

# One size fits all: prefixes, particles, adpositions and cases as members of the category P

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## Abstract

This paper argues that the category P extends beyond adpositions to include prefixes, particles and cases expressing directions (paths) and locations (places) based on the strikingly similar forms and meanings of such elements. Focusing on Germanic, Slavic, and Finno-Ugric languages, we show that the traditional distinctions between these space-denoting categories emerge from the position of the lexical item in the syntactic structure.

## 1 Introduction

Recent research on adpositions (van Riemsdijk, 1990; Koopman, 1997; van Riemsdijk and Huybregts, 2001; Helmantel, 2002; den Dikken, 2003; Svenonius, 2004) focuses on the division of labour between direction and location heads in the extended projection of PP. Give or take functional structure and with varying labels there is a general consensus on the following structure:<sup>1</sup>

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<sup>1</sup>The following abbreviations are used in the example glosses: ABL = ablative, ACC = accusative, ADESS = adessive, ADJ = adjective, AGR<sub>o</sub> = object agreement, AGR<sub>s</sub> = subject agreement, APPL = applicative, CL = clitic, DAT = dative, DEL = delative, DIR = directional, ELAT = elative, ESS = essive, FEM = feminine, FUT = future, GEN = genitive, ILL = illative, INESS = inessive, INSTR = instrumental, PERF = perfect, PFX = prefix, PL = plural, POSTESS = postessive, PREP = prepositional case, SG = singular, SUB = sublative, SUP = superessive, T/A = tense/aspect, TERM = terminative.

(1) [PathP [PlaceP [DP ]]]

The aim of this paper is to defend the view that particles, prefixes, adpositions and cases belong to the category P and to provide an analysis that integrates prefixes/particles and cases into the structures found in research on adpositions. We will thus provide new evidence in support of work uniting prefixes/particles and prepositions (Jackendoff, 1973; Emonds, 1976; van Riemsdijk, 1978; den Dikken, 1995; Zeller, 2001; Matushansky, 2002) and uniting prepositions and cases (Fillmore, 1968; Emonds, 1985).

Several arguments have been brought forward for drawing a categorial distinction between the items subsumed here under the category P. Firstly, prepositions are traditionally regarded as case *assigners* in view of the following type of data from German (2).

(2) **aus dem** Haus  
out the.DAT house  
'out of the house'

If prepositions are case *assigners*, they cannot be of the same category as cases.

However, not all prepositions visibly combine with cases on the noun, and those that do could be seen as analogous to combinations of Ps and combinations of cases. For example, there are languages such as Lezgian that employ case suffixes to express the spatial meanings primarily associated with English prepositions (3) (see also Kracht 2002 for discussion).

(3) a. sewre-**qh-aj** (from van Riemsdijk and Huybregts, 2001, 4)  
bear-POSTESS-ELAT  
'**from behind** the bear'  
b. sewre-**qh-di**  
bear-POSTESS-DIR  
'**to behind** the bear'

Furthermore, it has been proposed for Hungarian that there is a split between true Ps, which are inflecting postpositions and case suffixes, and adverbs, which are non-inflecting postpositions (É. Kiss, 2002). We do not adopt this approach, but rather adhere to the view commonly held in the Principles and Parameters framework that adverbs are not a separate category, but rather a function. The category P may play a fundamental part in giving other categories an adverbial function in many contexts.

A more serious problem for a unified treatment of particles/prefixes, adpositions and cases under one category P is the fact that not all these elements can appear in all P-positions. Furthermore, some elements subsumed here under P interact with aspect whilst others do not. We will provide a structural analysis that can account for the different orders and meanings while still maintaining the claim of the categorial identity of P. The differences, then, boil down to mere morphological ones, that can be accounted for in the spell-out of the different items.

Since we focus primarily on P elements with spatial meaning, we do not discuss structural cases (nominative and accusative), Germanic inseparabile prefixes (e.g. German *ver-*, *ent-*) or other non-spatial items with a distribution overlapping that of the items discussed here (e.g. Hungarian particles, *meg*, *el*). The paper is organised as follows. 2 provides evidence from different languages that prefixes/particles, adpositions and cases belong to one category on the basis of their similar forms and meanings. 3 proposes a structure to account for differences in word order, morphological status and meaning. 4 discusses the issue of limiting the category P. Finally, 5 concludes.

