On *er*

Distribution of multiple R-words in Dutch sentences

Mario van de Visser
Utrecht University / UiL-OTS

1. Introduction

The Dutch reduced, clitic-like pronominal *er* and the full pronouns *hier* (here), *daar* (there) and *waar* (where) are primarily used to replace a locative phrase:

(1)  a. *Frans koopt een boek in Eindhoven.*
    Frans buys a book in Eindhoven
    'Frans buys a book in Eindhoven.'
  b. *Frans koopt hier / daar een boek.*
    F. buys here/there a book
    'F. buys a book here/there.'
  c. *Frans koopt er een boek.*
    F. buys R-CL a book
    'F. buys a book there.'
  d. *Waar koopt Frans een boek?*
    where buys F. a book
    'Where does F. buy a book?'

They can also have a prepositional function: that is, they can be interpreted as a (non-locative) PP-internal DP-complement. Whenever they are, they have to precede the preposition. They can also occur separate from it:

(2)  a. *De verkoper vertelt graag over het boek.*
    the salesman talks with.pleasure about the book
    'The salesman likes to talk about the book.'
  b. *De verkoper vertelt hier / daar graag over.*
    the salesman talks here/there w.pleasure about
    'The salesman likes to talk about this/that.'
  c. *De verkoper vertelt er graag over.*
    the salesman talks R-CL w.pleasure about
    'The salesman likes to talk about it.'

d. *Waar vertelt de verkoper graag over?
   where talks the salesman w.pleasure about
   'What does the salesman like to talk about?'

Sentences with two R-words present us with a problem: if a locative and a prepositional R-word co-occur, the interpretation of the R-words is fixed; if both of them are prepositional, the sentence can have two different structures:

(3) a. *de stad [waar de verkoper er graag over verteld heeft]
   the city where the salesman R-CL w.pleasure about talked has
   'the city where the salesman has liked to talk about it'

b. *het boek [waar de verkoper er graag over verteld heeft]
   the book where the salesman R-CL w.pleasure about talked has
   'the book about which the salesman has liked to talk there'

c. *de fiets [waar Frans er gisteren mee naartoe is gegaan]
   the bike where F. R-CL yesterday with to is gone
   'the bike with which F. went there yesterday'

d. *het station [waar Frans er gisteren mee naartoe is gegaan]
   the station where F. R-CL yesterday with to is gone
   'the station where F. went with it yesterday'

In Section 2 we will have a closer look at this problem, which has been dubbed 'double R-problem' by Huijbregts (1991). His proposal for a movement-based analysis within Relativized Minimality will be developed into a minimalist account in Section 3 and 4. Section 5 deals with conclusions and perspectives.

2. The ‘double R-problem’ (Huijbregts 1991)

For brevity, I will refer to R-clitics and R-pronouns as clitics and pronouns. In sentences with two R-words, a clitic-like pronominal normally precedes a full pronoun. If one of them is locative, the sentence can have only one reading:

(4) a. *De verkoper heeft er daar graag over verteld.
   the salesman has R-CL there w.pleasure about talked
   'The salesman has liked to talk about it there.'

b. *De verkoper heeft er daar graag over verteld.
   the salesman has liked to talk about that there.'

(5) a. *de stad [waar de verkoper daar graag over verteld heeft]
   the city where the salesman there w.pleasure about talked has
   'the city where the salesman has liked to talk about that'

b. *het boek [waar de verkoper daar graag over verteld heeft]
   the book where the salesman there w.pleasure about talked has
   'the book that the salesman has liked to talk about there'
A full locative pronominable and a prepositional clitic (4a) or interrogative pronominable (5b) may co-occur, the reverse situations result in ungrammaticality ((4b), (5a)). In contrast, if the sentence contains an interrogative pronoun and a clitic, it is the clitic that must be prepositional, leaving the interrogative pronoun to be interpreted as a locative, as we saw in (3a). Here too, the situation cannot be reversed (3b). Notice, however, that when the prepositional R-element is attached to its preposition, all kinds of locatives are possible:

(6) a. De verkoper heeft daar graag erover verteld.
    b. De verkoper heeft daar graag daarmee verteld.
    ‘The salesman has liked to talk about it/that there.’

