

# P or not P – not really a question: A fresh view on the complement/adjunct distinction

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## 1 Initial observations

Adverbial clauses are notorious for the pattern P–D–C (see Blümel & Pitsch, 2020; cf. Müller, 1995:85 for diachronic evidence).

	P	D	C		
(1) a.	<i>pro</i> for	<i>t-o</i> this-ACC	<i>že</i> that	‘because’	(Czech)
b.	<i>par</i> for	<i>ce</i> this	<i>que</i> that	‘because’	(French)
c.	<i>pod</i> under	<i>czas</i> time.ACC	<i>gdy</i> when	‘while’	(Polish)
d.	<i>čerez</i> over	<i>t-e</i> this-ACC	<i>ščo</i> that	‘because’	(Ukrainian)

One or the other component may be (optionally or obligatorily) missing.

	P	D	C		
(2) a.	<i>bez</i> without	∅	<i>da</i> that	‘without (INF)’	(BCMS)
! b.	∅	∅	<i>že</i> that	‘because’	(Czech)
c.	<i>trotz</i> despite	<i>d-em</i> this-DAT	( <i>dass</i> ) that	‘despite’	(German)
d.	<i>mimo</i> despite	( <i>t-ego</i> ) this-GEN	<i>že</i> that	‘despite’	(Polish)
e.	∅	<i>t-omu</i> this-DAT	<i>ščo</i> that	‘because’	(Ukrainian)

Adverbial/content CPs can be headed by prepositional correlates.

	P	DP	C		
(3) a.	<i>s</i> since	<i>tex por</i> these times.GEN	<i>kak</i> how/as	‘since’	(Russian)
b.	<i>s</i> with	<i>toj cel’ju</i> this goal.INS	<i>čto=by</i> that=IRR	‘to the end that’	

Adverbs or relators can be in place of P/D.

		C		
(4) a.	<i>chyba</i> probably	<i>že</i> that	‘unless’	(Polish)
b.	<i>jako</i> as	<i>že</i> that	‘as’	

Adverbial subjunctors can also be simplex.

(5) a.	<i>když</i> when	‘when, if’	(Czech)
b.	<i>ehe/weil/wenn</i> before/because/if	‘because/before/if’	(German)
c.	<i>bo/kiedy/skoro</i> because/when/soon	‘because/when/as soon as’	(Polish)
d.	<i>ščo=b</i> that=IRR	‘in order that’	(Ukrainian)

## 2 Theoretical preliminaries

### 2.1 Lexical categories

#### 2.1.1 Chomsky (1970)

- [+N] = ‘nominal’
- [+V] = ‘verbal’

N	V	
+	+	adjective
+	-	noun
-	+	verb
-	-	preposition

#### 2.1.2 Wunderlich (1996)

- [+dep] = ‘referentially dependent’ – lacks referential argument
- [+art] = ‘articulated argument structure’ (incl. referential argument)

dep	art	
+	+	preposition
+	-	adjective
-	+	verb
-	-	noun

- major categories: N and V ([±dep] need not be instantiated)
- natural classes: N/V and A/P

#### 2.1.3 Baker (2003)

assigns theta role (has Spec)	bears referential index	
+	-	verb (and Pred)
-	+	noun
-	-	adjective

! Prepositions = functional

#### 2.1.4 Nishiyama (2005)

- Follows Rothstein (1999, 2001): verbs denote count eventuality (prerequisite for Tense to locate it in time); adjectives denote mass eventuality; nouns may both.
- Copula verb or Pred makes an AP/NP eventuality countable.
- APs are defective as predicates (Nishiyama, 2005:146).

“I argue that Pred and pre/postpositions are the same syntactic category, and represent it as *Pre(p/d)*.” (Nishiyama, 2005:145)

- a. **Pred** =  $\lambda$  (turns APs into one-place predicates)
- b. **Prep** =  $\lambda$  plus (relational) semantics

“Japanese *ni* functions as a locative postposition [(6b)], as a resultative suffix [(6a)], and as an adverbial suffix [(6c)], motivating the postulation of *Pre(p/d)* as a cover term for Pred and pre/postposition.” (Nishiyama, 2005:151)

- (6) a. John-ga kabe-o makka-**ni** nut-ta (Japanese)  
 John-NOM wall-ACC red-**X** paint-**PST**  
 ‘John painted the wall (very) red.’ (Nishiyama, 2005:145)
- b. hon-ga niwa-**ni** ar-u  
 book-NOM garden-**X** be-**PRS**  
 ‘The book is in the garden.’ (ibid.: 147)
- c. John-ga sizuka-**ni** arui-ta  
 John-NOM quiet-**X** walk-**PST**  
 ‘John walked quietly [in a quiet way].’ (ibid.: 151)

- Adverb suffix falls under Pred ( $\lambda e$ ).
- Pred = Prep.

