

Preposition doubling in Flemish dialects

Basic data – Certain (Belgian) Dutch dialects display circumpositions with an identical preposition and postposition, cf. (1)a. The interpretation of (1)a is parallel to Standard Dutch (1)b with either a (directionally interpreted) pre-PP or a post-PP (which is obligatorily directional).

- (1) a. dat hij op dem berg is op geklommen. [Asse Dutch]
that he on the mountain is on climbed
 b. dat hij <op> de berg <op> is geklommen. [Standard Dutch]
that he on the mountain up is climbed
 ‘that he has climbed up on the mountain.’

Properties – ❶ Not all Ps allow for P doubling: doubling is restricted to spatial Ps, hence is illicit with the selected PP in (2)b. More specifically, it typically occurs only with directional PPs, not locative ones. A test to distinguish between the two is auxiliary choice (Den Dikken 2010): directional PPs cooccur with *zijn* ‘be’, locative PPs with *hebben* ‘have’; as (3) shows, doubling only occurs with the former.

- (2) a. Will zou nooit in het water in springen. [spatial PP]
Will would never in the water in jump
 ‘Will would never jump into the water.’
 b. Will zou nooit in die sprookjes (*in) geloven. [selected PP]
Will would never in those fairytales in believe
 ‘Will would never believe in those fairytales.’
 (3) a. Hij is in het water (in) gesprongen. [*zijn*: directional]
he is in the water in jumped
 ‘He has jumped into the water.’
 b. Hij heeft in het water (*in) gesprongen. [*hebben*: locative]
he has in the water in jumped
 ‘He has jumped (up and down) in the water.’

❷ A second property of P doubling is that the entire PP complex [P₁ DP P₂] cannot move as a unit. The preposition and the object can undergo movement together, however, to the exclusion of the postposition. The postposition on its own can incorporate into the verb cluster, as (4)c illustrates.

- (4) a. Op dienen berg <*op> klimt hij niet <op>. [topicalization]
on that.MASC mountain on climbs he not on
 ‘He’s not climbing up on that mountain.’
 b. Op welken berg <*op> is hij <op> geklommen? [*wh* extraction]
on which mountain on is he on climbed
 ‘Up on which mountain has he climbed?’
 c. dat hij op dienen berg <*op> niet <op> is <op> geklommen. [scrambling]
that he on that.MASC mountain on not on is on climbed
 ‘that he hasn’t climbed up on that mountain.’

❸ Thirdly, in P doubling constructions, the indefinite pronoun must surface *in situ*, to the right of P₁, cf. (5)a. The example in (5)b, with so-called R-movement of the indefinite pronoun (spelled out as *ergens*) to the left of P₁, is bad, in striking contrast with the (Standard Dutch) single-P construction in (5)c.

- (5) a. op iets op klimmen b. *ergens op op klimmen c. ergens op klimmen
on something on climb somewhere on on climb somewhere on climb
 all: ‘to climb onto something’

Analysis, part I: A reduced higher P layer – P doubling resembles (Standard Dutch) circumpositions such as ‘*om DP heen*’ (‘around DP’), with non-identical adpositions. These, too, are always spatial and typically directional (cf. ❶). Circumpositions and P doubling differ, however, with respect to properties ❷ and ❸. With non-doubling circumpositions, the entire circum-PP can move as a unit whereas for many speakers the pre-PP layer fails to subextract and the postposition cannot incorporate, cf. (6) (contrary to property ❷ in (4)). With respect to property ❸, non-doubling circumpositions allow both *in situ* indefinite pronouns ((7)a) and R-pronouns to the left of P₁+P₂ ((7)b).

- (6) a. [Om welk huis <heen>] is Jan <% heen> gelopen?
about which house towards is Jan towards walked
 ‘Around which house did Jan walk?’
 b. ... dat Jan om het huis <heen> is <% heen> gelopen.
that Jan about the house towards is towards walked
 ‘...that Jan walked around the house.’

- (7) a. om iets heen b. ergens om heen both: ‘around something’
around something towards somenhere about towards

In the structure in 0 for circumpositions (see Den Dikken 2010), the postposition is base-generated in P_{Dir} , and $CP^{[Place]}$, containing the preposition in P_{Loc} and the DP object, moves around it, to $[Spec, PathP]$. The presence of $CP^{[Path]}$ prevents subextraction of $CP^{[Place]}$ and incorporation of P_{Dir} , which explains the data in (6) for the speakers for whom the %o-marked options are impossible. Speakers allowing these options allow P_{Dir} to forgo an extended projection of its own (leaving out $PathP$, $DegP^{[Path]}$ and $CP^{[Path]}$).

- (8) $[CP\ C^{[Path]} [DegP\ Deg^{[Path]} [PathP\ Path [PP\ P_{Dir} [CP\ C^{[Place]} [DegP\ Deg^{[Place]} [PlaceP\ Place [PP\ P_{Loc}\ DP\]]]]]]]]$

To capture the differences with P doubling, we argue that P_{Dir} in P doubling systematically fails to project a functional layer, which forces P_{Dir} to incorporate, and makes movement of the lower PP possible and movement of the entire $[P\ DP\ P]$ impossible. This results in the structure in (9) for P doubling, which captures both the movement facts (property ❷) and the fact that P doubling is directional (property ❶).