## 2 Evidence

### 2.1 Prefixes/Particles and Adpositions

Prefixes/particles and prepositions/postpositions often have similar forms and interpretations. For example, Dutch *in* ‘in’ can appear both as a prefix/particle, a postposition or a preposition (4).

- (4)
- a. Zij wou het meer **in**-zwemmen. (prefix/particle)  
she wanted the lake in-swim  
‘She wanted to swim **into** the lake.’
  - b. Zij zwom het meer **in**. (postposition)  
she swam the lake **in**  
‘She swam **into** the lake.’
  - c. Zij zwom **in** het meer. (preposition)  
she swam **in** the lake  
‘She swam **in** the lake.’

(4-a,b) illustrate that the meaning of Dutch *in* as prefix/particle or as postposition are identical. (4-b) and (4-c) show that Dutch makes a locative/directional distinction (English *in* vs. *into*) by using this adposition as a pre- or postposition.

German also has forms such as *auf* ‘on’ that have the same meaning as a prefix, preposition or postposition.<sup>2</sup>

- (5) a. Sie wollte **auf** den Berg hin-**auf**-laufen.  
 she wanted on the.ACC mountain there-on-run  
 ‘She wanted to run up the mountain.’
- b. Sie lief **auf** den Berg hin-**auf**.  
 she ran on the.ACC mountain there-on  
 ‘She ran up the mountain.’

Similar examples are found in Latin, Slavic languages, Ancient and Modern Greek.

We now take a closer look at Russian and Czech prefixes and prepositions that are used to express sources and goals. The following tables provide an overview of the inventory in Russian and Czech.

meaning	prepositions	verbal prefixes
to	<i>do</i> (+GEN), <i>k</i> (+DAT)	<i>do-</i> , <i>pri-</i>
towards	<i>k</i> (+DAT)	—
in / into	<i>v</i> (+ACC) / (+PREP)	<i>v-</i> , <i>za-</i>
on / onto	<i>na</i> (+ACC) / (+PREP)	( <i>na-</i> )
(away) from	<i>ot</i> (+GEN)	<i>ot-</i> , <i>u-</i>
out (of)	<i>iz</i> (+GEN)	<i>iz-</i> , <i>vy-</i>

Table 1: Russian goal and source prepositions and prefixes

meaning	prepositions	verbal prefixes
to	<i>do</i> (+GEN), <i>k</i> (+DAT)	<i>do-</i> , <i>při-</i>
towards	<i>k</i> (+DAT), <i>vůči</i> (+DAT)	—
in / into	<i>do</i> (+GEN)	<i>do-</i>
on / onto	<i>na</i> (+ACC) / (+PREP)	( <i>na-</i> )
(away) from	<i>od</i> (+GEN)	<i>od-</i> , <i>u-</i>
out (of)	<i>z</i> (+GEN)	<i>vy-</i>

Table 2: Czech goal and source prepositions and prefixes

An apparent difference between Russian and Czech is that only Czech has a preposition like *towards* distinct from *to*, namely *vůči*. In addition, Czech does

<sup>2</sup>In contrast to Dutch, German marks the locative/directional distinction by means of case on the DP-complement of the preposition (see Gehrke 2006 for discussion).

not lexically distinguish *into* from *to* but uses the preposition *do* in both cases.

At first sight, the gaps in the preposition-prefix correlation (marked in bold-faced letters) seemingly pose a problem for our claim that they belong to the same category. There are direct prefixal counterparts to all locative prepositions but not to the purely directional ones *k* ‘to(wards)’ and *vůči* ‘towards’. On the other hand, there are cases where the prefixes used to refer to goals or sources do not have prepositional counterparts with the same meaning. These prefixes are in fact often preferred over the direct counterparts to render the particular meanings of goal and source. We can show, however, that prefixes on Slavic motion verbs convey locative rather than directional meanings and thus account for the gap and maintain a unified treatment of prefixes and prepositions under the category P.

