A single origin of Indo-European primary adpositions?

Unveiling the Indo-Aryan branch-off

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It has been widely assumed that the primary adpositions of modern Indo-European languages constitute a historically identical category, descending from the Proto-Indo-European 'local particles'. I argue that this assumption needs to be revised, because a major branch of the language family, Indo-Aryan, possesses adpositions of unrelated origin. This is not only a question of different etyma, but the New Indo-Aryan adpositions descend from structurally different sources. The ancient local particles, as attested in early Indo-Aryan varieties, combine with local case forms and show a preference for the prenominal position. By contrast, the New Indo-Aryan adpositions descend from nominal and verbal forms heading genitives, and show a propensity for the postnominal slot. Thus, we are dealing with elements unrelated not only etymologically, but also with regard to their morphosyntactic distribution.

Keywords: adpositions; local particles; grammaticalization; syntactic class; word order; Indo-European; Indo-Aryan

1. Introduction[1]

In this paper, I argue that the New Indo-Aryan (NIA) adpositions do not derive from the old category of Proto-Indo-European (PIE) local particles[2] as do

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2. These elements have been given various labels. 'Preposition' is found especially in older publications, motivated by their frequent prenominal position in other ancient IE languages.

adpositions in other branches of the family (e.g., Meillet & Vendryes 1927: 497, Luraghi 2010). Rather, the postpositions of NIA have an entirely unrelated origin, both on an etymological and a categorial level.[3] The PIE local particles, which gave rise to adpositions (typically prepositions) as well as preverbs in other branches of Indo-European (e.g., French *à la maison* "at home" vs. *affirmer* "to affirm" involving an element stemming from Latin *ad* and ultimately from PIE *$h_2$ed) only survive as preverbs in Indo-Aryan (IA). By the stage of late Old Indo-Aryan (OIA), they have ceased to be productively used as unbound elements modifying local case forms. Instead, new denominal and deverbal elements of OIA and MIA (Middle Indo-Aryan) origin come to furnish the NIA postpositions. Since these new elements do not show certain essential morphosyntactic properties of the local particles, I argue that they must be considered a new category altogether. Accordingly, the assumption of an identical category of primary adpositions[4] across modern Indo-European (IE) languages needs to be revised. Further claims based on this assumption are also in need of reconsideration, such as the widespread assumption that configurationality first arises across IE when the PIE local particles are reanalyzed as adpositions, which in turn entails the emergence of (adpositional) phrasal structure (e.g., Hewson & Bubenik 2006, Luraghi 2010).

This paper is structured as follows: I begin by introducing the syntax and semantics of the old IE local particles with Ancient Greek data. Their polyfunctionality made possible their continuation both as adpositions and as preverbs in

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'Postposition' is used where authors identify a tendency for postnominal placement in Old Indic, but see §5.3.1. More common in recent literature is 'preverb', as the modification of verb forms instead of nominal forms is considered the predominant usage in Old Indic (see §3.1). Authors who emphasize the original unity of the syntactic category in ancient stages of PIE prefer to refer to them as '(spatial) adverbs'. While appropriate syntactically, 'spatial adverb' seems very broad a term. Only a small class of elements shows the functional breadth and syntactic behavior to allow continuation as both adpositions and preverbs in the daughter languages. To delimit this class, I adopt the term 'local particle' (*Lokalpartikeln*) used in a research project on these elements by Heinrich Hettrich and colleagues. While 'particle' is a term often criticized for its vagueness, precisely this vagueness makes it suitable for the polyfunctional elements in question.

3.   Membership in a category is understood here as referring to a shared morphological and syntactic distribution. A purely functional understanding would have no bearing on the issue raised, as all languages (and historical stages of a language, for that matter) can be expected to have some elements for the expression of basic spatial relations.

4.   'Primary adpositions' is a label used here for adpositions which mark basic spatial and/or grammatical roles and are typically monomorphemic (see Lehmann 1985 on the alternative term 'simple adpositions'). Examples are French *à* "at", *de* "from, of", or Hindi *ne* (ERG) and *mē* "in".

various branches of IE (§2). In §3, I turn to Indo-Aryan and how the development of adpositions differs from other branches. I first outline in §3.1 how the local particles in Indo-Aryan did not survive beyond early MIA in functions foreshadowing an adpositional status. In §3.2, I shed light on the origins of those elements which develop into the NIA postpositions instead. Subsequently in §4, I survey explicit claims in the literature that the NIA postpositions descend from the local particles on a categorial level irrespective of the lack of etymological connections. In §5, I examine whether the claim of such a lineage is legitimate. First, I discuss whether there was a historical period of overlap between the local particles and the emerging postpositions. Such an overlap would make it plausible that we may be dealing with a historically continuous category (§5.1). Second, I evaluate whether the modern postpositions show morphosyntactic properties that could be inherited in some way from the local particles on the basis of evidence from Ṛgvedic Sanskrit, Vedic prose, Classical Sanskrit and Pali (early MIA). I analyze the case forms that the local particles and emerging postpositions could combine with in §5.2, and then turn to questions of word order in §5.3. I conclude that there are no grounds for positing a lineage because there was barely any historical overlap and because similarities in morphosyntactic behavior are lacking. In §6, I outline how the assumption of a historically identical class of adpositions across modern IE languages has been the foundation for certain general assumptions relating to the synchrony and diachrony of case in Indo-European – assumptions which require reconsideration and modification in view of the findings presented here.

2.   From local particles to adpositions in Indo-European

The primary adpositions of modern Indo-European languages such as English *in*, *on*, *at*, French *à* "to", *de* "of, from", *en* "in", Irish *i* "in", *fé* "under", *ó* "from, by", or Persian *dar* "in(to)" and *az* "from, since" go back to PIE local particles, in the same way as many preverbs and verbal particles (e.g., Meillet & Vendryes 1927: 497, Hewson & Bubenik 2006, Luraghi 2010).[5] In their earliest attestations, these elements can be characterized syntactically as spatial adverbs, a status also reconstructed for PIE. On a semantic level, they often specify the meanings of verbs or

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5.   Often, the original local particles developed directly into adpositions in the modern languages. In other cases, we may find extended forms (for instance, Latin *sub-tus* > *French sous* "below") or combined forms (e.g., Latin *de intus* > French *dans* "in") as well as younger layers of unrelated, novel formations (e.g., Latin *casa* "house" > French *chez* "near, by").

local case forms.[6] These two usages are focused on here as they foreshadow the split into adpositions and preverbs. I refer to them as cases of nominal and verbal "orientation" respectively in order to capture differences in usage prior to the syntactic split into adpositions and preverbs.[7] Compare the following examples from Homeric Greek that illustrate the breadth of functions with *epi* "against, to, on" (from Hewson & Bubenik 2006: 4ff.):[8]

(1) *éluth'   épi psukhḕ   Agamémnonos*
     come.AOR.3SG EPI soul.NOM Agamemnon.GEN
     "the soul of Agamemnon approached"   (Od[9] 24.20)

(2) *epì gaîan   ap'   ouranóthen protrápētai*
     EPI earth.ACC from heaven   turn.3SG
     "to earth from heaven he (the sun) turns"   (Od 11.18)

(3) *aletréuousi múlēis   épi mélopa   karpón*
     grind.3PL   millstone.DAT EPI yellow.ACC grain.ACC
     "they grind the yellow grain on the millstone"   (Od 7.104)

(4) *kaì epì knéphas hieròn élthēi*
     and EPI darkness sacred come.3SG
     "and the sacred darkness closes in"   (Il 11.209)

(5) *kephalêi d' epéthēke   kalúptrēn*
     head.DAT PRT EPI_place.AOR.3SG veil.ACC
     "and upon her head she put a veil"   (Od 10.545)

In (1), we see an example reminiscent of a period when the local particles were adverbs without unambiguous nominal or verbal orientation. There is no oblique case form that *epi* could modify. At the same time, while *epi* may be characterized

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6. The local particles, especially in Vedic, are also attested in other, presumably particularly ancient functions, e.g., as adverbs referring to larger domains than single verbs or nominal expressions. Thus, *ádhi* in (6) refers to the string "races with the sun". I will not discuss these types of usages further.

7. Both Vedic and Homeric Greek already show weak signs of correlations between syntax and semantics. For example, in Vedic, only verbally oriented local particles procliticize to finite verbs in subordinate clauses. Otherwise, position, prosody and meaning are not clearly aligned at this point (see §5.3.1). Therefore, I consider the local particles a single syntactic class here even though initial steps towards the development into adpositions and preverbs can be identified.

8. The orthographic conventions marking word boundaries and accent are in part post-Homeric.

9. Abbreviations of primary texts are AiB=*Aitareyabrāhmaṇa*, Dīgh=*Dīghanikāya*, Il=*Iliad*, Majjh= *Majjhimanikāya*, Od= *Odyssey*, ṚV=*Ṛgveda*.

as verbally oriented, it does not occupy a position which will later be unambiguously associated with preverbal usage (i.e., in directly preverbal position or drawn to the beginning of the clause, 'tmesis' in philological terminology). Examples (2) and (3) illustrate usages foreshadowing an adpositional function, as *epi* shows nominal orientation modifying an accusative and a dative respectively. However, the fact that *epi* occurs with different case forms as well as in prenominal and postnominal position respectively indicates that it has not yet reached the status of an adposition. In (4) and (5), we see usages that show modification of the verbal semantics with variable placement options in initial position and procliticized to the verb. Before I continue, note that semantic categorization of the local particles is often not straightforward with many cases of ambiguity. This empirical challenge is taken up for Vedic in §5.3.1, as it is central to claims regarding a lineage from local particles to postpositions.

