato*                      *meſi=t*                      *ivren*                      *deka*  
 LOC.DEF.SG.ACC    sheep.SG.ACC    INT=3SG.GEN    find.PST.3SG    ten  
*lires*  
 lira.PL.ACC  
 ‘He found ten liras inside the sheep’ (Dawkins 1916: 402)
- b. Ottoman Turkish  
*koyun iç-in-de*                      *on lira bul-du*  
 sheep interior-3SG-LOC    ten lira find-PST  
 ‘He found ten liras inside the sheep’

However, the extension of possessive marking on postpositions did not generalize as it was not possible for a possessive marker in the genitive (= *t*) to

refer back to a head noun marked with the accusative (*provato*). This was a structural feature that could not be compromised (step (13e)). The end result of pattern replication in the majority of Asia Minor Greek dialects was circumpositional sequences of the type [PREPOSITION + NP<sub>ACC</sub> + POSTPOSITION] (step (13f)). This series of developments brought most Asia Minor Greek dialects to Stage IV of the adpositional cycle, in which two elements, a preposition and a postposition, are obligatorily used for the expression of spatial region.

A few dialects are found at a more advanced stage. In Phloïtá Cappadocian and in Silliot, the preposition SE is frequently omitted from CircumPs, which results in a novel means for the encoding of spatial region, namely PostPs of the type [NP<sub>ACC</sub> + POSTPOSITION]. Consider the examples in (16)–(17):

(16) Phloïtá Cappadocian

*istera      semen            na      delasti            to*  
 afterwards enter.PST.3SG COMP walk.PNP.3SG DEF.SG.ACC  
*xorjo                    mesa*  
 village.SG.ACC INT  
 ‘Afterwards he went into the village to walk’ (Dawkins 1916: 414)

(17) Silliot

*sori                    otfi      tfi                    siran=tu                    ambros*  
 see.PRS.3SG COMP DEF.F.SG.ACC door(F).SG.ACC=3SG.GEN ANT  
*epi                    mpa                    xofas:a                    kori*  
 COP.PRS.3 INDF.F.NOM beautiful.F.SG.NOM girl(F).SG.NOM  
 ‘He sees that in front of his door is a beautiful girl’ (Dawkins 1916: 286)

Drawing on recent work by Lestrade (2010, 2013) and Stolz, Lestrade & Stolz (2014), Karatsareas & Georgakopoulos (2016) identify two driving forces behind the omission of SE in these dialects: (a) a general speakers’ preference for economic utterances; and, (b) the general tendency observed in Asia Minor Greek to achieve structural convergence with Turkish with respect to the position of heads and complements (see also the discussion in Section 5). The former refers to the fact that, in utterances such as (16) and (17), the Goal and Place relations that hold between the respective Figures and Grounds (in the sense of Talmy 1985, 2000)—that is, between the third person singular and *to xorjo*, and between *mpa xofas:a kori* and *tfi siran=tu*—are encoded by both SE and the spatial verbs *semen* and *epi*. From that point of view, the use of the preposition to mark Goal and Place can be seen not only as redundant but also as

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Stage I	Classical Greek	PREPOSITION + NP
Stage II	Hellenistic Greek	(PREPOSITION +) PREPOSITION + NP ~ PREPOSITION + NP (+ POSTPOSITION)
Stage III	Medieval Greek	PREPOSITION + PREPOSITION + NP ~ PREPOSITION + NP + POSTPOSITION
Stage IV	Asia Minor Greek	PREPOSITION + NP + POSTPOSITION
Stage V	Asia Minor Greek (Phloítá and Ulaghátsh Cappadocian, Silliot)	NP + POSTPOSITION

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FIGURE 3 *The Asia Minor Greek adpositional cycle*

contributing to a high informational load for the whole utterance. The load is even higher in cases like (16) where the information regarding the interior spatial region is encoded both by the postposition *mesa* and the spatial verb *semen*. Karatsareas & Georgakopoulos therefore propose that the omission of SE is partly the result of an informational load-relief strategy aimed at producing more economic/less redundant motion-event-encoding utterances.

