

## Preposition doubling in Flemish dialects and its implications for the syntax of Dutch PPs

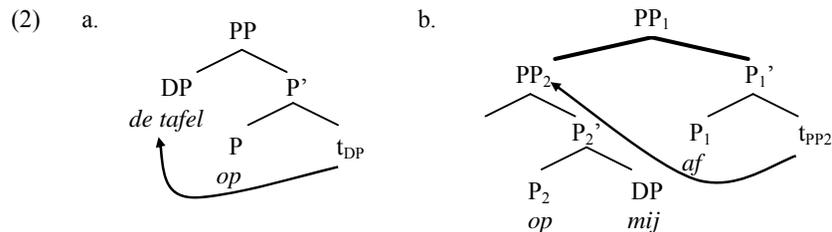
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### 1 INTRODUCTION

- Dutch exhibits three kinds of adpositions: prepositions, postpositions, and circumpositions.

- (1) a. Het boek ligt **op** de tafel. [preposition]  
*the book lies on the table*  
b. De kat springt de tafel **op**. [postposition]  
*the cat jumps the table on*  
'The cat jumps on(to) the table.'  
c. Hij loopt **op** mij **af**. [circumposition]  
*he walks on me from*  
'He's walking towards me.'

→ Postpositions are derived from prepositions by movement of the DP object, and circumpositions through PP movement  
(Koopman 1997, 2000, 2010; Helmantel 2002; Den Dikken 2003, 2006b, 2010)



- Topic of this talk:** Certain (Belgian) Dutch dialects (Aalst, Asse, dialects from Pajottenland and Waasland) display circumpositions with identical prepositions and postpositions.

- (3) dat hij **op** dem berg **op** is geklommen. [Asse Dutch]  
*that he on the hill on is climbed*  
'that he has climbed up on the hill.'

→ The interpretation is parallel to the Standard Dutch counterpart with either a (directionally interpreted) preposition or a postposition (obligatorily directional).

- (4) a. dat hij **op** de berg is geklommen. [Standard Dutch]  
*that he on the hill is climbed*  
b. dat hij de berg **op** is geklommen.  
*that he the hill up is climbed*  
'that he has climbed up on the hill.'

### 2 PROPERTIES OF DOUBLING PPs

#### 2.1 The postpositional element is not a particle or verbal prefix

- The interpretation of the P is always the lexical spatial meaning of the P, not (as is often the case in verb-particle constructions) some idiosyncratic meaning contributed jointly by the P-element and the verb: the particle verb *op geraken* only has an idiosyncratic interpretation ('to run out', as in *de suiker geraakt op* 'the sugar is running out'), but in (5) *op geraken* has a compositional semantics derived from the lexical meanings of *op* and *geraken* ('manage to get up something').

- (5) Hij is op dienen berg niet op geraakt.  
*he is on that.MASC hill not on reached*  
'He didn't manage to get up on that hill.'

- That the second P in doubling PPs is not a particle is confirmed by the fact that P-doubling can occur in the complement of a noun, when there is no verb present at all, as in (6):

- (6) dat wegske over de brug over  
*that path.DIM over the bridge over*  
'that little path over the bridge'

→ Dutch simple particles cannot occur independently with nominals, in contradistinction to postpositional PPs:

- (7) a. de weg omhoog /\*uit  
*the way up.high/out*  
'the way up/out'  
b. de weg de stad uit  
*the way the city out*  
'the way out of the city'

- Perhaps the clearest indication that the second P-element in P-doubling constructions is not a particle is the fact that doubling PPs themselves co-occur with particles, as shown in (8); in doubling PPs with *naar*, this additional particle is in fact obligatorily present (see (8)b).

- (8) a. ?ik durfde door dat bos niet door**heen** lopen  
*I dared through that wood not through.PRT walk*  
 b. ge moet naar diene grote rots naar\*(**toe**) springen  
*you must to that big rock to.PRT jump*

- Given that the elements in boldface in the examples in (8) are particles, the P-elements immediately to their left cannot also be analysed as particles.
- As a general rule, particles are unique per verb; neither are there combinations of free-standing particles and any of the prefixal particles of Dutch, *be-*, *ver-* and *ont-* (see Hoekstra, Lansu & Westerduin 1987): thus, there is *afdekken* ‘off-cover, i.e., cover up’ and *bedekken* ‘BE-cover’ but not \**afbedekken*; and there is *invoeren* ‘import’ and *vervoeren* ‘trans-*port*’ but not \**invervoeren*; the pattern is systematic (on apparent exceptions, irrelevant for our purposes here, see Koopman 1995, Booij 2002, and esp. Den Dikken 2003:sect. 2).
- The co-occurrence of doubling PPs with particles thus precludes an analysis of the second P-token of P-doubling constructions as a verbal particle.

## 2.2 The distribution of doubling PPs

### *P* doubling is only allowed with spatial PPs

- (9) a. Lili is **op** de kast **op** gekropen. [spatial]  
*Lili is on the cupboard on crawled*  
 ‘Lili crawled onto the cupboard.’  
 b. Hij had **op** Lili (\***op**) gerekend. [selected]  
*he had on Lili on counted*  
 ‘He had counted on Lili.’