(7) a. De verkoper heeft er graag erover verteld.
    b. De verkoper heeft er graag daarmee verteld.
    ‘The salesman has liked to talk about it/that there.’

(8) a. Waar heeft de verkoper graag erover verteld?
    b. Waar heeft de verkoper graag daarmee verteld?
    ‘Where has the salesman liked to talk about it/that?’

(9) a. Waarover heeft de verkoper er graag verteld?
    b. Waarover heeft de verkoper daarmee verteld?
    ‘About what has the salesman liked to talk about there?’

Although a theory about R-words in Dutch will have to account for all of these sentences, we will concentrate on the sentences in (3) to (5), where R-elements and prepositions are separated. These are the ones that contrast with sentences in which both R-words are prepositional. The latter are ambiguous in the sense that, apparently, all combinations between R-words and PP-internal DP-complements are possible:

(10) a. Frans is gisteren met de fiets naar het station gegaan.
    F. is yesterday with the bike to the station gone
    ‘Yesterday, F. went to the station by bicycle.’

    b. Frans is er daarmee gisteren mee naartoe gegaan.
    F. is R-CL there yesterday with to gone
    ‘Yesterday, F. went there by that.’
    ‘Yesterday, F. went there by it.’

(11) a. de fiets [waar Frans daar gisteren mee naartoe is gegaan]
    the bike where F. there yesterday with to is gone
    ‘the bike with which F. went there yesterday’

    b. het station [waar Frans daar gisteren mee naartoe is gegaan]
    the station where F. there yesterday with to is gone
    ‘the station where F. went with that yesterday’

As we saw in (3c,d) the same ambiguity arises in sentences with waar and er. So the double R-problem consists of the following contrasts:
1. (4a) and (*4b) vs. (10b)
2. (*5a) and (5b) vs. (11a) and (11b)
3. (3a) and (*3b) vs. (3c) and (3d)

Van Riemsdijk (1978a, b) and Bennis (1986) have been discussing aspects of this problem. Huijbregts (1991) has extended this discussion and he has been the first to suggest a solution within the Relativized Minimality framework (Cinque, 1990 and Rizzi, 1990). Huijbregts’ main idea is that there must be two R-positions outside VP. The higher one can only be occupied by the clitic er, the lower one by full pronouns like hier and daar. Furthermore, he assumes that, on the one hand, prepositional R-words are base-generated VP-internally, within argumental PPs. Locative R-words, on the other hand, are base-generated outside VP, being sentential adjuncts. That is why in the worst case a locative can prevent a prepositional R-word from moving out of VP. In the following, these ideas will be used in order to formulate a solution of the problem within a minimalist framework (Chomsky 1992, Chapter 4 in Chomsky 1995).

3. Two R-positions

First, we have to decide on the nature of the two positions outside of VP, or vP in minimalist terms, which can be occupied by R-words. The sentences in (12) show that they are higher than the position in which locatives are base-generated:

   F. went yesterday in Ehv. to the bookstore
   ‘Yesterday, F. went to the bookstore in Eindhoven.’
   b. Frans ging gisteren in Eindhoven eraartoed/daarnaartoed.
   ‘Yesterday, Frans went there in Eindhoven.’
   c. Frans ging er/daar gisteren in Eindhoven naartoed.
   ‘Yesterday, Frans went there in Eindhoven.’

Apparently, a prepositional R-word contains a feature, say [R], which a locative adjunct lacks when it is not pronominalized. Some functional head attracts this feature and the R-word is copied into the specifier position of this head. The lower copy is deleted or simply not pronounced at PF. This whole operation is optional, as we see in (12b), possibly because the attracting head feature is optionally strong.

