

The absolute PP-construction

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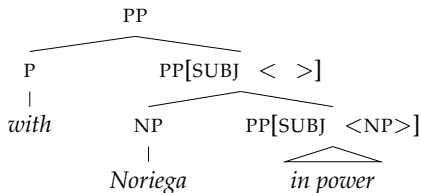
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SOME EXAMPLES

Absolute PP-constructions are sentential modifiers, that consist of a preposition, an NP and a predicative XP.

- (1) With Noriega in power we'll have to cancel our vacation.
- (2) We are sure to lose without Kim on our team.

THE STOWELL STRUCTURE TREATMENT – 1

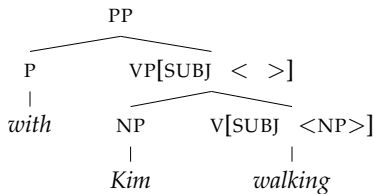


“These ‘Stowell structures’ seem plausible for a number of syntactic constructions.”

Pollard & Sag (1994), *Head-driven Phrase Structure Grammar*, 110.

THE STOWELL STRUCTURE TREATMENT – 2

- (3) With Kim walking we can throw away the crutches.



Pollard & Sag (1987), *Information-based Syntax and Semantics*, 155.

Riehemann & Bender 1999, *Absolute Constructions: On the distribution of predicative idioms*, 477.

Four problems

PROBLEM 1 - CASE OF THE NP

- (4) With him/*he at the helm we are bound to get into trouble.
- (5) Mit dem/*das Fenster offen schläft man besser.
with the.DAT/*the.ACC window open sleeps one better
'With the window open one sleeps better.'

Case is assigned by the preposition, but since the NP is not a sister of the preposition, this is an instance of Exceptional Case Marking and, hence, a violation of the Principle of Locality of Subcategorization.

PROBLEM 2 - SYNTACTIC WEIGHT OF THE NP

- (6) Ze wil niet meer met jou/je praten.
she wants not more with you talk
'She does not want to talk with you anymore.'
- (7) Met jou/*je aan het roer krijgen we problemen.
with you on the helm get we problems
'With you at the helm we get into problems.'

Broekhuis (2013), *Syntax of Dutch*. Adpositions and adpositional phrases, 200.

The absolute *met* requires the pronoun to take its full form, but since the pronoun is not a sister of the preposition, this requires something like Exceptional Weight Marking, involving another violation of the Principle of Locality of Subcategorization.

PROBLEM 3 - SYNTACTIC FUNCTION OF THE NP

- (8) Met Einstein voor ogen begon hij aan zijn onderzoek.
with Einstein for eyes began he on his research
'With Einstein in mind, he started his research.'
- (9) Met Cruyff als libero zijn wij verloren.
with Cruyff as libero are we lost
'With Cruyff as libero we are lost.'
- (10) a. *Einstein is voor ogen.
b. Hij heeft Einstein voor ogen.
- (11) a. *Cruyff is als libero.
b. We hebben Cruyff als libero.

Van Riemsdijk (1978), A case study in syntactic markedness, 65–69.

PROBLEM 4 - BARE ABSOLUTE CONSTRUCTION

In a Stowell structure the preposition combines with a bare absolute construction

- (12) George too ill to play, Tom will have to step up.
- (13) Expectations flying high, the Bulls have to win the championship this time.
- (14) We shall assemble at 10:45, the procession to start at precisely 11:00.

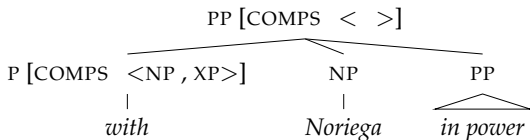
This construction is more tightly constrained than the [NP-XP]-sequence in the absolute PP-construction

CONSTRAINTS ON THE NP

- (15) a. * Einstein voor ogen, begon hij aan zijn onderzoek.
Einstein for eyes began he on his research
- b. * Cruyff als libero, zijn wij verloren.
Cruyff as libero are we lost
- (16) a. ? You in power, we see a bright future for this great country.
- b. ? He/him too ill to play, you will have to step up.

