On the Dutch directional particle *heen*

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1. Introduction

In Dutch, some adpositions can be placed before an NP (preposition, (1a)) or after an NP (postposition, (1b)). Another possibility is the combination of a preposition and a postposition (circumposition, (1c)). These three possibilities can come with different meanings, all expressed by one and the same preposition in English.¹ We want to focus here on adpositions like *door* ‘through’, *over* ‘over’, *om* ‘around’, and *langs* ‘past’ with the particle *heen* as a postposition.

(1) a. door de kamer
   through the room

b. de kamer door
   the room through

c. door de kamer heen²
   through the room heen
   ‘through the room’

(2) a. over de tafel
   over the table

b. de tafel over
   the table over

c. over the table heen
   over the table heen
   ‘over the table’

(3) a. om de hoek
   around the corner

b. de hoek om
   the corner around

c. om de hoek heen
   around the corner heen
   ‘around the corner’
Following Helmantel (2002), we shall call phrases with a preposition prePPs and phrases with a postposition postPPs. Furthermore, for phrases where a preposition and the particle *heen* form a circumposition we use the term heenPPs.

At first sight, these three kinds of adpositional phrases seem to convey the same meaning and seem to have the same distribution. For example, they can all occur in sentences in which a verb that indicates movement is present:  

\[(5)\]  
\[\begin{align*}  
\text{a. } & \text{Jan loopt door het bos.} \\
& \text{Jan walks through the forest.} \\
\text{b. } & \text{Jan loopt het bos door.} \\
& \text{Jan walks the forest through.} \\
\text{c. } & \text{Jan loopt door het bos heen.} \\
& \text{Jan walks through the forest heen.} \\
\end{align*}\]  
‘Jan is walking through the forest.’  

\[(6)\]  
\[\begin{align*}  
\text{a. } & \text{Marie reed over de brug.} \\
& \text{Marie drove over the bridge.} \\
\text{b. } & \text{Marie reed de brug over.} \\
& \text{Marie drove the bridge over.} \\
\text{c. } & \text{Marie reed over de brug heen.} \\
& \text{Marie drove over the bridge heen.} \\
\end{align*}\]  
‘Marie drove over the bridge.’

Despite superficial similarities, there are actually great differences in interpretation and distribution between prePPs and postPPs (Koopman 2000, Helmantel 2002, Broekhuis 2002, Den Dikken 2006, Beliën 2008, Gehrke 2008). What is not clear yet is how heenPPs behave in comparison to prePPs and postPPs.

Helmantel (2002), who provides an extensive overview of the Dutch system of adpositions, shows that *heen* occurs primarily with what she calls extended locatives, i.e. prepositions that express a route, a path leading via the object referred to by the NP. *Jan loopt door het bos* ‘Jan walks through the forest’ for example expresses a route that goes via the forest (Jackendoff 1983). Of these extended locatives *door* ‘through’ and *over* ‘over’ show the most productive and regular alternations of uses, as illustrated in (5) and (6).³
There are other uses of *heen* that are not relevant here: adverbial uses such as *ga heen!* lit. go heen, meaning 'go away!', or *Jan ging er heen* lit. Jan went there heen, meaning 'Jan went there (thither)'. Also the metaphorical use of *heen* we will not discuss: *heengaen*, lit. heen-go, meaning 'to pass away'. We will restrict ourselves here to a comparison of heenPPs with *door* and *over* with their corresponding prePPs and postPPs.

We will look at how heenPPs differ with postPPs in Section 2 and with prePPs in Section 3. On the basis of that comparison we analyze *heen* in Section 4 as contributing a telic Path projection (e.g. Koopman 2000) that, unlike the postpositions, does not require licensing by a motion verb. We close the paper with showing in Section 5 how this analysis can account for a unique set of data in which heenPPs are the only option to express paths with non-motion verbs. These data show the operation of a pragmatic division of labor between marked PPs (with *heen*) and unmarked PPs (without *heen*).

