

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

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1 Introduction

Some history:

Recent research on adpositions:

- van Riemsdijk 1990, Koopman 1997, van Riemsdijk & Huybregts 2001, Helmantel 2002, Den Dikken 2003, Svenonius 2004
- focuses on division of labour between direction and location heads in the extended projection of the PP
- general consensus (give or take functional structure) [_{PP} [_{PathP} [_{PlaceP} [_{DP}]]]]

Work uniting prefixes/particles and prepositions:

- Jackendoff 1973, Emonds 1976, van Riemsdijk 1978, Den Dikken 1995, Zeller 2001, Matushansky 2002
- particles/prefixes and prepositions belong to one category

Work uniting prepositions and cases:

- Fillmore 1968, Emonds 1985
- prepositions and cases belong to one category
- Fillmore: cases involve an empty P, Emonds: Alternative Realisation

Aims of this paper:

- build on past work on specific languages, which unites particles, prefixes, adpositions & cases
- show that particles, prefixes, adpositions & cases belong to the category P in a cross-linguistic perspective
- integrate the additional elements (prefixes/particles and cases) into the structures found in research on adpositions
- show how the different orders and meanings can be accounted for in such structures
- account for morphological differences in the spell-out of the different items

What we will not talk about:

- nominative and accusative case (structural cases)
- Germanic inseparable prefixes (e.g. German *ver-*, *ent-*, etc.)
- other non-spatial items with an overlapping distribution with the items discussed here (e.g. Hungarian particles, *meg*, *el*, etc.)

Structure of the talk:

2. Evidence that prefixes/particles, adpositions & cases belong to one category; possible problems
3. Structural Analysis
4. Conclusion

2 Evidence

2.1 Prefixes/Particles and Adpositions

➤ Prefixes/particles and prepositions/postpositions often have similar forms and interpretations.

(1) Dutch particles

- a. Hij wou een aanvraag **in**-dienen
 he wanted an application in-serve
 ‘He wanted to make an application.’
- b. Hij diende een aanvraag **in**.
 he served an application in
 ‘He made an application.’

(2) Dutch postpositions & prepositions

- a. Zij wou het meer **in**-zwemmen.
 She wanted the lake in-swim
 ‘She wanted to swim **into** the lake.’ (directional)
- b. Zij zwom het meer **in**.
 she swam the lake in
 ‘She swam **into** the lake.’ (directional)
- c. Zij zwom **in** het meer.
 she swam in the lake
 ‘She swam **in** the lake.’ (locative)

(3) German prefixes, prepositions & postpositions¹

- 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.’

(4) Modern Greek prefixes & prepositions

- Ton **ap**-e -val-an **apo** to sxolio.
 him-CL from-PAST-throw-3PL.PAST from the school
 ‘They expelled him from school.’

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

- (5) Ancient Greek prefixes & prepositions
eis-e-bal-on **eis** ten Attike-n.
 into-PST-throw-3PL into the.ACC Attica-ACC
 ‘They invaded Attica.’

- (6) Russian prefixes & prepositions
 On **ot**-prygnul **ot** okna.
 he from-jumped from window
 ‘He jumped away from the window.’

➤ **Case study: Slavic prefixes & prepositions**

- (7) Russian goal and source prepositions and prefixes:

prepositions	verbal prefixes	
<i>do</i> (+ GEN), <i>k</i> (+ DAT)	<i>do-</i> , <i>pri-</i> , <i>*k-</i>	to
<i>k</i> (+ DAT)	<i>*k-</i>	towards
<i>v</i> (+ ACC) / (+ PREP)	<i>v-</i> , <i>za-</i>	in / into
<i>na</i> (+ ACC) / (+ PREP)	(<i>na-</i>) ²	on / onto
<i>ot</i> (+ GEN)	<i>ot-</i> , <i>u-</i>	(away) from
<i>iz</i> (+ GEN)	<i>iz-</i> , <i>vy-</i>	out of