As far as the latter tendency is concerned, following the development of CircumPs detailed above, Asia Minor Greek and Turkish converged on the adpositional level in that, in adpositional phrases that included the specification of spatial region, the region-encoding element appeared postpositionally in both languages. Structural convergence, however, was only partial since Asia Minor Greek retained the preposition SE as part of most CircumPs while Turkish PostPs lacked such a prepositional element. In that light, the omission of SE can be thought of as promoting full structural convergence between the two languages in this part of the adpositional domain.

In Phloítá Cappadocian and in Silliot, SE-less PostPs occur in variation with inherited CircumPs in which SE is normally present. Ulaghátsh Cappadocian is even more advanced. In Ulaghátsh, the omission of SE has been generalised, the use of SE-less PostPs has superseded that of CircumPs and SE is no longer part of the variety's prepositional inventory (for more details, the interested reader is referred to Karatsareas & Georgakopoulos 2016). This dialect thus completes the Asia Minor Greek adpositional cycle with Stage V, in which spatial region is single-marked by postpositions (Figure 3).

## (18) Ulaghátsh Cappadocian

a. *ito*                              *cel oylan*                              *cimije*                              *to*  
 DEM.PROX.SG.NOM scaldhead.SG.NOM sleep.PST.3SG DEF.SG.ACC  
*pelit ayatf*                              *apkato*  
 plane\_tree.SG.ACC INF

‘The scaldhead went to sleep beneath the plane tree’ (Dawkins 1916: 372)

b. *irte*                              *ena binar*                              *kunda*  
 come.PST.3SG INDF spring.SG.ACC PROXT  
 ‘He came near a spring’ (Dawkins 1916: 366)

It has to be clarified, though, that CircumPs formed with the ablative APO and with the comitative ME are preserved normally in Phloità and Ulaghátsh Cappadocian and in Silliot. This means that their adpositional inventory is the typologically most diverse within the Asia Minor Greek group including—as it does—prepositions, circumpositions and postpositions.

4.2 *The Expansion of the Asia Minor Greek Adpositional Inventory*

## 4.2.1 The Replication of Ottoman Turkish Matter

In addition to the replication of postpositional order for inherited ambipositions, some—mostly Cappadocian—varieties also borrowed a number of postpositional elements wholesale from Ottoman Turkish, incorporating them to their adpositional inventory. The attested instances of matter replication (in the sense of Matras & Sakel) include seven bare postpositions, one relational noun and one adverb. As can be seen in Table 7, these express a range of spatio-temporal and non-spatio-temporal meanings.

In the varieties that have borrowed them, Ottoman Turkish postpositional elements are added to the same adpositional set as postpositions. Hence, they have to combine with prepositions and form CircumPs of the type analysed in 4.1 (19a). In the three varieties that show variable or no use of SE in CircumPs, borrowed elements naturally form PostPs (19b).

## (19) a. Delmesó Cappadocian

*mi to peniŋcen*                              *irten*                              *s’*                              *ena spitf*  
 while go.PST.IPFV.3SG come.PST.3SG LOC INDF house.SG.ACC  
*iresça*  
 CTLAT

‘While he was on his way, he came across a house’ (Dawkins 1916: 306)