An alternative

THE FLAT STRUCTURE TREATMENT – 1



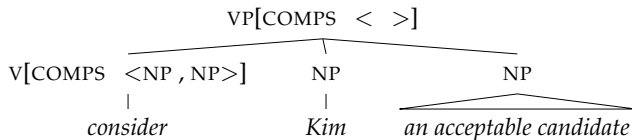
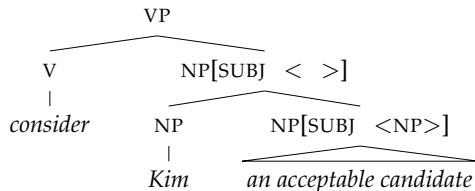
Van Eynde (2015), *Predicative constructions*, 118.

THE FLAT STRUCTURE TREATMENT – 2

The problems with the Stowell structures are avoided:

- ▶ the NP is a sister of the preposition → no need for Exceptional Case Marking or Exceptional Weight Marking
- ▶ the NP is not treated as the subject of the predicative XP
- ▶ the NP–XP sequence in the absolute PP is not treated as a prepositionless absolute construction

VERBS OF CONSIDERING



Pollard & Sag (1994), Head-driven Phrase Structure Grammar, chapter 3.

WHAT NEXT?

1. elaborate the flat structure treatment
2. apply the resulting analysis to the Dutch absolute PP-construction
3. put it in the wider context of predicative constructions

1. Elaboration

THE NP ARGUMENT

Non-nominative case

Must be referential

(17) * With *it* snowing, they prefer to take the train

(18) * With *there* a problem in Nicaragua, we'll have to cancel our
vacation

THE PREDICATIVE ARGUMENT – 1

Can belong to any syntactic category: PP, AP, NP, non-finite VP.

- (19)
- a. With Noriega *in power*, we'll have to cancel our vacation.
 - b. With the senator of Florida *ill*, the vote was postponed.
 - c. With your son *a student*, you probably don't see much of him.
 - d. With George *being too ill to play*, Tom will have to step up.
 - e. With his army *defeated*, the general had to surrender.
 - f. With three laps *to go*, the race is not decided yet.

THE PREDICATIVE ARGUMENT – 2

Cannot be an inherently attributive adjective, a pronoun, a proper noun, an active past participle, a non-modal infinitive, a gerund, a finite clause

- (20)
- a. * With the senator of Ohio former, the Republicans lost their majority
 - b. * With George me, she got confused
 - c. * With him Donald, they decided to emigrate
 - d. * With Jane taken two more courses, the school permitted her graduation
 - e. * With Jim (to) eat garlic, she preferred other company
 - f. * With his favorite hobby gambling, he lost the family fortune in less than a year
 - g. * With the question whether they want to participate, we decided to postpone the meeting

HOW TO CAPTURE THE RELEVANT DISTINCTION?

The boolean PRD feature

“Roughly, predicative words (or their phrasal projections) are those which can occur as complement to the copula.” Pollard & Sag (1987), 64.

- (21) a. With the senator of Ohio ill/*former, the Republicans lost their majority.
- b. The senator of Ohio is ill/*former.

PREDICATIVE NPS

- (22) a. With your son a student, you probably don't see much of him.
b. * With your son Donald, you probably don't see much of him.
- (23) a. That man over there is a student.
b. That man over there is Donald.

“For noun phrases .. the question of how to treat the distinction in terms of the PRD feature is a vexed one ... We will not try to settle the question here.” Pollard & Sag (1987), 66.

“As yet we lack a worked out account of predicative NPs ... We leave these problems open.” Pollard & Sag (1994), HPSG, 360.

GERUNDS AND FINITE CLAUSES

- (24) a. * With his favorite hobby gambling, he lost the family fortune in less than a year
b. His favorite hobby is gambling.
- (25) a. * With the question whether they want to participate, we decided to postpone the meeting
b. The question is whether they want to participate.

Conclusion: the PRD feature does not capture the distinction that we need.

OPEN PREDICATIVE COMPLEMENT

denotes a set or a property and has an unexpressed first argument whose index is identified with that of the predicative complement itself.

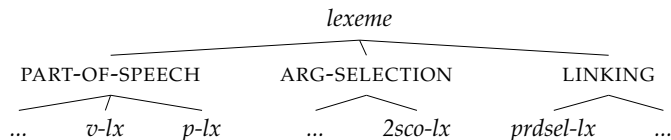
Van Eynde (2015), Predicative constructions, chapter 5, section 1.