- (8) Czech goal and source prepositions and prefixes:

prepositions	verbal prefixes	
<i>do</i> (+ GEN), <i>k</i> (+ DAT)	<i>do-</i> , <i>při-</i> , <i>*k-</i>	to
<i>k</i> (+ DAT), <i>vůči</i> (+ DAT)	<i>*k-</i> , <i>*vůči-</i>	towards
<i>do</i> (+ GEN)	<i>do-</i>	in / into
<i>na</i> (+ ACC) / (+ PREP)	(<i>na-</i>) ³	on / onto
<i>od</i> (+ GEN)	<i>od-</i> , <i>u-</i>	(away) from
<i>z</i> (+ GEN)	<i>vy-</i>	out of

- (9) prepositional counterparts of additional prefixes:

- pri* (*při*) (+ PREP) ‘at, by’
- za* (+ ACC) / (+ INSTR) ‘within’ / ‘behind, at, with, ...’
- u* (+ GEN) ‘at’
- Old Slavonic *vbъn* (+ GEN) > Mod. Russ. / Czech adverbial *von* / *ven* ‘outside’

Interim conclusion:

- prepositions/postpositions are closer to the noun and prefixes/particles to the verb
- the identity of form and meaning between prepositions/postpositions and prefixes/particles in different languages constitutes evidence that they belong to the same category

² The prefix *na-* is only found on the motion verb *idti* / *jít* ‘go’. *Najti* and *najít*, however, do not convey the meaning of a motion on foot onto something but have the different lexical meaning of ‘find’. To describe a motion onto something, other prefixes are used depending on the particular perspective such as Russian *so-jti* ‘descend’ (lit. down-go) or Czech *vze-stoupit* ‘ascend’ (lit. up-step).

³ See previous footnote.

2.2 Tying in Cases

Spatial meanings can be expressed by both case and adposition forms:

- (10) Latin cases vs English prepositions
- a. Neapoli-**m** cras iter faciemus.
 Naples-ACC tomorrow journey make.FUT.1PL
 ‘We will travel **to** Naples tomorrow.’
- b. loc-**o** idone-**o**
 place-ABL suitable-ABL
 ‘**in** a suitable place’
- (11) German case contributing to spatial meaning
- a. auf **den** Berg
 on the.ACC mountain
 ‘**onto** the mountain’ (directional)
- b. auf **dem** Berg
 on the.DAT mountain
 ‘**on** the mountain’ (locative)

➤ Case study: Hungarian case suffixes & adpositions/particles

Case is not always easily separable from the other P categories. In Hungarian the picture is more blurred.

No clear semantic distinction between case suffixes and postpositions.

- (12) Hungarian case suffixes and postpositions in spatial expressions
- a. Imre el-ment Olaszország-**ba**. (case)
 Imre away-went Italy-ILL
 ‘Imre went to Italy.’
- b. Géza olvas a kert-**ben**. (case)
 Géza read the garden-INESS
 ‘Géza is reading in the garden.’
- c. Négy szék van az asztal **körül**. (postposition)
 four chair be the table round
 ‘There are four chairs around the table.’
- d. Fel-akasztotta a festmény-t a két ablak **közé**. (postposition)
 up-hung the painting-ACC the two window between
 ‘She hung up the painting between the two windows.’

Potential morphological diagnostics for distinguishing cases and postpositions conflict with one another (c.f. Marác 1989:356-70, É. Kiss 2002).

