

'Behind' and 'in front' in Ancient Greek

A case study in orientation asymmetry*

Abstract

This paper explores the evolution of spatial terms describing localization behind a reference object that took place in the period from Homeric to Classical Greek. We trace the gradual increase in the proportion of prepositional (as opposed to adverbial) uses of the spatial relator 'behind', correlating it with a gradual change in the preposition's interpretation. In particular, in Homeric Greek, the preposition *ópisthen* 'behind' is used to localize a Figure relative to the Ground's internal back. In later periods, the same preposition is attested with Grounds lacking an internal front/back asymmetry, and localizes the Figure from the perspective of an external observer ('x is behind y' = 'y is located between x and the observer'). In addition to exploring these diachronic developments, we point out a number of differences in the use and interpretation of the terms for 'behind' and 'in front' and relate them to a difference in the rate of grammaticalization of the original terms that gave rise to the prepositions.

Keywords

Ancient Greek, preposition vs. adverb, frame of reference, grammaticalization, front/back axis, ablative-locative transfer.

1 Introduction

Cross-linguistically, one of the central concepts encoded by spatial adpositions is localization behind and in front of a reference object. Typological studies suggest that these two types of localization are usually described by spatial relators derived from body part terms 'front'/'face'/'forehead' and 'back'/'buttocks', which eventually become grammaticalized as adpositions (Svorou 1994; Heine & Kuteva 2002). This study explores the evolution of spatial expressions for 'behind' and 'in front' in Ancient Greek, focusing on two major issues. First of all, we address the marginal status of *ópisthen* 'behind' in the prepositional system, comparing it to the basic preposition *pró* 'in front of, before' and the secondary preposition *prósthén* 'in front of'. We suggest that this asymmetry may derive from a difference in the frequency of directional adverbs from which the prepositions originated (namely, in the frequency of adverbs specifying motion to and from the front vs. to and

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from behind an implied reference object). Secondly, we discuss the use of ablative expressions (which originally specify direction of motion away from a reference object) for localization behind and in front of the object, using Ancient Greek data to illustrate the phenomenon of ablative-locative transfer typical of Indo-European languages.

2 The evolution of *ópisthen* ‘behind’

2.1 From adverb to preposition and noun

Example (1) illustrates a typical strategy used in Homeric Greek for localizing a Figure behind the Ground. The type of localization is encoded by the adverb *ópisthen* ‘behind’, while the Ground remains implicit and must be inferred from context.¹

- (1) *autàr ópisthen Aíant’ iskhanétēn*
 PTCL behind A.:NOM.DU hinder:IPRF.3DU
 ‘but behind [them] the two Aiantes held back [the foe]’ (*Il.* 17.746–7)

In Homer, *ópisthen* is only occasionally used as a preposition, in combination with a genitive noun phrase encoding the Ground (ex. 2). It appears that originally, the genitive noun phrase was syntactically independent and encoded the reference point of a spatial relation (literally, ‘behind, from (the point of view of) the chariot’); this use of the genitive is in all likelihood related to the fact that the Ancient Greek genitive took over some of the functions of the Proto-Indo-European ablative case. Later, the noun phrase encoding the reference point became reanalyzed as a preposition’s argument.²

- (2) *stê d’ ópithen díphroio kai Automédonta prosēúda*
 take.stand:AOR.3SG PTCL behind chariot:GEN.SG and A.:ACC address:IPRF.3SG
 ‘and he halted behind the chariot and spoke to Automedon’ (*Il.* 17.468)

Classical Greek sees an increase in the percentage of prepositional uses of *ópisthen*. The following table compares the proportion of prepositional uses in Homer to that of Herodotus, Thucydides, and Xenophon taken together. Non-spatial uses (in particular, instances

1 In collecting the database of examples, we made use of the *Thesaurus Linguae Graecae* (<http://www.tlg.uci.edu>; last accessed in December 2010). In transliterating Ancient Greek, we rely on a modified version of the system used in Luraghi, Pompei & Skopeteas (2005). In particular, we distinguish between short and long accented vowels by using two levels of diacritics, with one exception: in the case of circumflex accent, the vowel is always long and is therefore not marked for length.