TABLE 7 *Ottoman Turkish postpositions replicated in Asia Minor Greek*

Turkish postposition	Asia Minor Greek forms	Main function(s)	Gloss
I. Bare postpositions			
<i>beri</i>	<i>bæri</i> (Mistí Cappadocian)	ABESSIVE (TEMPORAL)	'since'
<i>göre</i>	<i>jøre</i> (Mistí Cappadocian)	ROBORATIVE	'according to'
<i>için, içün</i>	<i>itfin, itfyn</i> (Ulaghátsh Cappadocian)	PURPOSIVE	'because of'
<i>mada</i>	<i>mede</i> (Delmesó Cappadocian)	EXCEPTIVE	'except for'
<i>qadar</i>	<i>qadar</i> (Delmesó Cappadocian)	TERMINATIVE	'until, up to'
<i>rast</i>	<i>irasça, iresça</i> (Delmesó Cappadocian), <i>irastça</i> (Phloitä Cappadocian) <i>iras</i> (Ulaghátsh Cappadocian, Pharasiot), <i>irasta</i> (Pharasiot), <i>rafa</i> (Silliot)	OBESSIVE	'opposite'
<i>sonra</i>	<i>soya</i> (Ulaghátsh Cappadocian), <i>songra</i> (Silliot)	POSTESSIVE	'after'
II. Relational noun			
<i>qarşı</i>	<i>qarfu</i> (Ghúrzono, Phloitä Cappadocian), <i>qarfi</i> (Ulaghátsh Cappadocian)	CONTRA-LATERAL	'opposite'
III. Adverb			
<i>beraber</i>	<i>barabari</i> (Delmesó Cappadocian)	COMITATIVE	'together'

## b. Phloitä Cappadocian

*mot pen strata irten ena devrefis*  
 while go.PRS.3SG way.SG.ACC come.PST.3SG INDF dervish.SG.ACC  
*irastça*

CTLAT

'While he was on his way, he came across a dervish' (Dawkins 1916: 428)

The available data do not allow us to conclude safely whether the choice of preposition is conditioned by the system that Asia Minor Greek inherited from Late Medieval Greek or by carrying over the properties of Ottoman Turkish postpositions, as, in most cases, the prepositions that we find in the texts satisfy

the combinatorial requirements of both the model and the recipient languages. *Soyra/soya* ‘after’ is a case in point. In Ottoman Turkish, the complement of *soyra* is marked with the ablative case (7c). In Cappadocian, *soya* combines with APO ‘from’, as in (20), which can be thought of as corresponding to the Ottoman Turkish ablative. However, we are not in a position to say whether this is a contact-induced effect. It is possible that what we are dealing with here is an adaptation to the native Greek pattern according to which temporal–postessive markers regularly combine with APO; see (21).

## (20) Ulaghátsh Cappadocian

*ap ena erjo meres soya efije*  
 ABL one two day.PL.ACC POST leave.PST.3SG  
 ‘After one or two days she went away’ (Dawkins 1916: 362)

## (21) Sílata Cappadocian

*as ena xrono istera neka=t*  
 ABL one year.SG.ACC POST wife.SG.NOM=3SG.GEN  
*jensen ena koritf*  
 give\_birth.PST.3SG INDF girl.SG.ACC  
 ‘After one year his wife gave birth to a girl’ (Dawkins 1916: 440)

In a few isolated cases, it is the semantics of Asia Minor Greek prepositions that determines the composition of CircumPs. In (22a), for example, the motivative *itfin* combines with APO, which is used widely in Asia Minor Greek to express cause or motive, as in (22b).

## (22) Ulaghátsh Cappadocian

a. *je epe ci ap do sevdu-si*  
 and say.PST.3SG COMP ABL DEF.SG.ACC love.SG.ACC-POSS.3SG  
*itfin*  
 PURP  
 ‘And because of her love she said ...’ (Dawkins 1916: 366)

b. *je to koritfi=t to*  
 and DEF.SG.NOM daughter.SG.NOM=3SG.GEN DEG.SG.ACC  
*pei ap to sevdinifje epe*  
 boy.SG.ACC ABL COMP love.PST.IPFV.3SG say.PST.3SG  
 ‘And his daughter, because she loved the boy, said ...’ (Dawkins 1916: 368)

However, postpositions that have been borrowed from Ottoman Turkish do not assume the full set of morphosyntactic properties of Asia Minor Greek postpositions. Recall that, when inherited postpositions receive pronominal complements, these appear in the weak genitive form, which is placed directly on their right. This type of construction is not available for Turkish postpositions. That is, we do not find constructions such as *\*soḡa=m* ‘after me’, *\*mede=s* ‘except for you’ or *\*jøre=t* ‘according to him/her’. Instead, borrowed postpositions have to combine with a preposition and form circumpositions in order to govern pronominal complements, which appear on their left in their strong accusative form (23a). The only notable exception in this respect is *qarfū*, as in (23b).