- (13) Pronominal agreement: cases and inflecting postpositions pattern together
- a. Case agrees with pronoun
 (én) **vel-em**
 (I) INSTR-1SG
 ‘with me’

- b. Inflecting postposition agrees with pronoun
 (én) **mögött**-em
 (I) behind-1SG
 ‘behind me’
- c. Non-inflecting postposition carries no agreement
 (én) rajt-am **át**
 (I) SUP-1SG over
 ‘over me’
- (14) Demonstrative copying: cases and inflecting postpositions pattern together
- a. Case is copied after the demonstrative
 en-**nél** a ház-**nál**
 this-ADESS the house-ADESS
 ‘at this house’
- b. Inflecting postpositions are copied after the demonstrative
 az **alatt** a fa **alatt**
 that under the tree under
 ‘under that tree’
- c. Non-inflecting postpositions are not copied
 az-zal a fiú-val **együtt**
 that-INSTR the boy-INSTR together
 ‘together with that boy’
- (15) Degree modification: cases and inflecting postpositions pattern together
- a. Case: degree modifier precedes whole phrase
majdnem az utcá-**ban**
 almost the street-INESS
 ‘almost in the street’
- b. Inflecting postposition: degree modifier precedes whole phrase
majdnem a ház **mellett**
 almost the house near
 ‘almost by the house’
- c. Non-inflecting postposition: degree modifier intervenes between N and postposition
 az út-on **majdnem** **végig**
 the road-SUP almost to.the.end
 ‘almost to the end of the road’
- (16) Preposing: cases and inflecting postpositions pattern together
- a. Case: cannot prepose
 ***val** János
 INSTR John
 ‘with John’
- b. Inflecting postposition: cannot prepose
 ***mellett** János
 near John
 ‘near John’
- c. Non-inflecting postposition: can prepose
együtt János-sal
 together John-INSTR
 ‘together with John’

- (17) Vowel harmony: inflecting and non-inflecting P pattern together
- a. Case harmonises
 a ház-ba/*-be / a zsebé-be/*-ba
 the house-ILL the pocket-ILL
 ‘into the house’ ‘into the pocket’
- b. Inflecting postposition, no harmony
 a ház mellett/*mallatt / a zseb mellett/*mallatt
 the house near the pocket near
 ‘near the house’ ‘near the pocket’
- c. Non-inflecting postposition, no harmony
 a ház-zal szemben/*szamban / a zseb-bel szemben/*szamban
 the house-INSTR opposite the pocket-INSTR opposite
 ‘opposite the house’ ‘opposite the pocket’
- (18) Combination with adjectival suffix *-i*: postpositions pattern together
- a. Case, no addition of *-i*
 *?a kert-ben-i virág
 the garden-INESS-ADJ flower
 ‘the flower in the garden’
- b. Inflecting postposition allows addition of *-i*
 a híd mögött-i út
 the bridge behind-ADJ road
 ‘the road behind the bridge’
- c. Non-inflecting postposition allows addition of *-i*
 a ház-on kívül-i virágok
 the house-SUP outside-ADJ flowers
 ‘the flowers outside the house’
- (19) Sublative/delative case marking: postpositions pattern together
- a. Case, no addition of sublative/delative
 *a híd-on-ról
 the bridge-SUP-DEL
- b. Inflecting postposition allows addition of sublative/delative
 három óra után-ra
 three hour after-SUB
 ‘by after three o’clock’
- c. Non-inflecting postposition allows addition of sublative/delative
 a híd-on túl-ról
 the bridge-SUP beyond-DEL
 ‘from behind the bridge’
- (20) Ellipsis under conjunction: postpositions pattern together
- a. Noun ellipsis in coordinated PPs:
 a ház előtt és (a ház) mögött
 the house before and (the house) behind
 ‘before and behind the house’
- b. P-ellipsis in coordinated PPs:
 a ház (előtt) és a garázs előtt
 the house (before)and the garage before
 ‘before the house and the garage’
- c. Unacceptability of noun ellipsis with coordinated case marked NPs:
 a ház-tól és *(a ház)-ból
 the house-ABL and (the house)-ELAT
 ‘from outside and from inside the house’

- d. Unacceptability of case suffix ellipsis with coordinated NPs :
- | | | | | |
|-------------------------------|---------------------|-----|-----|--------------------|
| a | ház-*(nál) | és | a | garázs- nál |
| the | house(-ADESS) | and | the | garage-ADESS |
| 'at the house and the garage' | | | | |