Correlations between semantic orientation and syntactic distribution solidify with time and eventually result in a split into prepositions and preverbs. On the one hand, combinations of nominally oriented local particles in adjacency to local case forms are reanalyzed as adpositional phrases. Local case forms cease to occur on their own in spatial usages and instead come to depend on the presence of a local particle. On the other hand, verbally oriented local particles come to occur typically only in directly preverbal or in clause-initial position. In most branches, placement in clause-initial position or elsewhere is also lost, resulting in the univerbated forms found today.

Traces of these developments can be seen today throughout the family, where the local particles are used as adpositions, preverbs, or in both functions. Well-known twin forms can be found for instance in modern Romance languages, such as French *de* "from, of" in *de la fille* "of the girl" vs. *devenir* "to become" from Latin *de* "from" with cognate forms in several ancient IE varieties (Hewson & Bubenik 2006: 337) or *à* "to" in *à la maison* "at home" vs. *arriver* "to arrive" (< *adrīpāre* "to touch shore") deriving from Latin *ad* and ultimately from PIE $*h_2ed$ (Hewson & Bubenik 2006: 341).

The developments described here figure among the well-known facts about historical syntactic changes in Indo-European. Often, they are depicted as a part of the structural change from synthetic to analytic expression of grammatical categories. The collapsing morphological systems of early IE languages were "replaced" in both the nominal and verbal domain by new analytic means of expression, involving adpositions in the domain of case marking. And it is well known that these newly formed primary adpositions, in turn, derive from the old local particles. Compare for instance an early quotation by Meillet & Vendryes (1927: 497, translation mine) who note that the "concrete" (i.e., local) cases of "the language" (i.e., PIE) received the support of a "preposition" (i.e., of a local particle), which "in good time became a necessary instrument":

> Au fur et à mesure que la flexion se simplifiait, la langue avait les moyens d'en remplacer les partier caduques; l'existence même de ces moyens a favorisé la simplification. Les cas à valeur concrète tendaient à recevoir l'appui d'une 'préposition' … qui est devenue de bonne heure un instrument nécessaire.

> [To the extent that the inflection simplified, the language had the means to replace the parts that had become obsolete; the existence itself of these means favored the simplification. The cases of concrete value tended to receive the support of a 'preposition' … which in good time became a necessary instrument.]

A similar depiction can be found in Hewson & Bubenik *From Case to Adposition* (2006: 9):

> The development of systems of adpositions out of the ancient preverbs [i.e., local particles, UR] ultimately led to revolutionary results in the Indo-European languages. Since these particles had no morphology of agreement, their relationship to the noun eventually became marked by configuration, by pre-position or post-position to nouns in oblique cases ….

Or, as Ledgeway (2012: 206–207) succinctly puts it: "traditional wisdom has it that Indo-European adpositions developed from original adverbial particles", citing several others who have stated the same (see also Lehmann 2002 [1982]: 80 invoking this 'communis opinio'). This systematic change "from synthesis to analysis" involving the development of the local particles into adpositions is thus commonplace in IE historical syntax. What has been overlooked is that this scenario does not hold for one of the largest branches of the family, Indo-Aryan.

3.   The Indo-Aryan branch-off

Indo-Aryan languages, like any other branch of Indo-European, possess elements that go back to the PIE local particles. Like Ancient Greek, Vedic attests to a very early stage in the development when the local particles can still be considered a single class. The following examples with *ádhi* "above" illustrate the early semantic fluidity with adverbial (6), verbally oriented (7) and nominally oriented (8) usages, as well as an ambiguous example between verbal and nominal orientation (9) (examples from Hettrich 1991):

(6)   Vedic Sanskrit
  eṣá   *súryeṇa* *hāsate* *pávamāno*
  DEM.NOM.3SG.M sun.INS.SG.M race.MID.3SG purify.PPM.NOM.SG.M

  ádhi *dyávi*
  ADHI sky.LOC.SG.M

  "this one, purifying himself, races with the sun, above, in the sky"

                     (ṚV 9.27.5)

(7)   Vedic Sanskrit[10]
   yó   *árvantaṃ*   *prathamó*   *adhyátiṣṭhat*
   REL.NOM.SG.M   horse.ACC.SG.M   first.NOM.SG.M   ADHI_stand.IMPF.3SG
   "(he) who climbed the horse at first"   (ṚV 1.163.9)

(8)   Vedic Sanskrit[11]
   ágne   *ní*   *ṣatsi*   *námasấdhi*   *barhíṣi*
   ágne   *ní*   *ṣatsi*   *námasā ádhi*   *barhíṣi*
   Agni.VOC.SG.M   down   sit.IMP.2SG   worship.INS.SG.N ADHI   barhis.LOC.SG.N
   "Agni, sit down on the barhis with worship"   (ṚV 8.23.26)

(9)   Vedic Sanskrit
   síndhor   *ūrmā́v*   *ádhi*   *śritáḥ*
   river.GEN.SG.M   wave.LOC.SG.M   ADHI   lean.PPP.NOM.SG.M
   "(the wise one) leaning on the wave of the river"   (ṚV 9.14.1)

The Vedic evidence, together with the Ancient Greek evidence sketched in §2 and attestations from other early sources, allows for the reconstruction of a single morphosyntactic class whose polyfunctionality would allow for a continuation both as adpositions and as preverbs. This, however, is not what happened in Indo-Aryan, where the local particles never grew into an adpositional category, but merely survived as preverbs. In the next section, I outline the early disappearance of nominally oriented usages (§3.1) and subsequently turn to those elements that instead stand at the origin of the NIA postpositions (§3.2).

3.1   The loss of nominally oriented local particles in IA

In contrast with the developments in other branches of IE including the immediate sister branch Iranian, the local particles in Indo-Aryan cease to occur in usages prefiguring adpositional status at an early point in time. By the stage of late OIA, they hardly show nominal orientation any more,[12] and they have virtually vanished in this usage by early MIA:[13]

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10.   In this example, *ádhi* is prosodically merged with the verb for reasons of sentence intonation. In subordinate clauses, local particles, if verbally oriented, may procliticize to finite verbs.

11.   The second line renders the text with word sandhis resolved in those cases where sandhi resolution is necessary in order to orthographically separate words.

12.   While there is only a weak correlation between meaning and position in early Vedic (see fn. 7), from the younger Vedic prose onwards, local particles used as free morphemes almost always express nominal orientation, whereas verbal orientation is associated with bound local particles (e.g., Cuny 1907).

13.   *Prati* shows up as *pai* in the Mahārāṣṭrian (a Prakrit from the middle period of MIA) stories collected by Jacobi (1967 [1886]), which are known to have many archaic interpolations, however.

> SOLLTE MAN ANNEHMEN, DASS IM PALI MEHR PRÄPOSITIONEN [i.e. Lokalpartikeln, UR] zur Bezeichnung der Beziehungen im Satz HERANGEZOGEN WÜRDEN, WÜRDE MAN SICH ENTTÄUSCHT SEHEN. Zwar gibt es im Vedischen und auch im Sanskrit eine ganze Anzahl von Präpositionen, die aus der indogermanischen Zeit bewahrt wurden, IM PALI SIND DIESE PRÄPOSITIONEN JEDOCH KAUM ZU FINDEN.
>
> [IF ONE WERE TO ASSUME THAT PALI RELIES MORE STRONGLY ON PREPOSITIONS [i.e., local particles, UR] to designate the relations in the sentence, ONE WOULD BE DISAPPOINTED. While there are a considerable number of prepositions in Vedic and also in Sanskrit, which are preserved from the Indo-European period, HARDLY ANY PREPOSITIONS CAN BE FOUND IN PALI.]
>
> (Fahs 1989: 101, translation and emphasis UR)

In fact, of the core set of ancient local particles only *anu* "after", *ā* "to, towards", *tiras*[14] "across" and *prati* "against" still show nominal orientation with any frequency to speak of in Classical Sanskrit and in Pali (see Whitney 1983 [1879]: 414, Speijer 1968 [1886]: 115ff., Fahs 1989: 105–107).[15] The perseverance of *anu*, *ā*, *tiras* and *prati* in nominally oriented function can be explained by their propensity already in Vedic for usages with nominal orientation (see §5.3.1), but in the end they also vanish. Other local particles such as *apa* "away", *ni* "down", *nis* "out" and especially *vi* "apart" already never or hardly ever occurred with nominal orientation even in the *Ṛgveda*. This is a development which stands in stark contrast to other branches of IE, where the local particles survive to this day as highly productive prepositions.

Why didn't at least those local particles which often showed nominal orientation in OIA survive as adpositions? I propose that one factor for the loss may lie in the particulars of Vedic sentential prosody (cf. also Reinöhl, forthcoming, §4.3). A peculiarity of Vedic among the ancient IE languages (e.g., Kuryłowicz 1958: 97 et passim) is that finite verbs are unaccented when non-initial in main clauses and as enclitics lean to whichever element stands to their left (non-accentuation can be

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14.   Not belonging to the very oldest layer of the local particles that has been reconstructed (cf. Delbrück 2009 [1888]: 469), *tiras* is not listed among the "authentic" local particles still in use in Classical Sanskrit in Whitney's (1983 [1879]: 414) and Speijer's (1968 [1886]: 115ff.) outlines, but is mentioned by them in side notes. Synchronically, however, it behaves like other local particles both semantically and syntactically and is accordingly treated by other authors (e.g., Casaretto 2011 [2012]a) as one of the local particles.