2 In one case, *Il.* 24.15, *ópisthen* follows the genitive noun phrase; this reversed ordering, however, is common for prepositions in Archaic Greek (for a historical perspective, see, e.g., Hewson & Bubenik 2006: 62–63). It is no longer common for basic prepositions in Classical prose (cf. the discussion of example 3), but is attested with some secondary prepositions.

of temporal use in the meaning ‘after, in time to come, thereafter’, which are prominent in Homer but become obsolete in later authors) are excluded from the counts. Also excluded are nominal uses from the Classical period; we discuss this type of use below.

	Homer	Herodotus, Thucydides, Xenophon
Preposition	4 (8%)	31 (30%)
Adverb	47 (92%)	72 (70%)
Total	51 (100%)	103 (100%)

Tab. 1 | Prepositional vs. adverbial uses of *ópisthen* ‘behind’ (spatial sense only).³

In spite of the diachronic trend, however, the proportion of prepositional uses of *ópisthen* remains relatively low.⁴ There is also no basic preposition that would correspond to *ópisthen* and could be compared to *pró* ‘in front of, before’. Occasionally, *ópisthen* displays syntactic properties that are not characteristic of basic prepositions and are most likely related to its primarily adverbial status. In the following examples (3–4), *ópisthen* combines with a genitive noun phrase, but follows, rather than precedes it (the same pattern is repeated for *prósthen* ‘in front of’). Although we do not have enough data to draw a definite conclusion regarding the syntactic status of *ópisthen* in these examples, such uses point to a difference between basic prepositions such as *pró* ‘in front of’ and prepositions retaining some adverbial properties like *ópisthen* ‘behind’ (the basic prepositions do not appear after their argument in Classical Greek prose, with the exception of *perí*; cf. Kühner & Gerth (1898: 555), Smyth (1963[1920]: 369).

- (3) *eipeîn hóti hóstis àn autôn è tôn ópisthophulákōn*
 say:INF.AOR that anyone:NOM COND them:GEN or ART.GEN.PL rear.guard:GEN.PL
phainētai ópisthen è tou metópu prósthen íēi
 appear:SBJV.PRS.MP.3SG behind or ART.GEN.SG vanguard:GEN.SG in.front.of go:SBJV.PRS.3SG
 ‘to inform that if any one of them should be seen behind the rear-guard or get in front of the vanguard ...’ (Xen. *Cyrop.* 5.2.1.7)

3 The statistics here and throughout the study includes, besides *ópisthen*, the variant forms *ópisthe*, *ópithen* (cf. ex. 2); the database of examples was constructed based on lemma searches in *Thesaurus Linguae Graecae*.

4 The proportion of its prepositional use does not seem to increase significantly in later authors: for example, in the Hippocratic corpus there are 12 occurrences of *ópisthen* in the prepositional function (27%) and 32 occurrences of *ópisthen* in the adverbial function (73%). The difference between these numbers and those given in tab. 1 for Herodotus, Thucydides, and Xenophon is not significant.

(4) *èn dè ágan kouphos éēi ho ánthrōpos,*
 if PTCL too light:NOM.SG be:SBJV.3SG ART.NOM.SG man:NOM.SG

prosepikremasthētō toutou ópisthén tis kouphos país
 suspend.in.addition:IMP.3SG DEM.GEN.SG behind some:NOM.SG light:NOM.SG child:NOM.SG
 ‘But should the person be very light, a light child should be suspended behind along
 with him.’ (Hippocr. et Corpus Hippocr. *De articulis* 4.12)

A different proportion of prepositional uses is not the only feature distinguishing *ópisthen* of Classical Greek from that of Homer. In Classical Greek, *ópisthen* appears in unambiguously nominal syntactic environments. This use is unattested in Homer, suggesting that the nominal referential use is a later development. In the following example, *ópisthen* is used referentially twice, in the meaning ‘rear’. Syntactically, it is embedded in a prepositional phrase (*eis tò ópisthen* ‘to the rear’), introduced by an article,⁵ and modified by a genitive possessor noun phrase.

