Weak and weaker prepositional complements*

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1. PP scrambling

The positional freedom enjoyed by various types of PPs in the Dutch Middlefield shows that, like DPs, PPs can “scramble.” Argument PPs in (1), (3); Adverbial PPs in (2), (3); and predicative complement PPs in (4) vary in position with Adverbs (1), argument DPs (2), (4), and each other (3).

(1) a. dat Jan niet meer op deze beslissing had gerekend
    that Jan not anymore on this decision had counted

b. dat Jan op deze beslissing niet meer had gerekend
    that J. on this decision not anymore had counted

‘that J. had no longer counted on this decision’

(2) a. dat Marie de blokken met haar hijskraan had opgetild
    that M. the blocks with her crane / with her crane the blocks had
    lifted

b. dat Marie met haar hijskraan de blokken had opgetild
    that M. the blocks with her crane / with her crane the blocks had

(3) a. dat hij met een geweer op die duif heeft geschoten
    that he with a gun at that dove / at that dove with a gun has shot

b. dat hij op die duif met een geweer heeft geschoten
    that he with a gun at that dove / at that dove with a gun has shot

(4) a. dat ik een roos in iedere vaas heb gestopt
    that I a rose in every vase / in every vase a rose have put

b. dat ik in iedere vaas een roos heb gestopt
    that I a rose in every vase / in every vase a rose have put

The purpose of this paper is twofold. In Sections 2 and 3 I develop a pair of tests for determining the base, unmarked position of PPs in the Dutch Middlefield.
In Section 4, I employ these tests to defend a particular analysis of predicative complement ("Small Clause") constructions; I will argue that the correct analysis is not LCA-compatible.

2. Two probes: Stranding and weak pronouns

Hornstein & Weinberg (1981) observed that PP movement in English has a Freezing effect: once a PP has moved, it cannot be extracted from, blocking preposition stranding in (6b):

(5) *Moved [PP P t] – t a trace

(6) a. who did John talk [to t_j] about Harry yesterday?
   b. *who did John talk t_j about Harry [to t_i] yesterday?

The same effect was first observed for Dutch by Koster (1978) (see also Koster 1987): those PP types that allow stranding (see van Riemsdijk 1978; Broekhuis 2002 for an overview) do so only in their unmarked position. This is illustrated in (7b); an argument PP scrambled across an adverbial does not allow stranding. This freezing effect provides us with a first test for detecting the unmarked, base position of PPs: if PP allows stranding, it is in its base position.

(7) a. de beslissing waar J. niet meer [PP op t_i] had gerekend
   the decision which J. not anymore on had counted
   b. *de beslissing waar J. [PP op t_i] niet meer tPPP had gerekend
      the decision which J. on not anymore had counted
      ‘the decision which J. had no longer counted on’

It should be mentioned that the literature also contains an alternative explanation for the contrast in (7). Hoekstra (1979) first proposed that a stranded preposition must be adjacent to the verb; this blocks (7b). Hoekstra further suggested that in some cases, reviewed below, stranded P moves to V in order to satisfy the V-adjacency requirement. A P-to-V (or P-to-functional head) movement analysis was also proposed by Zwart (1993) and Neeleman (1994) (and, for a small class of cases, by van Riemsdijk 1978). I have two reasons for not adopting the V-adjacency account of (7b). First, numerous counter-examples to the supposed V-adjacency of stranded P are mentioned in the literature (see for instance Hoekstra 1979, Bennis & Hoekstra 1984, Zwart 1993, Neeleman 1994); I will present further counterexamples below. Second, a V-adjacency account of the distribution of stranded P does not explain why the
P-stranding test yields precisely the same results as my second test for the base position of PPs.

A similar restriction on PP-scrambling can be observed when the complement of P is a weak, unstressed pronoun, as stated in (8). The paradigm in (9) and (10) is due to Larson (1990).

(8) *Moved [PP P pro] – pro a weak, unstressed pronoun

(9) a. John talked to Mary about Bill
    b. John talked about Bill to MARY

(10) a. John talked to Mary about him / ’m
    b. John talked about Mary to him / * ’m

When the to-PP in (9b) moves rightward, its complement is stressed. Accordingly, the complement cannot be a weak, unstressed pronoun in this position: (10b). A stress effect similar to that in (9) has been observed for Dutch: Broekhuis (2002) reports that leftward scrambling of PP in (11b) and other constructions is allowed, provided the complement of P receives emphatic or contrastive stress. On the basis of these observations we expect that a PP with a weak pronominal complement may not scramble; this is confirmed by (12c).