2. HeenPPs are like prePPs

As mentioned before, all three PP types can occur with a motion verb. However, only postPPs are ruled out in contexts in which there is no actual motion. They are excluded in contexts in which a verb of *extended location* is used:

\[(7)\]  
\[
\begin{align*}
    &\text{a. Emma staat over het krukje (heen) gebogen.} \\
    &\text{Emma stands over the stool (heen) bent} \\
    &\text{b. * Emma staat het krukje over gebogen.} \\
    &\text{Emma stands the stool over bent} \\
    &\text{'Emma is standing bent over the stool.'}
\end{align*}
\]

\[(8)\]  
\[
\begin{align*}
    &\text{a. De kabels hangen door de auto (heen).} \\
    &\text{the wires hang through the car (heen)} \\
    &\text{b. * De kabels hangen de auto door.} \\
    &\text{the wires hang the car through} \\
    &\text{'The wires are hanging throughout the car.'}
\end{align*}
\]

A postPP is also not an option with the verb *kijken* 'look', a verb that does not involve actual movement but still requires some sort of metaphorical path along which the gaze is directed:

\[(9)\]  
\[
\begin{align*}
    &\text{a. Emma kijkt over de schutting (heen).} \\
    &\text{Emma looks over the fence (heen)}
\end{align*}
\]
b. * Emma kijkt de schutting over.
   Emma looks the fence over
   ‘Emma looks over the fence.’

(10) a. Jan kijkt door het gat (heen).
   Jan looks through the hole (heen)

b. * Jan kijkt het gat door.
   Jan looks the hole through
   ‘Jan looks through the hole.’

So, heenPPs are like prePPs and unlike postPPs in not requiring actual motion along a path. This suggests that postPPs need licensing by a motion verb, a point to which we will return in Section 4.

3. HeenPPs are like postPPs

Despite the similarities between heenPPs and prePPs that we saw in the previous section, heenPPs also behave like postPPs in certain respects. PrePPs can refer to paths that are either telic or atelic and they can also have grammatical (i.e. non-spatial) uses. PostPPs and heenPPs, however, only refer to telic paths and they moreover have special restrictions on those paths, not seen with prePPs.

The temporal adverbials in an hour and for an hour can distinguish telic (bounded) situations from atelic (unbounded) situations. Situations that you do in an hour are completed, situations that you do for an hour are not completed yet. Helmantel (2002) showed (building on Kraak & Klooster 1968) that prePPs and postPPs are aspectually different. The examples below show that the prePP has both telic and atelic uses, while the heenPP and postPP only have telic uses.4

(11) a. Els liep een uur (lang) over de brug / door het bos.
    Els walked an hour (long) over the bridge / through the forest.

b. 'Els liep een uur (lang) de brug over / het bos door
    Els walked an hour (long) the bridge over / the forest through

c. 'Els liep een uur (lang) over de brug heen /
    Els walked an hour (long) over the bridge heen /
    door het bos heen.
    through the forest heen
    ‘Els walked for an hour over the bridge/through the forest.’
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(12) a. Els liep in een uur over de brug / door het bos.
Els walked in an hour over the bridge / through the forest
b. Els liep in een uur de brug over / het bos door.
Els walked in an hour the bridge over / the forest through
c. Els liep in een uur over de brug heen / door het bos heen.
Els walked in an hour over the bridge heen / through the forest heen.

‘Els walked in an hour over the bridge/through the forest.’

The following contrast is probably related to the telic nature of the postPP and heenPP.

(13) a. Jan arriveerde door de weilanden / over de heuvels.
Jan arrived through the meadows / over the hills
b. *Jan arriveerde de weilanden door / de heuvels over.
Jan arrived the meadows through / the hills over
c. *Jan arriveerde door de weilanden heen / over de heuvels heen.
Jan arrived through the meadows heen / over the hills heen.

‘Jan arrived through the meadows/over the hills.’

Even though *arriveren* ‘arrive’ typically combines with locative PPs that denote the *endpoint* of the arrival, this is not the case in (13a), where the PPs specify the *route*. Such a route specification with *arriveren* ‘arrive’ seems to require a PP that refers to a path without clear boundaries. PostPPs and heenPPs contrast in this respect with prePPs.