→ All non-adjectival adverbials (including derived adverbs; cf. Alexeyenko, 2015:§3) are P-like.

### 2.1.5 Distributed Morphology (DM)

(cf. Halle & Marantz, 1993; Marantz, 1997; Embick & Noyer, 2004)

“Roots cannot appear without being categorized: Roots are categorized by combining with category-defining functional heads.”  
 (Embick & Noyer, 2004:5)“

(7)  $[\{a/n/p/v\} \{a/n/p/v\} \checkmark]$

### 2.2 Pitsch (2017a)

adopts (Wunderlich, 1996) wrt. A/N/V but not P:

Pre-/postpositions are category-neutral.

Cf. the lexical entry in (8) for the German verb stem *leer-* ‘(to) empty’ with entry (9) for Czech *v* ‘in’.

(8) 

CAT	PHON	AS	SEM	
V	/le:r/	$\lambda z \lambda x \lambda s$	$\text{CAUSE}(x, \text{BECOME}(\text{EMPTY}(z)))(s)$	(Wunderlich, 1997:59)

(9) 

PHON	AS	SEM	
/v/	$\lambda y \lambda x$	$\text{LOC}(x, \text{AT}(y))$	(Pitsch, 2017a:272)

“APs are exponents of a lexical and [in Slavic] inflected category. As a consequence, although ‘inferior’ to NPs and VPs in terms of referential dependence, APs are still part of the same system and manipulated by the same feature-driven syntactic mechanisms. [...]

In contrast, prepositional phrases [...] do not underlie restrictions arising from categorial (or related morphosyntactic) features, which is why they adjoin to whatever they can modify in terms of sortal adequacy and the appropriate semantic type. [...]

[W]hile A’s are ‘natural-born’ modifiers due to their lexical specification ([+dep]) within the system of lexical categories, prepositional roots have the same function (only) due to their relational semantics.”  
 (Pitsch, 2017a:275)

Implication for DM: There is no categorizer *p*.

→ Roots can in principle be left uncategorized (economy).

## 3 Related proposals

### 3.1 Adjunct clauses as PPs

Faraci (1974), Jackendoff (1977), Manzini (1983), Wunderlich (1984), Emonds (1985), Steube (1987), McCawley (1988), Larson (1990), Růžička (1990), Junghanns (1994), Zimmermann (2003a, 2009), Axel-Tober (2002), Blümel & Pitsch (2020)

(10) a. Nikolaj iz skromnosti, a takže (Russian)  
 N. out.of modesty but also

*buduči* principial’nym protivnikom staček [...], naotrez  
 being principle opponent of.strikes ultimately  
*otkazalsja platit’ lišnee.*  
 refused to.pay more

‘Out of modesty, but also being a pronounced opponent of strikes, Nikolaj ultimately refused to pay more.’ (Růžička, 1990:362)

b.  $[\text{PP } \emptyset_P [\text{CP } \textit{budučiv} [\text{IP } \dots t_V ]]]$  (ibid.: 366)

(11)  $[\text{PP } \textit{dlja}_P [\text{DP } [\text{DP } \textit{togo}_D] [\text{CP } \textit{čto}_C = \textit{by} \textit{postroit’ doma} ]]]]$  (Russian)  
 for this.GEN that=IRR to.build houses  
 ‘(in order) to build houses’ (see Junghanns, 1994:159)

(12)  $[\text{PP } \textit{nach}_P [\text{DP } \textit{dem}_D [\text{CP } C^0 [\text{TP } \textit{sie es gelesen hat} ]]]]]$  (German)  
 after this.DAT she it read has  
 ‘after she read it’ (see Müller, 1995:86)

(13)  $[\text{AP } [\text{PP } \textit{mit}_P [\text{DP } \textit{da}_D \text{ CP } ]]] \textit{zufrieden}$  (German)  
 with there content  
 ‘content with (that)’ (Zimmermann, 2021:407)

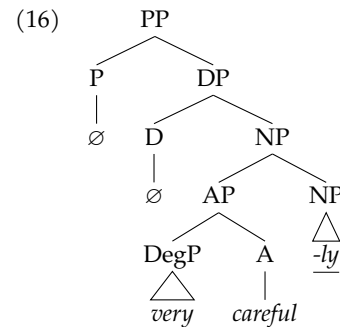
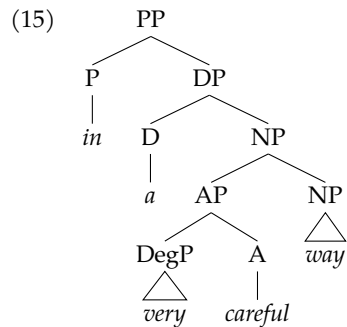
Note:  $D^0$  raises to  $P^0$ , yielding *damit* ‘therewith’.

