

# Noun phrases within PPs

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## 1 Preliminaries

P has been recognized as an independent syntactic head since Jackendoff (1973).

Three main questions:

1. What sort of elements are merged in the PP? What is the syntactic status of case markers, adpositions, and particles?
2. How is DP integrated into PP?
3. What is the fine-grained structure of PP?

Some useful terminology:

Prepositions relate two entities. In Talmy's (1978) terms:

- Figure/Locatum: entity at rest or in motion which is located with respect to the Ground (*The cat is on the mat*)
- Ground: a location/reference landmark/reference object with respect to which the Figure is located (*The cat is on the mat*)

## 2 What counts as P? Case markers, adpositions, particles

### 2.1 Case markers, adpositions, particles

Let us illustrate the relevant categories first:

- case marker<sup>1</sup>

(1) a ház-ban  
the house-inessive  
in the house

Hungarian

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<sup>1</sup>Throughout this handout, 'case marker' should be understood as 'case marker of a non-structural case'.

- adposition

(2) <i>English</i> above the house	(3) <i>Hungarian</i> a ház mellett the house next.to next to the house	(4) <i>Dutch</i> over de stoel heen over the chair Part over the chair (Koopman 2010)
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- (verbal) prefix/particle

(5) János el-megy a moziba John away-go the cinema-illative John goes (away) into the cinema	Hungarian
(6) Он вы-прыгнул из окна he out-jumped out.of window He jumped out of the window (Svenonius 2004)	Russian

These are all members of the category P (i.e. merged in the extended PP): Fillmore (1968), Riemsdijk (1978), Emonds (1985), Svenonius (2004; 2010), Asbury et al. (2007), Asbury (2008), Gehrke (2008), Cinque (2010), Koopman (2010), Dékány (2011), Hegedűs (2013), Dékány & Hegedűs (2015), among many others

## 2.2 Hungarian cases and postpositions: a case study

Hungarian has cases, 2 types of adpositions, and particles/prefixes.

(7) <i>dressed P</i> a szék alatt the chair under under the chair	(8) <i>naked P</i> a szék-en túl the chair-SUP beyond beyond the chair
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Reason for the names: when the complement is pronominal, a dressed P bears agreement itself; with a naked P the agreement is on the case marker

(9) <i>dressed P</i> (én) alatt-am I under-1sg under me	(10) <i>naked P</i> (én) rajt-am túl I sup-1sg beyond beyond me
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Dressed Ps share properties both with case markers and naked Ps.

(11)

	cases	dressed Ps	naked Ps
visible case on the complement	N/A	—	OK
directly precede the noun	—	—	OK(some)
intervening degree-modification	—	—	OK(some)
stranding in wh-questions	—	—	OK(some)
used intransitively	—	—	OK(some)
copying on demonstrative	OK	OK	—
bear agreement	OK	OK	—
vowel harmony	OK	—	—
deletion under conjunction	—	OK	OK
modification by <i>-i</i>	—	OK	OK(some)
Sublative or Delative suffixation	—	OK(Place)	OK(Place)

Some illustrations:<sup>2</sup>

- copying onto the demonstrative: ✓ case, ✓ dressed, ✗ naked

(12) en-nél a ház-nál  
 this-ade the house-ade  
 at this house case

(13) az-alatt a ház alatt  
 that-under the house under  
 under that house dressed P

(14) az-on a ház-on túl  
 that-sup the house-sup beyond  
 beyond that house naked P

- intervening degree modification: ✗ case, ✗ dressed, ✓ naked

(15) \*a ház majdnem-nél  
 the house almost-ade  
 almost at the house case

(16) \*a ház majdnem alatt  
 the house almost under  
 almost under the house dressed P

(17) a ház-on majdnem túl  
 the house-sup almost beyond  
 almost beyond the house naked P

<sup>2</sup>For the full range of tests, see Hegedűs (2006), Asbury (2008), Dékány (2011).