Sportiche (1995) claims that locative elements, just like DP-arguments of a verb, can move to an Agr-projection, say AgrLocP. Also, when the sentence contains a locative clitic, a locative element can move to a projection which is headed by that clitic. So we could assume that er heads a locative clitic-projection (LocCLP). The clitic is associated with an empty element which moves to the specifier of this projection. This operation would be motivated by a feature called Specificity ([Sp]). The relevant part of syntactic structure outside vP looks like (13).
Somehow, R-elements originating vP-internally, that is, within PP’s, have access to the projections for agreement with a locative phrase and locative clitics as well. The fact that the complement of spatial prepositions can be understood as a location (on the road, in the house, etc.) suggests that this is a logical possibility for languages to allow.\(^5\)

\[
\begin{array}{c}
\text{LocCLP} \\
\text{Ø} \\
\text{LocCL} \\
\text{LocCL} \\
\text{AgrLocP} \\
\text{hier/daar} \\
\text{AgrLoc} \\
\text{...} \\
\text{PP} \\
\text{...}
\end{array}
\]

4. \((Wh-)R\text{-movement}\)

I will make the following assumptions with respect to so-called R-movement:

1. Movement to SpecAgrLocP serves checking off feature \([R]\). Strength is optional; all R-elements are able to check it.
2. Movement to SpecLocCLP serves checking of feature \([Sp]\). This is a weak feature. \textit{Daar}, \textit{hier} and \Ø, the empty category, are positively specified for this feature. The interrogative pronoun \textit{waar} is unspecified for \([Sp]\), because it cannot have a specific interpretation. LocCL-head = \textit{er} is specific, an empty LocCL-head may be unspecified for \([Sp]\).
3. \textit{Wh}-R-movement happens successive cyclically: movement out of vP has to proceed through the locative agreement projection or the clitic projection. Only these positions are accessible for vP-internal R-elements.
4. Locative R-elements are base-generated outside vP, prepositional R-elements are base-generated within vP.

With these assumptions we can easily explain the sentences with one locative and one prepositional R-element: (4), (5) and (3a,b) are repeated in (14), (15) and (16) respectively:
(14) a. *De verkoper heeft er daar graag over verteld.
‘The salesman has liked to talk about that there.’

\[
\begin{array}{c}
\text{Spec LocCL=er} \\
\text{Spec AgrLoc daar } [\text{Ø} ] \\
vP
\end{array}
\]

b. De verkoper heeft er daar graag over verteld.
‘The salesman has liked to talk about it there.’

\[
\begin{array}{c}
\text{Spec LocCL=er} \\
\text{Spec AgrLoc daar } [\text{Ø} ] \\
vP
\end{array}
\]

The locative R-element will be the only candidate for movement to the locative agreement-projection. Suppose it is adjoined to some XP, which is the complement of AgrLoc. The minimal domain of AgrLoc consists of SpecAgrLocP and XP (Chomsky 1995:299). XP partly dominates the locative adjunct, and that may be enough to decide that the adjunct is not in the same minimal domain as the landing position. Thus, this position and the adjunct are not equidistant with respect to the prepositional R-element and there will be no competition. Of course, this analysis only holds if we assume that there is no head-movement of V to AgrLoc. But this would be odd anyway as a verb normally doesn’t agree with sentential adjuncts.

If the prepositional element is phonologically empty, it moves after Spell Out to the locative clitic-projection. This is represented by a discontinuous arrow. Maybe the locative *daar* can make this movement too, because there is no reason to assume that its referent is less specific than the referent of a clitic. In that case, we will have to assume that LocCL allows for multiple checking of its specificity feature. In this paper no decision on this matter will be made: movement of only one element per clitic will be shown. In (14b), movement of the prepositional *daar* is clearly prohibited. Note, that in order to achieve this we will have to assume that movement of the locative empty category has to happen before Spell Out. This assumption is compatible with a theory on well-formed chains as described in Richards (1997). The sentence will therefore be correct if *daar* stays in situ (cf. 7b).

(15) a. *De stad waar de verkoper daar graag over verteld heeft*
‘the city where the salesman there w.pleasure about talked has’

\[
\begin{array}{c}
\text{Spec C} \\
\text{Spec LocCL} \\
\text{Spec AgrLoc waar [daar ]} \\
vP
\end{array}
\]
b. het boek [waar de verkoper daar graag over verteld heeft]
   the book where the salesman there w.pleasure about talked has
   ‘the book where the salesman has liked to talk about there’
   [Spec C [Spec LocCL [Spec AgrLoc daar [waar ]]]]

Locative waar moves to Spec, CP in three steps in (15a). First, it checks the [R]-
feature of AgrLoc, then unspecified [Sp] of LocCL, and finally [Wh] of C. In (15b),
locative daar cannot move to Spec, LocCLP because the head of this projection is
easy and its [Sp]-feature unspecified. That is why prepositional waar, which is
non-specific, can successively cyclically move to Spec, CP.