(21) Summary of the morphological behaviour of Hungarian affixes and Ps

Characteristic	Affix	Inflecting postposition	Non-inflecting postposition
(a) pronominal agreement	✓	✓	-
(b) demonstrative copying	✓	✓	-
(c) degree modification intervening	-	-	✓
(d) preposing	-	-	✓
(e) vowel harmony with N	✓	-	-
(f) combines with adjectival suffix <i>-i</i>	-	✓	✓
(g) sublative/delative case marking	-	✓	✓
(h) ellipsis under conjunction	-	✓	✓

BUT There are borderline cases even for these groupings.

- (22) Non-inflecting Ps that do not prepose (mixed behaviour on (a) and (d)): *kezdve, fogva, nézve*
 ??kezdve hétfő-től
 from Monday-ABL
 'from Monday'
- (23) *kívül* behaves variably with respect to pronominal agreement (cf. (a))
 kívül-em / rajt-am kívül
 outside-1SG / SUP-1SG outside
 'outside me'
- (24) Case affixes with no vowel harmony: *-ért, -ként, -ig, -nként, -kor* (cf. (e))
 a. épület-ig a'. épület-ben/*-ban
 bread-TERM building-INESS
 'as far as the building' 'in the building'
 b. város-ig b'. a város-ban/*-ben
 town-TERM the town-INESS
 'as far as the town' 'in the town'
- (25) Cases with no pronominal form: *-va/ve, -ként, -ig, -nként, -kor, -nta/-nte, -stul/-stül* (cf. (e))
 a. *(én)-ként-em b. *(én)-ig-em
 (1SG)-ESS-1SG (1SG)-TERM-1SG
 'as me' 'as far as me'
- (26) Ellipsis is acceptable in restricted circumstances with certain case suffixes (c.f. (h))
 feleség- és anya-ként
 wife and mother-ESS
 'as wife and mother'

Furthermore, in Hungarian, both cases and postpositions can surface as verbal prefixes/particles.

- (27) Identity of cases and postpositions and verbal particles
- a. Cases as verbal particles
- János **rá**-lépett a láb-**am-ra**.
 János SUB-stepped the foot-1SG.POSS-SUB
 ‘János stepped on my foot.’
- Be**-le-tette a cukr-ot a kávé-**ba**.
 ILL-3SG-put the sugar-ACC the coffee-ILL
 ‘He/She put the sugar into the coffee.’
- Nek**-i-mentem a fal-**nak**.
 DAT-3SG-went the wall-DAT
 ‘I bumped into the wall.’
- b. Inflecting postpositions as verbal particles
- Alá**-írta az oklevel-et. az autó **alá** / (én)-**alá**-m
 under-wrote the document-ACC the car under / (1SG)-under-1SG
 ‘She signed the document.’ ‘under the car’ / ‘under me’
- Körül**-néztünk az üzlet-ben. az üzlet **körül** / (én)-**körül**ött-em
 round-looked the shop-INESS the shop round / (1SG)-round-1SG
 ‘We looked around the shop.’ ‘round the shop’ / ‘round me’
- c. Non-inflecting postpositions as verbal particles
- Keresztül**-mentek a mező-n. a mező-n **keresztül**
 across-went the field-SUP the field-SUP across
 ‘They went across the field.’ ‘across the field’

The connection between adpositions and cases is not restricted to Hungarian.