- deletion under conjunction: ✗ case, ✓ dressed, ✓ naked

(18) \*a ház- és autó-ban  
 the house an car-inessive  
 in the house and the car case

(19) a ház és az autó mögött  
 the house and the car behind  
 behind the house and the car dressed P

(20) a ház-on és az autó-n túl  
 the house-sup and the car-sup beyond  
 beyond the house and the car naked P

- modification by the attributivizer *-i*: ✗ case, ✓ dressed, ✓ naked

(21) \*a kert-ben-i pad  
 the garden-inessive-i bench  
 the bench in the garden case

(22) a szék alatt-i könyv  
 the chair under-i book  
 the book under the chair dressed P

(23) a ház-on túl-i rét  
 the house-sup beyond-i meadow  
 the meadow beyond the house naked P

The distinction bw. case markers and dressed Ps is morpho-phonological: case markers are bound morphemes, monosyllabic and undergo vowel harmony; dressed Ps are free morphemes, disyllabic, and do not undergo vowel harmony. There is no syntactic reason to assign them to different categories.

Naked Ps are higher than case markers or dressed Ps but still within the extended PP (possibly: case markers and dressed Ps move to the position where naked Ps are inserted).

NB: case markers and dressed Ps can also be used as particles/prefixes (Surányi 2009a;b;c;d)

(24) Mari **rá**-lőtt Anná-ra  
 Mary sublative-shoot.pst.3sg Anne-sublative  
 Mary shot at Ann.

(25) Mari **után-a**-futott Anná-nak  
 Mary after-3sg-run.pst.3sg Anna-dat  
 Mary ran after Ann.

### 3 Integrating DP into PP

#### 3.1 Proposals

**P is part of the extended projection of N:** Grimshaw (2005), to a certain extent Svenonius (2010)

(26) V – I – C is parallel to N – D – P

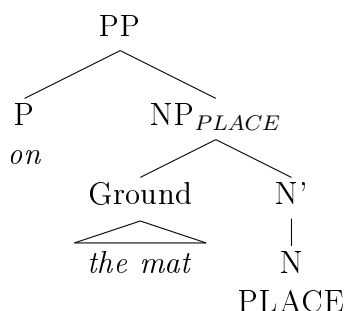
**the lowest P is lexical and starts a new extended projection:** Déchaine (2004), Den Dikken (2010), Koopman (2000; 2010), among many others

**P is a semi-lexical category (lexical node+functional suffix):** Zeller (2001)

**P is the syntactic equivalent of a derivational morpheme; a functional head that turns NP into a modifier like AP:** Baker (2003)

**PPs involve a binominal structure; the Ground is the possessor of a silent PLACE N:** Kayne (2004), Terzi (2005; 2008; 2010), Pantcheva (2008), Botwinik-Rotem & Terzi (2008), Botwinik-Rotem (2008), Noonan (2010), Dékány (2011)<sup>3</sup>

(27)



#### 3.2 The PLACE hypothesis applied to Hungarian: a case study

Parallels bw. possessive structures and PPs:

- agreement with a pronominal possessor/Ground; no agreement with an R-expression possessor/Ground<sup>4</sup>

(28)	a. <i>PP</i> én-nál-am I-adeptive-1sg at me	b. <i>possessive</i> az én sál-am the I scarf-1sg my scarf
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(29)	a. <i>PP</i> János-nál John-adeptive at John	b. <i>possessive</i> János sál-a John scarf-poss John's scarf
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<sup>3</sup>The exact structure varies depending on what the authors think the structure of possessive noun phrases is.

<sup>4</sup>Recall from the possessive handout that the *-ja/je/a/e* suffix is not an agreement morpheme.

- both a pronominal possessor and a pronominal Ground can be dropped

(30)	a.	<i>PP</i>		b.	<i>possessive</i>
		(én)-nál-am			az (én) sál-am
		I-adeptive-1sg			the I scarf-1sg
		at me			my scarf

- the Ground is nominative;<sup>5</sup> so can be the possessor (see above)
- possessor separation from the possessee requires Dative on the possessor; similarly dressed P separation requires Dative on the Ground (which is normally unmarked)

(31)	a.	<b>János-nak</b> elveszett <b>a könyv-e.</b>	
		John-dat got.lost the book-poss	
		John's book got lost	<i>possessive</i>
	b.	János <b>utána</b> -futott <b>a lányok-nak</b>	
		John after-ran.3sg the girls-dat	
		John ran after the girls	<i>PP</i>

Some differences:

- the silent PLACE cannot be modified like ordinary Ns (e.g. by adjectives, demonstratives, or an article)
- possessive structures involve the possessedness marker *-ja/je/a/e* on the possessee, but there is no possessedness marker in PPs
- possessors can bear Dative or Nominative case, but the Ground is always Nominative

Under the silent PLACE analysis, these differences fall out under the assumption that the nominal functional sequence is truncated; only the NP layer is present, where the Ground is merged in spec, NP as an inalienable possessor (Dékány 2011).