Moreover, the postPP and heenPP have special ‘directional’ restrictions that are lacking in the prePP (Helmantel 2002, Gehrke 2008, Beliën 2008). In her study of postpositions, Beliën (2008) introduces the notion ‘traversal’. She states that postPPs with *door* and *over* require complete traversal: a trajector has to move from one boundary of a landmark to an opposite boundary of the landmark. We can see that this analysis also holds for heenPPs, as shown in the following examples:

(14) a. We reden door België.
we drove through Belgium
b. We reden België door.
we drove Belgium through
c. We reden door België heen.
we drove through Belgium heen

‘We drove through Belgium.’
When you use the postPP or heenPP, you specifically indicate that you actually drove through the entire country, from one border to the other border, as arrow 1 in Figure 1 indicates. When you just drove through some parts of Belgium but did not cross the entire country, as arrow 2 illustrates, you have to use the prePP. Note that the prePP can also be used for the path that arrow 1 describes.

Furthermore, while over typically requires the trajector to be vertically above a (horizontally oriented) landmark, as Beliën points out, non-vertical cases are also possible (e.g. with a vertically oriented landmark like a wall). However, only a prePP can be used to express such a non-stereotypical movement:

(15) a. De regendruppel gleed over de muur.
   the raindrop slid over the wall
b. *De regendruppel gleed de muur over.
   the raindrop slid the wall over
c. *De regendroppel gleed over de muur heen.
   the raindrop slid over the wall heen
   ‘The raindrop slid over the wall.’

The raindrop following the surface of the wall can be described as sliding over the wall, but only in the prepositional construction. A similar kind of horizontal restriction might hold for door:

(16) a. Het pakje viel door de schoorsteen.
   the present fell through the chimney
b. *Het pakje viel de schoorsteen door.
   the present fell the chimney through.
c. *Het pakje viel door de schoorsteen heen.
   the present fell through the chimney heen.
   ‘The present fell through the chimney.’
A final contrast between prePPs on the one hand and postPPs and heenPPs on the other hand is that only prePPs have grammatical, i.e. non-spatial, uses.

(17) a. De deur opende door de wind.
the door opened through the wind
b. *De deur opende de wind door.
the door opened the wind through
c. *De deur opende door de wind heen.
the door opened through the wind heen
   ‘The door opened because of the wind.’

(18) a. Hij sprak over het milieu.
he talked over the environment
b. *Hij sprak het milieu over.
he talked the environment over
c. *Hij sprak over het milieu heen.
he talked over the environment heen
   ‘He talked about the environment.’

(17) shows that only the prePP with *door (and not the postPP or heenPP) has ‘agent’ uses and (18) shows that only the prePP with over has ‘topic’ uses. This is a general pattern with non-spatial uses of *door and heen.

What we have seen in the previous section and this one can be summarized in the following table:

<table>
<thead>
<tr>
<th>prePPs</th>
<th>heenPPs</th>
<th>postPPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>not only with motion verbs</td>
<td>not only with motion verbs</td>
<td>only with motion verbs</td>
</tr>
<tr>
<td>various meanings</td>
<td>telic path meaning with horizontal traversal</td>
<td>telic path meaning with horizontal traversal</td>
</tr>
</tbody>
</table>

All of this shows that prePPs present the general, unmarked instance of the three constructions with *door and over, while the postPP and the heenPP select a more specific sub-meaning: spatial, bounded paths with particular additional constraints. In the next section we propose an analysis of the differences between pre-, post- and heenPPs.
4. Path projections and motion verbs

We have seen that heenPPs and postPPs both have telic path denotations, sometimes with additional directional specifics. Following the main line of the analysis of postpositional structure in Van Riemsdijk (1990), Koopman (2000), Helmantel (2002), and Den Dikken (2006), among others, we connect path semantics to the presence of a functional projection for Path. The specific assumption is that this projection is only present in the heenPPs and postPPs but lacking in the prePPs. In addition, there is a lower Place projection, less relevant here, that can host so-called R-pronouns (like er ‘there’) in its specifier (Koopman 2000). We make the fairly general assumption that Path, Place, and P are all head-initial, and that head-final word orders are derived through movement, an assumption that for Dutch PPs goes back to Zwart (1993):

\[(19) \begin{align*}
\text{PrePPs:} & \quad [\text{PlaceP} \ [\text{PP P NP}]] \\
\text{HeenPPs:} & \quad [\text{PathP heen} \ [\text{PlaceP} \ [\text{PP P NP}]]] \\
\text{PostPPs:} & \quad [\text{PathP} \ O_{\text{HEEN}} \ [\text{PP P NP}]]
\end{align*}\]