(11) a. dat Jan een boek op de kast heeft gelegd
    b. dat Jan op de KAST een boek heeft gelegd

(12) a. dat Jan niet meer op Marie had gerekend
    b. dat Jan niet meer op ’m/d’r/ze/je/me had gerekend
    c. * dat Jan op ’m/d’r/ze/je/me niet meer had gerekend
    d. dat Jan op MARIE/HAAR niet meer had gerekend

The stress assignment explanation for the ban on PP movement with weak pronominal complements of P observed in (12c) extends straightforwardly to the Freezing effect with stranded prepositions observed earlier: if the complement of a moved PP must be stressed, it cannot be trace, as trace cannot be stressed — see Ruys (in prep) for further discussion. The observations in this section lead us to expect that the following generalization will hold:
(13) *The [P x] generalization*

*P t* may occur only where *P pro* may occur.

If this generalization indeed holds, it supports an account in terms of a ban on *P x* scrambling. If we find a co-distribution of *P t* and *P pro*, it can be straightforwardly accounted for by restricting both to the base, unmarked position of PP, for instance on the basis of their resistance to stress. If so, the distribution of *P x* is indeed a test for detecting the base position of PPs, and I will use it as such. If, on the other hand, one wanted to maintain that the privileged position in which PP is allowed to be either *P t* or *P pro* is reached by movement of PP, it would be difficult to explain the *P x* generalization, as one would need to unify the distribution of *P t* and *P pro* in terms of similar movement requirements — I have no clear idea as to how this could be done.  

In the next section I argue that the *P x* generalization holds, and that it is a reliable probe for detecting the base, unmarked position of PPs in the Dutch Middlefield.

3. **Applying the [P x] probe**

This section provides empirical support for the *P x* generalization. Consider first the relative order of DP objects and adverbial PPs. Here and below, I limit attention to instrumental adverbial PPs, both for reasons of space, and because these freely allow stranding at least in some positions. We find that the unmarked order is the one under A (naturally, the unmarked position for other adverbial PP types may turn out to be different).

**A. OB – PP<sub>Instr</sub> – V**

On this order, PP may be either *P t* (14a) or *P pro* (14b). On the opposite order, PP may be neither *P t* (14c) nor *P pro* (14d). The *P x* generalization, based originally on the pattern in (7) and (12), continues to hold. I conclude, that the unmarked order is OB – PP<sub>Instr</sub> – V; the opposite order PP<sub>Instr</sub> – OB – V is derived by movement of PP, blocking both *P t* and *P pro*.  

(14) a. de schroeven waar i Marie het kastje [mee t<i> i</i>] repareerde OB–[P x] the screws which Mary the cupboard with repaired  
b. dat Marie het kastje met ze repareerde (met die schroeven) idem that Mary the cupboard with them repaired (with those screws)  
c. ?? de schroeven waar, Marie het de kastje [mee t<i> i</i>] repareerde ??[P x]–OB the screws which Mary with the cupboard repaired
d. ?? dat Marie met ze het kastje repareerde (met die schroeven) idem that Mary with them the cupboard repaired (with those screws)

How does the unmarked order come about? Koster (1987) concluded from (14a) that OB – PPAdv – V must be the underlying order, despite the theta-relation between OB and V. A more straightforward explanation of the unmarked order is available, of course, since vanden Wyngaerd (1989): OB is base-generated as a sister of V but undergoes obligatory movement to Spec,AGRo (or Spec,v) for Case/Agreement, moving across the adverbial PP. We can show, furthermore, that leftward movement of DP is for Case/Agreement and is not “scrambling” (i.e., optional DP-movement associated with specificity, etc): DPs that generally resist scrambling, such as unstressed wat (non-specific ‘something’), must nonetheless occur to the left of [P x] in (16a), (16b) and may not remain to the right of [P x] in (16c), (16d).

(15)  a. dat Marie vaak wat repareerde
    b. ?? dat Marie wat vaak repareerde
       that Marie often smthing / ??smthing often repaired

(16)  a. de schroeven waar, Marie wat [mee t] repareerde OB–[P t]
    b. dat Marie wat met ze repareerde OB–[P pro]
       {the screws which/that} Marie smthing with {t/Them} repaired
    c. ?? de schroeven waar, Marie [mee t] wat repareerde ??[P t]–OB
    d. ?? dat Marie met ze wat repareerde ??[P pro]–OB
       {the screws which/that} Marie with {t/Them} smthing repaired

Consider briefly an alternative analysis. The word order in (14a), with stranded adverbial P intervening between direct object DP and V, was attributed by Hoekstra (1979) to rightward movement of P across DP in order to achieve V-adjacency of stranded P. This analysis (already awkward as it involves rightward, downward movement — see Zwart 1993) becomes increasingly unattractive as we find that the same word order is found with [P pro] in (14b). It is unlikely that a common trigger might be uncovered that would cause both stranded prepositions and prosodically weak PPs to undergo the same rightward movement.