(5) *kai gnoús hōti oudamōs àn thātton skhoiē tous*
 and know:PTCP.AOR.NOM.SG that in.no.way COND quicker hold:OPT.AOR.3SG ART.ACC.PL

polemíous tēs eis tò prósthen proódou è ei eis tò
 enemy:ACC.PL ART.GEN.SG to ART.ACC.SG front progress:GEN.SG or if to ART.ACC.SG

ópisthen perieláseien autōn, paraggeílas hépesthai toís
 rear ride.around:OPT.AOR.3PL them:GEN order:PTCP.AOR.NOM.SG follow:INF.MP ART.DAT.SG

meth’ hautōū periēlaunen eis tò ópisthen
 with REFL.GEN.SG ride.around:AOR.3SG to ART.ACC.SG rear

‘and as he realized that he could in no way check the enemy’s progress in the front more quickly than by marching around to their rear, he ordered his men to follow him and rode around to the rear’ (Xen., *Cyrop.* 7.1.36.4)

In examples (6)–(7), *ópisthen* appears in two other prepositional phrases: *ek tou ópisthen* ‘from the rear’ and *en tōi ópisthen* ‘in the rear’; in both cases, it is introduced by an article. Such uses are not attested in Herodotus, but occur in Thucydides (see ex. 23) and are rather prominent in Xenophon.

5 The definite article is not used in Homeric Greek; still, *ópisthen* does not appear as the argument of a preposition or in any other unambiguously nominal environment.

- (6) *ἔν γε μὲν οὕτως ἐκχόντων ἐκ τοῦ ὀπίσθεν*
 if PTCL indeed thus have:PTCP.PRS.GEN.PL from ART.GEN.SG behind
ἡοὶ πολέμιοι ἐπιφανῶσιν
 ART.NOM.PL enemy:NOM.PL display:AOR.SBJV.PASS.3PL
 ‘Or again, if the enemy appears in the rear while they are thus [=arranged].’
 (Xen. *De rep. Lac.* 11.8.8)

- (7) *καὶ ἀποκῆροῦσιν, ὅταν διόκωνται, ἐν μέσais, ἡοὶ*
 and withdraw:PRS.3PL whenever pursue:PRS.MP.3PL in middle:DAT.PL when
δὲ πρόσθεν, ἐν δὲ τοῖς ὀπίσθεν ὀλιγάκις
 PTCL in.front in PTCL ART.DAT.SG behind seldom
 ‘And when they are pursued they make off in the midst [of them], or sometimes in
 front, but rarely in the rear’ (Xen. *Cyneg.* 9.8)

To sum up, the syntactic development of *ὀπίσθεν* is consistent with the grammaticalization model for the development of adpositions: originating as an adverb, *ὀπίσθεν* gradually increases the proportion of prepositional uses in the period from Homeric to Classical Greek. Besides this typical Indo-European development, however, we also see a trend of deriving a noun with locative meaning from an adverb. In all likelihood, the noun with the referential meaning ‘behind, rear’ was introduced through a reanalysis of nominal constructions with adverbs of the type *τό/οὗ ὀπίσθεν* ‘that one/those which are behind’, in which the adverb became reinterpreted as a noun. Substantivization of adverbs/prepositions appears to be a common source of spatial nouns in some other Indo-European languages, cf., e.g., French *devant* and *derrière*, English *inside*, *outside* (Newmeyer 1998: 274), possibly *behind* (Kim 2001: 53–54), Italian *davanti* and *dietro* (Renzi, Salvi & Cardinaletti 2001: 376–377). This development goes in a direction opposite of the one that derives spatial relators from nouns, namely, from body part terms (Svorou 1994; Hopper & Traugott 2003: 85 and references therein).