Apart from Czech *vůči* ‘towards’, Russian *v* (+ACC) ‘into’, and Russian and Czech *k* ‘to(wards)’ and *na* (+ACC) ‘on’, all goal and source prepositions can appear in both directional and locative contexts. Moreover, *na* and *v* convey the locative meanings of ‘on’ and ‘in’, respectively, when they select prepositional case<sup>3</sup>, as the examples from Russian in (6) show (Czech *na* ‘on’ behaves the same).

- (6) a. Ona položila knigu **na stol** / **v** sumku. (directional)  
she put.PAST book.ACC on table.ACC / in bag.ACC  
‘She put the book onto the table / into the bag.’  
b. Kniga byla **na stole** / **v** sumke. (locative)  
book.NOM was on table.PREP / in bag.PREP  
‘The book was on the table / in the bag.’

Hence, these prepositions also occur in locative contexts. The only prepositions that can never appear in a locative context are therefore Russian and Czech *k* ‘to(wards)’ and Czech *vůči* ‘towards’, which are exactly those prepositions that do not have prefixal counterparts.

The prepositional counterparts of the additional prefixes that are in some cases preferred over the direct counterparts to render the particular meanings of goal and source, partially convey different meanings (7).

- (7) prepositional counterparts to additional prefixes:  
a. *pri* / *při* (+ PREP) ‘at, by’  
b. *u* (+ GEN) ‘at’

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<sup>3</sup>The prepositional case in Slavic languages is sometimes also called locative case. We chose this term to avoid confusion with the term *locative* which we reserve for the spatial meaning of places / locations in contrast to *directional*, which relates to paths.

- c. *za* (+ ACC / INSTR) ‘within; behind, at, with, ...’
- d. Old Slav. *v”n* (+ GEN) > Russ. / Czech adverbial *von / ven* ‘outside’

The most common prefixes used for a motion involving arrival or leaving have the prepositional counterparts in (7-a,b). As prepositions, these elements convey the purely locative meaning ‘at’. Furthermore, the prefix *za-* ‘in’ has the prepositional counterpart *za* ‘within; behind’, which is used directionally to mean ‘behind’ (then selecting ACC). As a prefix, however, it denotes ‘in’, so only the locative meaning is available. Finally, the prefix *vy-* ‘out’, which no longer has a prepositional counterpart, is historically related to the Old Slavonic preposition *v”n*. Reflexes of this preposition are the modern Russian and Czech adverbials *von / ven* ‘outside’, so that we can assume that this element is not directional either.

We therefore conclude that prefixes on Russian and Czech motion verbs in goal and source contexts are locative and have direct counterparts among the prepositions (see also Matushansky 2002 for morphophonological evidence that Russian prefixes and prepositions have the same status).<sup>4</sup> Overall, prefixes and particles are closer to the verb, whereas adpositions are closer to the noun. We do not want to blur this important difference between these two kinds of elements. Nevertheless, we think that the general identity of form and meaning between prepositions/postpositions and prefixes/particles in different languages can be taken as evidence that they belong to the same category.

## 2.2 Tying in Cases

This section looks at semantic and morphological evidence that bound morphemes with spatial interpretations commonly termed ‘case’ in many languages belong to the category P. This represents a departure both from traditional approaches to grammar, where a bound morpheme would be treated as case and a separate word as an adposition, and from the mainstream approach in the Principles and Parameters framework (Chomsky, 1995), which treats case as an uninterpretable feature and P as a lexical category. Whilst case has been connected with adpositions in the generative literature (see for English Fillmore 1968; Emonds 1985, for German Vogel and Steinbach 1998; Bayer et al. 2001, for Finnish Nikanne 1991; Kracht 2002, for Lezgian van Riemsdijk and Huybregts 2001), our approach, in addition to providing new evidence for this unification, extends it to include verbal particles.

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<sup>4</sup>Gehrke (to appear) provides arguments for treating Slavic prefixes as state morphemes expressing a result state in a complex event structure expressed by the VP and the DPs/PPs therein.

(8) shows that where English uses only adpositions in spatial expressions, German case makes a contribution to spatial interpretation, and is not merely an uninterpretable feature assigned by the adposition (see Gehrke 2006 for discussion).