### *P* doubling is only allowed with directional PPs

- Spatial PPs come in two flavours: locative and directional.

- (10) a. Lola zit **op de stoel**. [locative]  
*Lola sits on the chair*  
 b. De kat springt **de kast op**. [directional]  
*the cat jumps the cupboard on*  
 ‘The cat jumps onto the cupboard.’

- Postpositional PPs are always directional.

- Prepositional PPs are usually locative, but can be directional when selected by certain verbs of motion (Koopman 2000; see also Gehrke 2007):

- (11) Lola springt in het water.  
*Lola jumps in the water*  
**locative:** Lola is in the water, jumping up and down.  
**directional:** Lola jumps into the water.

- For cases in which a spatial PP is in principle interpretable either locatively or directionally, **P-doubling is a disambiguator**: it allows only for a **directional** reading:

- (12) Lili springt **in** het water **in**.  
*Lili jumps in the water in*  
 ‘Lili jumps into the water.’ [directional]  
 # ‘Lili jumps up and down in the water.’ [\*locative]

- This is further confirmed by the fact that in constructions featuring a manner of motion verb, the use of a doubling PP forces the selection of the auxiliary *zijn* ‘be’ rather than *hebben* ‘have’ (cf. (13)). This is typical of directional resultatives in general (Koopman 2000, Den Dikken 2010), as (14) illustrates: *hebben* triggers a locative reading and *zijn* a directional one.

- (13) a. Lili is **op** de kast **op** gesprongen.  
*Lili is on the cupboard op jumped*  
 ‘Lili has jumped onto the cupboard.’  
 b. Lili heeft **op** de kast (\***op**) gesprongen.  
*Lili has on the cupboard on jumped*  
 ‘Lili has jumped (up and down) on the cupboard.’
- (14) a. Lola **heeft** in het water gesprongen. [locative/\*directional]  
*Lola has in the water jumped*  
 ‘Lola has jumped (up and down) in the water.’  
 b. Lola **is** in het water gesprongen. [\*locative/directional]  
*Lola is in the water jumped*  
 ‘Lola has jumped into the water.’

## 2.3 Doubling PPs and extraction

- In doubling PPs, the preposition and the DP object can undergo movement together, to the exclusion of the postposition: (15)
- But the doubling PP as a whole – including the postposition – cannot move: (16)

- (15) a. **Topicalization**  
**Op dienen berg** is Lili *t op* geklommen.  
*on that.MASC hill is Lili on climbed*  
 ‘That hill Lili has climbed up on.’
- b. **Wh-movement**  
**Op welken berg** is Lili *t op* geklommen?  
*on which.MASC hill is Lili on climbed*  
 ‘Which hill has Lili climbed up on?’
- c. **Scrambling across negation**  
 Lili is **op dienen berg** niet *t op* geklommen.  
*Lili is on that.MASC hill not on climbed*  
 ‘Lili didn’t climb up on that hill.’
- (16) a. **Topicalization**  
 \* **Op dienen berg op** is Lili *t* geklommen.  
*on that.MASC hill on is Lili climbed*
- b. **Wh-movement**  
 \* **Op welken berg op** is Lili *t* geklommen?  
*on which.MASC hill on is Lili climbed*
- c. **Scrambling across negation**  
 \* Lili is **op dienen berg op** niet *t* geklommen.  
*Lili is on that.MASC hill on not climbed*

→ The postposition needs to be adjacent to the verbal cluster, and can be incorporated into it (as is typical of postpositions, not prepositions, in (Standard) Dutch):

- (17) a. Lili zal *op dienen berg* <op> moeten <op> klimmen.  
*Lili will on that.MASC hill on must on climb*  
 ‘Lili will have to climb up on that hill.’
- b. Lili zal <niet> *op dienen berg* <niet> **op** <\*niet> kunnen klimmen.  
*Lili will not on that.MASC hill not on not can climb*

## 2.4 Doubling PPs and R-pronouns

- In Standard Dutch a neuter pronoun in the complement of a preposition moves to a specifier in the extended projection of P and surfaces as an R-pronoun:  
 ‘P + pronoun’ → ‘R-pronoun P’

- (18) a. *op + iets* → *ergens op* b. *over + dat* → *daarover*  
*on something somewhere on over that there.over*  
 ‘on something’ ‘over that/it’

- But in doubling PPs, R-pronoun formation of the indefinite pronoun is ungrammatical, no matter where the doubling P is placed:

- (19) a. *dat Lili op iets <op> is <op> geklommen.*  
*that Lili on something on is on climbed*  
 ‘that Lili climbed up on something.’
- b. *dat Lili ergens op <\*op> is <\*op> geklommen.*  
*that Lili somewhere on on is on climbed*

- R-words are not categorically forbidden in doubling PPs: the *wh*-pronoun can surface as the R-word *waar*, as in (20)b; and the demonstrative pronoun undergoes R-word formation obligatorily: *in situ* placement of *dat* is illicit (see (21)).