- (26) a. With the senator of Ohio ill, the Republicans lost their majority
- b. * With the senator of Ohio former, the Republicans lost their majority
- (27) a. With your son a student, you probably don't see much of him
- b. * With your son Donald, you probably don't see much of him
- (28) a. With her husband gambling, she lost a fortune
- b. * With her favorite hobby gambling, she lost a fortune
- (29) a. With the main question answered, we decided to adjourn the meeting
- b. * With the main question whether they want to participate, we decided to adjourn the meeting

Enough chitchat

Let's get formal

A THREE-DIMENSIONAL HIERARCHY OF LEXEMES

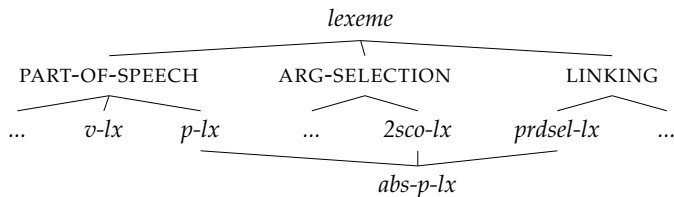


$$(30) \quad p\text{-}lx \Rightarrow [\text{SYNSEM}|\text{LOC}|\text{CAT}|\text{HEAD} \quad \textit{adposition}]$$

$$(31) \quad 2sco\text{-}lx \Rightarrow [\text{ARG-ST} \quad \langle \textit{scope-object}, \textit{scope-object} \rangle]$$

$$(32) \quad prdsel\text{-}lx \Rightarrow \left[\begin{array}{l} \text{SYNSEM}|\text{LOC}|\text{CONTENT}|\text{NUCLEUS} \left[\begin{array}{ll} \text{THEME} & i \\ \text{ATTRIBUTE} & j \end{array} \right] \\ \text{ARG-ST} \quad \boxed{A} \oplus \langle X_i, Y_j \rangle \oplus \boxed{B} \end{array} \right]$$

MULTIPLE INHERITANCE – 1



Van Eynde (2015), Predicative constructions, chapter 4, section 2.

MULTIPLE INHERITANCE – 2

$$(33) \quad \textit{abs-p-lx} : \left[\begin{array}{l} \text{SYNSEM|LOC} \left[\begin{array}{l} \text{CAT|HEAD} \quad \textit{adposition} \\ \text{CONTENT|NUCLEUS} \left[\begin{array}{l} \text{THEME} \quad i \\ \text{ATTRIBUTE} \quad j \end{array} \right] \end{array} \right] \\ \text{ARG-ST} \quad \left\langle \left[\begin{array}{l} \textit{scope-object} \\ \text{INDEX} \quad i \end{array} \right], \left[\begin{array}{l} \textit{scope-object} \\ \text{INDEX} \quad j \end{array} \right] \right\rangle \end{array} \right]$$

- ▶ the first argument is NOT a dependent of the second argument
- ▶ both arguments have a referential index

CONSTRAINTS ON THE SUBTYPE

$$(34) \quad \textit{abs-p-lx} \Rightarrow \left[\begin{array}{l} \text{SYNSEM|LOC|CAT} \left[\begin{array}{l} \text{HEAD|SELECT|LOC|CAT} \textit{verb} \\ \text{SUBJ} \quad < \quad > \end{array} \right] \\ \text{ARG-ST} \left\langle \text{NP}, \left[\begin{array}{l} \text{CAT|SUBJ} \quad <\text{X}_j> \\ \text{CONTENT|INDEX} \quad j \end{array} \right] \right\rangle \end{array} \right]$$

- ▶ the SELECT value captures the fact that the absolute preposition projects a phrase that modifies a verbal projection
- ▶ the SUBJ value captures the fact that both arguments are realized as complements (given the Argument Realization Principle)
- ▶ the first argument is required to be an NP
- ▶ the second argument is required to be an open predicative complement