2.2 Semantic evolution

2.2.1 Ablative to locative

Etymologically, the adverb *ὀπι(s)the(n)* is an ablative form related to the Mycenaean adverb/preposition *opi* and to Ancient Greek *epi* (Beekes 2010: 1091; Frisk 1972: 403–404;

Morpurgo Davies 1983).⁶ Its etymology suggests that originally, the adverb was used to specify the direction of motion away from a reference object: ‘from behind’ (cf. Lejeune 1939: 242–243 for other adverbs in *-then*). The original meaning is confirmed by the Homeric corpus: a significant proportion of adverbial uses of *ópisthen* are attested in Homer in directional or quasi-directional (ambiguous) contexts.⁷

- (8) *aukhéni gár hoi ópisthe polústonos émpesen iós*
 neck:DAT.SG PTCL him:DAT.SG behind grievous:NOM.SG fall:AOR.3SG arrow:NOM.SG
 ‘The grievous arrow fell on his neck from the back’ (*Il.* 15.451)
- (9) *Dēiokhon dè Páris bále neíaton ómon ópisthe*
 D.:ACC PTCL P.:NOM strike:AOR.3SG lowest:ACC.SG shoulder:ACC.SG behind
 ‘and Paris struck Deïochus on the lowest part of his shoulder from behind’ (*Il.* 15.341)
- (10) *tòn dè Zeús ôsen ópisthe kheirì mála megálēi*
 him:ACC PTCL Z.:NOM thrust:AOR.3SG behind hand:DAT.SG very big:DAT.SG
 ‘and from behind Zeus thrust him on with exceedingly mighty hand’ (*Il.* 15.694)
- (11) *ópisthen dè metáphrenon oxéi dourì ómōn messēgūs*
 behind PTCL back:ACC.SG sharp:DAT.SG spear:DAT.SG shoulder:GEN.PL between
skhedóthen bále Dárdanos anē̃r
 from.close strike:AOR.3SG Dardanian:NOM.SG man:NOM.SG
 ‘and from behind him from close at hand a Dardanian struck him upon the back
 between the shoulders with his sharp spear’ (*Il.* 16.806)

Directional and quasi-directional uses are only peripheral in the Classical period, where the adverb *ópisthen* is used overwhelmingly in static contexts (instead, the ablative meaning is more often expressed by combinations of the noun *ópisthen* with prepositions: *ek/apò tou ópisthen*). The ablative interpretation gradually becomes dispreferred and is replaced by the locative one.

2.2.2 Intrinsic to relative frame of reference

The earliest attested occurrences of *ópisthen* are interpreted in terms of the intrinsic (object-centered) frame of reference. The term is used to localize Figures relative to Grounds with a

6 The latter may derive from a noun referring to a body part (cf. Hamp 1981), suggesting the possibility of a cyclic development from noun to adverb to noun; the original noun, however, had been lost long before the time of Homeric Greek.

7 The ablative use of the adverb in Homeric Greek is in contradiction with Lejeune (1939: 349), followed by Chantraine (1999: 808–809), who states explicitly that it does not display an ablative meaning (cf. also Schwyzler & Debrunner 1950: 540; Frisk 1972: 403 allows for the ablative meaning).

well-defined internal asymmetry, i.e. objects that have prominent, easily recognizable fronts and backs. In Homer, *ópisthen* is used to localize objects with respect to humans, chariots and other mobile Grounds (which have fronts and backs defined in terms of the object's conventional orientation during motion), with respect to the direction of motion, as well as the direction in which warriors face during battle.

- (12) *stê d' ópisthen díphroio kai Automédonta prosēúda*
 take.stand:AOR.3SG PTCL behind chariot:GEN.SG and A.:ACC address:IPRF.3SG
 'and he halted behind the chariot and spoke to Automedon' (*Il.* 17.468)
- (13) *óphr' híketh' híppous ōkéas, hoí oi ópisthe mákhēs*
 until reach:AOR.M.3SG horse:ACC.PL swift:ACC.PL REL.NOM.PL him:DAT behind battle:GEN.SG
ēdè ptolémoio héstasan
 and fight:GEN.SG stand:AOR.3PL
 'until he came to the swift horses that stood waiting for him behind the battle'
 (*Il.* 13.536)