15.   Vedic, Classical Sanskrit and Pali do not stand in a direct chronological lineage; the younger varieties descend from dialects closely related to the attested older layers and underlie different degrees and types of standardization. Since the gradual loss of nominally oriented local particles occurs in all varieties attested, this does not pose a difficulty for the analysis.

gleaned from the lack of an acute sign on a vowel in the examples below).[16] Often, this is a verbally oriented local particle (ex. (10)). In such cases, the tight prosodic relation matches the close semantic relation. The prosodic host may however also be of a different type, not necessarily directly semantically connected, as for instance a nominal expression (ex. (11)) or – importantly – a local particle with nominal orientation (ex. (12)–(14)):

(10) *índrasya   nú   vīryā̀ṇi   prá   vocaṃ*
Indra.GEN.SG.M now power.ACC.PL.N forward proclaim.INJ.1SG
"I now proclaim Indra's strengths"   (ṚV 1.32.1)

(11) *agním   īḷe   puróhitaṃ   yajñásya*
Agni.ACC.SG.M praise.1SG principal.ACC.SG.M sacrifice.GEN.SG.M

devám   ṛtvíjam
god.ACC.SG.M sacrificing_at_right_time.ACC.SG.M

hótāraṃ   ratnadhā́tamam
sacrificer.ACC.SG.M distributing_great_riches.ACC.SG.M

"I praise Agni, the one in charge of the sacrifice, the god who sacrifices at the right time, the sacrificer who bestows great riches"   (ṚV 1.1)

(12) *ṛtásya   pánthām   ánv emi   sādhuyā́*
right.GEN.SG.N path.ACC.SG.M after go.1SG rightly
"I go along the path of truth in the right way"   (ṚV 10.66.13)

(13) *sá   devó   devā̀n   práti paprathe*
DEM.NOM.SG.M god.NOM.SG.M god.ACC.PL.M against expand.PRF.3SG
"the god expanded against the gods"   (ṚV 2.24.11)

(14) *bhadráṃ   te   agne   sahasinn*
pleasing.NOM.SG.N GEN.2SG Agni.VOC.SG.M mighty.VOC.SG.M

ánīkam   upāká́   ā́ rocate   sū́ryasya
face.NOM.SG.N proximity.LOC.SG to shine.3SG sun.GEN.SG.M

"your pleasing face, O mighty Agni, shines beside the sun"   (ṚV 4.11.1)

Thus, in examples such as (12)–(14), where a nominally oriented local particle directly follows the local case form that it modifies, and at the same time precedes the finite verb, we find prosodic unification with the latter. Of course, as already noted, deciding between verbal and nominal orientation can be difficult. However, in the examples shown, the orientation is quite clearly towards the nominal case form. *Anu* in (12) specifies the extension of a path, a usage only found with

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16. In subordinate clauses, verbs are accented and local particles may procliticize to them, see (7).

accusatives (Casaretto 2010a: 15–16). *Práti* in (13) does not otherwise combine with √*prath* "to expand" and here encodes the direction towards a goal, while *ā* in (14) does occur with √*ruc* "shine", but typically with a derived causative verb stem, the combined form meaning "to like". Here, however, it expresses general location combining with *upāka* (*upāke* without sandhi), as it does when postposed to other spatial nouns. Such mismatches of semantics and prosody as illustrated here notably diminish the number of usages of local particles with nominal orientation occurring as free morphemes – a constellation unfavorable to their development into a class of adpositions.

Of course, prosodic boundaries do not have to align with syntactic boundaries as illustrated by English *wanna*, *gonna,* etc.[17] Cases such as these, where a function word cliticizes to the element to its left even though it syntactically belongs with elements to its right, are a frequent phenomenon cross-linguistically (see Himmelmann 2014: 935ff.). In the case of the local particles, however, we are dealing with the opposite case, where an element that semantically (not syntactically, as the split into preverbs and adpositions has not occurred) belongs to a nominal expression to its left forms a prosodic unit with the verb to its right. This different type of mismatch between semantics and prosody may be subject to other types of constraints than the type of *wanna,* etc.

To summarize, even the last survivors of the local particles in nominal orientation vanish from the language after early MIA. The reasons for this loss have not been examined, to my knowledge, even though it presents a stark contrast to the continuation of the local particles as adpositions in other branches. I suggest that one factor in the loss of the local particles may be the particulars of Vedic sentential prosody, which induce a skewing towards prosodic unification with the verb, irrespective of semantic orientation. This is then subtracted from the number of unbound local particles that could have been reanalyzed as adpositions.

3.2 The etymological origins of the NIA primary adpositions

NIA languages possess a layered system of case markers involving old remnants of inflectional marking, a younger set of primary adpositions (i.e., postpositions) and a more recent class of complex (or secondary) postpositions (cf. Masica 1991: 230ff.). It is the intermediate layer of primary postpositions which some authors consider akin to those adpositions deriving from the local particles in other IE languages.[18] These primary postpositions descend from a variety of

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17.   I owe this point and the examples to two reviewers.

18.   A reviewer remarks that Urdu also has prepositions. This is a result of influence from Persian and has no direct bearing on the matter at issue here.

sources including nominal, nominalized adverbial and verbal forms that stem from different historical periods. Here, I illustrate these variegated origins with the example of the seven Hindi primary postpositions (for a detailed discussion of the etymologies see Chapter 3 in Reinöhl forthcoming). Cognate forms and forms of similar sources have developed into postpositions in the same way in other NIA languages (see Masica 1991).

The two oldest postpositions of Hindi that can be traced to Vedic with certainty are *mẽ* "in" from a nominal form *madhye* ("middle.LOC.SG.N") "in the middle" and *par* "on" from the adverb *upari* "above". The origin of the instrumental-ablative postposition *se* (which has some argument-marking functions, e.g., of addressees, and also marks the passive agent) is contested, the most likely proposals being an Old Indic origin in the noun *saṅge* "in contact", in the adverb *samaṃ* "together", or in the perfective participle *sahita* "accompanied". The dative-accusative postposition *ko* has been phonologically reconstructed to stem from Skt. *kakṣe* ("flank. LOC.SG.M") "in the armpit, by the flank", which fits cross-linguistic findings of a frequent origin of adpositions in body part terms. However, historical attestation is scarce until the element surfaces approaching its modern functions in the 12th and 13th century (Butt & Ahmed 2011: 565), which calls for more research. There have been several proposals regarding the ergative postposition *ne*, the most plausible of which is a recent borrowing scenario (roughly between the 15th and 17th century) from a neighboring variety into Hindi/Urdu (cf. Verbeke & De Cuypere 2009, Butt & Ahmed 2011). Finally, possessive *kā/ke/kī*, which inflects for number, gender and case of the possessee, stems from a participial form of the Skt. root √*kr̥* "to do".

In sum, even though some of the precise origins remain contested, it is clear that these postpositions have sources unrelated to the ancient local particles.[19] This lack of etymological connection, however, has not been taken as an obstacle in several proposals where a categorial lineage from local particles to postpositions in analogy to other branches of IE is claimed.

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19.   The only postposition in this sample that does have a connection to one of the local particles is *par,* from *upari*, hypothesized to be an extended form of the local particle *upa* "near, to" (e.g., Mayrhofer 1992). As forms in *-r* are attested in several daughter languages (e.g., Latin *super*), the relation to *upa* is likely to date back to a very early period. Note that *upari* and *upa* diverge not only in form, but also semantically (*upari* "above" vs. *upa* "near, to") as well as syntactically, as *upari* may not be used as a preverb and therefore does not belong to the set of local particles. Since the connection between the two elements, if correct, only regards the stem, but not the full-fledged form, which is mirrored in the semantic and formal differences, it has no bearing on the question of categorial relatedness discussed in this paper.

4. A categorial lineage?

As shown in §2, the development of adpositions out of the old local particles has been depicted as a uniform process that affected the entire language family. This scenario has also been proposed specifically for Indo-Aryan. Sometimes, authors who focus on IE historical syntax in general, or on another branch of the family, cursorily mention Indo-Aryan as attesting to this development. An example is Coleman (1991:323) commenting on word order properties of the "adverbial particles"/"ptc", his term for the local particles:

> The direction of change in IE has not been from N Ptc to Ptc N but (i) towards elimination of the choice between the two orders; (ii) from optional to obligatory adjacency of the two items, as in Ptc N in English, N Ptc in Hindi, in contrast to the possibility of separating them from each other in Old English and Sanskrit; (iii) towards a restriction of each adpositional particle to one case, as in Classical Latin beside Hellenistic Greek.

More importantly, Indo-Aryan specialists, who can be assumed to be aware of the absence of an etymological connection, also propose a connection. For example, Chatterji and Emeneau, two of the most influential writers on Indo-Aryan in the 20th century, suggest a connection between the local particles and the modern postpositions. Both authors at first state that it is a peculiarity of Indo-Aryan that it has postpositions instead of prepositions, as this sets it off from the rest of the IE family. In reaction to this divergence, they suggest a connection between the local particles and the NIA postpositions based on the assumption of a shared preference for the postnominal position. Compare the following quotations regarding how the "preposition[s], in origin adverb[s]" (Chatterji) or the "adverbs in immediate constituency with nouns" (Emeneau), i.e., the local particles, may be connected with the modern postpositions, from Chatterji (1970 [1926]:172) and Emeneau (1956:9) (emphasis mine):[20]

> The most noteworthy thing [about NIA languages] is the gradual disuse of prepositions. All other IE languages developed the prepositions as aids to the declinational system; and when the inflections died out, the prepositions took up their place, as in English and Persian, French and Bulgarian. … In Primitive IE., the preposition, in origin an adverb, came before or after the noun; but IT IS REMARKABLE THAT THE DEVELOPMENT OF IT IN INDIA, WHERE IT IS NOT

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20. Both Chatterji and Emeneau mention in the lines following these statements that postpositions are a feature shared with Dravidian. There may very well have been an influence from Dravidian, but see fn. 38 for difficulties with the language contact scenarios that have been proposed so far.