Similar arguments have been made for:

- German (Vogel & Steinbach 1998, Bayer, Bader & Meng 2001)
- Finnish (Nikanne 1991, Kracht 2002)
- Lezgian (van Riemsdijk & Huybregts 2001)

Interim conclusion:

- In Hungarian it is impossible to draw a neat line between case suffixes and postpositions on the basis of the diagnostics previously used.
- In languages where the morphological distinction is clearcut, the semantic overlap still constitutes evidence that cases belong to the category P

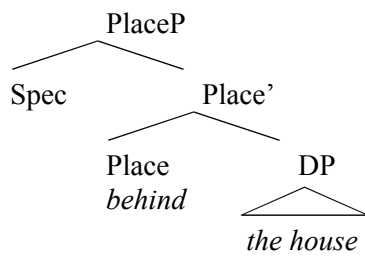
2.3 Problems

Some reasons for making categorial distinctions between these elements:

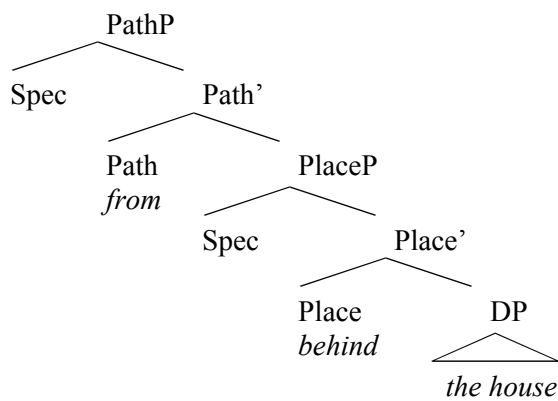
A. Ps as case *assigners*:

- (28) Latin combinations of prepositions and cases
- a. Milites **ad Rhén-um** castra posuerunt.
 soldiers to Rhine-ACC camp.ACC place.PERF.3PL
 ‘The soldiers pitched camp near the Rhine.’
- b. **Ab urb-e** discessit.
 from city-ABL leave.PERF.3SG
 ‘He left the city.’

- (32) Locative P
behind the house



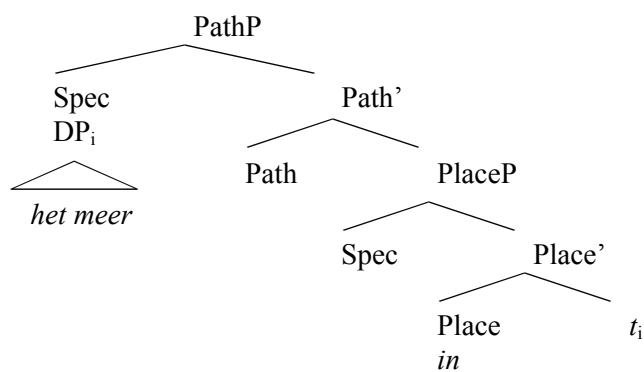
- (33) Directional P
from behind the house



Difference between prepositions & postpositions:

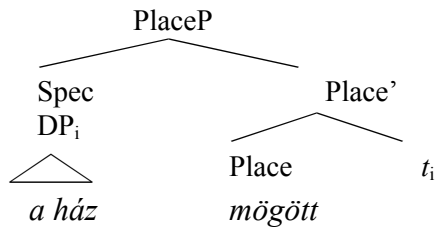
- universal Spec-Head-Comp ordering: P always precedes DP in its initial position
- postpositions (e.g. Hungarian and Dutch) are the result of DP-raising to Spec-p/Path/Place as appropriate

- (34) Dutch postposition (directional)
het meer in
the lake in
'into the lake'

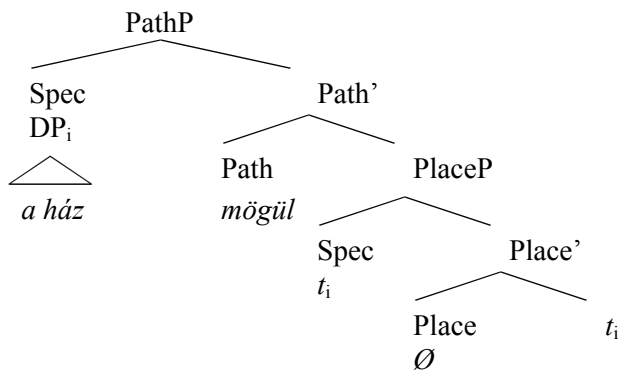


(35) Hungarian postposition

- a. a ház mögött
 the house behind
 ‘behind the house’ (locative)