The earliest instances of the relative interpretation of *ópisthen* that we could find come from the Classical period, where *ópisthen* appears with weakly oriented Grounds as well as Grounds lacking inherent orientation. In the following examples, objects serving as reference points do not have a prominent front/back asymmetry in the same way as humans or vehicles do. Instead, the assignment of “front” and “back” is defined in terms of a conventional perspective humans take when interacting with the object. For example, the city is typically conceptualized as facing in the direction of the main gates; the doors of a shrine and the gates of a city, as facing the outside area (due to their protective function, doors and gates are perceived as an obstacle from the outsider's, not the insider's, point of view, hence the area protected by them is described as the space “behind” them).

- (14) *eikónas [...], hai en tōi nēōi tōi megálōi*
 statue:ACC.PL REL.NOM.PL in ART.DAT.SG shrine:DAT.SG ART.DAT.SG great:DAT.SG
hidrúato éti kai tò mékhris eméo, ópisthe tōn thuréōn
 stand:PLUPRF.MP.3PL still and ART.ACC.SG until me:GEN.SG behind ART.GEN.PL door:GEN.PL
 'statues that were still standing in my time behind the doors in the great shrine'
 (*Hdt. Hist.* 2.182.7)

- (15) *émprosthe ôn tês akropólios, ópisthe de tôn pulēōn kai tês anódou,*
 in.front.of PTCL ART.GEN.SG acropolis:GEN.SG behind PTCL ART.GEN.PL door:GEN.PL and
 ART.GEN.SG ascent:GEN.SG

‘In front of the acropolis, and behind the gates and the ascent, (where no one was on guard, some men climbed up ...)’ (Hdt. *Hist.* 8.53.4)

- (16) *kai ópisthe aútis tês pólios táxas hetérous*
 and behind in.turn ART.GEN.SG city:GEN.SG post:PTCP.AOR.NOM.SG other:ACC.PL
 ‘and he posted others behind the city’ (Hdt. *Hist.* 1.191.4)

The following example from Herodotus shows that in Classical Greek, *ópisthen* can also be used on a relative interpretation, describing localization in an area separated from the observer by the Ground, not in the Ground’s inherent “back” (in [17], the open door separates the Figure, located inside the chamber, from the observer).

- (17) *egō gár se es tò oíkēma en tōi koimómetha*
 me:NOM PTCL you:ACC to ART.ACC.SG chamber:ACC.SG in REL.DAT.SG sleep:PRS.1PL
ópisthe tês anoigoménēs thúrēs stēsō
 behind ART.GEN.SG open:PTCP.PRS.MP.GEN.SG door:GEN.SG place:FUT.1SG

‘I will bring you into the chamber where she and I sleep and place you behind the open door’ (Hdt. *Hist.* 1.9.8)

Due to the low frequency of prepositional uses in Homer, we cannot draw a definite conclusion about restrictions on the use of *ópisthen* in the Archaic period. The trend is, however, rather suggestive, and is consistent with generalizations about the primacy of the relative interpretation over the intrinsic one in the assignment of the front/back axis in other languages (e.g., Nikitina 2008 for Wan).

3 Asymmetry in the encoding of ‘behind’ and ‘in front’

One striking feature of the Ancient Greek prepositional system is the asymmetry in the use of expressions for ‘behind’ and ‘in front of’. The means for encoding localization in front of a reference object are by far more grammaticalized than the means used to encode localization behind it. No basic preposition can be used to encode the notion ‘behind’, with the exception of certain uses of *hupér* ‘over’, which may encode localization on the other side of a large landmark, the extended uses of *hupó* ‘under’ in the meaning of ‘under protection of, behind’, cf. Luraghi 2003: 241), or the occasional uses of *epi* ‘on’ with a dative

noun phrase by Xenophon, with reference to military formations (e.g., Xen. *Hell.* 1.1.24). When used prepositionally, *ópisthen* is generally classified with *improper* prepositions, or preposition-like adverbs. The preposition *pró* ‘before, in front of’, on the other hand, belongs to the most frequent and most widely studied prepositions (cf. Luraghi 2003: 80 and most grammars that have a special section on prepositions).⁸