ENTIRELY SUPPRESSED, SHOULD BE POST-POSITIONAL (AS IN SANSKRIT); THAT
AND IN LATE MIA. AND NIA., A SERIES OF HELP-WORDS OF A DIFFERENT KIND,
THE POST-POSITIONS OF NOMINAL AND VERBAL ORIGIN, SHOULD COME IN.

The absence of prepositions is striking to an Indo-Europeanist or a speaker of
a Western Indo-European language; it should be remembered, however, that
in Sanskrit itself (and it inherits this trait from Proto-Indo-European) there is
no class of 'prepositions' – the morphemes in question are rather 'adverbs in
immediate constituency with nouns', the position being postpositional probably
rather more often than prepositional. If these are replaced in Modern Indo-
Aryan by noun forms invariably following the oblique form of the head noun,
THE CONSTRUCTION IS NOT TOO DIFFERENT FROM THAT OF SANSKRIT.

In recent times, especially Bubenik (2006), and more generally the survey Hew-
son & Bubenik (2006) in which it is published, advocates this scenario. Bubenik
depicts the development of the NIA postpositions as originating in the old cat-
egory of local particles in exactly parallel fashion to other branches. He outlines
in detail how the local particles of Vedic came to stand in juxtaposition to nouns
in local case forms more and more often until they eventually became fixed in the
postnominal slot. The transition from local particles to modern postpositions is
presented as a replacement of the specific elements involved and as the develop-
ment from the status of an "adverbial phrase" to a "postpositional phrase". Bube-
nik's account can be gathered most easily from his visualization of this categorial
lineage by way of two parallel phrase structure trees with an "AdvP" involving the
local particle *ádhi* "above" (see exs. (6)–(9)) for Vedic, and a "PostP" involving *par*
"on" for Hindi. Bubenik describes the lineage as follows: "[T]he OIA discontinu-
ous structure *urvyám ádhi pṛthivyā́m* broad+LOC upon earth+LOC 'on the broad
earth' will ultimately end up as a 'continuous' postpositional phrase in Hindi"
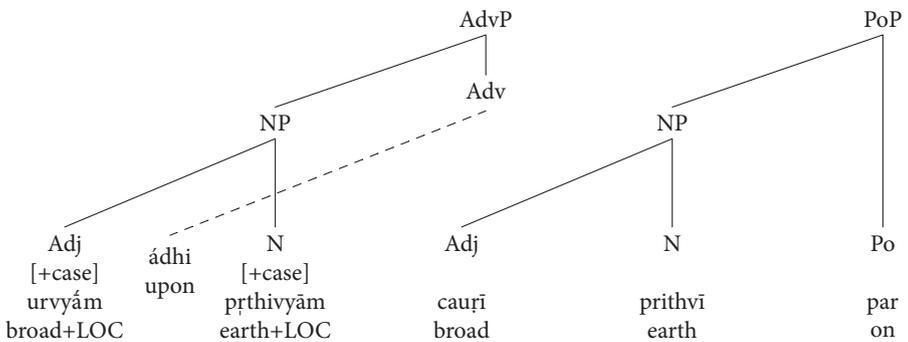(2006: 111):

Figure 1. From adverbial to postpositional phrase in IA according to Bubenik (2006: 111)

Other authors have refrained from drawing a connection between the local particles and the modern postpositions. For example, Bloch simply writes with reference to the forerunner forms of the modern postpositions, citing *majjhe* (from Skt. *madhye*) besides other MIA elements, that "it is this extension of noun groups, which explains the absence of the prepositional system" (1965:159). Andersen (1979) neatly distinguishes between local particles and other denominal, deverbal and deadverbial elements in Sanskrit, emphasizing the morphosyntactic differences between the constructions that they occur in respectively. In recent times, however, the analysis in Bubenik (2006) and more generally in Hewson & Bubenik (2006) is cited as the state of the art on the historical syntax of case in IE (e.g., Hagège 2010:2, Luraghi 2010:214, Jacques 2013:190, fn. 2). While this analysis adequately describes the developments in most of the IE branches, I now outline why it is in need of reconsideration for Indo-Aryan.

5.   Word class assignment in diachrony

Since the NIA postpositions are not etymologically connected to the old local particles (or to primary adpositions of other modern IE languages for that matter), claims of a lineage would have to be supported by evidence that there was a temporal overlap and, crucially, by morphosyntactic similarity. In the following, I first address the question of whether there was a historical period of overlap between the local particles and the newly emerging postpositions at all (§5.1). I show that such an overlap can only be identified in a very loose sense. I then turn to the morphosyntactic properties. First, I examine the types of case forms that the local particles and emerging postpositions could combine with in §5.2, before I turn to word order patterns in §5.3. In both domains, similarities between the two groups of elements are lacking.

   Note that, when adducing evidence on the newly emerging postpositions, I rely on data from those postpositions which are attested with certainty from the earliest sources onwards and that therefore allow one to trace the complete trajectory of their grammaticalization, namely Hindi *mẽ* "in" from *madhye* "in the middle" and *par* "on" from *upari* "above".[21]

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21.   These two elements are representative for an ultimate origin in relational nouns (*madhye*) and adverbs (*upari*), two major source types of postpositions in NIA languages (see Masica 1991:230ff., Reinöhl forthcoming).

5.1 Historical overlap

I assume that constructions of local particles with local case forms would only have had an impact on the younger constructions in a period when the latter had already come to be used as periphrastic constructions of case. Only then did the old and young constructions very roughly occupy the same functional space, which would make analogy a plausible factor.

When can constructions headed by MADHYE,[22] UPARI and other elements be considered to be slowly entering the domain of case marking in a broad sense (i.e., as occurring with increasing frequency as periphrastic expressions of local cases)? In the literature, authors highlight the expansion of relational noun constructions (besides other constructions involving converbs, participles and other forms) as rough equivalents of morphological case forms in Classical Sanskrit and early MIA. Compare Fahs for Pali (1989: 102–103, translation mine):

> Im Pali sind [die] Präpositionen [i.e. Lokalpartikeln] jedoch kaum zu finden. … Es gibt im Pali jedoch andere Mittel, die Beziehungen im Satz zum Ausdruck zu bringen. … Vorherrschend sind Hilfsnomina und Absolutiva.

> [In Pali, the prepositions [i.e. local particles] are hardly found any more. … However, there are other means of expressing relations within the clause. … Auxiliary nouns [i.e, relational nouns, UR] and absolutives [i.e., converbs, UR] predominate.]

Fahs illustrates this rough functional equivalence with the following pair of examples involving the relational noun *antare* ("inside.LOC"), which survives in the complex postposition *ke andar* "inside of" in Hindi:

(15) Pali[23]

   a. ***antevalañjakādisu***   *aguṇavādim*   *adisvā*
      indoor_people.LOC.PL   saying_sth._unvirtuous.ACC.SG.M not_see.CONV

   b. ***antovalañjakānam***   ***antare***   *kañci*
      indoor_people.GEN.PL   inside.LOC.SG anyone

      aguṇavādim   *adisvā*
      saying_sth._un-virtuous.ACC.SG.M not_see.CONV

      both: "among the people living in the house, he did not see (anyone who) uttered something infelicitous"   (adapted from Fahs 1989: 104)

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22. MADHYE and UPARI will be written in small caps, as I frequently refer to instantiations across more than one historical stage, but wish to abstract from phonological changes.

23. *Antevalañjakādisu* and *antovalañjakānam* are shortened forms built on the stem *antovalañjanaka* (Davids & Stede 2007 [1921–1925]: "anto").

Thus, from late OIA/early MIA onwards, constructions involving relational nouns and other elements (e.g., adverbs or converbs) come to express functions broadly comparable to those of combinations of local particles with local case forms. Compare for illustration the following examples from Pali, where *pati* (Skt. *prati*) with an accusative expresses the spatial vector "towards", thus having a meaning which is similarly abstract as UPARI meaning "above":

(16) Pali
      nagaraṃ   mithilaṃ   pati   gataṃ
      city.ACC.SG.N Mithila.ACC.SG.N towards go.PPP.NOM.SG.N
      "the city Mithila was reached (= gone towards)"
      (*Therīgāthā*, *Vāseṭṭhītherīgāthā*)

(17) Pali
      *seyyathāpi … **payasotattassa   nibbāyamānassa upari** santānakaṃ*
      just_as   boiled_milk.GEN.SG cool.PPM.GEN.SG UPARI scum.NOM.SG

      hoti   evam evaṃ pātur   ahosi
      become.3SG just so   manifest be.AOR.3SG

      "even as scum forms on boiled milk that is cooling, so did (the earth) appear"   (Dīgh III, p. 85)

Such examples notwithstanding, I pinpoint the reanalysis of MADHYE, UPARI, etc. as postpositions in a much later period in Reinöhl (forthcoming, Chapter 7), namely in the transition between late MIA and early NIA. Syntactically, the nominal dependent only becomes obligatory at the dawn of NIA. This is mirrored on a semantic level. For instance, MADHYE continues to designate a "middle" until late MIA – the abstraction to "in" is completed only towards NIA. UPARI is only seemingly ahead in its development on a semantic level, as it started off as a spatial adverb rather than as a spatial noun. However, like MADHYE, it is only in the transition to NIA that nominal dependents become obligatory and that we always find the vector meaning "on". Thus, it is only in a very broad sense that the new periphrastic constructions enter the domain of local case in late OIA/early MIA at a time when only the last survivors among the local particles with nominal orientation still appear occasionally.[24]

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24.   A reviewer asks how basic spatial relations could have been expressed in this period if there was hardly an overlap between local particles and emerging postpositions. In early Middle Indic, several declensional classes still have distinct local case forms. In addition, a host of adverbs, participles and converbal forms are used to express such relations, besides relational nouns like MADHYE slowly losing their concrete semantic meaning components (cf. Fahs 1989).