- (20) a. **Op wat** is Lili **op** geklommen?  
*on what is Lili on climbed*
- b. **Waarop** is Lili **op** geklommen?  
*whereon is Lili on climbed*  
 ‘What did Lili climbed up on?’
- (21) a. { **Daarop**/\* **op dat** } is Lili **op** geklommen.  
*thereon on that is Lili on climbed*
- b. *dat Lili {daarop/\* op dat} op geklommen is.*  
*that Lili thereon on that on climbed is*  
 ‘that Lili climbed onto that.’

## 2.5 Summary, and comparison with non-identical circumpositional PPs

<b>Distribution</b>	directional PPs	*selected PPs *locative PPs
<b>Movement</b>	[preP DP] <sub>i</sub> ... t <sub>i</sub> postP	*[preP DP postP] <sub>i</sub> ... t <sub>i</sub>
<b>R-words</b>	<i>wh</i> -pronoun (optionally) definite pronoun (obligatorily)	*indefinite pronoun

- Both in their resistance to movement of the entire complex PP and in the restrictions they impose on R-word formation, doubling PPs differ markedly from non-identical circumpositional phrases.

→ (22)b shows that non-identical circumPPs allow R-word formation with indefinites, in contradistinction to doubling PPs (recall (19)b).

- (22) a. Lola is **om iets heen** gelopen.  
*Lola is about something towards run*
- b. Lola is **ergens omheen** gelopen.  
*Lola is somewhere about.towards run*

- With non-identical circumPPs, the availability of movement of the entire complex PP versus ‘splitting’ depends on the nature of the nominal complement:
- with [+wh,+R] *waar*, as in (23), splitting *waar*+P<sub>i</sub> off from P<sub>k</sub> is impossible (in contrast to doubling PPs, where splitting with *waar* is fine: (20)b);
  - with [+wh,-R] *wat* full pied-piping is impossible ((24)a; cf. (20)a), with the grammaticality of splitting being subject to speaker variation (as is generally the case for the prePP of Dutch non-identical circumPPs; Den Dikken 2010).

- (23) a. **Waar om heen** is hij gelopen?  
*where about towards is he run*  
 ‘What did he run around?’
- b. \***Waar om** is hij **heen** gelopen?  
*where about is he towards run*
- (24) a. \***Om wat heen** is hij gelopen?  
*about what towards is he run*
- b. %**Om wat** is hij **heen** gelopen?  
*about what is he towards run*  
 ‘What did he run around?’

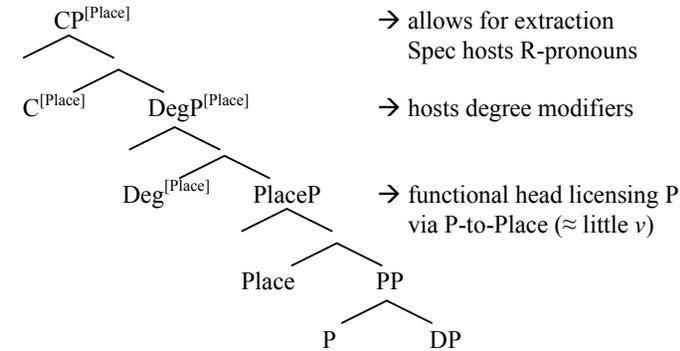
- These comparative notes on doubling PPs versus non-identical circumPPs should bring home the fact that doubling PPs are not simply circumPPs that happen to have identical P elements on either side of the nominal constituent — their syntactic properties need to be addressed in their own right.

→ We will not be able to discuss the syntax of non-identical circumpositional phrases here (see Koopman 2000, 2010, Den Dikken 2010, and references cited there); but we will take the result of Den Dikken’s exploration of Dutch spatial and directional PPs as our starting point in the development of an analysis of doubling PPs.

### 3 THE INTERNAL STRUCTURE OF DUTCH PPs

- van Riemsdijk (1978, 1990): PPs contain functional structure, parallel to the verbal/clausal and nominal domain
  - Koopman (1997, 2000, 2010): PathP as a functional layer in directional PPs
- potential functional structure in PPs:

(25) **Locative PPs**

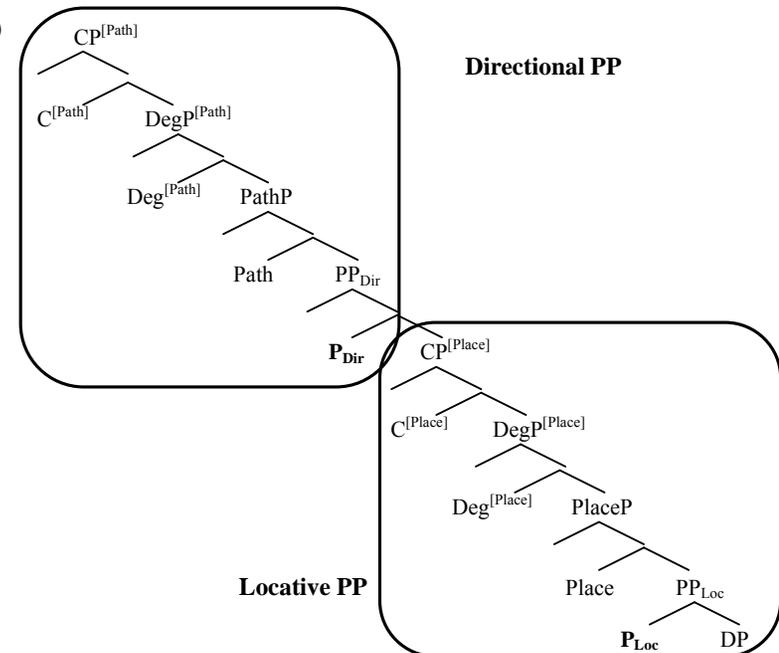


(26) **Directional PPs: PathP + CP[Place]**



- Den Dikken (2003, 2006b, 2010):
  - a lexical P<sub>Dir</sub> instead of functional PathP
  - P<sub>Dir</sub> has its own functional projections (allows for Degree modifiers etc.)