## 4 The decomposition of the P-layers

### 4.1 Path over Place



**semantic arguments:** Zwarts & Winter (2000), Zwarts (2005), Kracht (2008), Pantcheva (2010; 2011)

- path denotations are compositionally built from place denotations: place is a location, path is a [change of [location]]

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<sup>5</sup>With case markers and dressed Ps.

- different layers of PP have different semantic types (Kracht 2008)

**morphological arguments:** Riemsdijk & Huybregts (2002)<sup>6</sup>

- in some languages Path suffixes are built on Place suffixes

- |  |   |
|--|---|
| <p>(33) Lezgian (Riemsdijk &amp; Huybregts 2002)</p> <p>a. superessive: <i>-l</i></p> <p>b. superrelative: <i>-l-aj</i></p> <p>c. superdirective: <i>-l-di</i></p>   | <p>(34) Tsez (Comrie &amp; Polinsky 1998)</p> <p>a. essive (near): <i>-x(o)</i></p> <p>b. allative: <i>-xo-r</i></p> <p>c. ablative: <i>x-āy</i></p> <p>d. versative (towards): <i>x-ā(γo)r</i></p> |
| <p>(35) a. <i>sew-re-l</i><br/>bear-augmentative-on<br/>on the bear</p> <p>b. <i>sew-re-l-aj</i><br/>bear-augmentative-on-from<br/>off the bear</p> <p>c. <i>sew-re-l-di</i><br/>bear-augmentative-on-to<br/>onto the bear</p> | <p>(36) a. <i>besuro-x</i><br/>fish-at<br/>at the fish</p> <p>b. <i>besuro-xo-r</i><br/>fish-at-to<br/>to the fish</p> <p>c. <i>besuro-x-āy</i><br/>fish-at-from<br/>from the fish</p>              |

**syntactic arguments** (see most of the PP-literature)

- in German circumpositional phrases the preposition codes location, the postposition codes path

- (37) auf das Dach hinunter  
on the roof down.to  
down onto the roof (Riemsdijk & Huybregts 2002) German

NB: While most researchers agree on Path > Place, Romeu (2013; 2014) suggest that there is no PathP; Path meanings are derived by merging a phrasal modifier in spec, PlaceP.

## 4.2 Axial Part

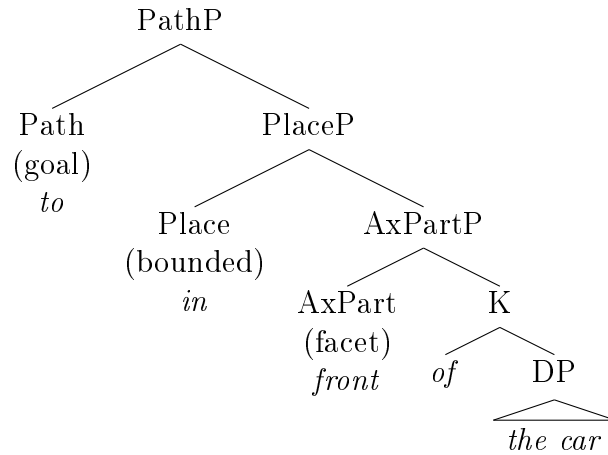
**Axial Part:** category bw. N and P; identifies a region based on the ground. Expresses spatial meanings corresponding to *behind*, *above*, etc. Proposed in Svenonius (2006), see also Takamine (2006), Fábregas (2007), Amritavalli (2007), Dékány (2009), Cinque (2010), Mitrofanova & Minor (2013), Romeu (2014)<sup>7</sup>

- (38) a. The cat is in the front of the car. N, part sense  
 b. The cat is on the front of the car. N, part sense
- (39) a. The cat is in front of the car. spatial sense, Axial Part  
 b. \*The cat is on front of the car.