- (8) a. auf den Berg - ‘onto the mountain’ (directional)  
       on the.ACC mountain  
       b. auf dem Berg - ‘on the mountain’ (locative)  
       on the.DAT mountain

In (7) and (8) the morphological distinction between cases (affixes) and adpositions (full words) is clear. Hungarian, however, constitutes a challenge to a theory that draws the line between cases and adpositions based on their morphological status (see Asbury 2005, to appear for a more detailed examination of the Hungarian data). Data here is adapted from Marácz (1989) and É. Kiss (2002).

Hungarian cases form suffixes when they combine with full nouns, but appear to form the head of the word with pronouns, as shown in (9).

- (9) a. a ház-**ban** - ‘in the house’  
       the house-INESS  
       b. (én) **benn**-em - ‘in me’  
       (I) INESS-1SG

In exhibiting this agreement pattern, case is similar to the majority of the Hungarian postpositions (10).

- (10) a. (én) **benn**-em - ‘in me’  
       (I) INESS-1SG  
       b. (én) **mögött**-em - ‘behind me’  
       (I) behind-1SG

The main distinguishing factor between the postpositions which inflect in this way (10) and the morphemes termed ‘cases’ is vowel harmony, exhibited by the cases but not the adpositions (11).

- (11) a. a ház-ba/\*-be / a zsebé-be/\*-ba  
       the house-ILL / the pocket-ILL  
       ‘into the house’ / ‘into the pocket’  
       b. a ház mellett/\*mellatt / a zseb mellett/\*mellatt  
       the house near / the pocket near  
       ‘near the house’ / ‘near the pocket’

It could be argued, however, that this is a morphological process, calculated after the syntax on the basis of the quantity of phonological material inserted. Note that nearly all postpositions are polysyllabic, the few exceptions containing a vowel which does not undergo harmony due to the quality of the vowel itself, whereas most putative cases are monosyllabic. Thus it may be that those items which undergo vowel harmony do so because they are too light to be phonologically independent, rather than because of an underlying syntactic difference.

The inflection-word distinction is sometimes applied to cases and adpositions on the basis that agreement can be seen with inflectional categories (e.g. Latin adjectives have case suffixes agreeing with the noun), whereas independent words do not agree. Again, Hungarian blurs this distinction, since only the demonstrative appears to agree, both in number and ‘case’. However, it is not only the putative case suffixes but also the majority of postpositions (those that inflect when combined with pronouns) which require agreement after the demonstrative (12).

- (12) a. en-**nél** a ház-**nál** - ‘at this house’  
           this-ADESS the house-ADESS  
       b. az **alatt** a fa **alatt** - ‘under that tree’  
           that under the tree under

The same postpositions exhibit ordering restrictions which make them appear rather like case suffixes. Modifiers such as *majdnem* (‘almost’), for example, cannot intervene between noun and postposition (13).

- (13) a. majdnem az utcá-**ban** - ‘almost in the street’  
           almost the street-INESS  
       b. (majdnem) a ház (\*majdnem) **mellett** - ‘almost by the house’  
           almost the house (\*almost) near

A significant minority of postpositions exhibits fewer similarities to the case suffixes by not agreeing with pronouns and permitting intervention of the modifier (13). However, it is difficult to draw a line between the two types of postposition, since there are items which exhibit mixed behaviour. For instance, the postposition *kívül* (‘outside’) behaves variably with respect to pronominal inflection (14).

- (14) kívül-em / rajt-am kívül  
       outside-1SG / SUP-1SG outside  
       ‘outside me’

Thus the adposition-case distinction seems not to exist in Hungarian, even on the

basis of morphosyntactic diagnostics.

Finally, Hungarian allows us to make the link with the other categories we subsume here under P. It appears that in Hungarian not only the postpositions, but even the cases can surface as verbal prefixes/particles (15).

- (15) a. János **rá**-lépett a láb-am-**ra**.  
János SUB-stepped the foot-1SG-SUB  
'János stepped on my foot.' (case)
- b. **Körül**-néztünk az üzlet-ben. az üzlet **körül** / (én)-**körül**-öm  
round-looked the shop-INESS the shop round / (1SG)-round-1SG  
'We looked around the shop.' 'round the shop' / 'round me' (postposition)

To conclude, Hungarian provides evidence against a strict categorial distinction between case and postpositions on the basis of morphosyntactic characteristics. Even in languages where the morphosyntactic distinction is clearcut, we view the semantic overlap as evidence in favour of treating them as one category.

