

On the combination of prepositions with an infinitive in Dutch

Frank Van Eynde – University of Leuven

Combinations of a preposition with an infinitive deserve a closer look for two reasons. First, they provide evidence that the subject control vs. subject raising distinction is not only relevant for verbs and predicative adjectives, but also for prepositions. Second, they include some combinations in which the preposition is arguably not the head of a PP.

1. Head-initial vs. head-final PPs

In Dutch the complement of a preposition canonically follows the preposition, as in (1). However, if the complement is a neuter pronoun, such as *het* ‘it’, *dit* ‘this’, *dat* ‘that’ or *wat* ‘what’, it is replaced by its R counterpart, respectively *er* ‘it.R’, *hier* ‘this.R’, *daar* ‘that.R’ and *waar* ‘what.R’, and this R-pronoun precedes the preposition, as in (2).

- (1) ... dat ze vaak [aan hem/Jim] denkt.
... that she often on him/Jim thinks
‘... that she often thinks of him/Jim.’
- (2) ... dat ze vaak [daar aan] denkt.
... that she often that.R on thinks
‘... that she often thinks of that.’

The difference in linear order correlates with another contrast: While the complement of a head-initial PP must be realized *in situ*, the complement of a head-final PP can be raised or extracted, as shown in (3–4).

- (3) a. * ... dat ze hem_i/Jim_i vaak [aan --_i] denkt
... that she him/Jim often on thinks
b. * ... wie_i denkt ze vaak [aan --_i]?
... who thinks she often on
- (4) a. ... dat ze daar_i vaak [--_i aan] denkt.
... that she that_r often on thinks
b. ... waar_i denkt ze vaak [--_i aan]?
... what.R thinks she often on

The *in situ* constraint for head-initial PPs not only holds for the complement as a whole but also for its parts. The direct object of the nominalized infinitive in (5), for instance, cannot be raised nor extracted out of the PP.

- (5) a. Dit wordt vaak [bij het eten geven] gebruikt.
this is often at the food give.INF used
‘This is often used while giving food.’
b. * dit wordt vaak eten_i [bij het --_i geven] gebruikt
this is often food at the give.INF used
c. * wat_i wordt dit vaak [bij het --_i geven] gebruikt?
what is this often at the give.INF used

2. PPs with a verbal infinitive

While nearly all prepositions can be combined with a nominalized infinitive, there is only a handful that combine with a verbal infinitive. They include *aan het* ‘at the’, *op* ‘up’, *te* ‘to’ and *uit* ‘out’.¹

- (6) a. Al z’n vriendjes zet ie meteen [aan het adressen schrijven].
all his friends sets he immediately at the addresses write.INF
‘He immediately makes all his friends write addresses.’
b. Meneer Prikkebeen is [uit vlinders vangen].
Mister Prikkebeen is out butterflies catch.INF
‘Mister Prikkebeen has gone out to catch butterflies.’

The bracketed phrases are head-initial PPs and do not allow raising nor extraction, as expected.²

- (7) a. *al z’n vriendjes zet ie meteen adressen_i [aan het _i schrijven]
all his friends sets he immediately addresses at the write.INF
b. *Meneer Prikkebeen is vlinders_i [uit _i vangen]
Mister Prikkebeen is butterflies out catch.INF

However, if the *aan het*-infinitive is combined with the copula, rather than with the causative *zetten* ‘set’, raising and extraction are possible and indeed preferred.

- (8) a. toen ik mijn beesten [aan het eten geven] was.
when I my animals at the food give.INF was
‘when I was giving food to my animals.’
b. toen ik mijn beesten eten_i [aan het _i geven] was.
when I my animals food at the give.INF was
‘when I was giving food to my animals.’
c. Wat_i was je mijn beesten [aan het _i geven]?
what were you my animals at the give.INF
‘What were you giving to my animals?’

Correlating with the syntactic difference between the two combinations with *aan het* is a semantic one, exemplified by the minimal pair in (9).

- (9) a. ... dat het om zes uur [aan het regenen] ging.
... that it at six hour at the rain.INF went
‘... that it started raining at six.’
b. ... dat het om zes uur [aan het regenen] was.
... that it at six hour at the rain.INF was
‘... that it was raining at six.’

1. Arguments that *aan het* is a single syntactic unit are provided in Booij (2004, 101) and Bogaards et al. (2022, 17). Evidence that its complement is not a nominalized but a verbal infinitive is provided in Van Eynde (2025, 183–186). This abstract treats the combinations with *aan het* and *uit*. The talk will also treat those with *op* and *te*.
2. The examples and grammaticality judgments are respectively from Paardekooper (1984, 135) and Haeseryn et al. (1997, 1054)

While the temporal adjunct in (9a) denotes a moment that marks the beginning of the raining, its counterpart in (9b) denotes a moment that is temporally included in the period of raining. Following Bogaards et al. (2022) we call these the ingressive and progressive *aan het* respectively. The former combines with causative and inchoative verbs, such as *zetten* ‘set’ and *gaan* ‘go’, while the latter combines with the copula and its cognates, such as *blijven* ‘stay’ and the evidential modals.

