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# A Tale of Two Progressives

#### **Abstract**

This article presents a corpus-based comparison of the two most frequent progressive constructions in Dutch: the prepositional construction *aan het INF zijn* 'be at the INF' (PREP progressive) and the posture verb construction *liggen/zitten/staan+te+INF* 'lie/sit/stand+to+INF' (POS progressive). While both constructions can often occur with the same verbs, our study shows that each construction has its own semantic profile: the PREP progressive has a *processual* profile, zooming in on the ongoing process itself, whereas the POS progressive has a *situational* profile, typically locating the ongoing process in a well-described spatio-temporal frame. This profile is in fact a relic from their original postural use; as such, the POS progressive provides a good illustration of Hopper's (1991) persistence principle.

#### 1. Introduction

As in the other Germanic languages, Dutch has different ways of explicitly expressing progressive aspect, i.e. that an event or activity is on-going (see also Ebert 2000 and Bertinetto *et al.* 2000).\* In this article, we take a closer look at the two most common progressive constructions in Dutch: the POS progressive (*zitten/staan/liggen te INF* 'sit/stand/lie to INF') and the PREP progressive (*aan het INF zijn* 'be at the INF').¹ While both are locative in origin, the differences between these two constructions seem obvious: the posture verbs are semantically more specific than *zijn* 'be' given their reference to the subject referent's posture (or orientation in the case of inanimate objects). In other words, the POS progressive seems grammaticalised to a lesser degree than the PREP progressive, in line with Hopper's (*semantic*) *persistence principle* which "relates the meaning and function of a grammatical form to its history as a lexical morpheme" (Hopper 1991:28). The expectation is thus that the original meaning of posture verbs constraints the progressive more than does the verb *zijn* 'be' or the preposition *aan* 'at' which both are more bleached semantically.

One of first times that I presented my (then only budding) analysis of Dutch progressives was at a Cognitive Linguistics conference in Turku, Finland (2001); Laura Janda was in the audience and gave useful feed-back afterwards. It is thus befitting that the current analysis, intellectually and empirically more fleshed out, be inserted in a festschrift in her honour. This paper is a shortened and updated English version of Lemmens (2015).

The grammaticalisation of locative constructions to progressives has been dealt with elaborately in the literature, see a.o. Comrie (1976), Heine *et al.* (1991), Bybee *et al.* (1994), Kuteva (1999), Boogaart (1999), Ebert (2000), Bertinetto *et al.* (2000).

Nevertheless, the semantic constraint of the POS progressive is not absolute: the construction can be used in contexts where the Agent's posture is no longer relevant or is even incompatible with that of the complement verb, as indicated by the following examples:

- (1)a. ze **zaten** met de snelheid van een lift tien meters **op en neer te suizen** (INL)<sup>2</sup> they sat with the speed of a lift ten meters up and down to whizz (=was whizzing)
  - b. [...] terwijl onze ploeg lamlendig stond te hockeyen (INL)
    - [...] while our team sluggishly stood to play hockey (=was playing)
  - c. Wat **zit** ik hier toch de hele dag **rond te lopen**? (pers. attestatie) what sit I here PRT the whole day around to walk 'What on earth am I walking around here for?'

These examples illustrate the semantic bleaching of the posture verbs: the Agent does not sit or stand while doing these actions. The posture verbs have bleached to a kind of progressive auxiliaries that have become interchangeable with the *aan het INF zijn* construction, as already explicitly pointed out in an early study by Brisau: "[t]he fact that [the verbs] *can be easily substituted* for one another when they are not in a context, points to their being subordinate to the main verb in meaning: *primarily they serve to indicate aspect*" (1969: 75, emph. ML).<sup>3</sup> The following pair (from Internet) nicely illustrates the interchangeability in reference to a plane shaking:

- (2)a. Het hele vliegtuig *zat te schudden*. Ik ben blij dat de volgende keer ik een wat tammere vliegreis krijg.<sup>4</sup>
  - The whole plane *sat to shake* (= was shaking). I am glad that the next time I get a somewhat calmer flight
  - b. Het vliegtuig was *aan het schudden*, net alsof je een tattoo zou laten zetten terwijl je over rotsen aan het rijden bent.<sup>5</sup>
    - The plane *was at the shake* (= was shaking), as if you'd have a tattoo being placed while you are driving (litt. be at the ride) over rocks

In (2a), *zitten* 'sit' has lost all reference to posture, and it is therefore not immediately clear what the difference is with the alternate coding in (2b); in both cases, the plane is merely shaking.

The code INL refers the to the corpus of the *Instituut voor Nederlandse Lexicologie*, Leiden; see below for more information about the corpus.