### 3.2 Semantic cases as PPs

Bresnan & Grimshaw (1978), Emonds (1985, 1987), Nikanne (1993), McFadden (2004), Zimmermann (2003b, 2013), Pitsch (2014, 2017b)

- (14) *On pisal pis'mo [PP Ø<sub>P</sub> karandašom ].* (Pitsch, 2017b:89)  
 he wrote letter pencil.<sub>INS</sub>  
 ‘He wrote the letter in pencil.’

### 3.3 Alexeyenko (2015): English -ly-adverbs as PPs



## 4 Proposal

### 4.1 Framework

- Labeling Algorithm, Minimal Search (Chomsky, 2013, 2015; Seely, Epstein & Kitahara, 2014).
- Adverbials (clauses, NPs/DPs, adverbs) are prepositional (see §§ 3.1–3.3).
- P–D–C structures have the syntax proposed by, a.o., Müller (1995) and Zimmermann (2021) (see § 3.1).
- Adjunct Exocentricity: Adjunct clauses can remain unlabeled (Blümel & Pitsch, 2020:20).
- Minimal Search = no label is found, search ends (ibid.).
- Category-neutral pre-/postpositions (Pitsch, 2017a; see § 2.2).

### 4.2 Claims

1. Complement clauses:  $\langle C, TP \rangle = CP$ .
2. Adverbial clauses are headed by a (c/overt) preposition.
3. The preposition encodes a semantic relation between an clause and the matrix situation/topic time/proposition.
4. The preposition has no category.  $\rightarrow$  Adverbial clause goes unlabeled.
5. The unlabeled structure ( $\alpha$ ) is pair-merged to the matrix to yield  $\langle \alpha, XP \rangle$  (Blümel & Pitsch, 2020:23).
6. On labeling failure,  $\alpha$  is sent to the interfaces.

### 4.3 Implications

- System of lexical categories reduces to (A,) N, V.
- All adverbial structures (except for  $\langle AP, NP \rangle = \Phi P$ ) end up unlabeled:
  - Adverbial (incl. relative) clauses:  $\langle \_ CP \rangle = \alpha$ ;
  - PPs/semantic cases/derived adverbs:  $\langle \_ DP \rangle = \alpha$ .

### 4.4 Illustrations

#### Full P–C–D pattern

- (17) a. [ $\alpha$  *pro* [<sub>DP</sub> *to<sub>D</sub>* [<sub>CP</sub> *že<sub>C</sub>* TP ]]] (Czech)  
 b. [ $\alpha$  *dla* [<sub>DP</sub> *tego<sub>D</sub>* [<sub>CP</sub> *že<sub>C</sub>* TP ]]] (Polish)  
 c. [ $\alpha$  *čerez* [<sub>DP</sub> *te<sub>D</sub>* [<sub>CP</sub> *ščo<sub>C</sub>* TP ]]] (Ukrainian)  
*all: ‘because’*

#### P–D–C pattern with (optional/obligatory) gaps

- (18) a. [ $\alpha$  *bez* [<sub>DP</sub>  $\emptyset<sub>D</sub>$  [<sub>CP</sub> *da<sub>C</sub>* TP ]]] ‘without’ (BCMS)  
 b. [ $\alpha$   $\emptyset$  [<sub>DP</sub> *tomu<sub>D</sub>* [<sub>CP</sub> *što<sub>C</sub>* TP ]]] ‘because’ (Belarusian)  
 c. [ $\alpha$  *trotz* [<sub>DP</sub> *dem<sub>D</sub>* [<sub>CP</sub> (*dass*)<sub>C</sub> TP ]]] ‘despite’ (German)  
 d. [ $\alpha$  *bis* [<sub>DP</sub>  $\emptyset<sub>D</sub>$  [<sub>CP</sub> (*dass*)<sub>C</sub> TP ]]] ‘until’  
 e. [ $\alpha$  *mimo* [<sub>DP</sub> (*tego*)<sub>D</sub> [<sub>CP</sub> *že<sub>C</sub>* TP ]]] ‘despite’ (Polish)