The next set of examples involves the relative order of two PPs. For instrumental adverbial PPs and argument PPs, we find the default order in B, which is what we expect, given that PPArg does not need to move to a Case position:

B. PPInstr – PPArg – V

On this order, either PP (see (17)), or even both PPs (see (18)), may be [P x]:

(17)  a. de schroeven waar, Marie wat [mee t] repareerde ??[P t]–OB
    b. ?? de schroeven waar, Marie [mee t] wat repareerde ??[P t]–OB
       {the screws which/that} Marie smthing repaired
       {the screws which/that} Marie with {t/Them} smthing repaired

(18)  a. ?? de schroeven waar, Marie [mee t] wat repareerde ??[P t]–OB
    b. ?? dat Marie met ze wat repareerde ??[P pro]–OB
       {the screws which/that} Marie with {t/Them} smthing repaired

On this order, either PP (see (17)), or even both PPs (see (18)), may be [P x]:

(18)  a. ?? de schroeven waar, Marie [mee t] wat repareerde ??[P t]–OB
    b. ?? dat Marie met ze wat repareerde ??[P pro]–OB
       {the screws which/that} Marie with {t/Them} smthing repaired
(17) a. de verrekijker waar Jan mee t\textsubscript{j} naar Marie keek [P \text{t}_{\text{Instr}}]-PP_{\text{Arg}}
    b. dat Jan met ze naar Marie heeft gekeken [P \text{pro}_{\text{Instr}}]-PP_{\text{Arg}}
    c. de toren waar Jan met de verrekijker [naar t\textsubscript{j}] keek PP_{\text{Instr}}-[P \text{t}_{\text{Arg}}]
    d. dat Jan met de verrekijker naar d\text{r} keek PP_{\text{Instr}}-[P \text{pro}_{\text{Arg}}]

    \{which/that\} Jan with \{t/\text{them}/the\ \text{binoculars}\} at \{Marie/t_{j}/’r\}

looked

(18) a. de verrekijker waar Jan mee t\textsubscript{j} naar je keek [P \text{t}_{\text{Instr}}]-[P \text{pro}_{\text{Arg}}]
    b. de toren waar Jan met ze naar t\textsubscript{j} keek [P \text{pro}_{\text{Instr}}]-[P \text{t}_{\text{Arg}}]
    c. dat Jan met ze naar je keek [P \text{pro}_{\text{Instr}}]-[P \text{pro}_{\text{Arg}}]
    d. *dat Jan er vaak mee t\textsubscript{j} naar t\textsubscript{j} heeft gekeken *[P \text{t}_{\text{Instr}}]-[P \text{t}_{\text{Arg}}]

    \{which/\text{that}\} Jan with \{t/\text{\text{them}}\} at \{you/t_{j}\} \{has\} looked

If PP_{\text{Instr}} – PP_{\text{Arg}} – V is indeed the base-generated order, the opposite order must be derived through leftward movement of PP_{\text{Arg}}. We then expect that on this order, the right-hand PP_{\text{Instr}}, which has not moved, may still be [P x], but the left-hand PP_{\text{Arg}} may not. This is confirmed by (19):

(19) a. waar Jan \{pp naar Marie\}, \{pp mee t\textsubscript{j}\} t\textsubscript{j} heeft gekeken PP_{\text{Arg}}-[P \text{x}_{\text{Instr}}]
    b. dat Jan \{pp naar Marie\}, met ze t\textsubscript{j} heeft gekeken idem

    \{which/\text{that}\} Jan at Marie with \{t_{j}/\text{\text{them}}\} \{has\} looked
    c. *waar Jan \{naar t\textsubscript{j}\}, met de verrekijker t\textsubscript{j} heeft gekeken *[P \text{x}_{\text{Instr}}]-[P \text{pro}_{\text{Arg}}]

    \{which/\text{that}\} Jan at \{t_{j}/you\} with the binoculars has looked

Similar observations can be made for the relative order of instrumental PPs and directional argument PPs. On the order PP_{\text{Instr}} – PP_{\text{Dir}} either PP may be [P x]:

(20) a. de hamer waar hij \{mee t\textsubscript{j}\} op de tafel heeft getimmerd [P \text{x}_{\text{Instr}}]-PP_{\text{Dir}}
    b. dat hij met ze op de tafel heeft getimmerd (met die hamers) idem
    c. de tafel waar hij met de hamer [op t\textsubscript{j}] heeft getimmerd PP_{\text{Instr}}-[P \text{x}_{\text{Dir}}]
    d. dat hij met de hamer op ze heeft getimmerd (op die tafels) idem

    \{which/\text{that}\} he with \{t_{j}/\text{\text{them}}/the\ \text{hammer}\} on \{the\ \text{table}/t_{j}/\text{\text{them}}\}

    \{has\} hammered

On the opposite order, only the right-hand PP may be [P x]:

(21) a. waar hij op de tafel \{mee t\textsubscript{j}\} heeft getimmerd PP_{\text{Dir}}-[P \text{x}_{\text{Instr}}]
    b. dat hij op de tafel met ze heeft getimmerd (met die hamers) idem
    c. *waar hij \{op t\textsubscript{j}\} met de hamer heeft getimmerd *[P \text{x}_{\text{Dir}}]-PP_{\text{Instr}}
d. *dat hij op ze met de hamer heeft getimmerd (op die tafels) idem
   {which./that} he on {the table./them} with {t./them/the hammer}
   has hammered

These observations establish the following, very partial, unmarked order for
the Dutch Middlefield:

(22) OB PP<sub>Instr</sub> PP<sub>Arg</sub> V

For an application of the [P x] probe to a further range of Argument and Ad-
verbial PP types, see Ruys (in prep).

I arrive at the following conclusions. First, the [P x] generalization con-
tinues to hold: [P t] may occur just where [P pro] may occur. Second, on the
assumption that the distribution of [P x] reveals the base-generated position
of PP, the [P x] facts provide a useful and reliable tool which can be employed
in a cartographic inventory of PP positions in the Dutch Middlefield. So far,
the unmarked orders we have arrived at in (22) are unremarkable, and con-
form closely to what previous research has led us to expect; indeed, we would
hesitate to trust the [P x] test if its results on the simple structures investigated
here had deviated too far from our expectations. In the next section, I apply
the test to a more controversial area: the structure of predicative complement
constructions.

4. Small Clause Predicates

In the present section, I look at the position in the Middlefield of “predicative
complements”; this category includes resultative secondary predicates, pred-
icative complements to <i>cause</i>-<i>, consider</i>-<i>, and put</i>-type verbs, and predicates in
(pseudo-)copula constructions. For convenience, I will refer to all such predi-
cates as “Small Clause” predicates, but the analysis proposed does not require
that all or even any of these predicative structures involve Small Clauses.

The default order I will argue for in this section is summarized in (23).

(23) AP<sub>Pred</sub> PP<sub>Adv</sub> PP<sub>Pred</sub> V

That is, AP (and NP) Small Clause predicates are to the left of the base posi-
tion of Adverbial PPs; the unmarked position of PP SC-predicates on the other
hand is to the right of the unmarked position of PP adverbials. Again, I will
restrict attention to instrumental adverbial PPs.
4.1 AP Predicates

The unmarked position of PP adverbials is to the right of AP SC-predicates, as stated in (24).\(^5\)

\[(24)\] \(\text{AP}_{\text{Pred}} \quad \text{PP}_{\text{Instr}} \quad V\)

Without the \([P \ x]\) probe, it is difficult to establish that this is the unmarked order, as the actual word order patterns found in this domain depend on various additional factors. Thus, (24) accounts for modified AP predicates; some bare (A) predicates allow additional options (Neeleman 1994); see (27) below. Also, PPs with full DP complements obey ordering restrictions of their own: see (29) below.