(where P is door, over, probably also langs and om)

In heenPPs the Path head is heen, in postPPs it is an inaudible version of that element, $O_{\text{HEEN}}$. Both of these versions of the Path head require a specifier that licenses the telic path interpretation and this is, we assume, what triggers movement into the specifier position (partially following Helmantel 2002). The PlaceP in heenPPs moves to the specifier position of PathP. The same happens with the NP in postPPs. In order to explain why different categories are targeted for movement in the two cases, we follow Den Dikken (2006). Simply put, postPPs lack a PlaceP that can be moved to the specifier of PathP and move the NP instead.

Note that even though the prePP can have a path interpretation, we do not take that to imply that it also has a syntactic Path projection. The Path projection is only there when there is an obligatory telic path interpretation that is grammatically encoded. In other words, the directionality of route prePPs with door and over (and also om and langs) is lexical, not functional (Zwarts 1995). An analysis of prePPs as simple PPs, without a PathP, is also part of the proposal of Gehrke (2008). Instead of a PathP, she has a PredP, a functional head that builds complex predicates with the verb.

Semantically, the prePP has both non-spatial and spatial meanings and these spatial meanings can be both atelic and telic. The kind of Path projection that is relevant here (here labeled as HEEN) has a specific spatial semantics, mapping a set of paths to a subset consisting of those paths that are bounded
and oriented in the appropriate way. A path, following Jackendoff (1983), is a linear stretch of space along which an object is moving or extending. It would go beyond the scope of this paper to fully specify the model-theoretic function corresponding to the Path head. For our purposes the following rough definition will have to do: If X is a set of route paths based on a reference object O, then HEEN(X) is that subset consisting of paths that are bounded with respect to O. In this rough definition, route paths with respect to an object are paths that pass through, over, along or around that object. The notion of boundedness can be worked out in more detail along the lines of Zwarts (2005), who gives a formal, algebraic account of boundedness in the path domain. We will not go into these matters further. What is important is that it is the presence of a Path layer that directly accounts for the way heenPPs and postPPs behave as opposed to prePPs. Note that even though all postPPs in Dutch have a Path projection, they do not all have the same function: postPPs with *in* and *op* are not based on the HEEN function, but on a function that maps places to paths.

However, we have also seen that heenPPs team up with prePPs in allowing non-motion readings, because the postPP can basically only occur with motion verbs. In our view this follows from the special way in which Path is expressed in postPPs, namely through syntactic position only; the overt Path element *heen* is lacking. We assume that the covert Path needs to be licensed by a motion verb in order to do what it does, namely express a path of motion. This could be some sort of semantic incorporation or complex predicate formation (see also Gehrke 2008, Beliën 2008, Den Dikken 2008 for similar considerations in different frameworks). For the sake of concreteness we will assume that the covert Path head has to incorporate into a motion verb, which then gives the restriction that postPPs are only possible in real motion contexts.6

These two assumptions together derive the patterns that we have seen until now. The semantic contribution of *heen* is that it expresses a telic path meaning. Postpositions achieve the same effect, but they are limited in their distribution because of their dependence on motion verbs. We will now turn to additional data that complete the picture of *heen*.

5. **HeenPPs and the expression of path meaning**

Interestingly, there are cases where the heenPP is the only option.7
Although there is some speaker variation concerning the a-examples, for us the prePPs are clearly much less acceptable than the heenPPs in these contexts. (The postPPs are generally rejected.)