### 3 Structural Analysis

Building on insights from recent research on the structure of adpositions and the projections associated with these (van Riemsdijk, 1990; Koopman, 1997; Helmantel, 2002; den Dikken, 2003; Svenonius, 2004), we propose to account for the different distributions of the items subsumed here under the category P with the skeleton structure in (16).

- (16) [<sub>IP</sub> I [<sub>PredP</sub> Pred [<sub>VP</sub> v [<sub>VP</sub> V [<sub>PathP</sub> Path [<sub>PlaceP</sub> Place [<sub>DP</sub> ... ]]]]]]]]

In a nutshell, each individual lexical item has its own core semantics (locative or directional). On the basis of this, a particular P is merged in the extended projection of the noun phrase as either Place or Path, where the heads can head a small clause with the verb-internal argument as its subject. The final position with respect to noun and verb is determined by syntactic movement. Furthermore, the core semantics of particular Ps can make them incompatible with certain positions, for example preventing them from becoming particles/prefixes, or from licensing/identifying (directional) Path structure.

Let us run through some examples to illustrate the main idea of our proposal. Locative Ps such as *under*, *behind*, *in*, *on*, and *at* are associated with Place (17).

(17) [<sub>PlaceP</sub> [<sub>Place'</sub> *behind* [<sub>DP</sub> *the house* ]]]

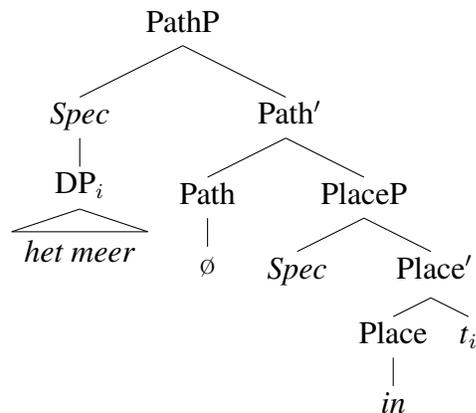
Simple directional Ps such as *to* and *from*, as well as complex directional PPs such as *into*, *onto*, and *from under*, license a PathP which embeds a PlaceP. The Place head is either empty (with simple directional Ps) or filled with a locative P element which is part of the complex PP (18).

(18) [<sub>PathP</sub> [<sub>Path'</sub> *from* [<sub>PlaceP</sub> [<sub>Place'</sub> *behind* [<sub>DP</sub> *the house* ]]]]]

The difference between prepositions and postpositions can be accounted for in the following way. Assuming a universal Spec-Head-Comp ordering, with P preceding DP in its initial position, postpositions in Hungarian and Dutch, for instance, are the result of DP-raising to Spec-Path/Place as appropriate.

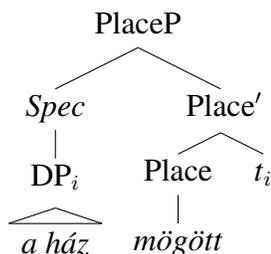
Dutch postpositional phrases, which are always directional, are the result of the DP-complement of a Place head moving to Spec-PathP, thereby licensing or identifying the additional Path structure (19).

(19) *het meer in* - 'into the lake'  
*the lake in*



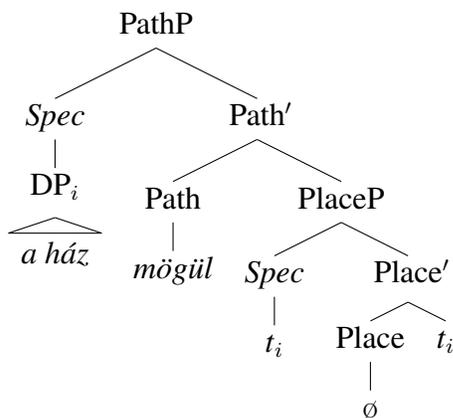
Hungarian postpositional phrases can be either locative or directional. For the locative cases we propose that the DP-complement of PlaceP moves only as far as Spec-PlaceP (20). Thus Path structure is not licensed by the movement, as it is in Dutch.