(16) a. de stad [waar de verkoper er graag over verteld heeft]
   the city where the salesman R-CL w.pleasure about talked has
   ‘the city where the salesman has liked to talk about it’
   [Spec C [Spec LocCL = er [Spec AgrLoc waar [Ø]]]]

b. *het boek [waar de verkoper er graag over verteld heeft]
   the book where the salesman R-CL w.pleasure about talked has
   ‘the book about which the salesman has liked to talk there’
   [Spec C [Spec LocCL = er [Spec AgrLoc Ø [waar ]]]]

If locative waar moves to Spec, AgrLocP in (16a), it moves on to Spec, CP without
checking the [Sp]-feature in LocCLP. There is no reason to, because er is positively
specified for specificity, and this cannot be checked by non-specific waar. But the
empty category can and the sentence is perfectly grammatical. If we turn to (16b),
we see why we have to assume that wh-R-movement happens successive cyclically:
if prepositional waar could move in one step, there would be no reason to exclude
the sentence. Notice that movement via SpecLoc, CLP is no option as waar is non-
specific, as opposed to the specific clitic.

The sentences with two prepositional R-elements from (10), (11) and (3c,d) are
repeated in (17), (18) and (19) respectively:

(17) a. Frans is gisteren met de fiets naar het station gegaan.
   F. is yesterday with the bike to the station gone
   ‘Yesterday, F. went to the station by bicycle.’
b. Frans is er daar gisteren mee naartoe gegaan.

'Yesterday, F. went there by it.'

\[ [\text{Spec LocCL= er} \quad [\text{Spec AgrLoc} \quad [\text{daar} \quad \emptyset] ] ] \]

The analysis of (17b) is straightforward. Ambiguity is already resolved within vP: if an element is to be represented by *er*, an empty category is inserted. In all other cases a full pronoun is inserted. If *daar* would stay in situ, the empty category would move before Spell Out to Spec, AgrLocP, instead of *daar*. This means that we have to assume that this position is equally accessible for both R-elements. This would be excluded if one element would c-command the other and if at the same time it would not be a member of the minimal domain of AgrLoc. The latter is true but the former criterion cannot be met as both R-elements are embedded in PPs. Under these circumstances, neither of them can be taken to be closer to the landing site, so both elements are equal candidates.

(18) a. de fiets [waar Frans daar gisteren mee naartoe is gegaan]
     the bike [where F. there yesterday with to is gone]
     'the bike with which F. went there yesterday'

b. het station [waar Frans daar gisteren mee naartoe is gegaan]
     the station [where F. there yesterday with to is gone]
     'the station where F. went with that yesterday'

c. [Spec C [Spec LocCCL [Spec AgrLoc [ daar waar ]]]]

The analysis of (18a,b) would be as in (18c). If *daar* should stay in situ, *waar* could make the three-step movement to Spec, CP as in (*15a).

(19) a. de fiets [waar Frans er gisteren mee naartoe is gegaan]
     the bike [where F. R-CL yesterday with to is gone]
     'the bike with which F. went there yesterday'

b. het station [waar Frans er gisteren mee naartoe is gegaan]
     the station [where F. R-CL yesterday with to is gone]
     'the station where F. went with it yesterday'

c. [Spec C [Spec LocCCL= er [Spec AgrLoc [ daar waar ]]]]

d. [Spec C [Spec LocCCL= er [Spec AgrLoc [ daar waar ]]]]
The most straightforward analysis of the sentences in (19a,b) would be (19c). However, one could think of an alternative like (19d). Although it seems that waar does not move successive cyclically in this analysis, some motivation for this structure as opposed to (*16b) is provided by Richards’ Principle of Minimal Compliance (1997:232):

“For any dependency D that obeys constraint C, any elements that are relevant for determining whether D obeys C can be ignored for the rest of the derivation for purposes of determining whether any other dependency D′ obeys C.

The notion of ‘relevance’ involves at least the following qualifications:

An element X is relevant to determining whether a dependency D with head A and tail B obeys constraint C iff
a. X is along the path of D (that is, X=A, X=B, A c-commands X and X c-commands or dominates B).

b. X is a member of the class of elements to which C makes reference.”