See also Leys (1985: 275-6) and Ebert (2000 619) who claim that the two constructions have become interchangeable. Vismans (1982a,b) suggests some semantic difference in terms of "uninterruptedness" (for the POS progressive), but that does not hold (see Lemmens 2015).

http://www.nujij.nl/algemeen/met-besluit-van-kamp-komt-er-einde-aan-turbulente.26731260.lynkx

http://www.hln.be/hln/nl/944/Celebrities/article/detail/1829044/2014/03/25/Justin-James-Dean-Bieber-mikt-op-nieuw-wereldrecord.dhtml

Despite this seeming interchangeability, we follow the cognitive view that a difference of form (in principle) entails a difference of meaning and hypothesize that, even if there exist contexts in which both POS and PREP progressives can be used, there remain (subtle) semantic differences between the two. On the basis of careful corpus analysis, we show how the two constructions indeed have their own semantic profile. In our study (a complement to Lemmens 2005), we look at a number of parameters: the number of shared verbs, the preference for certain verb types, and the occurrence of adverbial complements of space, time and aspect.

The article is structured as follows. In section 2, we give a short presentation of the method and the corpus used. Next, we present the actual comparison between the two constructions from three different perspectives: (i) the proportion of shared verbs (section 3.1), (ii) a distinctive collostructional analysis of the verbs occurring in these constructions (section 3.2), and (iii) an analysis of the different adverbial complement occurring in the clause (section 3.3). Section 4 concludes how all these perspectives taken together show that the two progressives, even when used with the same verb, impose their own semantic profile on the event and are used in different contexts. In a nutshell, the difference boils down to the idea that the PREP progressive (*aan het INF zijn* 'be at the INF') has a *processual focus*, while the POS progressive (*liggen/zitten/staan te INF* 'lie/sit/stand to INF') has a *situational focus*.

## 2. Method and corpus

We have limited our corpus analysis to written data, a selective compilation drawn from the 39 million word corpus of the Institute for Dutch Lexicology<sup>6</sup>, henceforth the INL corpus. The subcorpus that we have used concerns contemporary (1970-1995) written Dutch (non fiction, mostly newspapers), in total about 26.4 million words, of which 90% Netherlandic Dutch.

<sup>6</sup> http://www.inl.nl.

A fairly exhaustive extraction of sentences with the POS and PREP progressive has been done. All of the constructions that did not correspond to the target constructions (progressives) were manually removed. After this manual clean-up we ended up with a total of 1,373 occurrences of the POS progressives and 1,040 of the PREP progressive (a ratio of about 57% vs. 43%). All these sentences were subsequently coded in a spreadsheet following a number of variables such as the type of main verb, Agent, adverbial complements, etc.

# 3. POS versus PREP progressive

## 3.1. Degree of overlap of main verbs

A logical point of departure for the comparison between the POS and the PREP progressive is to look at the verbs that occur in the constructions and to measure to what extent they are the same. On the basis of the calculation of the proportion of shared verbs, one can determine the extent of semantic similarity between the two constructions. Table 1 compares the type and token frequencies for the two constructions and their degree of overlap.

|                    | POS        | PREP                 |  |  |
|--------------------|------------|----------------------|--|--|
|                    | Freq       | Freq                 |  |  |
| WW token frequency | 1,373      | 1,040                |  |  |
| WW type frequency  | 354        | 447                  |  |  |
| Type/token ratio   | 0.26       | 0.43                 |  |  |
| WW token overlap   | 602 on 2,4 | 602 on 2,413 (24.9%) |  |  |
| WW type overlap    | 74 on 72   | 74 on 727 (10.1%)    |  |  |

*Table 1: Degree of overlap of verbs (type-token ratio)* 

For the POS progressive there is comparatively less variation in the verbs than for the PREP progressive: there are 354 different verbs on a total of 1,373 attestations (type/token ratio = 0.26) vs. 447 different verbs (types) on a total of 1,040 attestations (type/token ratio = 0.43) for the PREP progressive. Since, strictly speaking, we are dealing with three constructions for the POS progressive (given that there are three different posture verbs), one could argue that the above ratio