5.2   Combinations with cases

Assuming that there is a historical overlap, if only in a very broad sense, I now turn to the question of morphosyntactic similarity. The local particles, when nominally oriented, used to combine with case forms in local functions, i.e., with the accusative, instrumental, ablative and locative, as illustrated in (8) with a locative (see Delbrück 2009 [1888]). Can the forerunner forms of the NIA postpositions be shown to have occurred in such constellations? The Hindi postpositions today govern the so-called oblique case, the syncretic remnant of former inflectional oblique cases. In some declensional classes, the oblique is non-distinct from the "direct" (NOM/ACC). A reconstruction of the oblique suffixes could tell us which case forms the forerunner forms of the modern postpositions used to combine with, a piece of evidence for or against a connection with the local particles.

Distinct oblique suffixes occur in the masculine singular class in -*ā* as well as in all plural forms. Regarding the oblique plural suffix -*ō*, there is agreement that it descends from a former genitive plural (Beames 1970 [1875]: 218f., Kellogg 1972 [1875]: 128, Oberlies 1998: 1–2). By contrast, the origin of the singular oblique suffix -*e* in the *ā*-stem class remains contested. This suffix has been connected to a former OIA pronominal locative singular ending in -*asmin* (Oberlies 1998: 2), to late Middle Indic genitive singular -*he* (Kellogg 1972 [1875]: 126), or has been considered a syncretic form involving a mix of former genitive (genitive-dative), ablative, locative and even instrumental forms depending on the respective author (e.g., Beames 1970 [1875]: 211, Oberlies 1998: 6, fn. 9, Verbeke & de Cuypere 2009: 7–8). So, while the oblique plural most probably goes back to a genitive form, a case that the local particles did not use to combine with, the oblique singular in -*e* may in fact derive from one or more of the local case forms, which the local particles did combine with.

A first look at the historical attestations does not resolve the issue either. For example, MADHYE, just like other relational nouns, combines both with the above-listed local case forms, but also with genitives in OIA and MIA, as illustrated in the following Vedic examples (cf. ch. 5 in Reinöhl forthcoming):

(18)   LOC + MADHYE
    utá tyáṃ   *bhujyúm*   *aśvinā*
    and DEM.ACC.SG.M Bhujyu.ACC.SG.M Aśvins.VOC.DU.M

    sákhāyo   **mádhye** *jahur*
    companion.NOM.PL.M MADHYE leave.PRF.3PL

    durévāsaḥ   **samudré**
    malignant.NOM.PL.M ocean.LOC.SG.M

    "And that Bhujyu, O Aśvin, malignant companions abandoned **in the middle, in the sea**."   (ṚV 7.68.7)

(19)   GEN + MADHYE

nimaṅkṣye   *'haṃ* *salilasya*   *madhye*
plunge.FUT.MID.1SG   1SG   water.GEN.SG.N   MADHYE
"I shall plunge into **the middle of the water**."   (AiB 8.21)

Now, while the reconstruction of the Hindi oblique plural would point to an origin in constructions with genitives, a detailed look at the evidence of UPARI points to the opposite scenario, because it is attested only with local case forms in Vedic. Compare the following numbers on MADHYE and UPARI:[25]

Table 1. Constructional contexts of MADHYE

MADHYE	Alone	+ LOC	+ ACC	+ GEN	+ GEN/LOC[26]
Vedic Sanskrit (137)	63	6	1	66[27]	1
Pali (118)	41	13	0	43	21
Apabhraṃśa (35)	0	1	0	34	0

Table 2. Constructional contexts of UPARI

UPARI	Alone	+ LOC	+ ACC	+ GEN	+ GEN/LOC
Vedic Sanskrit (33)	29	1	3	0	0
Pali (36)	11	13	1	9	2
Apabhraṃśa (late MIA) (43)	5	1	0	35	2

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25.   The figures are drawn from a corpus of attestations of MADHYE and UPARI in a range of Old Indic and Middle Indic texts collected for Reinöhl (forthcoming). A detailed outline of the corpus can be found in Chapter 1. I collected examples from non-metrical as well as metrical texts. The figures given here are a subset of the complete dataset, as repetitions of the same line or construction within one text, especially frequent in Vedic and Pali, are excluded. The texts are for Vedic the *Ṛgveda*, the *White Yajurveda*, the *Atharvaveda*, the *Sāṃkhāyanabrāhmaṇa*, the *Aitareyabrāhmaṇa* and the *Śatapathabrāhmaṇa*. For Pali, I collected all instances from the *Dīghanikāya*, *Majjhimanikāya*, *Saṃyuttanikāya*, *Aṅguttaranikāya* and *Khuddakanikāya* from the *Suttapiṭaka* of the *Tipiṭaka*. For late MIA Apabhraṃśa, I collected data from the *Bhavisat-takaha, Karakaṇḍacariu* and the *Paumacariu*. The editions of those texts that I directly quote from in this paper are listed in the reference section under *primary sources*. If a translation exists and I consulted it, I specify the edition under the respective primary text. The remaining editions, which I do not directly quote from in this paper, are outlined in Reinöhl (forthcoming).

26.   This column lists such instances where the case suffix is a syncretic form.

27.   This excludes instances where *madhye* is emphasized by a following *ā́*.

While MADHYE in all periods combines both with local case forms (LOC, ACC) as well as with adnominal genitives, UPARI combines solely with local case forms in Vedic and only later also shows combinations with genitives. (In my corpus, this is attested from Pali onwards, but the construction is already found in Classical Sanskrit, see Speijer 1968 [1886].) The data on UPARI is important here because authors sometimes only take into account the well-studied Vedic Sanskrit (or only Ṛgvedic Sanskrit) as representative of older stages of Indo-Aryan. Here, this could easily lead to the conclusion that the modern postpositional phrases indeed descend from combinations of MADHYE, UPARI etc. with local case forms, UPARI only being attested with the latter in Vedic. However, the proliferation of constructions with genitives from Pali onwards should raise suspicion. In order to identify the forerunner construction, I provide in Reinöhl (forthcoming) a semantic and quantificational analysis of Old and Middle Indic constructions and identify what I refer to as the "post-Vedic genitive shift". I sketch the genitive shift here and refer the reader to the more detailed outline in Chapter 5 of Reinöhl (forthcoming).

Tables 1 and 2 show that constructions with genitives overall outnumber those with local case forms from early Middle Indic times onwards. As for the missing attestation of UPARI with genitives in Vedic, UPARI – along with a group of other old adverbs – was reinterpreted in post-Vedic times as a syntactically nominal element that can take genitive dependents under the pressure of proliferating relational noun expressions such as GEN + MADHYE, hence the label of a "genitive shift". This shift took place under specific conditions that gave rise to ambiguous surface structures.

Specifically adverbs with the phonological appearance of a local case form were reanalyzed. For example, even though clearly an adverb, UPARI could be phonologically mistaken for a locative of an *r*-stem, which fits its locative semantics. The interpretation of UPARI as a local case form in MIA is noted by Bloch (1965: 179):

> Hin[di] *ūpar* [figuring in the complex postposition *ke ūpar* 'above', equally stemming from *upari*] and *PAR* [ARE] NOT A QUESTION OF SKT. *UPARI*, BUT OF A WORD CONSTRUCTED AS A LOCATIVE, Pkt. [Prakrit] *uppari*, Panj[abi] *uppar*; locatives in form are Rom[ani] *opre*, cf. *oprāl* abl., Mar[athi] *varĭ́*)

Also other OIA spatial adverbs that have the phonological appearance of a local case form were reanalyzed, for instance *antarā* "between", which has the shape of an instrumental of an *r*-stem. All these adverbs, along with another group of adverbs that receive the morphological extension of a nominal derivational affix (e.g., Pali *pacchato* "after" formed from Skt. *paścā* "late" + *tas*, the latter being an ablative morpheme often used for the extension of adverbial forms),

systematically shifted from adverbial syntax to the syntactic status of relational nouns having slots for genitives.