- (20) a ház mögött - ‘behind the house’  
 the house behind



Hungarian directional postpositions are the result of DP-movement to the Specifier of a directional P element. From a complex Path head with both directional and locative semantics, either the head of the Place projection is empty as illustrated in (21), or the locative Place head moves to incorporate into the Path head. Both options are compatible with our proposal.

- (21) a ház mögül - ‘from behind the house’  
 the house from.behind

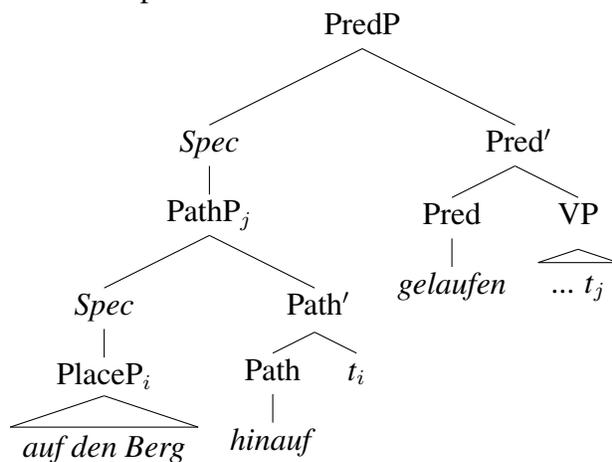


The difference between case suffixes and postpositions in Hungarian result from phonological processes after Spell-Out, at PF, with morphological merger be-

tween DP and P after movement.<sup>5</sup> Hence, the structure itself remains the same.

Most Germanic, Slavic and Hungarian particles/prefixes with spatial semantics seem to function as a kind of glue between the verbal and the nominal domain. In particular, they seem to participate in structuring the event expressed by the VP and the DPs/PPs contained therein. We take this effect to be due to subsequent movement of the P element from the extended PP to a position above VP (and *v*P where present), which we assume to be PredP (following Baker 2003 and others). In Hungarian, such elements move to PredP in the default case (22) (see Hegedűs 2005 for discussion on Hungarian PPs). (23) provides an example from German with the entire PathP moved up to Spec-PredP.

- (22) Mari fel-mászott a hegy-re.  
 Mari up-climbed the hill-SUB  
 ‘Mary climbed up the hill.’
- (23) Sie ist auf den Berg hin-auf-gelaufen.  
 she is on the.ACC mountain there-on-run  
 ‘She ran up the mountain.’



Hence, the problem of the uneven distribution of different P elements, usually taken as evidence for treating them as categories in their own right, can be accounted for by assuming that the core lexical semantics of a particular P deter-

<sup>5</sup>Hungarian spatial case suffixes developed diachronically from postpositions.

mines the position in which it is merged. Adpositions, prefixes/particles and cases alike can appear in Path, Place or PredP, and at the same time, there are adpositions, prefixes/particles and cases that are banned from certain positions. Thus, the distinction between these elements turns out to be merely a morphological one, where the precise morphological analysis must remain for future research.

## 4 Limiting the category P

If we extend the category P to elements beyond adpositions, such as cases and prefixes/particles, the question arises how this category is limited.<sup>6</sup> It goes beyond the scope of this paper to give a full definition of the category P. A distinction, however, should be drawn between derivational processes which relate semantically and formally similar words and the types of semantic and formal similarity we point out here with respect to the category P. Examples of the former type are English *run*, which can be a noun or a verb, and pairs such as *high* and *height*. In these instances there is a clear categorial difference, also resulting in a clear semantic difference, in spite of the similarity (24).

- (24) a. He has run a long way today. (V)  
b. He went on a long run today. (N)

*Run* (V) denotes the activity of running, whereas *run* (N) denotes an event in which someone engages in the activity of running. A word such as *up*, however, does not undergo such a change of meaning in the transition from being a preposition (*up the hill*) to being a particle (*went up*). Instead, the difference is the way in which *up* relates to the rest of the sentence, the preposition denoting the path with respect to a specific place, ON *the hill*, and the particle denoting the path which specifies the action. Thus the difference is contributed by the other parts of the sentence, not by a derivational difference in *up* itself.