## P–D–C pattern with correlate nouns

- (19) a. [<sub>α</sub> mit [<sub>DP</sub> dem Ziel [<sub>CP</sub> dass<sub>C</sub> TP ]]] ‘to the end that’ (German)  
→ cf. (13)  
b. [<sub>α</sub> s [<sub>DP</sub> tex por [<sub>CP</sub> kak<sub>C</sub> TP ]]] ‘since’ (Russian)

## Adv/Rel–C pattern

- (20) a. [<sub>α</sub> chyba [<sub>CP</sub> że<sub>C</sub> TP ]]] ‘unless’ (Polish)  
b. [<sub>α</sub> jako [<sub>CP</sub> że<sub>C</sub> [<sub>TP</sub> by ... ]]] ‘as’

## 4.5 Potential caveats

### 4.5.1 Simplex subjunctors

a) are P-items plus obligatorily non-overt C; see, e.g., (18d).

- (21) a. [<sub>α</sub> wenn [<sub>CP</sub> ∅<sub>C</sub> TP ]]] ‘if, when’ (German)  
b. [<sub>α</sub> kiedy [<sub>CP</sub> ∅<sub>C</sub> TP ]]] ‘when’ (Polish)

→ *Wenn/kiedy* are (former?) wh-items with relational semantics (‘at what time’).

→ Obligatorily silent C: Same basic structure as (20) but more grammaticalized?

b) are heads of CPs embedded by a silent operator:

- (22) a. [<sub>α</sub> ∅ [<sub>CP</sub> weil<sub>C</sub> TP ]]] ‘because’ (German)  
b. [<sub>α</sub> ∅ [<sub>CP</sub> bo<sub>C</sub> TP ]]] ‘because’ (Polish)

→ *Weil/bo* lack semantic content but reflect the presence of the operator.

### 4.5.2 Intransparent semantics

- a) Frozen meaning: e.g., Polish *chyba że* ‘unless’ < Old Polish prepositional *chyba* ‘except’ + CP.  
b) Grammaticalization/specialization: e.g., Polish *gdyż* ‘because’ < temporal *gdy* ‘when’ + particle *ż(e)* (cf. German *weil* < *wīla* ‘while’)

## Appendix

### Undersived adverbs

- (23) a. *už* ‘already’, *ještě* ‘yet’ (Czech)  
b. *včera* ‘yesterday’, *dnes* ‘today’, *zítra* ‘tomorrow’

ad (23a): Particle-like temporal/degree/modal adverbs can themselves be analyzed as overt semantic operators modifying the appropriate expression, yielding  $\alpha$ .

ad (23b): Wunderlich (1996:16) and Reyle, Rossdeutscher & Kamp (2007) analyze deictic/relational adverbs as prepositions with an implicit internal argument:

“We analyse the adverb *gestern* as a prepositional phrase with silent preposition and an occurrence of *gestern* as NP which is governed by this preposition.” (Reyle, Rossdeutscher & Kamp, 2007:580)

So, e.g., *včera* ‘yesterday’ is underlyingly a PP ‘on the day before the day on which the utterance is made’ (see Reyle, Rossdeutscher & Kamp, 2007:581)

### Argumental PPs

- are idiosyncratically governed by certain lexemes (e.g., Czech *doufat v* ACC ‘hope for’; Polish *cieszyć się z* GEN ‘be pleased with’; Russian *uverennyj v* LOC ‘confident of’).
- The lexical entries of the relevant lexemes include a specific relational root (preposition).
- The range of P-complements of verbs of position/direction (e.g., Czech *stát na/v* LOC ‘stand in/on’; *chodit do/na* GEN/ACC ‘go to/on’) seems to follow from basic spatio-temporal concepts and world knowledge.

### Predicative PPs

- a) are indeed predicative despite having no (lexical) category – cf. Steinitz (1997:11): the predicative position is neutral as concerns categorial information;
- b) are not predicative but rather (unlabeled) adjuncts to existential ‘be’.

### Prepositional case markers

are category-neutral items relating their complement DP to the matrix:

- (24) a. na Säedineni amerikanski štati (Bulgarian)  
b. of the United States (English)

The prepositional item encodes a specific relation (INSTRUMENT, LOCATION, etc.). Such case markers differ from “semantic cases” only in that the prepositional item is overt.

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