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

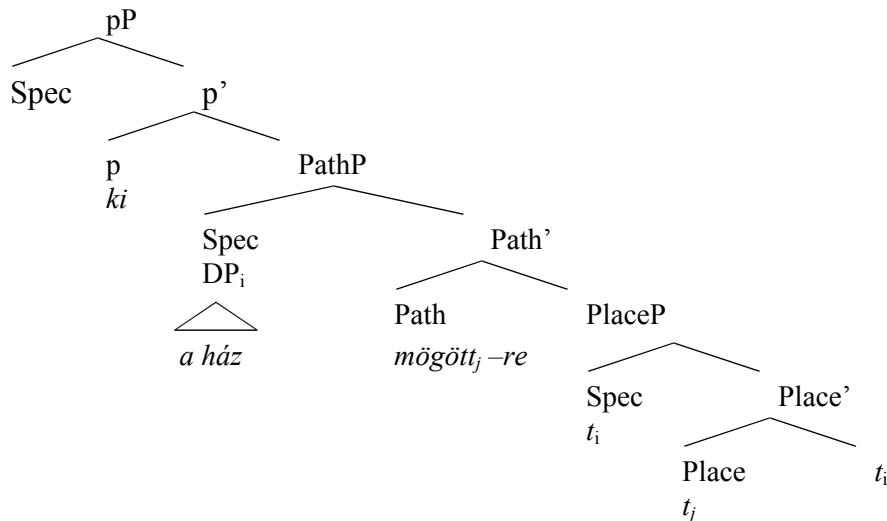


Difference between case suffixes and postpositions:

- result of phonological processes after Spell-Out, at PF
- morphological merger between DP and P after movement

(36) pP in Hungarian

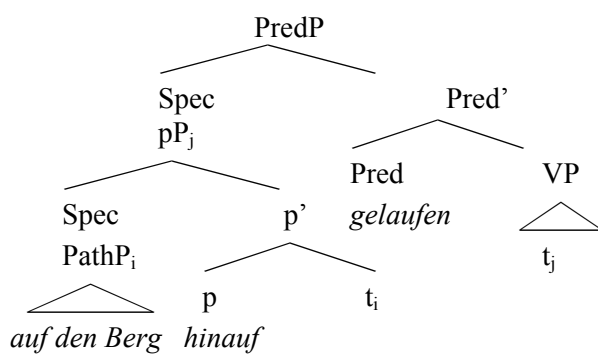
- ki a ház mögött-re
 out the house behind-SUB
 ‘out (to) behind the house’



Verbal particles and prefixes: ⁴

- created by further movement of the pP to Spec, PredP
- link the verbal domain and the nominal domain

- (37) German prefix
 Sie ist auf den Berg hin-auf-gelaufen.
 she is on the.ACC mountain there-on-run
 'She ran up the mountain.'



Difference between verbal prefixes (affixes) and particles (independent words):

- result of phonological processes after Spell-Out, at PF
- morphological merger between P and verbal projection after movement of P to Spec, PredP

⁴ See Ürögdi 2003 for a copy theory account of particle formation in Hungarian.

4 Conclusion

We have:

- presented semantic and morphological evidence that prefixes, particles, adpositions & cases belong to one category, P
- explained some of the apparent counterevidence
- proposed a structural analysis whereby
 - different adposition-noun ordering and combination phenomena are accounted for by movements within the extended projection above the noun
 - particles/prefixes are formed by movement to PredP

Possible extensions to account for Ps with non-spatial meaning:

- metaphorical extensions from spatial Ps (e.g. temporal *at*, *up to*; general metaphorical use, *prices go up*) can probably be accounted for under the same analysis
- Ps selected by specific verbs (e.g. believe *in*, phone *up*), where P would normally have spatial meaning but does not in specific P-verb combinations
- Ps which never seem to have spatial meaning (e.g. *with*, *without*, *as*; comitatives, instrumentals etc.)
- applicatives

(38) Chi-Mwi:ni applicative (from Svenonius 2006, citing Marantz 1984:236)

Muti	u-m-tuluk- il -ile	mwa:limu.
tree	AGR _S -AGR _O -fall- APPL -T/A	teacher

‘The tree fell **on** the teacher.’