(23) a. Mistí Cappadocian

*s’ eme jøre*

LOC 1SG.ACC ROB

‘According to me, in my opinion’ (Fates 2012: 85)

b. Phloítá Cappadocian

*erunde ðio aloyat ce vyun*

come.PRS.3SG two horseman.PL.NOM and go\_out.PRS.3SG

*qarfū=tne*

CTLAT=3PL.GE

‘Two horsemen are coming, he goes out to meet them’ (Dawkins 1916: 426)

This suggests that the Ottoman Turkish distinction between bare postpositions and relational nouns was transferred into Cappadocian in the process of matter replication. Bare postpositions such as *göre* ‘according to’ never bear possessive suffixes in Ottoman Turkish and have to govern full pronominal complements, which appear on their left. Similarly, in Cappadocian, pronominal complements of bare postpositions like *jøre* appear in their strong form and on their left via a preposition. In contrast, the pronominal complements of relational nouns do not necessarily have to be fully realised but can be expressed by means of right-adjacent possessive markers. Such is the morphosyntax of both the Ottoman Turkish *qarşı* ‘opposite’ and its Cappadocian copy *qarfū*.

#### 4.2.2 The Intriguing Case of TSAX

The set of postpositions is not the only one that was enriched by the addition of new members in Asia Minor Greek. In Mistí Cappadocian, we find a new

prepositional element that occurs in two morphological variants, *tʃax* and *tʃaus*. According to Kotsanidis (2006: 86), its semantic content is limitative ('up to, until'), making it equivalent to the older preposition *os*. Of the two variants, *tʃax* always combines with *SE* and forms PrepPs of the type [*tʃax* + *SE* + *NP<sub>ACC</sub>*], as in (24a). *Tʃaus*, on the other hand, occurs on its own without *SE*, as in (24b).

(24) Mistí Cappadocian

a. *ʃondærdɑ=du tʃax s' tʰira*  
 send.IMPV.2SG=3SG.ACC TERM LOC door.SG.ACC  
 'Accompany him to the door' (Fates 2012: 85)

b. *ap t' atina bæri tʃaus dærcæ utʃa klei*  
 PREP DEF.SG.ACC PN.SG.ACC since TERM now thus cry.PRS.3SG  
 'He has been crying like this since we left Athens until now' (Fates 2012: 85)

The development of *TSAX* is particularly notable. Focusing firstly on the morphonology of the *tʃax* variant, it is easy to ascertain that it is not typically Greek. In Mistí Cappadocian, [x] occurs word-finally after back vowels only in loanwords borrowed from the Turkish dialects of Anatolia, which spirantise word-final /k/ (Caferoğlu 1959, Korkmaz 1994). Compare, for example, *ɣabax* 'pumpkin', *irmax* 'river', *odʒax* 'fireplace' with Standard Turkish *kabak*, *ırmak*, *ocak*. This would suggest that *tʃax* was borrowed from Turkish. Indeed, Central Anatolian Turkish has a limitative marker *-ğaq/çaq/ğek* that would make a good candidate for the source of *tʃax*. The two markers have similar semantics and corresponding phonology so that *tʃax* could well be the Mistí Cappadocian adaptation of the *-çaq* form. Note also that the complements of *-ğaq/çaq/ğek* are marked with the dative, as in (25), which corresponds to *SE* that *tʃax* combines with.

(25) Anatolian Turkish

a. *sabah-a-ğaq*  
 morning-DAT-LIM  
 'until the morning' (Deny 1921: 614)

b. *bura-ya-ğaq gel-di-m*  
 DEM.PROX-DAT-LIM come-PST-1SG  
 'I came (up to) here' (Deny 1921: 615)

The proposal that Mistí Cappadocian *tʃax* originates in Turkish *-çaq* is corroborated by the fact that morphophonologically and semantically similar markers are also found in Pharasiot, in the Greek dialect of Aivali/Lesbos and in the Greek dialects of Evros, all of which have been significantly influenced by Turkish in their history. The Pharasiot marker has the form *tsaxu*, which Metin Bağrıaçık (personal communication) analyses as consisting of a limitative element *tsax* and a complementiser *u*. This accounts for the fact that *tsaxu* obligatorily requires a clause as its complement (26a). In Aivali/Lesbos and in Evros, the cognate form is *tsak* and, on a par with Mistiot *tʃax*, it forms a complex PrepP with SE (26b).