(27)



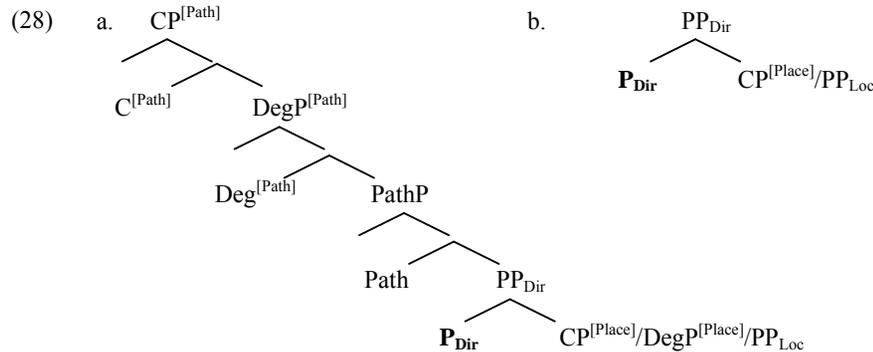
- Not all directional PPs flesh out this maximal structure: there is variation with respect to the size of the complement of P<sub>Dir</sub> as well as the size of P<sub>Dir</sub>'s own extended projection.

→ Den Dikken (2010) argues that there are six possible extended PPs, depending on whether or not the lexical Ps project functional structure.

#### 4 ANALYSIS, PART I: A REDUCED HIGHER P LAYER

##### 4.1 The P<sub>Dir</sub> layer

- Den Dikken (2006b, 2010): P<sub>Dir</sub> can either have a full functional structure or none.



- consequences of **full structure** (28a):
  - no incorporation into V: P<sub>Dir</sub> can move to Path, but no higher.
  - entire extended PP can undergo movement as a unit, but locative subpart cannot be subextracted from it (no CP layer, or A-over-A violation).
- consequences of **no functional structure** (28b):
  - obligatory incorporation of P<sub>Dir</sub> into V
  - no movement of entire extended PP, only of the complement of P<sub>Dir</sub>

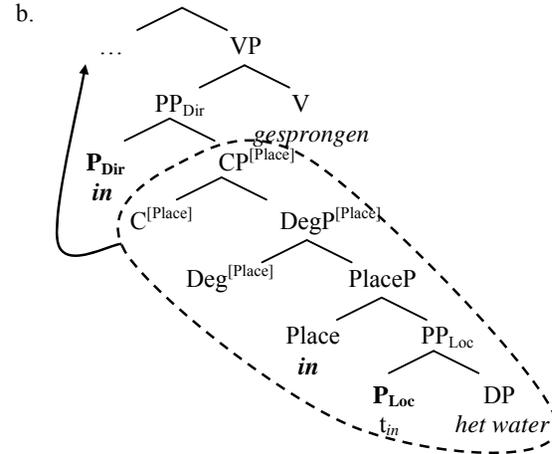
##### 4.2 Doubling PPs

- Recall **section 2.3**: Our structure should allow for movement of the lower PP and incorporation of the postposition, and disallow movement of the entire dbl-PP.

**Analysis:**  
 Doubling PPs have a **reduced higher layer**: the extended projection of P<sub>Dir</sub> never reaches up to CP<sup>[Path]</sup> in doubling PPs.

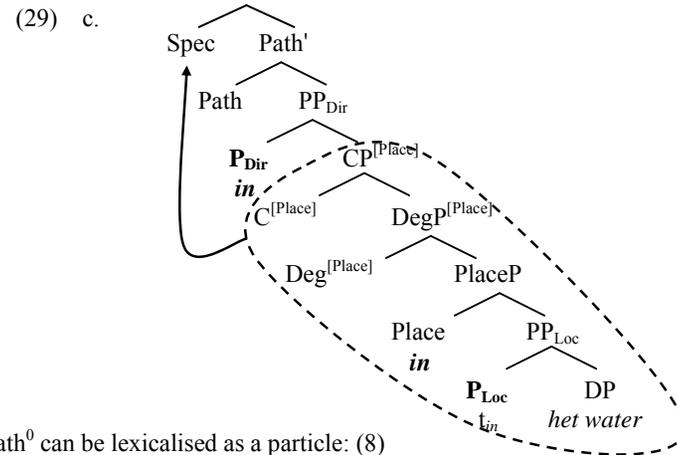
- Derivation (I): 'bare' PP<sub>Dir</sub>; CP<sup>[Place]</sup> is scrambled into the domain of the verb

(29) a. Lili is in het water in gesprongen.  
*Lili is in the water in jumped*  
 'Lili has jumped into the water.'