The same asymmetry is revealed by a comparison of *ópisthen* ‘behind’ to its morphological counterpart, *prósthen* ‘in front’. Both are originally ablative forms, and both are used predominantly as adverbs. Still, *prósthen* shows all signs of being more grammaticalized as a spatial relator than *ópisthen*. First of all, *prósthen* is more frequently used as a preposition than *ópisthen*. Table 2 lists the proportions of prepositional vs. adverbial uses of *prósthen* and *ópisthen* in Homer, excluding temporal uses (*prósthen* is commonly used in the meaning ‘before, earlier’, in Homer as well as in later periods, when the temporal meaning becomes obsolete in the case of *ópisthen*).⁹

	<i>ópisthen</i> ‘behind’	<i>prósthen</i> ‘in front’
Preposition	4 (8%)	22 (52%)
Adverb	47 (92%)	20 (48%)
Total	51 (100%)	42 (100%)

Tab. 2 | Prepositional vs. adverbial uses of *ópisthen* ‘behind’ vs. *prósthen* ‘in front’ in Homer.¹⁰

Secondly, the interpretation of *prósthen* ‘in front of’ differs in a principled way from that of *ópisthen* ‘behind’. Even in Homer, *prósthen* shows no trace of the original ablative meaning. In addition, already in Homer *prósthen* is used with weakly oriented Grounds, to describe localization relative to a conventionalized perspective. In the examples below, the reference objects – doors of a chamber and the pyre – can only be described as having a “front” from the point of view of a conventional interaction with humans: doors serve to protect the inside of a chamber (hence, they face those approaching from the outside), and a pyre functions as the focus of a collective ritual (hence, it faces the person administering the ritual and others present). Such weakly oriented reference objects are not attested in Homer with *ópisthen* ‘behind’.

8 One indication of its highly grammaticalized status is the wide range of non-spatial meanings it has developed, in addition to the temporal meaning, including that of preference (‘rather than’) and cause or motive (‘for’, ‘from’).

9 The proportion seems to change in Classical and post-Classical Greek, as primary prepositions become more sharply distinguished from secondary ones, and the preposition *pró* ‘in front of’ becomes more strongly preferred over *prósthen* in prepositional contexts (cf. Skopeteas 2006: 477).

10 The counts for *prósthen* included the variant form *prósthē*; for the variant forms of *ópisthen*, see fn. 3.

(18) *állo d' enì prodómōi, prósthen thalámoio thuráōn*
 other:ACC.SG PTCL in porch:DAT.SG before chamber:GEN.SG door:GEN.PL
 '[neither were the fires quenched, one beneath the portico of the well-fenced court,]
 and one in the porch before the door of the chamber' (*Il.* 9.473)

(19) *pollà dè íphia mēla kai eilípodas hēlikas boûs*
 many:ACC.PL PTCL fat:ACC.PL sheep:ACC.PL and shambling:gait:ACC.PL sleek:ACC.PL cow:ACC.PL
prósthen purês éderón te
 in.front.of pyre:GEN.SG flay:IPRF.3PL PTCL
 'And many fat sheep and many sleek cows of shambling gait they flayed before the
 pyre' (*Il.* 23.167)

Homer also uses *prósthen* on a relative interpretation, independently of the Ground's inherent front/back asymmetry, to describe localization relative to an observer. In the example below, the character takes his stand between the body and the attacker, so as to be able to protect the body (rather than at the "front" of the Ground, i.e. at the side where the body is facing, as the intrinsic interpretation would imply).