The generalization we can make concerning the examples (20–23) is that when a heenPP is the only valid option, a non-movement verb is used in combination with a PP to create some kind of quasi-movement non-typical for that verb: an extension of an activity along a metaphorical path. We already know why the postPP is excluded: there is no motion verb to license the covert Path. The fact that the prePP is excluded suggests an additional constraint on expression of path meanings. If a sentence describes a path, then this description
needs adequate lexical or grammatical expression. Since verbs like *slapen* ‘sleep’, *lezen* ‘read’, *lachen* ‘laugh’ and *regisseren* ‘direct’ do not express paths all by themselves and prePPs are semantically unmarked, the c-examples, with *heen*, are preferred over the a-examples.

Why would this be the case? We believe the answer can come from a general and well-established principle of pragmatic specialization (Horn 1984, Levinson 2000) that says that marked (special, unusual) meanings are expressed by marked (longer, more complex) forms. In the context of a non-motion verb like *lezen* ‘read’ or *lachen* ‘smile’, the path interpretation of a PP with *door* or *over* is obviously marked. Although this interpretation can in principle be expressed by a prePP or a heenPP, in this context the latter type of PP is preferred, given this division of pragmatic labor. This makes it an example of a much wider pattern of markedness effects in the prepositional domain (Hendriks et al. 2010).

6. Conclusion

We studied the semantic contribution of Dutch *heen* by comparing its behavior in prePPs and postPPs with the adpositions *door* and *over*. Our conclusion is that heenPPs are like postPPs in having a Path projection referring to bounded paths, while postpositions are special in requiring licensing by a motion verb. Thus, these different adpositional constructions that appear to be semantically equivalent turn out to have a division of labor that is based on only a few grammatical distinctions. We believe a similar analysis to be possible for the other two route prepositions that participate in this pattern, namely *om* ‘around’ and *langs* ‘along’. Goal and source postpositions (with *in* ‘in’, *op* ‘up’, *af* ‘off, down’, *uit* ‘out’, *binnen* ‘inside’) might be less particular about combinations with non-motion verbs. How the observations about heenPPs and postPPs extend to other adpositions is a question for further research.

Notes

* We thank the audience at the TIN-dag for their questions and comments and the two anonymous reviewers for their very useful comments on an earlier version of this paper.

1. A fourth possibility, that we ignore here, occurs only in Flemish Dutch, where *heen* can be combined with the prepositions *door* and *langs* into a complex preposition: *doorheen* and *langsheen.*
Since English does not have a word for *heen*, we gloss Dutch *heen* as ‘heen’.

Postpositional *om* is too restricted for a good comparison: it mainly occurs with nouns meaning ‘corner’: *de hoek om* ‘the corner around’, is fine, but *de tafel om* ‘the table around’ is not. *Langs* with *heen* is less common: although *langs NP heen* is possible with regular NPs, it mostly occurs with *elkaar* ‘each other’.

We use question marks here to represent that (11b) and (11c) are clearly less acceptable for us than both (11a) and (12b) and (12c), but not entirely ungrammatical.

We do not understand yet how this relates to the non-vertically-above situation described in Beliën (2008): *De mieren liepen over het plafond (heen)* ‘The ants walked over the ceiling (heen)’, which is also possible with a heenPP. She points out that there is some sort of adhesive force that replaces the gravitational force that is important in her definition of *over*. This shows that the directional constraints are more complex than what we can discuss here.

As one reviewer pointed out to us, this analysis requires extra work for constructions that express motion without a motion verb: (i) *Ik ben de tunnel door* lit. I am the tunnel through ‘I am through the tunnel’; (ii) *de grens over met die boeven* lit. the border over with those crooks ‘across the border with those crooks’. This is a general problem for every account that assumes a close relation between postpositions and verbs (Beliën 2008, Gehrke 2008). We leave it to future research to determine whether there is a non-overt motion element in these constructions that licenses the postposition.

There are other special cases where the heenPP is the only option, which we will not discuss further: *door het dolle heen* lit. through the mad heen, meaning ‘gone beserk’, and *door de eeuwen/geschiedenis heen* lit. through the ages/history heen, meaning ‘through the ages/history’.

Maaike Beliën pointed out to us that one can use goal postpositions with verbs of perception: *zij keek de kamer in* lit. she looked the room in, meaning ‘she looked into the room’. This suggests that the postpositions *in* and *op* are semantically different from the ones that we have studied here.

References


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