→ The preposition is base-generated in P<sub>Loc</sub>  
 The postposition is base-generated in P<sub>Dir</sub> (and incorporated into V).  
 CP<sup>[Place]</sup> becomes the derived object of the verb and precedes the postposition.

- Derivation (II): PP<sub>Dir</sub> + PathP; CP<sup>[Place]</sup> is raised to SpecPathP



→ Path<sup>0</sup> can be lexicalised as a particle: (8)

- This captures the distributional and extraction properties of doubling PPs.
  - The structure contains both a  $P_{Loc}$  and a  $P_{Dir}$ .
    - Doubling PPs are obligatorily interpreted directionally.
  - The preposition ( $P_{Loc}$ ) forms a constituent with the object to the exclusion of the postposition ( $P_{Dir}$ ), which does not project up to CP.
    - $CP^{[Place]}$  (with the preposition and the object) can undergo movement on its own, without the postposition; the postposition cannot be taken along;
    - The postposition ( $P_{Dir}$ ) can incorporate into the verb.

## 5 ANALYSIS, PART II: A DEFECTIVE LOWER P LAYER

- In the previous section we explained the movement properties of doubling PPs by claiming that  $P_{Dir}$  never has an extended projection reaching all the way up to  $CP^{[Path]}$  in such constructions.
- The obligatory absence of  $CP^{[Path]}$  will be shown in this section to *follow* from a key property distinguishing doubling PPs from run-of-the-mill circumpositions: the fact that the  $C^{[Place]}$  of doubling PPs is *defective*.
- The defectivity of  $C^{[Place]}$  also brings forth an account of the R-pronoun facts of doubling PPs.
- In section 6, we will present a third corollary of the defectivity of  $C^{[Place]}$  in doubling PPs: its cross-dialectal distribution.

### 5.1 $CP^{[Place]}$ as a defective goal, and the emergence of P-doubling

- Our central hypothesis about what makes doubling PPs different from ordinary circumpositional phrases is that the  $CP^{[Place]}$  in the complement of  $P_{Dir}$  in P-doubling constructions is defective.
  - We understand defectivity here in the sense of Roberts (2010): the feature content of  $C^{[Place]}$  in doubling PPs is a proper subset of the feature content of the  $Path-P_{Dir}$  probe upstairs:  $P_{Dir}$  has a feature [directional], which  $P_{Loc}$  does not have (directionality versus non-directionality is a *privative* opposition).
  - $P_{Dir}$  is thus a proper featural superset of its complement: it subsumes the features that its complement has, and adds directionality to it.
  - The defectivity of  $CP^{[Place]}$  explains all of the core properties of doubling PPs, including the emergence of doubling itself.
- For Roberts (2010), defective probe–goal relations result either in silence or in displacement; they do not result in doubling.

- Why does the defective probe–goal relation between  $Path-P_{Dir}$  and  $C^{[Place]}$  deliver P-doubling?
  - $P_{Loc}$  does not raise to  $C^{[Place]}$ ;  $C^{[Place]}$  does not probe  $P_{Loc}$ , so the latter is spelled out independently.
  - $C^{[Place]}$ , *qua* head of the extended projection of  $P_{Loc}$ , shares with  $P_{Loc}$  all its lexical features — as an automatic consequence of extended projection in the sense of Grimshaw (1993).
  - When defective  $CP^{[Place]}$  is probed by the upstairs  $Path-P_{Dir}$  probe, this causes  $C$ 's features to be spelled out at  $P_{Dir}$ .
  - This results in double spell-out of  $P_{Loc}$ 's lexical features: once in  $P_{Loc}$  (*in situ*) and once in  $P_{Dir}$ .

- In this approach to P-doubling, there is multiple spell-out of the same feature-set: the features of  $P_{Loc}$  are spelled out both in its base position and in  $P_{Dir}$ , in the latter case as a result of the defective probe–goal relation between  $Path-P_{Dir}$  and  $CP$ .
  - But it is **not** the case that multiple members of a single head-movement chain are spelled out: the chain-formation operation in question cannot be performed.
  - The grammaticality of subextraction of the prepositional part (see (30)) demonstrates that there must be a  $CP^{[Place]}$  in the complement of  $P_{Dir}$ .
  - We know that head movement cannot proceed through  $C$  heads:  $CP$ s always break head-movement chains; head movement via  $C$  into a higher lexical head is never legitimate (see Li 1990).
  - So the fact that (30) demonstrates that the complement of  $P_{Dir}$  is as large as  $CP^{[Place]}$ , in conjunction with the fact that head movement out of  $CP$  is impossible, precludes an analysis of P-doubling in terms of the spell-out of multiple members of a head-movement chain.

(30) **Op welken berg** <\*op> is Lili <op> geklommen?  
*on which hill on is Lili on climbed*  
 ‘Up on which hill has Lili climbed?’