(20) *Máris d' autoskhedà dourì Antilókhōi epórouse kassignétoio*
 M.:NOM PTCL hand.to.hand spear:DAT.SG A.:DAT rush:AOR.3SG brother:GEN.SG
kholōtheis stàs prósthen nékuos
 angered:PTCP.AOR.PASS.NOM.SG take.stand:PTCP.AOR.NOM.SG in.front.of corpse:GEN.SG
 'But Maris, in a close fight, rushed upon Antilochus with his spear, angered on behalf
 of his brother, and took his stand before the corpse' (*Il.* 16.321)

All these semantic and syntactic differences between *ópisthen* 'behind' and *prósthen* 'in front' suggest, once again, that *prósthen* has proceeded further along the path of grammaticalization into a regular spatial relator. This asymmetry is somewhat unexpected from the typological point of view, as spatial relators localizing Figures in front of an object are generally believed to be less prone to grammaticalization than relators describing localization behind a Ground. This tendency is suggested by the study of hierarchical organization of directional expressions in Zwarts (2010) (cf. also Nikitina 2008 for a language-specific case study; Plungian 2000: 176 for an observation that localization behind a Ground, but not localization in front of it, is widely represented in systems of case marking). The functional prominence of localization behind the Ground as compared to localization in front of it is further supported by evidence from language acquisition (Johnston 1984 and references therein): prepositions for 'behind' are acquired earlier than prepositions for 'in front of', suggesting that localization behind the Ground is more central to spatial orientation than localization in front of it, and that the former should therefore be expected to be encoded by more grammaticalized means (adpositions, local case, etc.) than the latter.

We believe that the unusual pattern observed in Ancient Greek is a result of the somewhat peculiar diachronic development of its prepositions, which is typical of ancient Indo-European languages but seems to be relatively uncommon cross-linguistically. Instead of deriving spatial adpositions from nouns referring to body parts, which is the most common strategy in other languages, Ancient Greek derives prepositions from adverbs specifying the direction of motion.¹¹ As a source of spatial relators, directional adverbs impose restrictions that have no parallel in nominal systems of body part terms. In particular, adverbs describing motion to and from the front (cf. the etymology of *pró* and *prósthēn* as an allative and an ablative adverb, respectively)¹² may be more frequently used and more likely to develop into a conventional spatial relator than adverbs describing motion to and from the rear (cf. the etymological meaning of the adverbs *opísō* ‘backward, toward the rear’, which never developed into a general spatial relator, and *ópisthēn* ‘(from) behind’).¹³ This hypothesis, which we cannot at the moment support by empirical evidence, suggests an explanation for the difference between Greek, favoring prepositions for ‘in front of’, and languages with adpositions derived from clearly nominal sources, which favor adpositions for ‘behind’.

4 From ablative to locative: multiple cycles

As already mentioned above, the development of *ópisthēn* ‘behind’ and *prósthēn* ‘in front’ illustrates an ablative-to-locative change. This type of transfer is common for Indo-European languages where it is not unusual for a locative preposition to derive from an ablative expression, originally specifying a source of motion or direction from a specific spatial area (in our case, direction from behind a reference object or from the object’s front); a similar transfer is attested outside the Indo-European family (MacKenzie 1978; Bortone 2010: 165–166). Reinterpretation of ablative forms characterizes the history of Latin *intus* ‘inside’, French *dedans* ‘in’, Spanish *donde* ‘where’, Russian *szadi* ‘behind’, as well as Ancient Greek adverbs like *hekatérōthen* ‘on either side’, *ek deksiās* ‘on the right’, etc. (Smyth 1963[1920]: 368, Lejeune 1939: 244–248, 315–317, 328–330, 403), among many others.

11 Although some of the adverbs, including *ópisthēn*, may derive from Proto-Indo-European nominals (Hamp 1981; Bortone 2010: 141), this etymology can hardly be regarded as relevant for Ancient Greek *ópisthēn*, as the immediate source of this prepositions was clearly adverbial.

12 For *pró* as an allative adverb related to *prós* and *prín*, see Beekes (2010: 1235).

13 This asymmetry is possibly related to the fact that we tend to approach humans from the front, as well as, in the case of objects lacking the internal front/back orientation, to perceive as the front the part of the object we interact with (cf. Clark & Clark 1978: 242–243 on perceptual motivation for treating the space “in front” as conceptually unmarked, albeit without direct reference to static location vs. motion; also Skopeteas 2008 on other asymmetries in the Ancient Greek prepositional system).