The reanalyses of these different types of adverbs as nominal became possible only in such cases where the morphology of the accompanying nominal expression, too, had become ambiguous. Accelerating syncretism from late OIA/early MIA onwards gave rise to situations where one could frequently not in fact know whether elements like UPARI were combining with a local case form (typically the locative) or with a genitive.[28]

Besides the syntactic reanalysis, the elements in question also changed in semantic structure. For example, adverbial UPARI makes non-relational reference to the upper region of a three-dimensional space when in apposition with other local case forms, i.e., "above" as in *above, in the sky*. By contrast, reanalyzed UPARI encodes the relational vector meaning "on" with regard to a ground below which is encoded as a genitive, e.g. *on the floor*. The same type of semantic shift can be witnessed for elements like *pacchato* that have been formed by the addition of a nominal derivational affix. Thus, while simplex *paścā* means "late", derived *pacchato* with a genitive means "after".[29]

When formal ambiguity combined with semantic ambiguity, reanalysis became possible. For instance, UPARI meaning "above" combining with a raised object such as a mountain allows for reinterpretation as "on". To take a hypothetical example, *snow lies above, at the mountain* can be easily reinterpreted as *snow lies on the mountain*. By contrast, other spatial configurations do not allow such a reinterpretation: *above, in the sky* does not allow for an interpretation as *on the sky*.[30] Examples which display ambiguities on all the required levels are indeed attested in my corpus. The following example shows ambiguity with respect to (i) the form of the adverb which has the appearance of a local case form, (ii) the form of the accompanying nominal expression which may be either a locative or a genitive and (iii) the semantic structure of the complete expression, which allows for a reinterpretation of (non-relational) "above" as "on", involving an elephant's neck as a raised object:

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28.   The degree of syncretism depends on the declensional class. In the feminine classes, there is rampant syncretism already in early MIA, while in some masculine declensional classes, the genitive-dative merges with the local case forms only in the transition to NIA.

29.   On a syntactic level, I speak of a nominalization of the adverbs in question. Semantically, however, they do not acquire a referential function, but directly convert to adposition-style semantics as spatial vectors.

30.   Note that the Old and Middle Indic morphological locative was a "general locative", i.e., it allowed for all kinds of spatial relations at/in/on/by, etc. something.

(20)   Pali

mahantassa   phalakaṃ   soṇḍāya   upanibandhati,
great.GEN.SG shield.ACC.SG trunk.LOC.SG.F tie.3SG

*tomarahattho   ca   puriso   **upari***
holding_a_lance.NOM.SG.M and man.NOM.SG.M UPARI

gīvāya   *nisinno*   *hoti*
neck.GEN/LOC.SG.F sit_down.PPP.NOM.SG.M be.3SG

"he ties a shield to the great beast's trunk, a man holding a lance is sitting
above, at (i.e., on) his neck"   (Majjh III, p. 133)

This new semantic structure of the reanalyzed former adverb can be observed
in the semantics of the postposition to this day. Thus, while the original adverb
UPARI designated a location in the upper region of a three-dimensional space
("above, in the sky"), reanalyzed UPARI encodes the relational vector "on sth."
still today as Hindi *par*. Evidence that it is the semantic structure of reanalyzed
UPARI with genitives which stands at the origin of the modern construction also
comes from special collocations. For instance, UPARI can be used to designate
one's emotional state toward something or someone encoded as a genitive. This
usage can be traced throughout the ages, but is unattested in combination with
local case forms:

(21)   Classical Sanskrit
       putrasyopari   *kruddhaḥ*
       putrasya   **upari** kruddhaḥ
       son.GEN.SG.M UPARI get_angry.PPP.NOM.SG.M
       "**angry with the son**"
                                   (*Hitopadeśa* 66.17, Böhtlingk & Roth 1855–75 "upari")

(22)   Apabhraṃśa (late MIA)
       mā   rūsahi   **ammaho uvari** *sāmi*
       NEG be_angry.IMP.2SG GEN.1SG UPARI lord.VOC.SG.M
       "do not be **angry with me**, my lord!"   (KA 3.12.10)

(23)   Hindi
       vah   ***us***   ***par*** *gussā*   *hai*
       DEM.DIR.SG DEM.OBL.SG on angry.DIR.SG.M be.3SG
       "he is **angry with him**" (elicited)

The shift in semantic structure pertains not only to nominalized adverbs, but
also to relational nouns. Only in construction with genitives do we always find
the semantic structure of a location in relation to some spatial ground. Compare
the example with a genitive in (19) with the following one, where *madhye* and

barhir express independent spatial localizations, the reference frame of *madhye* remaining unexpressed:

(24)   Vedic
       ní   şatsi   mádhya ā́   barhír
       down sit.IMP.2SG MADHYE PRT sacrificial_grass.ACC.SG.N

       ūtáye   yajatra
       support.DAT.SG.F worthy_of_worship.VOC.SG.M

       "sit down in the middle, on the barhis, for solace, O one worthy of
       worship!"   (ṚV 3.14.2)

In sum, besides the reconstruction of the oblique plural as a former genitive, quantitative and semantic evidence leads to the conclusion that phrases such as OBL=*mē* and OBL=*par* descend from constructions involving genitives and not local case forms. With respect to this characteristic, then, the postpositional constructions are not modeled on the constructions that the local particles used to occur in.

5.3   Evidence from word order

In this section, I concentrate on the emergence of the postpositional syntagmatics. I first consider the word order constellations of local particles in the *Ṛgveda* in order to examine the claim that there is a continuous category of post-nominal elements in functions resembling adpositional status since earliest Vedic times (§5.3.1). Subsequently, I study the few remaining attestations of nominally oriented local particles in younger stages of OIA and early MIA in order to ascertain whether there may have been an influence at a time which comes closer to the period when GEN + MADHYE/UPARI start being used more frequently as periphrastic expressions of local case forms (§5.3.2). Third, I turn to the fixation of the postpositional syntagmatics of the modern constructions for comparison (§5.3.3).

5.3.1   *Ṛgveda*

An examination of word order of local particles in Vedic that yields insights regarding the question at issue, why the local particles were not revamped as adpositions, presupposes a categorization of the local particles into usages with nominal orientation on the one hand, and with verbal orientation on the other (cf. Reinöhl forthcoming, ch. 4). This is a difficult task because of the considerable number of ambiguous cases, as in (9). Especially Renou rejects categorization in many cases on principle (1956: 119, translation mine):

> On peut poser en fait que, dans bien des cas, l'attribution de telle ou telle forme à l'une ou l'autre catégorie est sans consequence, voire, qu'elle n'a pas de sens, qu'elle est une surérogation de notre esprit devant une structure linguistique qui était fondamentalement ambiguë.

> [One can posit in fact that, in quite some cases, the attribution of one or the other form to one or the other category is without consequence, is even without any meaning, is only an act of our mind faced with a linguistic structure which is fundamentally ambiguous.]

We have seen above ((7) and (8)), however, that some examples do allow for categorization. These comparatively unproblematic cases are the ones taken by Heinrich Hettrich, Antje Casaretto and Carolin Schneider as the foundation for a classification into nominally and verbally oriented usages, in which they refrain from assigning difficult examples to one of the two categories. This is the only approach I am aware of that offers an operationalization of the different functions of the local particles. It is a conservative approach, as it leaves a considerable number of examples unclassified, if there is uncertainty. Their classification strategy is as follows (2010: 20, translation mine):

> Syntaktische Zugehörigkeit zum BN [i.e. Bezugsnomen] ist erkennbar an prä- oder postpositiver Kontaktstellung von LP [i.e., Lokalpartikel] und BN … ; dagegen zeigt sich Zugehörigkeit zum Verb durch die unmittelbar präverbale Position als neutrale oder durch Satzanfangsstellung (Tmesis) als markierte Variante.

> [Syntactic affiliation to the reference noun is indicated by pre- or postposed adjacent placement of the local particle and reference noun … ; by contrast, affiliation with the verb is marked by directly preverbal position as the neutral option, or clause-initial position (tmesis) as the marked option.]

In brief, whenever a local particle stands next to a noun, while not next to a verb or in clause-initial position at the same time, it is classified as nominally oriented (e.g., (8)). All other cases are either classified as verbally oriented or as ambiguous (e.g., (7) and (9) respectively).[31] Below, I summarize the overall numbers as well as the numbers for nominal orientation collected from publications by Hettrich et al., split into prenominal and postnominal placement of the local particles:[32]

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31. Note that Hettrich et al.'s classification is a syntactic and not a semantic one, while I speak of semantic orientation. However, what underlies their classification is semantic orientation, which makes the two approaches compatible.

32. The absolute numbers given in this table are collected from Casaretto (2010a, 2010b, 2010 [2011], 2011 [2012]a, 2011 [2012]b, 2011 [2012]c, 2012), Hettrich (1991, 1993, 2002),

Table 3. Local particles with nominal orientation in the *Ṛgveda*

	1) sum	2) nominal orientation	3) prenominal	4) postnominal	5) postnominal of total
abhi "to"	801	235 (29%)	165	70 (**30%**)	9%
acchā "to"	174	82 (47%)	25	57 (**70%**)	33%
anu "after"	507	248 (49%)	165	83 (**33%**)	16%
apa "away"	235	3 (1%)	2	1	
ati "over"	199	67 (34%)	50	17 (**25%**)	9%
ava "down"	243	18 (7%)	8	10 (**56%**)	4%
parā "away"	94	1? (> 1%)	0	1?	
prati "against"	264	61 (23%)	52	9 (**15%**)	3%
puras "before"	52	9 (17%)	6	3 (**33%**)	6%
purā "formerly"	59	13 (22%)	12	1 (**8%**)	2%
ni "down"	665	26 (4%)	23	3 (**12%**)	> 1%
nis "out"	128	9 (7%)	6	3 (**33%**)	2%
tiras "across"	59	38 (64%)	33	5 (**13%**)	8%
ud "up"	312	1 (> 1%)	0	1	
upa "towards"	425	132 (31%)	98	34 (**26%**)	8%
vi "apart"	1049	20 (2%)	15	5 (**25%**)	> 1%

Most local particles do not show nominal orientation in the majority of cases (column 2). Only three of the postpositions (*acchā, anu* and *tiras*) show nominal orientation in roughly half of the cases or more, other elements only do so in maximally a third of the instances and quite a number in less than ten percent of the cases. This supports the view commonly found in the literature that verbal orientation predominates in Vedic. Of those cases categorized as nominally oriented, there is a clear propensity for prenominal over postnominal position (column 3 and 4), with the exception of *acchā* and *ava*, which prefer the latter.[33]

Hettrich et al. (2010) and Schneider (2009 [2010], 2010a, 2010b, 2011, 2012). The percentages are my own calculations. Cells are shaded grey where the token numbers are too low to give interesting results. Note that the analyses of some local particles, notably *ā*, have not yet appeared in print at the time of writing.