Even under the view that roots are inserted without categorial labels and that all derivational processes (like *run* V/N, *high/height*) take place in syntax (cf. Halle and Marantz 1993; Marantz 1997, a.o.), the relation between particles and adpositions can still be viewed as distinct under the present proposal. The zero derivation process from *run* (V) to *run* (N), for example, would require addition of nominal structure to form a noun and verbal structure to form a verb. Under our

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<sup>6</sup>Our thanks to Joost Zwarts, Jakub Dotlačil and an anonymous reviewer for emphasising the importance of this question and pointing out some of the issues raised below.

proposal an adposition would be formed on insertion with the requisite syntactic structure, and a particle would be formed by movement of this item within the sentence structure. Thus the formation of a particle from a preposition, we argue, does not require additional or different structure, but rather movement of the P head within the structure already present. This might rather be compared to the change in function of a direct object under topicalisation (25).

(25) *This book<sub>i</sub>, I've read many times t<sub>i</sub>.*

We view *particle* as a functional description, rather than a categorial one. Like adverbs, several different categories can be used as particles, often having the effect of making the event resultative or telic (26).

- (26) a. He hammered the metal *flat*.  
b. He handed the article *in*.

*Flat*, in interacting with aspect in this way, is no less an adjective than when it is used predicatively or attributively (27).

- (27) a. The metal was flat.  
b. flat metal

In the same way, we argue that particles derived from adpositions are no less members of the category P (cf. Baker 2003 for a deeper discussion and analysis of similarities between the categories A and P).

As mentioned in the introduction, there are also elements we do not discuss, which have a distribution overlapping with the Ps discussed here. The category P can be informally characterised as expressing spatial relations and thematic roles. In this paper we have focused on words and affixes expressing spatial expressions. We expect the same analysis to carry over to words and affixes expressing thematic roles, particularly in view of the fact that certain elements sharing the distribution of Ps discussed above can express both spatial meaning and also meaning associated with thematic role, as illustrated with Hungarian dative case in (28).

- (28) a. Csillá-**nak** adtam egy könyv-et. (recipient role)  
Csilla-DAT gave.1SG a book-ACC  
'I gave Csilla a book.'  
b. **Nek-i**-mentem a fal-**nak**. (path)  
DAT-3SG-went the wall-DAT  
'I bumped into the wall.'

However, this connection remains to be shown in detail in future research, with some doubt as to whether there is a correlate of the path-place distinction from spatial expressions amongst their non-spatial counterparts.

Whether the proposal could be further extended to other particles and prefixes with non-spatial meanings (e.g. German *ver-* and *ent-*, Hungarian *meg-*) seems less certain. Whilst these elements do not appear to be related to the category A, the evidence for relating them to the category P is also not clear. The type of formal and semantic similarities we have used as evidence above clearly would not carry over to this class of prefixes and particles. Applicative markers, which can also be used in both spatial and thematic expressions, are another area where it would be interesting to attempt to extend the proposal, but where further work would be required. Finally, we rule out the possibility of extending the proposal to nominative and accusative case, following the mainstream Principles and Parameters view that these are purely uninterpretable features.

The proposal in this paper thus contributes to the delineation of the category P, allowing us to subsume certain elements under this categorial label but also to rule out a connection with other elements whose distribution sometimes overlaps with that of P.

## 5 Conclusion

In this paper, we have presented semantic and morphological evidence that prefixes/particles, adpositions and cases belong to one category, P. We explained apparent counterevidence with a structural analysis whereby movements within the extended projection above the noun derive different adposition-noun ordering and combination phenomena, and prefixes/particles are formed by movement to PredP.

Possible extensions of the current account could examine Ps with non-spatial meaning, Ps selected by specific verbs (e.g. *believe in*, *phone up*), where the P would normally have a spatial meaning but does not in specific P-verb combinations, metaphorical extensions from spatial Ps (e.g. temporal *at*, *up to*; general metaphorical use, *prices go up*), and more speculatively, applicatives. Finally, a full account should also address Ps such as *with*, *without*, *as*, comitatives, and instrumentals, which seem never to express spatial meaning.

## References

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