In Ancient Greek, we not merely encounter individual cases of ablative-to-locative transfer, but can actually observe, in the case of ‘in front’ and ‘behind’, multiple cycles of renovation of ablative expressions, which become reinterpreted as locative ones. Already in Homer, both *ópisthen* and (especially) *prósthēn* are used to describe static locations, without implied directionality. Once the forms are reinterpreted as nouns (see above), they start being used in new ablative expressions with the preposition *ek* ‘from’:¹⁴

- (21) *ek tēs póleōs hoi Mantineîs exelthóntes katà kéras*
 from ART.GEN.SG city:GEN.SG ART.NOM.PL M.:NOM.PL exit:PTCP.AOR.NOM.PL by flank:ACC.PL
te kai ek tou ópisthen epípeoiēn autōi
 PTCL and from ART.GEN.SG rear attack:OPT.AOR.3PL them:DAT
 ‘[fearing that while he was marching against them] the Mantineans might issue forth from their city and attack him in flank and from the rear’ (Xen. *Hell.* 6.5.16.9)

- (22) *én ti ek tou prósthen prospíptēi*
 if something:NOM.SG from ART.GEN.SG front attack:SBJV.PRS.3SG
 ‘In the event of a frontal attack ...’ (Xen. *Hipp.* 2.8.2)

Rather surprisingly, the combinations of *ek* ‘from’ with the nouns for ‘front’ and ‘behind’ have, besides the directional/ablative reading, a locative interpretation. In the following examples, they are used to localize the Ground in the absence of any motion.

- (23) *ho Gúlippos kai hoi Surakósioi pémpousi méros*
 ART.NOM.SG G.:NOM and ART.NOM.PL Syracusan:NOM.PL send:PRS.3PL part:ACC.SG
ti tēs stratiás apoteikhioúntas aú ek
 some:ACC.SG ART.GEN.SG army:GEN.SG raise.wall:PTCP.FUT.ACC.PL PTCL from
tou ópisthen autoùs hēi proelélúthesan
 ART.GEN.SG rear them:ACC where advance.PLUPRF.3PL
 ‘Gylippus and the Syracusans sent part of their army to blockade them with a wall at their back, where they had advanced’ (literally, ‘to wall them off from the rear’) (Thuc. *Hist.* 7.79.4.3)

- (24) *ékhei gár kephalèn kóuphēn, mikrán, katōpherē,*
 have:PRS.3SG PTCL head:ACC.SG light:ACC.SG small:ACC.SG drooping:ACC.SG
stenèn ek tou prósthen
 narrow:ACC.SG from ART.GEN.SG front
 ‘The head is light, small, drooping, narrow at the front’ (Xen. *Cyneg.* 5.30.1)

14 Also by *apó* ‘from’ at later stages: e.g., Galenus *De plac. Hipp.* 9.4.20.

in Ancient Greek, localization in front of the Ground is more prominent than localization behind it: the former is encoded by relators that display a more advanced stage of grammaticalization than the latter. We suggested that this asymmetry may have to do with a frequency difference characterizing the use of directional adverbs that served as the diachronic source for the two types of spatial relators, namely, adverbs encoding directionality to and from the front of a Ground vs. adverbs encoding directionality to and from the Ground's back.

Secondly, we identified a cycle of ablative-to-locative transfers in the development of relators for 'in front' and 'behind': once the adverbs become reanalyzed as nouns, they can be used in new ablative expressions (in Attic Greek, such expressions involve the preposition *ek* 'from'). The new ablative expressions soon become a conventionalized means of specifying a spatial region, apparently through projecting a region from the direction of fictive motion. The locative uses replace the original ablative ones, completing the cycle and opening the possibility of forming a new ablative on the basis of the new locative.

Both properties of the Ancient Greek system illustrate more general patterns in the encoding of space in ancient Indo-European languages, suggesting that some of these languages, with their extensive use of directional adverbs for spatial localization, are typologically unusual and display a number of interesting features that are not present to the same extent in their modern descendants.

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