The main idea of this principle is that a constraint should be obeyed only once in a derivation in a certain domain. So we could assume that the empty element in (19d) clears the way for waar to move in one step to Spec, CP. Successive cyclicity is obeyed by the empty category, and that is enough. If this is right, the assumption that Wh-R-movement should happen successive cyclically would be constraint C, vP would be X, dependency D would hold between AgrLoc or LocCL and the trace of Ø and dependency D′ would hold between the C-head and waar.

5. Conclusions and perspectives

Assuming separate agreement and clitic projections for locative R-words seems to be the key to a solution of the double R-problem. The distribution of at least one category of non-locative R-elements, namely those interpreted as the complement of a preposition, is correctly predicted with the assumptions made in Section 4.

As for other uses of er, future research should lead to adaptations of the theory in order to account for them, as well as for the fact that one instance of er can have multiple functions (Bech 1952, Bennis 1987, Huijbrechts 1991, Klooster 1992, Odijk 1993). Furthermore, the status of er is still unclear. If it is a true clitic, the question arises which category would serve as a host. Also, the theory presented here does not yet account for instances of er that stick to their preposition, as in (6) to (8).

It is a promising fact that (wh-)R-movement shows similarities with the more general theory of wh-movement unfolded in Richards (1997).
Notes

1. The reduced pronominal *er* will be glossed as R-CL (R-clitic).
2. Only *er* can have two more functions: it can substitute for some N’-level of an indefinite quantitative DP (i) and it appears in the subject position of presentative constructions (ii-a) and impersonal passive constructions (ii-b):

   (i)  Frans heeft *er* drie gekocht.
       Frans has R-CL three bought
       ‘Frans has bought three of them.’

   (ii)  a. *Er* liggendrie boeken op tafel
         R-CL lie three books on the table
         ‘There are three books on the table.’

       b. *Er* worden boekengelezen.
         R-CL become books read
         ‘Books are read (here)’

   There are even instances of *er* with more than one function: (iib) can have an additional locative interpretation. In this paper, nothing will be said about these instances of *er*.
3. All other sequences of two single R-pronouns are excluded. Full pronouns do precede clitics when they are fronted in questions and topicalization constructions.
4. The judgments discussed for *er* daar-sentences are not very clear for all speakers. They become clearer for waar…er/daar-sentences, provided that these are relative clause constructions as in (5).
5. Although most prepositions allow for R-pronominalization, some prepositions do not (e.g. *sinds* (since), *dankzij* (thanks to)). Furthermore, DP’s with a human, or maybe even animate referent can never be R-pronominalized.
6. I assume that the minimal domain of which *x* is a member consists of all nodes that are dominated by the first maximal projection dominating *x*, except for nodes dominating the head of that maximal projection and elements which are dominated by other members of the minimal domain.
7. Richards assumes the following (1997: 122): “PF must receive unambiguous instructions about which part of a chain to pronounce. (…) A strong feature instructs PF to pronounce the copy in a chain with which it is in a feature-checking relation.” He also assumes that if a chain contains only one element, this will be pronounced regardless of whether it does check a strong feature or not. His assumption that “a feature must be checked as soon as possible after being introduced into the derivation” (1997: 225) implies that ‘weak’ movement before Spell Out is possible, as long as the result is a well-formed chain. This is the case in (14b): only the copy in Spec, AgrLocP will be pronounced.
8. This principle enables us to account for the next two Bulgarian sentences, in which a wh-phrase is taken out of an NP-island (Richards 1997: 240):

   (i)  a. *Koja* kniga(i) otreče senatorati [mǎlvata cˇe česká da zabrani t(i)]?
       which book did the senator deny the rumor that he wanted to ban
       ‘Which book did the senator deny the rumor that he wanted to ban?’

       b. *Koj* senator koja kniga(i) otreče [mǎlvata cˇe ě česká da zabrani t(i)]?
       which senator which book denied the rumor that he wanted to ban
       ‘Which senator denied the rumor that he wanted to ban which book?’

In (i-b), the matrix-C first becomes involved in a well-formed wh-dependency, so the second dependency is allowed to contain an NP-island because the first one does not. Of course, (i-a) is out because C does not get involved in a single well-formed dependency.
References