<sup>6</sup>See also Jackendoff (1983) for English.

<sup>7</sup>Axial Parts often grammaticalize from body part Ns like *front*, *back*, *top*, *bottom*.

(40)



**Axial Parts in Hungarian:** expressed by bound morphemes. Note how the Axial Part itself does not identify whether we are talking about a Place or a Path; this is done by an additional suffix.

(41)	Axial Part/region	Axial Part lexeme	Place/Location	Goal	Source
	front	<i>el(ő)-</i>	<i>elő-tt</i>	<i>el-é</i>	<i>el-ől</i>
	behind	<i>mög-</i>	<i>mög-ött</i>	<i>mög-é</i>	<i>mög-ül</i>
	under	<i>al-</i>	<i>al-att</i>	<i>al-á</i>	<i>al-ól</i>
	above	<i>föl-</i>	<i>föl-ött</i>	<i>föl-é</i>	<i>föl-ül</i>
	next to	<i>mell-</i>	<i>mell-ett</i>	<i>mell-é</i>	<i>mell-ől</i>
	between	<i>köz-</i>	<i>köz-ött</i>	<i>köz-é</i>	<i>köz-ül</i>
	around	<i>kör(ül)-</i>	<i>kör(ül)-ött</i>	<i>kör-é</i>	<i>kör-ül-ről</i>

**Axial Parts** in English can be distinguished from the homophonous N by the following tests (data adapted from Svenonius 2006):

- *the* is incompatible with the Axial Part use

- (42) a. The cat is in the front of the car. N  
 b. The cat is in front of the car. Axial Part

- pro-forms may not replace Axial Part

- (43) a. The cat was in [the front of the car]<sub>i</sub>, but the dogs wasn't in it<sub>i</sub> N  
 b. The cat was in [ front of the car]<sub>i</sub>, but the dogs wasn't in it<sub>\*i</sub> Axial P

- adjectives do not modify Axial Parts

- (44) a. There is a cat in the smashed-up front of the car. N  
 b. \*There is a cat in smashed-up front of the car. Axial Part

- the plural may not combine with Axial Part

- (45) a. There are cats in the fronts of the cars. N  
 b. \*There are cats in fronts of the cars. Axial Part



- Axial Part cannot move away from P

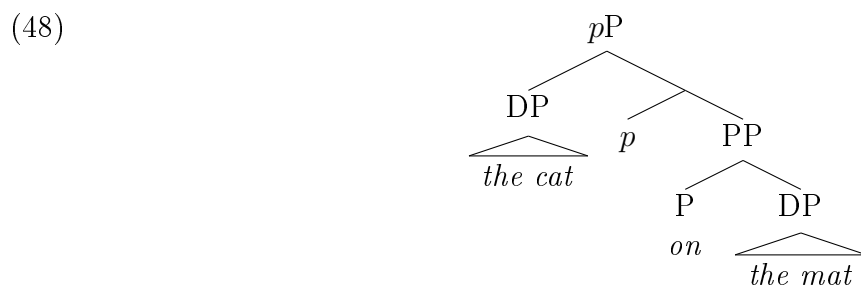
- (46) a. It was [the front of the car] that the cat was in. N  
 b. \*It was [front of the car] that the cat was in. Axial Part

- measure phrases distinguish the two uses

- (47) a. \*There is a cat two feet in the front of the car. N  
 b. There is a cat two feet in front of the car. Axial Part

### 4.3 Little *p*

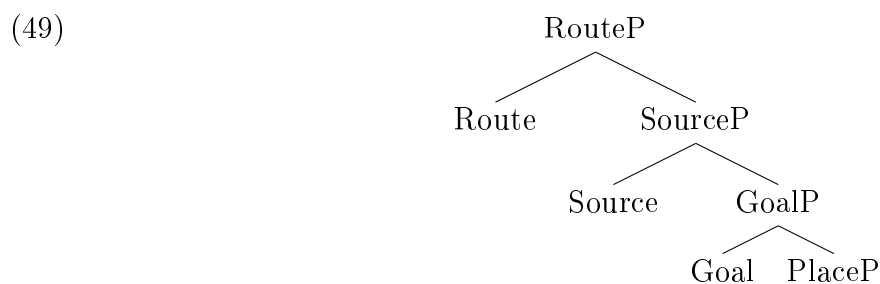
Svenonius (2003; 2007; 2010): the Figure is the subject in the PP; introduced by *p* (this parallels the function of *v*)



Where is *p*? Svenonius (2006) suggests it's probably bw. Path and Place. Dékány & Hegedűs (2015) argue that it is above Path, too.