33.   As outlined above, a certain number of cases are not assigned to either nominal or verbal usage as they are ambiguous according to the criteria chosen. To give an impression, of the 174 instances of *acchā*, besides the 82 nominally oriented usages, another 72 instances are categorized as verbally oriented, with a remainder of 20 ambiguous cases. Overall, the percentages of ambiguous cases range roughly between 2%–10%. The complete figures for all local particles

The percentage of nominally oriented usages in postnominal position is generally low in comparison with the overall number of instances (with the exception of *acchā*), as can be gleaned from column 5.

This result stands in contrast with the assumption in the literature – which figured in the quotations by Chatterji (1970) and Emeneau (1956) in §4 – that nominally oriented local particles tend to appear in postnominal position. Delbrück notes: "Im Allgemeinen gilt nun die Regel, dass die echten Praepositionen [d.i. die Lokalpartikeln, UR] traditionell hinter ihrem Casus stehen." ("The general rule is that authentic prepositions [i.e., the local particles] follow the case form.", 2009 [1888]: 21, translation mine). The same claim is found in many other studies, e.g., Bubenik (2006: 108) and Luraghi (2010: 216). That this should be commonly assumed is surprising in view of the fact that word order evidence from the *Ṛgveda* is otherwise regarded with considerable skepticism due to the highly stylized and ritualized nature of the text. Jamison summarizes the situation as follows (1991: 40):

> The study of Vedic syntax provides a built-in source of constant frustration for the investigator – as anyone knows who has ever dealt with the subject. Namely this question: how many of the syntactic features we observe are characteristic of the entire Vedic language … and how many are special to the particular genre of the text under consideration. … The syntax of Rig Veda is likely to have been pushed to the limits, the limits even of intelligibility, for poetic effect.

It is unclear why these difficulties have had little bearing on the assumption of a typical post-nominal placement of nominally oriented local particles, especially since we have hardly any data from less formulaic language, the local particles vanishing quickly as free morphemes after early Vedic (see the next section). Possibly, the frequent occurrence of local particles in between local case forms and verb forms is the source of this assumption. As pointed out, such cases are classified as ambiguous in Hettrich et al.'s analysis. Now, while both orientations are in principle possible and attested, it is likely that verbal orientation predominates here in the same way as it does overall. Accordingly, local particles placed in post-nominal position should not by default be regarded as attesting to a 'postpositional' pattern.

The circumstances leave two options. Either, evidence of word order from the *Ṛgveda* is treated with due skepticism because of its distance from natural language, as it has been in other contexts, as a result of which we cannot make strong claims on syntagmatic preferences of the local particles. Or, we take the results of the analysis by Hettrich and his colleagues seriously, which suggest a preference

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divided into the various subtypes of nominal orientation, verbal orientation and ambiguous categories can be found in ch. 4 of Reinöhl (forthcoming).

of prenominal rather than postnominal position. Incidentally, this would bring Vedic into harmony with the other branches of the family where the local particles developed into prepositions and not postpositions. Whichever option is favored, the assumption of a postnominal placement from early on remains without convincing empirical support.

5.3.2   Post-Ṛgvedic Sanskrit and early MIA

The behavior of the local particles is already very different in the slightly younger Vedic prose text *Śatapathabrāhmaṇa*, which shows that the loss of nominal orientation is post-Ṛgvedic rather than post-Vedic. Among cases of nominal orientation, Cuny (1907) counts about twenty examples of prenominal placement and forty examples of postnominal placement. The comparison with the hundreds of cases of verbal orientation that are the focus of Cuny (1907) makes clear that usages of nominal orientation have already almost vanished from the language in this younger Vedic prose text.

While postnominal usages outnumber prenominal ones in the *Śatapathabrāhmaṇa*, note that the only three local particles which appear in prenominal position are identical with three of the four local particles introduced in §3.1 that are at all used with nominal orientation in the younger Classical Sanskrit and Pali – if only rarely. These are *ā*, *anu* and *tiras* – the fourth element, *prati,* is also attested in nominal orientation in the *Śatapathabrāhmana*, but only in postnominal position.[34] Other elements that occur in postnominal position are *adhi*, *ati*, *antaḥ*, *upa* and also *anu*.

In Classical Sanskrit, then, *ā*, *anu* and *tiras* survive along with *prati* as the only local particles still used with any frequency to speak of in usages with nominal orientation (Whitney 1983 [1879]: 414). By this stage, nominal orientation is connected with the local particles occurring as unbound morphemes, while bound local particles always show verbal orientation. As in the *Śatapathabrāhmaṇa*, *ā* only occurs in prenominal position with ablative case forms,[35] *anu* shows up both in pre- and postnominal position, while *prati* has a preference for postnominal

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34.   There may be one more attestation of prenominal position involving *abhi*, but the categorization is not straightforward.

35.   *Ā* is the only local particle which shows a systematic semantic shift depending on placement in prenominal or postnominal position in construction with ablative case forms. Prenominally, it shows allative meaning (thus superseding the ablative semantics of the nominal case form), while it denotes ablative semantics in postnominal position (or, from another perspective, "reinforces" the semantics of the ablative case form) (cf. Delbrück 2009 [1888]: 452–453). It is only the former usage that survives into younger layers.

placement (Speijer 1968 [1886]: 115ff.). According to Böhtlingk & Roth (1855–1875), *tiras* usually precedes the accusative it combines with.

A similar situation is found in Pali, where only *ā*, *anu*, *tiro* (Skt. *tiras*) and *pati* (Skt. *prati*) are still attested with nominal orientation, but very rarely so. *Ā* only combines with ablatives and stands prenominally, *anu* occurs with ablatives and locatives and occurs pre- and postnominally, and *pati* combines with accusatives and usually follows the noun (cf. Fahs 1989: 105, 106, Davids & Stede 2007 [1921–1925]). There are no comments on *tiro* in these sources, but a quick search in the digitized Pali canon (www.tipitaka.org) reveals that it continues to typically precede the accusative.

To recap the last two sections, while some of the local particles may have preferred the postnominal position in Vedic, other local particles show a balanced distribution, and most elements clearly favor the prenominal position. This goes especially for the *Ṛgveda* where prenominal position even predominates according to the analysis by Hettrich and colleagues. Findings from the *Ṛgveda* aside, I suggested above that younger layers of Sanskrit as well as early MIA data have a stronger bearing on the issue under discussion, as it is in these younger periods that constructions such as GEN + MADHYE come to be used more frequently in similar environments as the local particles, which makes a scenario of analogical influence more plausible. In these younger layers, however, only a small handful of local particles at all survive as free morphemes with nominal orientation, which in itself would seem to speak against a categorial connection. What is more, an analysis of their rare occurrences demonstrates that three out of four show a special connection with the prenominal position. *Ā*, in particular, ONLY survives in constructions where it precedes ablatives. *Anu* and *tiras* are the only local particles besides *ā* which are attested in the *Śatapathabrāhmaṇa* and in Classical Sanskrit in prenominal position. I therefore hypothesize that regular occurrence in prenominal position was one factor in the survival of a local particle into younger periods – if not the only one, as suggested by the evidence of *prati*. This ties in with my proposal outlined in §3.1 that nominally oriented local particles in postnominal position are blocked from reanalysis as adpositions in such cases when they are prosodically bound by an enclitic verb form. By contrast, local particles which prefer prenominal position are better equipped to remain in use as unbound elements with nominal orientation.

5.3.3   *The obligatorification of the postpositional syntagmatics*

What about the development of the postpositional syntagmatics of the emerging postpositional phrases? Compare the following figures for MADHYE in Vedic Sanskrit, Pali and Apabhraṃśa, and for UPARI in Pali and Apabhraṃśa (UPARI being unattested with genitives in Vedic as outlined above).

Table 4. Word order of GEN + MADHYE

MADHYE		Vedic Sanskrit (66)	Pali (43)	Apabhraṃśa (34)
Continuous	Σ	55	33	33
	GEN MADHYE	25	21	22
	MADHYE GEN	30	12	11
Discontinuous	Σ	11	10	1

Table 5. Word order of GEN + UPARI

UPARI		Pali (9)	Apabhraṃśa (35)
Continuous	Σ	9	33
	GEN UPARI	7	28
	UPARI GEN	2	5
Discontinuous	Σ	0	2

In Vedic Sanskrit, there is a relatively even distribution of pre- and postnominal placement with regard to MADHYE, which is in agreement with the generally great freedom of word order especially in the *Ṛgveda*. For Classical Sanskrit (not included in my corpus), Speijer notes for UPARI that it generally follows the genitive. This can also be assumed for MADHYE, as adnominal possessors generally precede their possessee (cf. Speijer 1968 [1886]: 10–11). In Pali, the tables show a clear propensity for postnominal placement, which becomes more pronounced in late MIA Apabhraṃśa. Aberrations from this pattern are hardly attested from early NIA onwards. For instance in Tulsidas' *Rāmacaritamānasa* (16th century) only four of 282 cases show the reverse order. Thus, we see a clear propensity for postnominal order at least from late OIA onwards, which becomes obligatory in the transition period from late MIA to NIA. The postpositions cannot have inherited their postnominal position from the local particles, then, since the latter show a continuous preference for prenominal order (or at least a balance between prenominal and postnominal order depending on the local particle). This holds in particular for those few local particles which at all survive in usages of nominal orientation and as free morphemes beyond the stage of early Vedic.