References

- Bayer, Joseph, Bader, Markus, and Meng, Michael. 2001. Morphological underspecification meets oblique case: Syntactic and processing effects in German. *Lingua* 111:465-514.
- Den Dikken, Marcel. 1995. *Particles: on the syntax of verb-particle, triadic, and causative constructions*. New York: Oxford University Press.
- Den Dikken, Marcel. 2003. On the syntax of locative and directional adpositional phrases. Ms. City University of New York.
- É. Kiss, Katalin. 2002. *The Syntax of Hungarian*, Cambridge: CUP.
- Emonds, Joseph. 1976. *A Transformational Approach to English Syntax*. New York: Academic Press.
- Emonds, Joseph. 1985. *A unified theory of syntactic categories*. Dordrecht: Foris.
- Fillmore, Charles. 1968. The Case for Case. In *Universals in Linguistic Theory*, eds. Emmon Bach and Robert T. Harms. New York: Holt, Rinehart and Winston.
- Helmantel, Marjon. 2002. Interactions in the Dutch adpositional domain: LOT Dissertation Series.
- Jackendoff, Ray. 1973. The Base Rules for Prepositional Phrases. In *A Festschrift for Morris Halle*, ed. S. Anderson and P. Kiparsky New York: Holt, Rinehart and Winston.
- Koopman, Hilda. 1997. Prepositions, Postpositions, Circumpositions and Particles: The Structure of Dutch PPs. Ms. UCLA.
- Kracht, Marcus. 2002. On the semantics of locatives. *Linguistics and Philosophy* 25:157-232.
- Marácz, László. 1989. Asymmetries in Hungarian, Rijksuniversiteit Groningen.
- Marantz, Alec. 1984. *On the Nature of Grammatical Relations*, vol. 10 of *Linguistic Inquiry Monographs*. MIT Press, Cambridge, MA.
- Matushansky, Ora. 2002. On Formal Identity of Russian Prefixes and Prepositions. *MIT Working Papers in Linguistics* 42:217-53.
- Nikanne, Urpo. 1991. *Zones and Tiers: A Study of Thematic Structure*, University of Helsinki.
- Riemsdijk, Henk van. 1978. *A case study in syntactic markedness; the binding nature of prepositional phrases*. Amsterdam.
- Riemsdijk, Henk van. 1990. Functional Prepositions. In *Unity in Diversity: Papers Presented to Simon C Dik on his 50th Birthday*, eds. Harm Pinkster and Inge Genee. Dordrecht: Foris.
- Riemsdijk, Henk van, and Huybregts, Riny. 2001. Location and Locality. In *Progress in Grammar*, eds. Marc van Oostendorp and Elena Anagnostopoulou, 1-23. Utrecht and Meertens Institute Amsterdam: Roccade.
- Svenonius, Peter. 2004. Spatial P in English. Ms. Tromsø University.
- Svenonius, Peter. 2006. P (Preposition, Postposition, Particle): Anatomy of a Category. Handout from LOT Winterschool 2006.
- Ürögdi, Barbara. 2003. Feature Doubling, Aspectual Structure, and Expletives. Paper presented at NELS 33.
- Vogel, Ralf, and Steinbach, Markus. 1998. The Dative - an Oblique Case. *Linguistische Berichte* 173:65-90.
- Zeller, Jochen. 2001. Lexical particles, semi-lexical postpositions. In *Semi-Lexical Categories*, eds. Norbert Corver and Henk van Riemsdijk, 505-49. Berlin: Mouton.