### 4.4 Split Path

Pantcheva (2010; 2011) argue that Path can be decomposed into multiple sublayers



**morphological arguments:**

- morphological containment between source PPs and goal PPs

- (50) Chamalal (Daghestanian) b. mik<sup>y</sup>-l-u-r  
 a. mik<sup>y</sup>-l-u road-on-allative-ablative  
     road-on-allative off the road  
     onto the road

- morphological containment between route PPs and source PPs

(51) Akhvakh (Daghestanian) *near* series

- a. source: *-g-u*
- b. route: *-g-u-ne*

(52) Avar (NE Caucasian) *at* series

- a. source: *-q-a*
- b. route: *-q-a-n*

- no \*ABA syncretisms

#### semantic arguments:

- goal semantics is compositionally built on place semantics: goal is transition into place
- source semantics is compositionally built on goal semantics: reversal of the orientation of goal
- route semantics is compositionally built on source semantics: route encodes another transition

#### syntactic arguments

- source PPs are merged higher in the extended vP than goal PPs (Schweikert 2005, Nam 2005, Takamine 2010), which is consistent with these Ps having a different internal structure

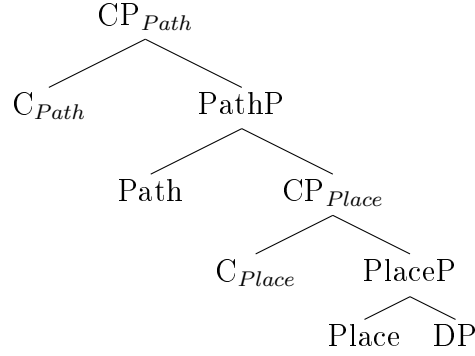
### 4.5 The escape hatch

A complementizer-like head in PPs: Van Riemsdijk (1978), Marácz (1984; 1986), Koopman (2000; 2010), Den Dikken (2010), Dékány & Hegedűs (2015)

Koopman (2000; 2010), Den Dikken (2010):

- the CP-type projection's specifier functions as both a landing site for PP-internal movements and as an escape hatch for extraction out of the PP
- this layer is projected on top of Place ( $CP_{Place}$ )
- Den Dikken (2010) suggests that there is a separate CP-like layer above Path, too ( $CP_{Path}$ )

(53)



## 4.6 Other PP-internal categories

Functional sequence so far:

(54)  $CP_{Path} > p > RoutePath > SourcePath > GoalPath > CP_{Place} > Place > AxialPart > KP/DP/PLACE$

Most researchers also assume a DegP for measure phrases (*two meters in front of the house*).

The exact shape of the PP varies greatly across analyses. Some specific proposals:

(55) Kracht (2008)  
 $P_{dir} > P_{stat} > P_{axialpart} > P_{loc}$

(56) Svenonius (2010)  
 $Path > p > Deg > Deix > Loc > AxialPart > K > DP$

(57) Koopman (2010)  
 $DegP_{path} > PathP > CP_{place} > DegP_{place} > Place > PP > AgrP > PP > DP$

(58) Den Dikken (2010)  
 $C_{path} > Dx_{path} > Asp_{path} > P_{dir} > C_{place} > Dx_{place} > Asp_{place} > P_{loc}$

(59) Noonan (2010)  
 $R_{path} > Mod_{path} > Path > P_{loc} > R_{place} > Mod_{place} > Place$

(60) Cinque (2010)  
 $P_{source} > P_{goal} > P_{path} > P_{stat} > Deg > ModeDir > Absolute ViewPoint > Relative ViewPoint > Deictic > Axial Part > P > PLACE$

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