- From the logic of Roberts’ (2010) theory of defective goals it follows that if  $Path-P_{Dir}$  established a probe–goal relation with defective  $P_{Loc}$ , the result would be a simple postposition, not a P-doubling construction: whenever  $P_{Loc}$  itself serves as the defective goal for the  $Path-P_{Dir}$  probe, the result is always displacement (*i.e.*, spell-out of  $P_{Loc}$ 's features at  $P_{Dir}$ ).
  - So in simple postpositional PPs (*de berg op* ‘the hill on’),  $Path-P_{Dir}$  takes a smaller complement (just  $PP_{Loc}$ ), and probes its head ( $P_{Loc}$ ).
  - This  $P_{Loc}$  is a defective goal for the probe, and must consequently remain silent, with the features of  $P$  being spelled out at  $P_{Dir}$ .

- In ‘ordinary’, non-identical circumpositional PPs, the  $CP^{[Place]}$  in the complement of the Path- $P_{Dir}$  probe is **not** defective.
- Since  $CP^{[Place]}$  in non-identical circumPPs is not the extended projection of a proper subset of the P-features under  $P_{Dir}$ , we do not get doubling of  $P_{Loc}$  (as in doubling PPs) or silence under  $P_{Loc}$  (as in postpositional PPs).
- P-doubling results **only** in a situation in which  $P_{Dir}$  takes a CP complement that is a proper featural subset of the upstairs Path- $P_{Dir}$  probe — in other words, when  $CP^{[Place]}$  is defective.

### 5.2 Defectivity and the forced absence of $CP^{[Path]}$ in doubling PPs

- A second consequence of the defective  $C^{[Place]}$  in doubling PPs is the fact that  $P_{Dir}$  cannot have an extended projection including  $CP^{[Path]}$ .
- Recall from (30) that movement of the locative prepositional PP stranding the postposition is grammatical, but movement of the entire doubling PP is not.
- We have blamed this ungrammaticality on the apparent fact that no  $CP^{[Path]}$  can be built on top of the projection of  $P_{Dir}$  in P-doubling constructions; but we have not yet provided a rationale for this.
- $C^{[Place]}$ 's defectivity in doubling PPs can once again be held responsible for this.
- The defectivity of the  $C^{[Place]}$  in the complement of  $P_{Dir}$  in doubling PPs rests on  $P_{Loc}$  being a proper featural subset of  $P_{Dir}$ , with the Path- $P_{Dir}$  complex upstairs establishing a defective probe-goal relation with  $CP^{[Place]}$ .
- This proper subset relation effectively establishes a single extended projection running from  $P_{Loc}$  all the way up to the Path- $P_{Dir}$  complex;  $CP^{[Place]}$  is a member of this extended projection.
- No single extended projection is ever allowed to contain multiple projections of C: there is no ‘CP recursion’ in the strict sense of the term; there is a unique C for any extended projection.
- Since the extended projection of  $P_{Loc}$  already includes an instance of C, it is impossible for  $P_{Dir}$  to be associated with another projection of C.

### 5.3 Defectivity and R-movement

- An indefinite neuter pronoun cannot undergo R-word formation in doubling PPs: (31)a, with *iets in situ*, is grammatical, but the R-movement in (31)b is impossible.

- (31) a. dat Lili **op iets** (op) geklommen is.  
*that Lili on something on climbed is*  
 ‘that Lili climbed up on something.’
- b. dat Lili **ergens** op (\*op) geklommen is.  
*that Lili somewhere on on climbed is*

- The ungrammaticality of (31)b notwithstanding, R-words are not categorically forbidden in doubling PPs: (32) shows that both *daar* and *waar* are grammatical.

- (32) a. dat Lili **daar op (op)** geklommen is.  
*that Lili thereon on climbed is*  
 ‘that Lili climbed onto that.’
- b. Ik vraag me af **waarop** Lili (op) geklommen is.  
*I ask me off whereon Lili on climbed is*
- c. Ik vraag me af **waar** Lili **op (op)** geklommen is.  
*I ask me off where Lili on on climbed is*  
 ‘I wonder what Lili climbed up on.’

#### 5.3.1 Two positions for R-pronouns

- Koopman (2010): there are, in principle, two positions that can accommodate R-words: SpecCP and SpecPlaceP.
- We argue that there is a difference between SpecPlaceP and SpecCP with respect to the kinds of R-pronouns they can house, drawing a parallel between SpecPlaceP in the extended projection of P and SpecvP in the extended projection of V, and taking SpecPlaceP to be a *scrambling* position – a position with information-structural import.
- What is raised to SpecPlaceP gets a ‘strong’ interpretation.
- By contrast, movement to SpecCP does not have any information-structural consequences.
- *Definite* R-pronouns are freely licensed in either SpecPlaceP or SpecCP, whereas *indefinite* R-pronouns are not licensed in SpecPlaceP unless they receive a ‘strong’, [+specific] interpretation.