3. Modelling

To model the data we start from the bi-dimensional lexeme hierarchy of Ginzburg and Sag (2000, 20) and the constraints on a number of lexeme types, including *p(reposition)-lx*, *s(ubject)-r(ai)s(in)g-lx* and *s(ubject)-c(on)tr(o)l-lx* (Ginzburg and Sag 2000, 22). To these we add the type *no-arg-lx*, as defined in (13a), quoted from Van Eynde (2015, 113), and the type *pi-lx*, which is a subtype of *p-lx*. It subsumes the prepositions that precede their complement. The associated constraint in (13b) captures the fact that complement raising and extraction out of the complement are blocked.

Next, we add lexical entries for the prepositions. Employing multiple inheritance we define the ingressive *aan het* as belonging to a type that inherits from *pi-lx* and *s-rsg-lx*. The former accounts for the ill-formedness of (7a). The latter accounts for the compatibility with infinitives that take a non-referential subject, such as *regenen* ‘rain’ in (9a). The non-inherited properties are spelled out in (14a): The complement is required to be a bare infinitive and to denote an activity or a process, rather than a state or an instantaneous event. The ingressive meaning is captured by the constraint in the BACKGROUND value.

The absentive *uit* belongs to a type that inherits from *pi-lx* and *s-ctrl-lx*. The former accounts for the ill-formedness of (7b). The latter accounts for the incompatibility with infinitives that take a non-referential subject:

- (10) * ... dat het om zes uur [uit regenen] ging/was
 ... that it at six hour out rain.INF went/was

The non-inherited properties will be spelled out in an AVM that is not included here for reasons of space.

The progressive *aan het* does not comply with the constraints on *pi-lx*, in spite of the fact that it precedes the infinitive. To account for this we assume that is not the head of a PP, but a functor, as defined in a.o. Van Eynde (2015, 68). This implies that the combination with the infinitive is a head-final VP, rather than a head-initial PP. This in turn provides us with an explanation for the lifting of the *in situ* constraint, since head-final VPs routinely allow raising and extraction of their complements.

- (11) a. ... dat ze die beesten elke dag eten_i [wil _{→i} geven].
 ... that she those animals every day food wants give.INF
 ‘... that she wants to give food to those animals every day’
 b. Wat_i zou je die beesten elke dag [willen _{→i} geven]?
 what would you those animals every day want give.INF
 ‘What would you want to give to those animals every day?’

In terms of the lexeme hierarchy, we assume that the progressive *aan het* belongs to a type that inherits from *p-lx* and *no-arg-lx*. Its non-inherited properties are spelled out in (14b). It selects a

bare infinitive as its head sister, and it has a MARKING value of type *aant* which it shares with the mother, yielding a head-final VP[*aant*]. Its semantic contribution is included in the BACKGROUND value: the situation that the infinitive denotes (*s*) is presented as ongoing at some time of location (*t*).³

Finally, we add the verbs that combine with the infinitives. Those that combine with the ingressive *aan het*-infinitive take a head-initial PP[*aant*] complement. They include subject raising verbs, such as *gaan* ‘go’, subject control verbs, such as *raken* ‘get’, and object control verbs, such as the causative *zetten* ‘set’ and *maken* ‘make’. Similarly, those that combine with the absentive *uit*-infinitive take a head-initial PP[*uit*] complement. They concern subject-control uses of *gaan* ‘go’, the deontic modals and the copula. By contrast, those that select the progressive *aan het*-infinitive take a head-final VP[*aant*] complement. Most of them are subject raising verbs, belonging to a type that inherits from *v-lx* and *s-rsg-lx*. The non-inherited properties are spelled out in (15). The constraint on the TEMP-LOC value is added to account for the contrast in (12).

- (12) a. Hij heeft gisteren beloofd om vandaag te komen.
 he has yesterday promised today to come.INF
 ‘He promised yesterday to come today.’
 b. * Hij was gisteren vandaag aan het zwemmen
 he was yesterday today at the swim.INF

Both *beloven* ‘promise’ and *zijn* ‘be’ take an infinitival complement, but while the former allows its complement to have another location time than the matrix verb, the latter does not.

As said in footnote 1, the talk will also treat the other prepositions that combine with a bare infinitive, i.e. *op* and *te*. In a concluding survey the prepositions will be shown to take different positions on a grammaticalization cline with *op* as the least grammaticalized, followed by the absentive *uit*, the ingressive *aan het*, the progressive *aan het* and *te* as the most grammaticalized.