COMBINING INHERITED AND INHERENT CONSTRAINTS

$$(35) \quad abs-p-lx : \left[\begin{array}{l} \text{SYNSEM|LOC} \left[\begin{array}{l} \text{CAT} \left[\begin{array}{l} \text{HEAD} \left[\begin{array}{l} adposition \\ \text{SELECT|LOC|CAT } verb \end{array} \end{array} \right] \\ \text{SUBJ} \quad < \quad > \end{array} \right] \\ \text{CONTENT|NUCLEUS} \left[\begin{array}{l} \text{THEME} \quad i \\ \text{ATTRIBUTE} \quad j \end{array} \right] \end{array} \right] \\ \text{ARG-ST} \left\langle \text{NP}_i, \left[\begin{array}{l} \text{CAT|SUBJ} \quad <x_j> \\ \text{CONTENT|INDEX} \quad j \end{array} \right] \right\rangle \end{array} \right]$$

A CHALLENGE: COORDINATION

- (36) With John ill and Mary abroad, the children had to cook for themselves.

Non-constituent coordination: Argument Cluster Coordination

- (37) Tom gave a book to Mary and a magazine to Sue.
(38) They consider Kim too lazy and Tim too qualified for this job.

Abeillé & Chaves (2021), Coordination, 756–760
Nykiel & Kim (2021), Ellipsis, 876–877

2. Application to Dutch

THE ABSOLUTE *met*-CONSTRUCTION

Corpus Gesproken Nederlands (appr. 1 M words of spoken Dutch)

Lassy-Small (appr. 1 M words of written Dutch)

(39) //node[@cat="pp" and node[@rel="hd" and @word="met"] and
node[@rel="obj1"] and node[@rel="predc"]]

32 hits for CGN and 100 for LASSY-SMALL

Manual checking: 15 hits are irrelevant (2 + 13)

117 relevant hits (30 + 87)

THE ABSOLUTE *zonder*-CONSTRUCTION

(40) //node[@cat="pp" and node[@rel="hd" and @word="zonder"]] and
node[@rel="obj1"] and node[@rel="predc"]]

1 hit for CGN and 0 for LASSY-SMALL

(41) hele gedeelte opgenomen [zonder de microfoon aan]
entire part recorded without the mike on
'recorded entire part without the mike on'

EXTERNAL DISTRIBUTION

- (42) die boswachter sliep [met z'n raam open]
that ranger slept with his window open
'that ranger slept with his window open'
- (43) als je [met een slok op] dingen zegt
if you with a nip up things say
'that ranger slept with his window open'
- (44) [met nog vier duels te gaan] heeft RBC negen punten achterstand
with still four duels to go has RBC nine points back.log
'with four more matches to do RBC is nine points behind'
- (45) [met die oranje jurk aan]
with that orange dress on
'with that orange dress on'

NUMBERS

	CGN	LASSY			%
final	20	69	89	75.42	
medial	3	15	18	15.26	
initial	2	1	3	2.54	
isolated	6	2	8	6.78	
	31	87	118	100.00	

INTERNAL STRUCTURE

The preposition must precede its complements

- (46) die boswachter sliep [met z'n raam open]
that ranger slept with his window open
- (47) * die boswachter sliep [z'n raam met open]
that ranger slept his window with open
- (48) * die boswachter sliep [z'n raam open met]
that ranger slept his window open with

INTERNAL STRUCTURE

NP–XP

- (49) riep Afghanistan uit tot een republiek [met hemzelf als president]
called Afghanistan out to a republic with himself as president
'declared Afghanistan a republic with himself as president'

XP–NP

- (50) een strak geregisseerde show [met als hoogtepunt de officiële
a tightly organized show with as climax the official
nominatie van Kerry op donderdag]
nomination of Kerry on Thursday
'a tightly organized show with as climax the official nomination of
Kerry on Thursday'

NUMBERS

	CGN	LASSY	%	
NP-XP	29	28	57	48.30
XP-NP	2	59	61	51.70
	31	87	118	100.00

Of the 61 inverted orders 58 are with *als*+NP

INVERSION TEST

- (51) dat de vergelijking met mastodonten als Coca-Cola en Marlboro
that the comparison with behemoths like Coca-Cola and Marlboro
kan doorstaan
can
'that can compete with such behemoths as Coca-Cola and Marlboro.'
- (52) * dat de vergelijking met als Coca-Cola en Marlboro mastodonten
that the comparison with like Coca-Cola and Marlboro behemoths
kan doorstaan
can