The last two sections have shown that the postpositional phrases do not descend from the same types of constructions as those of the local particles – both with respect to the case form of the accompanying nominal expressions, as well as with regard to word order. What is more, only a very generous interpretation

of 'local case marking' even yields a contemporary period of a rough functional overlap that could have allowed for analogical impact of some kind. In brief, I find no empirical support for the claim of a categorial lineage from the local particles to the modern postpositions.

6.   Implications for other areas of research

This clarification of the historical identity of the NIA postpositions has implications beyond questions of word class assignment. The notion of a historically identical category of primary IE adpositions has been the foundation for unified analyses of their synchrony and diachrony. I now sketch two such analyses which require reconsideration in view of the IA branch-off.

On a synchronic level, it has often been pointed out that IA is somewhat aberrant in having postpositions, while prepositions predominate in other branches of IE, and authors have felt the need to explain this divergence. Compare once more Emeneau (1956: 9), who notes that "[t]he absence of prepositions is striking to an Indo-Europeanist or a speaker of a Western Indo-European language". Apart from drawing a connection to the local particles or to Dravidian influence, the Indo-Aryan divergence has been "explained" by the general OV syntax of Old Indo-Aryan with postpositions as the expected "harmonic" correlate (e.g., Masica 1976, Hewson & Bubenik 2006: 13).[36] However, only the assumption of historical identity gives rise to the impression of an aberration in the first place. When studied in their own right, my data shows that the constructions GEN + MADHYE/UPARI in the course of MIA settle on the postpositional pattern, for which a propensity had existed since early Old Indic times. By late MIA, this pattern has become the default.[37] Thus, the question is not why NIA has postpositions, but rather, why the preference for postnominal position turned obligatory. In Reinöhl (forthcoming, chapter 7), I sketch how semantic changes entail the obligatorification of the syntagmatics as an epiphenomenal result.[38] At

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36.   Another view is to consider the prepositions in western branches of the family a divergence. For example, prepositions were firmly established in Latin long before it shifted from predominantly OV to VO.

37.   In the spoken language, the development was likely more advanced.

38.   The role of language contact remains to be studied, however. So far, studies of contact focus on Dravidian impacting on Indo-Aryan in the Vedic period or even the pre-Vedic period. Since word order remains syntactically free in principle until late MIA as I show in Reinöhl (forthcoming), one would have to also consider contact in the Middle Indic period.

the same time, the local particles do not appear to have had any influence in the matter, as shown in this paper.

Beyond matters of word order, the assumption of historical identity has been the basis for a theoretical architecture revolving around the way in which the Indo-European languages developed configurationality (or, depending on the branch of languages as well as theoretical preferences, from weakly configurational to mid-range or strongly configurational). It has been claimed that the change from largely non-configurational organization (in the sense of Hale 1983), as reconstructed for PIE and as can be observed especially in Vedic (see Reinöhl forthcoming), to the (partly) configurational organization of modern IE languages started off with the grammaticalization of adpositions and the concomitant development of a phrasal organization of spatial nominal expressions (e.g., Hewson & Bubenik 2006, Luraghi 2010). Subsequently (or very roughly in the same period as in Ancient Greek), article systems developed and with them NPs (or "DPs"), and a little later we witness at least in some branches the emergence of auxiliary systems and with them the formation of VPs, with English displaying an especially high degree of configurationality (cf. Luraghi 2010).[39] If the very initial step, namely the emergence of adpositions, proceeds along distinctly different lines in one of the branches, this shows us that there are more pathways to configurationality than have been assumed. In particular, this is not only a question of etyma, but the difference is structural. It is syntactically and semantically asymmetric groups consisting typically of a nominal or participial head with a dependent which give rise to the NIA postpositional phrases, while it is symmetrical groups of syntactically independent and co-ranking local particles and local case forms which stand at the origin of the modern prepositional phrases in other branches (see Reinöhl forthcoming).

7.   Conclusion

I have argued that the claim of a categorial lineage from OIA local particles to NIA postpositions does not find support in the historical evidence. First, there is

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39.   These further steps described here have not taken place in Indo-Aryan. In Hindi, definiteness is in part expressed by a postposition (dative-accusative *ko*) as well as by word order. I propose that the fact that Indo-Aryan has not developed articles in contrast with other branches is connected with the different origins of its postpositions. I cannot elaborate on this claim here, but see Reinöhl (forthcoming, ch. 8).

hardly a period of overlap between the last surviving local particles with nominal orientation and the newly emerging constructions starting to be used as periphrastic expressions of local cases in late OIA and early MIA. This scarce overlap aside, the morphosyntactic evidence itself shows no support for a lineage. On the basis of quantitative and semantic evidence, the NIA postpositional phrases could be shown to derive from constructions involving genitive dependents rather than local case forms. The initially conflicting evidence from UPARI, which appears to only combine with local case forms in Vedic, could be resolved by showing that UPARI underwent the 'post-Vedic genitive shift' along with several other adverbs, i.e., it was reanalyzed as an element that could take genitive dependents. By contrast, the local particles used to combine with local case forms. Furthermore, it was demonstrated that the notion of the continuous existence of quasi-adpositional elements standing in postnominal position throughout the history of IA lacks support. The analysis of the local particles in the *Ṛgveda* by Hettrich and colleagues reveals a propensity for prenominal placement for the majority of the local particles. The few local particles that survive into late OIA and early MIA as free morphemes with nominal orientation show this preference even more so than the other local particles that vanish earlier in this function. By contrast, the newly emerging constructions GEN + MADHYE/UPARI show a clear propensity for postnominal position from post-Vedic times onwards. Thus, the NIA postpositional phrases did not inherit distributional properties from the local particles, neither with respect to the case forms they combine with, nor with respect to word order.

The lack of shared morphosyntactic properties in addition to the lack of etymological connections and of an extended historical overlap leaves no space for claims of a categorial lineage. As a result, analyses based on the assumption of a historically identical category of adpositions in modern IE languages must be revised. This includes approaches to word order typology that do not take into consideration the genesis of the constructions in question. Furthermore, this includes assumptions about the general historical syntax of case in IE, which appears to be more diverse than hitherto assumed. Notably, there appear to be not one but at least two alternative pathways to the analytic expression of case, and as a result to the development of configurationally organized syntax in IE. Indo-Aryan branches off from other branches of the IE language family, attesting to the initial development of adpositional phrases out of nominal, nominalized adverbal and verbal forms which take nominal dependents, rather than out of combinations of the ancient local particles with local case forms.

Abbreviations

ACC	accusative	M	masculine
AOR	aorist mood	MID	middle
CONV	converb	N	neuter
DAT	dative	NEG	negation marker
DEM	demonstrative	NOM	nominative
DIR	direct	OBL	oblique
DU	dual	PL	plural
F	feminine	PPM	present middle participle
FUT	future	PPP	past perfective participle
GEN	genitive	PRF	perfect
IMP	imperative	PRT	discourse particle
IMPF	imperfect	REL	relative pronoun
INJ	injunctive	SG	singular
INS	instrumental	VOC	vocative
LOC	locative		

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Résumé

On considère généralement que les adpositions primaires des langues indo-européennes modernes forment, d'un point de vue historique, une catégorie à part entière puis qu'ils proviennent des « particules locales » proto-indo-européennes. La présente contribution remet en question cette hypothèse, étant donné qu'un sous-groupe important de la famille linguistique, l'indo-aryen, présente des adpositions d'une provenance divergente. Cette divergence ne saurait être réduite à une origine étymologique différente: l'article se propose de montrer que les adpositions de l'indo-aryen moderne ont des origines structurellement différentes. Les particules locales anciennes, telles qu'elles sont attestées dans les variétés anciennes de l'indo-aryen, se combinent avec des cas locatifs et tendent à apparaître en position prénominale. À la différence de ces dernières, les adpositions en indo-aryen moderne sont dérivées de formes nominales et verbales se combinant avec le génitif, et elles ont tendance à apparaître en position postnominale. Par conséquent, les éléments étudiés n'ont non seulement aucune parenté étymologique, mais elles présentent également une distribution morphosyntaxique foncièrement différente.

Zusammenfassung

Es wird im Allgemeinen angenommen, dass die primären Adpositionen moderner indoeuropäischer Sprachen eine historisch identische Kategorie darstellen, da sie von den proto-indoeuropäischen "Lokalpartikeln" abstammen. In diesem Aufsatz wird argumentiert, dass diese Annahme überdacht werden muss, weil einer der Hauptzweige der Sprachfamilie, das Indoarische, über Adpositionen anderen Ursprungs verfügt. Es wird gezeigt, dass dies nicht nur eine Frage anderer Etyma ist, sondern dass die neuindoarischen Adpositionen auch auf struktureller Ebene von anderen Quellen abstammen. Die alten Lokalpartikeln, wie sie in frühen indoarischen Varietäten belegt sind, treten gemeinsam mit Lokalkasusformen auf und zeigen eine Präferenz für die pränominale Position. Im Gegensatz dazu gehen die neuindoarischen Adpositionen auf nominale und verbale Formen zurück, die mit Genitiven auftreten, und sie zeigen eine Neigung zur postnominalen Stellung. Entsprechend haben wir es mit Elementen zu tun, die nicht nur auf etymologischer Ebene unverwandt sind, sondern auch hinsichtlich ihrer morphosyntaktischen Distribution.

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