On the order given in (24), PP adverbials may be \([P \ x]\), as illustrated for an AP predicative complement of a cause-type verb in (25c), (25d); when \(\text{PP}_{\text{Instr}}\) precedes the \(\text{AP}_{\text{Pred}}\) as in (25a), (25b), it may not be \([P \ x]\) (see Neeleman 1994, for the \([P \ t]\) cases).

\[(25)\]

a. *dat Marie Jan met ze heel erg bang maakt \([P \pro\text{Instr}\text{AP}_{\text{Pred}}]\) \[that Mary John with them very much afraid makes \] \['that Mary makes John very afraid with them'\]

b. *waar, Marie Jan \([pp \mee t_i]\) heel erg bang maakt \([P \t\text{Instr}\text{AP}_{\text{Pred}}]\) \[which Mary John with very much afraid makes \]

c. dat Marie Jan heel erg bang met ze maakt \([\text{AP}_{\text{Pred}}\text{[P \pro\text{Instr}}]\) \[that Mary John very much afraid with them makes \]

d. waar, Marie Jan heel erg bang \([pp \mee t_i]\) maakt \([\text{AP}_{\text{Pred}}\text{[P \t\text{Instr}}]\) \[which Mary John very much afraid with makes \]

I propose that the unmarked order in (24) arises as follows. Following Zwart (1992), (1993), Koster (1995), I assume VP is dominated by a PredP functional projection; the AP (or NP) predicative complement moves to Spec,PredP as illustrated in (26); I assume that this movement is triggered by a Case/Agreement requirement on AP (or NP) and Pred\(^0\).
The derivation in (26) for the SC examples discussed so far is identical to the derivation of the [P t] cases proposed in Zwart (1997), except for my assumption that VP and PredP in (26) are right-headed, and violate the LCA. Not everything about (26) is essential to my proposal. What is not essential is the assumption that the relevant structures involve Small Clauses; any other structure will do, as long as the predicate originates in the complement domain of the verb. What is essential is that the LCA is violated; but this can only be demonstrated on the basis of PP SC-predicates, which are discussed in the next section.

Before we turn to PP predicates, two remaining issues concerning AP predicates need to be addressed. First, next to (24) we also find, in a strictly limited class of cases involving non-branching predicates (Neeleman 1994), the opposite order [P x] – AP – V (Hoekstra 1979):

(27) a. waar, Marie de deur [PP mee t]i groen heeft geverfd
   b. dat Marie de deur met ze groen heeft geverfd
   {which, / that} Marie the door with {t, / them} green has painted

In Ruys (in prep) I argue that in these cases the predicate (groen ‘green’) does not move to Spec,PredP, but is incorporated in the verb or member of an A+V compound. Evidence for the prima facie plausibility of this analysis comes from the fact that the “predicate” may move along with Verb Raising in (28a) and incorporate in the aan het-construction in (28b).

(28) a. dat ik de deur zal groen verven
   that I the door will green paint
   b. ik ben de deur aan het groen verven
   I am the door at the green paint ‘I am painting the door green’
The second remaining issue involves the paradigm in (29).

(29)  
a. *dat ik Karel heel bang [PP met die poppen] heb gemaakt
     that I Karel very afraid with those dolls have made
b. dat ik Karel [PP met die poppen]i heel bang ti heb gemaakt
     that I Karel with those dolls very afraid have made
c. dat ik Karel heel bang met ze heb gemaakt

I have argued that \(A_{Pred} - P_{Instr} - V\) is the unmarked order, because on this order, \(P_{Instr}\) may be \([P x]\). (29a) shows that on this order, \(P_{Instr}\) must be \([P x]\): when PP contains a full DP complement it must scramble, as in (29b). The observation that only stranded P, but not \([P DP]\), may intervene between \(A_{Pred}\) and V led Zwart (1993) and Neeleman (1994) to assume that the \(AP - P - V\) order is derived through head-movement of P (a solution first suggested, for similar examples involving PP predicates, by Hoekstra 1979). The \([P x]\) generalization renders the head-movement analysis untenable: a PP maximal projection may intervene between AP and V as well, provided it is \([P pro]\), as illustrated in (29c). These facts show that the real contrast is not between head and maximal projection, but between prosodically light and prosodically heavy PP, as suggested earlier in Zwart (1997). See Ruys (in prep) for a characterization of the prosodic constraint involved.

4.2 PP Predicates

I turn now to PP predicative complements. We can determine their base position relative to adverbial PPs by applying the \([P x]\) probe to PP\(_{Adv}\) and to PP\(_{Pred}\) itself. These tests yield the base order given in (30).

(30) \(P_{Instr} \quad P_{Pred} \quad V\)

Whereas \(AP_{Pred}\) precedes \(P_{Instr}\), \(P_{Pred}\) follows \(P_{Instr}\). Given our explanation for the \(AP_{Pred} - P_{Instr}\) order, this is as expected: \(AP_{Pred}\) moves across \(P_{Instr}\) to Spec,PredP for Case/Agreement. Since PPs are not involved in Case/Agreement relations, \(P_{Pred}\) remains to the right of \(P_{Instr}\).