5 of the 15 irrelevant hits are of this type

- ▶ *met leuzen als 'Gaaf heen en vermenigvuldigt u'*
- ▶ *met bedrijven als Bekaert, Agfa Gevaert en Solvay*
- ▶ *met steden als Maastricht, Aken en Luik*
- ▶ *met meesterwerken als 'Gouden Oogst' (1935), 'De Grote Marine' (1935), 'Moederschap' (1936), 'Het Afscheid' (1948), 'Dagelijks Brood' (1950)*

THE PREDICATIVE ARGUMENT

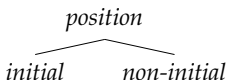
	CGN	LASSY		%
Adj or AP	11	0	11	9.32
P or PP	5	3	8	6.78
<i>als</i> +NP	8	77	85	72.03
Pres Ptc	0	1	1	0.85
Pass Pst Ptc	4	4	8	6.78
Modal Inf	3	2	5	4.24
	31	87	118	100.00

No hits for N or NP!

Enough data and numbers

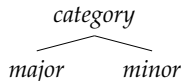
Let's get formal

THE POSITION FEATURE



- ▶ inherently initial adpositions: *met, tot, te, ten, ter, tijdens, sinds, sedert, ...*
- ▶ inherently non-initial adpositions: *mee, toe, af, heen, ...*
- ▶ underspecified: *in, aan, op, uit, van, over, ...*

THE MAJOR-MINOR DISTINCTION



Van Eynde (1999), Major and minor pronouns in Dutch.

WEIGHT feature that is assigned to objects of type *sign*

Abeillé & Godard (2000), French word order and lexical weight, 334.

LEXICAL ENTRY OF THE PREPOSITION

$$(53) \left[\begin{array}{l} \textit{abs-p-lx} \\ \text{PHONOLOGY} \quad \langle \textit{met} \rangle \\ \text{SYNSEM|LOC|CAT|HEAD|POSITION} \quad \textit{initial} \\ \text{ARG-ST} \quad \left\langle \left[\text{LOC|CAT} \left[\begin{array}{l} \textit{major} \\ \text{HEAD|CASE} \quad \textit{accusative} \end{array} \right] \right] \right\rangle \oplus \textit{nelist} \end{array} \right]$$

3. *A wider perspective*

ABSOLUTE CONSTRUCTION

Without preposition

- ▶ the NP is always the understood subject of the predicative XP
- ▶ the NP necessarily precedes the predicative XP
- ▶ the NP must be referential and non-pronominal
- ▶ the NP is assigned default case
- ▶ the predicative XP must be an open predicative complement

With preposition

- ▶ the NP is not always the understood subject of the predicative XP
- ▶ the predicative XP may precede the NP
- ▶ the NP must be referential and can be a major pronoun
- ▶ the NP is assigned case by the preposition
- ▶ the predicative XP must be an open predicative complement

CONCLUSION – 1

- ▶ the absolute PP-construction is a clausal modifier that consists of a preposition, an NP and a predicative XP
- ▶ the Stowell structure treatment has four problems
 - ▶ the preposition assigns case to the NP but since it is not its sister this involves a violation of the Principle of Locality of Subcategorization
 - ▶ the preposition requires the NP to have its full form when it is a pronoun, but modeling this requires another violation of the Principle of Locality of Subcategorization
 - ▶ the NP is not always the understood subject of the predicative XP
 - ▶ the NP–XP sequence in the absolute PP-construction is less constrained than the prepositionless absolute construction
- ▶ the flat structure treatment avoids those problems

CONCLUSION – 2

- ▶ the preposition projects a PP that modifies a verbal projection
- ▶ the preposition requires its arguments to be realized as complements
- ▶ the preposition assigns a semantic role to its arguments
- ▶ the preposition assigns case to the NP argument and requires it to be major
- ▶ the preposition requires the XP argument to be an open predicative complement

A COROLLARY

“Unlike verbs, which, at least in some languages, can have multiple elements on their COMPS lists, prepositions are limited to at most one.”

Davis & Koenig (2021), The nature and role of the lexicon in HPSG, 145.

The absolute prepositions are a counterexample for this claim.

Enough talk

Let's get questions