- (9) $[PP\ P_{Dir}=op [CP\ C^{[Place]} [DegP\ Deg^{[Place]} [PlaceP\ Place [PP\ P_{Loc}=op\ DP=den\ berg\]]]]]]$

Analysis, part II: A defective lower P layer – The landing site for R-movement in Standard Dutch is $[Spec, CP^{[Place]}]$ (cf. Koopman 2010, Den Dikken 2010). In P doubling this landing site is unavailable (cf. (5)). We capture this by claiming that $C^{[Place]}$ is defective (C^*) in this case. As a consequence, this C^* lacks an EPP feature to attract elements to its specifier. Hence, an indefinite pronoun cannot move there to form an R-pronoun and instead, stays *in situ* (property ❸). C^* 's defectivity requires it to amalgamate with a lexical host which is featurally compatible with it, in order to be licensed. C^* is itself a member of the extended projection of P_{Loc} and is specified for P_{Loc} 's features: in the case of $P_{Loc}\ op$ ‘on’, it is specified for op 's features. In order to amalgamate with C^* , P_{Dir} must be featurally compatible with it, i.e. P_{Dir} must be specified for $P_{Loc}(=op)$'s features as well. This means that P_{Dir} can only amalgamate with C^* if it spells out identically to P_{Loc} . Selection of a defective C^* demands identical Ps and thereby derives doubling, cf. (10).

- (10) $[PP\ P_{Dir}=op [CP^{[Place]} C^*[Place] [DegP\ Deg^{[Place]} [PlaceP\ Place [PP\ P_{Loc}=op\ DP]]]]]$

Doubling versus non-doubling circumpositions – The previous section established a correlation between defectivity of $C^{[Place]}$, identity of the P elements, and absence of R-movement. Based on the fact that movement of the entire $[P_{Loc}\ DP\ P_{Dir}]$ string is impossible (cf. (4)b,c), we have argued that P doubling always involves a directional PP that lacks a functional layer of its own. This lack of functional structure causes P_{Dir} to incorporate into V and, as a result, P_{Dir} 's complement becomes the complex verb's derived complement. Neither a $DegP^{[Place]}$ nor a locative PP is allowed as the complement of a directional verb, however. Hence, P_{Dir} must select a full $CP^{[Place]}$ whenever it forgoes functional structure of its own.

On the other hand, in non-doubling circumpositional PPs, movement of the entire $[P_{Loc}\ DP\ P_{Dir}]$ string is grammatical (cf. (6)a), implying that P_{Dir} has its own extended projection. As a result, P_{Dir} in principle allows for the full gamut of complement types: a full $CP^{[Place]}$ (necessarily *non*-defective, as the P-elements are non-identical), or alternatively something smaller, like a locative $DegP$. Whenever P_{Dir} selects a full $CP^{[Place]}$, an indefinite pronoun object moves to $[Spec, CP]$ and forms an R-word. When P_{Dir} selects a $DegP$ complement, $[Spec, CP]$ is absent and the pronoun stay *in situ*, not forming an R-pronoun.

In other words, an indefinite pronoun in non-doubling circum-PPs can only surface as a non-R-pronoun if P_{Dir} selects a $DegP^{[Place]}$ complement. Since $DegP^{[Place]}$ cannot be subextracted out of an extended PP projection, and is illicit as the complement of a directional verb (which forces P_{Dir} to have an extended projection whenever it selects $DegP$), a further prediction is that $[P_{Loc}\ iets/wat$ ‘something/what’ $P_{Dir}]$ with non-identical Ps (cf. (7a)) cannot be split by incorporation of the post-P or fronting of the pre-PP. So $[P_{Loc}\ iets/wat\ P_{Dir}]$ with doubling and without should be diametrically opposed in their syntactic behavior. Evidence will be discussed in the talk.

No reduplication chain – A logical alternative to our analysis of the doubling facts is one where doubling is due to multiple spell-outs of elements in a chain (cf. Barbiers et al. 2009 for *wh* doubling). Under such an account, P_{Loc} would move to P_{Dir} and be realized in both positions. Such an analysis is untenable, however: head movement is impossible across functional projections (cf. Koopman 2010), and since we have argued that a full $CP^{[Place]}$ layer is necessary to capture the movement data in doubling, doubling PPs cannot be the result of multiple spell-out in a chain.

Selected references – BARBIERS, S., O. KOENEMAN & M. LEKAKOU. 2009. Syntactic doubling and the structure of wh-chains. *Journal of Linguistics*: 45. • DIKKEN, M. den. 2010. On the functional structure of locative and directional PPs. In G. Cinque & L. Rizzi (eds), *Mapping Spatial PPs: The Cartography of Syntactic Structures*. OUP. • KOOPMAN, H. 2010. Prepositions, postpositions, circumpositions, and particles. In G. Cinque & L. Rizzi (eds), *Mapping Spatial PPs: The Cartography of Syntactic Structures*. OUP.