The data below show that \(P_{Adv} - P_{Pred}\) is indeed the default order. On this order, the left-hand PP may be \([P x]\) (for the \([P t]\) case, this observation is due to Hoekstra 1979, Bennis and Hoekstra 1984); see (31). In fact, on this order both PPs may be \([P x]\), as shown in (32).
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(31) a. waar Jan de spijker [mee t\textsubscript{Instr} \text{in de muur}]\textsubscript{Pred} heeft geslagen\textsuperscript{6} 
   b. dat Jan de spijker [met 'm]\textsubscript{Instr} [in de muur]\textsubscript{Pred} heeft geslagen (met
die hamer)
   {which, / that} Jan the nail with {t, / 'm} into the wall has hit

(32) a. \textasciitilde waar Jan die spijkers gisteren [met ze]\textsubscript{Instr} [in t]\textsubscript{Pred} heeft geslagen
   b. \textasciitilde waar Jan die spijkers gisteren [mee t\textsubscript{Instr} [in ze]\textsubscript{Pred} heeft geslagen
   (in die muren)
   which, Jan those nails yesterday with {them / t} into {t / them} has hit

On the reverse order, PP\textsubscript{Pred} – PP\textsubscript{Instr}, PP\textsubscript{Pred} has moved and may not be [P x]; but PP\textsubscript{Instr} may:

(33) a. *waar Jan die spijkers gisteren [in t]\textsubscript{Pred} [met ze]\textsubscript{Adv} heeft geslagen
   b. ?? dat Jan die spijkers gisteren [in 'm]\textsubscript{Pred} [met ze]\textsubscript{Adv} heeft geslagen
   {which, / that} Jan those nails into {t / 'm} with them has hit

(34) a. \textasciitilde waar Jan spijkers [in de muur]\textsubscript{Pred} [mee t\textsubscript{Adv} Adv] heeft geslagen
   b. \textasciitilde dat Jan spijkers [in de muur]\textsubscript{Pred} [met ze]\textsubscript{Adv} heeft geslagen (met die
   hamers)
   {which, / that} Jan nails into the wall with {t / them} has hit

See Ruys (in prep) for a demonstration that these observations extend to various other predicative complement constructions.

I arrive at the following conclusions. First, we have established the validity of the [P x] generalization and its reliability as a probe into the unmarked order of PPs in the Dutch Middlefield. Second, the PredP structure given in (26) provides a successful explanation of the distribution of [P x] in predicative complement constructions.

I deviate from the conclusions of Zwart (1993, 1997) and Koster (1995), however, in finding that the correct word order can only be derived by violating Kayne’s (1994) LCA. To see why, consider the fact that PP\textsubscript{Pred} is (always) to the left of V. Assuming that PP starts out somewhere in the complement domain of V, how is this order derived? It cannot be due to movement of PP\textsubscript{Pred} to Spec,PredP, as postulated by Zwart (1993) and Koster (1995); then PP\textsubscript{Pred} should be in the same position as AP\textsubscript{Pred}, to the left of PP\textsubscript{Adv}, whereas in fact we find the opposite order. Neither can the word order with stranded P\textsubscript{Pred} to the left of V be attributed to head-movement of P and left-adjunction to V, given that the same word order is found for [P pro]. Hence, I conclude that the PP\textsubscript{Pred} – V order is due to the fact that VP is head-final (Koster 1975), or V moves to a head-final functional projection, or both.
Notes

* Thanks are due to Jan Don, Arnold Evers, Johan Kerstens, Ora Matushansky, Mieke Trommelen, members of the TiN audience, the LIN editors, and an anonymous referee for various contributions. All remaining errors are my own.

1. (4) adapted from Broekhuis (2002).

2. Many PP types resist stranding irrespective of their position. In order to determine the effect of PP movement on the possibility of stranding, I restrict attention here to PP types that freely allow stranding at least in some position.

3. See Ruys (in prep) for discussion of PP-over-V, which blocks [P t] but not [P pro], and of instances of (13) that go beyond Freezing.

4. Some speakers strongly resist a [–animate] reading for the weak pronouns in these examples, which tends to block the instrumental PP in both positions for reasons orthogonal to the questions addressed here. The right-dislocated PPs in (14) and elsewhere are added to facilitate the intended reading.

5. I believe the same ordering holds for NP predicates; space prevents me from discussing these here.

6. (31a) from Neeleman (1994).

References