## (26) a. Pharasiot

*tsaxu irtini*

TERM come.PST.3SG

'until he came' (Metin Bağrıaçık, p.c.)

## b. Aivali/Lesbos Greek

*ap tu siyr tsak sn*

ABL DEF.N.SG.ACC PN.(N).SG.ACC TERM LOC.DEF.F.SG.ACC

*apuʒika ʒkam ini ta*

PN(F).SG.ACC POSS.N.PL.NOM.1SG COP.3 DEF.N.PL.NOM

*sika*

fig(N).PL.NOM

'The figs (that grow) from Sigri up to Apothiki are mine' (*Dimokratia* newspaper (<http://goo.gl/X3LkX4> (accessed 31 October 2014)))

## c. Evros Greek

*xainevu na pau tsak stu*

be\_bored.PRS.1SG COMP go.PRS.1SG TERM LOC.DEF.N.SG.ACC

*jufiri*

PN(N).SG.ACC

'I cannot be bothered to go all the way to Svilengrad' (*Pardali lexi* website (<http://goo.gl/PNKecL> (accessed 31 October 2014)))

The prepositional order of TSAX/TSAUS is, however, problematic for the contact scenario put forward here. As was shown in 4.2.1, all Turkish postpositions retain their original order on the right of their complements after matter replication in Asia Minor Greek. This is true also of the two borrowed postpositions that are attested in Mistí Cappadocian, *bæri* and *jore* (Table 7). Unfortunately, I can offer no satisfactory explanation as to why this is so, other than to posit

that postpositional *-çaq* was borrowed as prepositional *t̂ax*. Grossman's (2013) crosslinguistic data confirm that this may not be a very common phenomenon but is by no means unheard of.

Perhaps this violation of an otherwise very robust tendency in Asia Minor Greek may have to do with the fact that *t̂ax* was in competition with, and ultimately replaced, the inherited limitative preposition *os*.

Following its addition to the Greek prepositional inventory, two distinct instances of collocation appear to have taken place. The first was between *t̂ax* and the inherited preposition *se*, a development attested in Misti Cappadocian, Aivali/Lesbos Greek and Evros Greek; see (24a), (26b) and (26c). This most probably occurred to satisfy the requirement of the Turkish model for a dative-marked complement. *se*, however, does not typically combine with space and time adverbials such as denoting 'here', 'there', 'now', 'then' etc. In Misti, this constraint favored the second instance of collocation, namely that between *t̂ax* and the form *us* of the inherited preposition *os*, which freely combined with adverbials of this type, as in (24b). As a result, *t̂ax* fused with *us* yielding *t̂aus*, thus allowing for the use of the former with space and time adverbials. /x/ was dropped (*t̂ax* + *us* > *t̂axus* > *t̂aus*) by application of the phonological process of intervocalic fricative deletion that is fairly productive in Misti Cappadocian (Dawkins 1916: 70); cf. /*exo*/ 'I have' → [*eu*], /*maxeri*/ 'knife' → [*maer*], /*psixi*/ 'soul' → [*pf̂i*].

## 5 Concluding Remarks

The advancement of the Greek adpositional cycle in the dialects of Asia Minor is an excellent example of multiple causation, which many see as the most fruitful way to understand linguistic innovations that occur in contexts of language contact. The Late Medieval Greek adpositional system displayed variability in the order of ambipositions and allowed for their positioning after the adpositional complement. Using this inherited, language-internal possibility, Asia Minor Greek replicated the pattern of Ottoman Turkish PostPs and promoted CircumPs of the type [PREPOSITION + NP + POSTPOSITION] to the status of unmarked default. This change corroborates Heine's (2008) claim that language contact rarely results in the creation of previously unavailable word orders. Rather, it most commonly favors the conventionalisation of originally pragmatically marked alternatives that happen to correspond to structural patterns already present in the model language.