- (33)  $[_{C(Place)P} \_ [C^{[Place]} [_{Deg(Place)P} vlak Deg^{[Place]} [_{PlaceP} \_ [Place [_{PP} P_{Loc} DP ]]]]]]$

- The occupant of SpecCP necessarily precedes degree modifiers like *vlak* ‘right’, while the occupant of SpecPlaceP must follow them.
- *Definite* R-words should in principle be able to appear on either side of such modifiers (because they can surface in either SpecPlaceP or SpecCP), but *indefinite* R-words should show a more restricted behaviour.
- This prediction is borne out:

- (34) a. <daar> **vlak** <daar> onder/ boven/naast/...  
*there right there under above next.to*  
 ‘right under/above/next to that’

- b. <ergens> **vlak** <<sup>??</sup>ergens> onder/boven/ naast/...  
*somewhere right somewhere under above next.to*  
 ‘right next to/above/under something’
- c. nooit <ook maar ergens> **vlak** <\*ook maar ergens>  
*never also but anywhere right also but anywhere*  
 onder/ boven/naast  
*under above next.to*  
 ‘never right under/above/next to anything (at all)’

### 5.3.2 The ban on indefinite R-words in doubling PPs

- The problem with (35b) is that there is no suitable position for the indefinite R-word *ergens* to surface in.

- (35) a. dat Lili **op iets** (**op**) geklommen is.  
*that Lili on something on climbed is*  
 ‘that Lili climbed up on something.’
- b. dat Lili **ergens op** (\***op**) geklommen is.  
*that Lili somewhere on on climbed is*

- Recall: the CP<sup>[Place]</sup> in the complement of P<sub>Dir</sub> in doubling PPs is defective.
- One salient consequence of its defectivity is that its C head cannot be specified for the EPP property.
- EPP is the trigger for terminal movement; so the fact that C<sup>[Place]</sup> cannot be EPP-specified entails that it is impossible for something to move into the SpecCP<sup>[Place]</sup> in the complement of P<sub>Dir</sub> in doubling PPs and for the derivation to end there.

### 5.3.3 The difference between terminal and intermediate movement

Q Why is [+wh] indefinite *waar* different from *ergens*?

- (36) a. **Waarop** is Lili **op** geklommen?  
*whereon is Lili on climbed*  
 ‘What did Lili climbed up on?’
- b. Ik vraag me af **waarop** Lili **op** geklommen is.  
*I ask me off whereon Lili on climbed is*
- c. Ik vraag me af **waar** Lili **op** geklommen is.  
*I ask me off where Lili on climbed is*  
 ‘I wonder what Lili climbed up on.’

- The essential difference between *ergens* and *waar* is that movement of *ergens* to SpecCP *terminates* the derivation whereas in the case of movement of [+wh] *waar* to SpecCP, onward movement must always ensue — either onward movement of *waar* by itself or onward pied-piping movement.
- The creation of *intermediate* members of the movement chain is not in any obvious sense a function of the checking of features, but instead a matter of ensuring that the movement operation satisfies the locality restrictions imposed on the formation of such chains.
- To the extent that *intermediate* movement steps exist at all, we believe (with Bošković 2007) that these require no featural trigger.

- Movement of *waar* into SpecCP<sup>[Place]</sup> in doubling PPs is not the terminal link in the movement dependency that *waar* is involved in: it is an intermediate step, necessarily followed by movement into the matrix SpecCP.
- Intermediate movement steps are not EPP-triggered, hence can target defective SpecCP<sup>[Place]</sup> in doubling PPs.

## 5.4 Summary

- In our account of the ungrammaticality of *\*ergens op op*, a central role is played by the hypothesis that the C head of the CP-complement of P<sub>Dir</sub> in P-doubling constructions is defective.
- In section 5.1, we had already demonstrated that this hypothesis also provides an account for the very fact that makes P-doubling special: the occurrence of two *identical* P elements in a single complex PP.
- And in section 5.2, we showed that C<sup>[Place]</sup>’s defectivity in doubling PPs has the further benefit of explaining the fact that no functional structure can be built on top of the projection of P<sub>Dir</sub> in these PPs, something that is responsible for the fact that the entire doubling PP fails to undergo movement as a constituent.
- These things combined reveal the strength of the single hypothesis that underlies our analysis of P-doubling in Flemish.
- In the final section, we complete our case for defectivity by arguing that it also provides us with a window on the distribution of doubling PPs in the Dutch-speaking world.

## 6 ON THE DISTRIBUTION OF DOUBLING PPs

### 6.1 Directional prepositions to introduce infinitival clauses in Flemish

- Doubling PPs are restricted to Flemish Brabant and the areas bordering it.

**Question:** Why is the distribution of defective C<sup>[Place]</sup> across the Dutch-speaking world restricted, and what does this distribution correlate with?

**Answer:** The use of directional preposition *van* to introduce raising infinitives

- Standard Dutch: locative P *om* introduces control infinitives:

- (37) a. Ik zal proberen [CP (**om**) [TP de klus te klaren]].  
*I will try COMP the job to accomplish*  
 ‘I will try to accomplish the job.’  
 b. Je zal meer moeten studeren [CP **om** [TP te slagen]].  
*you will more must study COMP to pass*  
 ‘You’ll have to study more to pass.’

Flemish varieties: directional Ps *van* ‘of/from’ and *voor* ‘for/in front of’ (cf. (38)) can be used as clause introducers as well (cf. (39)).