References

- Bogaards, Maarten, Ronny Boogaart, and Sjef Barbiers (2022), The syntax of progressive and ingressive *aanhet*-constructions in Dutch, *Linguistics in the Netherlands* 39, pp. 2–20, Universiteit Leiden.
- Booij, Geert (2004), De *aan het* infinitief-constructie in het Nederlands, in De Caluwé, J., M. Devos, J. Van Keymeulen, and G. De Schutter, editors, *Taeldeman, man van de taal, schatbewaarder van de taal: liber amicorum Johan Taeldeman*, Academic Bibliography, Gent, pp. 97–105.
- Ginzburg, Jonathan and Ivan Sag (2000), *Interrogative Investigations*, CSLI Publications, Stanford.
- Haeseryn, Walter, Kirsten Romijn, Guido Geerts, Jaap de Rooij, and Maarten van den Toorn (1997), *Algemene Nederlandse Spraakkunst*, Nijhoff and Wolters Plantyn.
- Paardekooper, Piet (1984), *Beknopte ABN-syntaxis. Zevende druk*, Uitgave in eigen beheer, Eindhoven.
- Van Eynde, Frank (2015), *Predicative constructions. From the Fregean to a Montagovian treatment*, CSLI Publications, Stanford.
- Van Eynde, Frank (2025), On the infinitives that are introduced by *aan het*, *op* and *uit*, *Nederlandse Taalkunde* 30, pp. 163–195.

3. An alternative for the functor treatment is the weak head treatment. In that analysis the preposition shares the HEAD, SUBJ and COMPS values of its complement. What makes this alternative less appealing is that it assigns properties to the preposition which it does not have: if *aan het* is a bare infinitive, one expects it to have the infinitival affix *-(e)n*, but it does not have any affix; similarly, if it head-final, as Dutch infinitives are, one expects it to follow its complement, but it precedes it.

$$(13) \quad \begin{array}{ll} \text{a. } no\text{-}arg\text{-}lx \Rightarrow & \left[ARG\text{-}ST \quad \langle \quad \rangle \right] \\ \text{b. } pi\text{-}lx \Rightarrow & \left[SYNSEM \mid LOC \mid CAT \mid COMPS \quad \left\langle \left[\begin{array}{l} LOC \mid CAT \mid COMPS \\ NON\text{-}LOC \mid SLASH \end{array} \right] \begin{array}{l} \langle \quad \rangle \\ \{ \} \end{array} \right\rangle \right] \end{array}$$

$$(14) \quad \begin{array}{ll} \text{a. The ingressive } aan\text{ }het & \\ srpi\text{-}lx & \\ \left[ARG\text{-}ST \quad \left\langle X, \left[LOC \quad \left[\begin{array}{l} CAT \quad \left[\begin{array}{l} HEAD \mid VFORM \quad inf \\ MARKING \quad bare \end{array} \right] \\ CONTENT \mid NUCLEUS \quad \left[\begin{array}{l} dynamic\text{-}rel \\ INSTANCE \quad s \\ TEMP\text{-}LOC \quad t \end{array} \right] \end{array} \right] \right\rangle \right] & \\ SYNSEM \quad \left[\begin{array}{l} LOC \mid CAT \mid MARKING \quad aant \\ BACKGROUND \quad \{ t \text{ } beginning\text{-}of \quad s \} \end{array} \right] & \end{array} \\ \text{b. The progressive } aan\text{ }het & \\ noargp\text{-}lx & \\ \left[SYNSEM \quad \left[\begin{array}{l} LOC \mid CAT \quad \left[\begin{array}{l} HEAD \mid SELECT \mid LOC \\ MARKING \quad aant \end{array} \right] \\ BACKGROUND \quad \{ s \supset t \} \end{array} \right] \quad \left[\begin{array}{l} CAT \quad \left[\begin{array}{l} HEAD \mid VFORM \quad inf \\ MARKING \quad bare \end{array} \right] \\ CONTENT \mid NUCLEUS \quad \left[\begin{array}{l} INSTANCE \quad s \\ TEMP\text{-}LOC \quad t \end{array} \right] \end{array} \right] \right] \right] & \end{array}$$

$$(15) \quad \text{Selector of the progressive } aan\text{ }het\text{-infinitive} \\ srv\text{-}lx \\ \left[ARG\text{-}ST \quad \left\langle X, \left[LOC \quad \left[\begin{array}{l} CAT \quad \left[\begin{array}{l} HEAD \mid VFORM \quad inf \\ MARKING \quad aant \end{array} \right] \\ CONTENT \mid NUCLEUS \mid TEMP\text{-}LOC \quad t \end{array} \right] \right] \right\rangle \right] \\ SYNSEM \mid LOC \mid CONTENT \mid NUCLEUS \mid TEMP\text{-}LOC \quad t \end{array}$$