The later loss in some varieties of the preposition *se* from CircumPs and the emergence of PostPs of the type [NP + POSTPOSITION] completed the adpo-

TABLE 8 *Constituent order patterns in Modern Greek, Asia Minor Greek and Turkish*

Modern Greek	ADJ + N ~ N + ADJ	N + GEN ~ GEN + N	N + REL	prepositions
Asia Minor Greek	ADJ + N	GEN + N	REL + N	prepositions, circumpositions, postpositions
Turkish	ADJ + N	GEN + N	REL + N	postpositions

sitional cycle and aligned the adpositional systems of the Asia Minor Greek dialects more closely, although not completely, with that of Turkish. As a result of these developments, they came to exhibit all three major adposition types: prepositions, circumpositions, and postpositions. Most dialects display a combination of simple prepositions and circumpositions; in Phloítá and Ulaghátsh Cappadocian, and in Silliot all three options are attested. Our case study therefore confirms Stilo's proposal (2009: 7) that in border areas where the opposites of one syntactic pattern meet and overlap (i.e. a specific VO-type feature meets an OV-type feature counterpart, e.g. prepositions vs. postpositions), there are often languages or dialects which accommodate themselves to both patterns by:

- (a) developing a split pattern, having both opposite typologies concurrently (e.g. both prepositions and postpositions), and sometimes the same word alternates as both forms, or
- (b) merging the two opposites into one hybridized pattern framing the head (e.g. circumpositions), or
- (c) having various of the above patterns (e.g. prepositions, postpositions, circumpositions, and/or alternating forms).

It has to be noted that the gradual move from prepositions to postpositions is not the only example of a diachronic shift from head-initial to head-final constituent order in Asia Minor Greek. Similar developments have been observed in the order of noun and adjective, noun and adnominal genitive, and noun and relative clause (Janse 1999, 2003, 2006, 2009; Karatsareas 2011, 2013). As shown in Table 8, in these domains Asia Minor Greek has converged completely with Turkish. In contrast, the typological diversity that characterizes the adpositional systems of the various dialects keeps them distinct from that of Turkish, which is strictly and solely postpositional.

Turning to the wholesale borrowing of postpositions, we find that all attested instances of matter replication comply with Moravcsik's (1978: 112) Linear Order Preservation principle, which excludes the borrowing of functional items unless the linear order with respect to their complements is also borrowed:

a lexical item that is of the 'grammatical' type (which type includes at least conjunctions and adpositions) cannot be included in the set of properties borrowed from a language unless the rule that determines its linear order with respect to its head is also so included.

In Asia Minor Greek, all borrowed postpositions were added to the postposition set and therefore appear on the right of their complements like their Turkish models. The unavailability of right-adjacent pronominal complements for borrowed postpositions that always govern left-adjacent full pronouns in Turkish and the single exception presented by *qarfı*, which admits possessive-like pronominal complements on its right similarly to the Turkish relational noun *qarşı*, lend additional support to Moravcsik's generalization.

The semantics of the borrowed elements is also in line with Elšik and Matras's (2006) and Matras's (2007) prediction that adpositions expressing peripheral local relations ('between', 'around', 'opposite') will be more frequently borrowed than adpositions expressing core local relations ('in', 'at', 'on'). Asia Minor Greek borrowed seven Ottoman Turkish postpositions that expressed non-local relations and two that expressed local relations, none of which can be considered core (*qadar* 'until, up to' and *qarfı* 'opposite'). Core meanings in all dialects of the group continue to be expressed by inherited Greek prepositions, which were left intact by language contact even in the most heavily influenced varieties.

Finally, the different degrees to which the two sets of Asia Minor Greek adpositional relators were affected by language contact is illustrative of the crosslinguistically well-observed tendency for more lexical and less bound elements to be more receptive of language-external influence than more functional and more bound elements (Curnow 2001; Field 2002; Haugen 1950; Johanson 2002; Moravcsik 1978; Thomason 2001; Thomason & Kaufman 1988; Weinreich 1953).

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