- (38) a. Ik kom net **van** m’n werk. [Standard Dutch/Flemish]  
*I come just from my work*  
 ‘I’ve just come from work.’  
 b. Ik rijd / zet de auto wel even **voor** de deur.  
*I drive put the car DPRT quickly in front of the door*  
 ‘I’ll just quickly drive/put the car in front of the door.’

- (39) a. Ik probeer altijd **van** vroeg op te staan.  
*I try always COMP early up to stand*  
 ‘I always try to get up early.’  
 b. We hebben niks meer **voor** te eten.  
*we have nothing more for to eat*  
 ‘We’ve got nothing left to eat.’

- **Problem:** directional Ps as clause introducers stretch across Flanders, whereas doubling PPs are more restricted.

→ This problem is only apparent:

Clue = the use of *van* as an introducer of raising infinitives

## 6.2 The different properties of *van* as a clause introducer

- van Craenenbroeck (2000): There are two groups of Flemish speakers who allow *van* as a clause introducer.

- ① Non-central language area (West and East Flanders, Limburg,...)

→ *van* is the Flemish lexical counterpart of *om* in these dialects: both *om* and *van* introduce control infinitives, but no raising infinitives.

- (40) Hij lijkt/ schijnt  $\{(*om/\%van)\}$  de beste kandidaat te zijn.  
*he seems appears COMP the best candidate to be*  
 ‘He seems/appears to be the best candidate.’

→ *om* and *van* lexicalise C, and CP blocks NP-raising.

→ ***van* = infinitival complementiser**

- ② The central area (in and around Flemish Brabant, possibly extending all the way to Antwerp), which has doubling PPs

→ *van* has a wider distribution than *om*: it can be used with epistemic verbs and raising verbs, unlike *om* (cf. the % in (40)).

→ The presence of *van* also makes a semantic contribution that is not found when *van* is absent:

- (41) a. Ik zal proberen van de afwasmachine te repareren.  
*I will try VAN the dishwasher to repair*  
 ‘I will try to repair the dishwasher.’  
 → merely an *attempt* to repair it (successful completion dubious)  
 b. Ge schijnt van Marie graag te zien.  
*you seem VAN Marie gladly to see*  
 ‘You seem to love/really like Marie.’  
 → merely *indirect* evidence

- **Hypothesis:** *van* is **not** being used as a filler of the C head in the second group.

***Van* is a P that occupies a position immediately outside the infinitival clause.**

→ It projects a lexical category making an autonomous semantic contribution.

→ It can form an amalgam with the null C-head, rendering the clause transparent to NP-raising: amalgamation of *van* and C makes Spec,CP an L-related position, allowing onward movement of the occupant of SpecCP to an L-related position (*i.c.*, SpecTP) higher up the tree.

**P-doubling dialects: *van* in NP-raising constructions provides direct evidence for the use of P<sub>Dir</sub>’s as selectors of CPs with whose null heads they featurally amalgamate.**

**This allows these speakers to build prepositional structures in which a P<sub>Dir</sub> selects a defective CP<sup>[Place]</sup> in P-doubling constructions.**

## 7 CONCLUSION

- ❶ P-doubling in Flemish dialects is the result of identical spell-outs of  $P_{Loc}$  and  $P_{Dir}$ .
- ❷ The key properties of P-doubling are:
  - (i) It only occurs with spatial directional PPs.
  - (ii) The entire [P DP P] string cannot undergo movement, but the prepositional part can subextract.
  - (iii) Indefinite pronouns stay *in situ* and do not form R-words; definite pronouns obligatorily form R-words, and *wh*-pronouns optionally do.
- ❸ To capture these properties we argue for the following structure:  
 $[_{PP} P_{Dir} [_{CP(Place)} C^{[Place]} [_{DegP} Deg^{[Place]} [_{PlaceP} Place [_{PP} P_{Loc} DP]]]]]$ 
  - (i) Both  $P_{Loc}$  and  $P_{Dir}$  are present → explains distribution.
  - (ii)  $P_{Dir}$  does not have an extended projection reaching up to  $CP^{[Path]}$ , capturing the movement properties.
  - (iii)  $P_{Loc}$  projects a defective  $CP^{[Place]}$  without EPP, which forces indefinite neuter pronouns to stay *in situ* and not form R-words. Definite pronouns move to Spec,PlaceP, and *wh*-pronouns can access Spec $CP^{[Place]}$  as an intermediate step in their *wh*-movement chain.
- ❹ The defectivity of  $C^{[Place]}$  in the complement of  $P_{Dir}$  also:
  - (i) derives doubling:  $CP^{[Place]}$  is a defective goal for Path- $P_{Dir}$ , ultimately causing  $P_{Dir}$  to spell out identically to  $P_{Loc}$ , and
  - (ii) prevents  $P_{Dir}$  from projecting a full extended projection up to  $CP^{[Path]}$ , causing the entire doubling PP to be immobile as a unit; only the  $CP^{[Place]}$  portion of doubling PPs can undergo syntactic movement.
- ❺ The defectivity of  $C^{[Place]}$  in P-doubling also captures the empirical correlation between P-doubling and the use of directional *van* in raising infinitivals in certain Flemish dialects.

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