is not correct but should be the average of the three individual type/token ratios. This gives a ratio of 0.33 (T/t ratio liggen=0.38; T/t ratio staan=0.32; T/t ratio zitten=0.30). That reduces the differences between the two constructions to some extent, but it still remains true that even in the calculation that favours the POS progressive, the variation is still the largest for the PREP progressive. A second, more interesting observation that can be derived from Table 1 is that there actually is very little overlap between the two constructions in terms of choice of verb. On the total attestations (2,413) there are 602 (24%) that have the same verb. The most frequently shared verbs are: kijken 'watch' (93); spelen 'play' (56); praten 'talk' (41); doen 'do' (28); lezen 'read' (25); eten 'eat' (24); trainen 'practice' (19); onderhandelen 'negociate' (18); zoeken 'search' (18); schrijven 'write' (17); mediteren 'meditate' (15); vergaderen 'meet' (15); maken 'make' (12); drinken 'drink' (11); zweten 'sweat' (11); roesten 'rust' (9); zingen 'sing' (8); rotten 'rot' (7); dansen 'dance' (7). The high frequency of some of these verbs (such as kijken 'watch' and spelen 'play') distorts the picture somewhat. That is why Table 1 also presents the degree of overlap in terms of type frequency. In this calculation, where each overlap counts for 1 regardless of the token frequency, a meagre 10% is retained as the degree of overlap (74 types on a total of 727 types). This clearly indicates that the number of verbs that occur in both of these two constructions is actually fairly limited. This is a first indication that the semantic overlap between the constructions is fairly small, at least with respect the verbs that occur in it. The collostructional analysis that we present in the next section takes this one step further.

#### 3.2. Distinctive collostructional analysis

The degree of overlap between the PREP en de POS progressive is fairly limited, which suggests that both constructions have a preference for a different set of verbs. One method to investigate further which verbs have a preference for one or the other construction is a collostructional analysis

(Gries & Stefanowitsch 2004; Stefanowitsch & Gries 2005). Such an analysis pairs a collocational analysis with constructions: it measures the collocation of a lexical element and a given construction. For our study, we use a distinctive collexeme analysis where we measure the significant attraction or repulsion of individual verbs to the two respective progressive constructions.

For a distinctive collostructional analysis four frequencies are needed for each verb: (i) the frequency of the verb in the POS progressive, (ii) the frequency of that same verb in the PREP progressive, (iii) the total frequency of verbs in the POS progressive, and (iv) the total frequency of verbs in the PREP progressive. On the basis of these four frequencies, one can run a 2-by-2 significance test. The *collostructional strength* for each verb is thus represented in the form of a log-transformed p-value of a one-tailed Fischer Exact (this value is automatically generated by the R-script written by S. Gries). The higher this value, the more distinctive the verb is for one particular construction. As threshold values, the following have been set: Coll.strength>3 => p<0.001; coll.strength>2 => p<0.01; coll.strength>1.30103 => p<0.05. In other words, if the collostructional strength value is lower than 1.30103, then the result is non-significant.

A collostructional analysis is thus a reliable means of comparing the two constructions. At the same time, some caution is warranted when interpreting these results (see, for example, Schmid & Küchenhoff (2013) for a pertinent discussion). A collostructional analysis is therefore not the ultimate answer to the distribution of verbs in the two progressive constructions, but it does offer a fairly reliable view which can subsequently be refined via additional analyses.

Table 2 gives the calculation of collocational strength for all of the verbs that are significally attracted to one of the two constructions in the INL-corpus. The degree with which a verb is attracted to a construction is inversely proportional to the degree of repulsion to the other.

Gries, Stefan Th. 2007. Coll.analysis 3.2. A program for R for Windows 2.x. Use of this script is hereby gratefully acknowledged.

|    | Distinctive for POS progressive |     |                | Distinctive for PREP progressive |             |                |  |
|----|---------------------------------|-----|----------------|----------------------------------|-------------|----------------|--|
| 1  | Verb                            | N   | coll. strength | Verb                             |             | coll. strength |  |
| 2  | wachten 'wait'                  | 319 | 85.5959        | worden 'become'                  | 59          | 20.503         |  |
| 3  | kijken 'watch'                  | 91  | 17.647         | veranderen 'change'              | 41          |                |  |
| 4  | slapen 'sleep'                  | 58  | 14.3776        | oefenen 'practice'               | 23          | 011,700        |  |
| 5  | springen 'jump'                 | 40  | 9.8654         | bouwen 'build'                   | 19          | 7.0087         |  |
| 6  | trappelen 'trample'             | 40  | 9.8654         | voorbereiden 'prepare'           | 19          | 7.0087         |  |
| 7  | dringen 'jostle'                | 27  | 6.635          | verdwijnen 'disappear'           | 18          | 6.6376         |  |
| 8  | opwachten 'wait for'            | 23  | 5.6457         | trainen 'practice'               | 18          | 5.583          |  |
| 9  | lezen 'read'                    | 20  | 4.9052         | winkelen 'shop'                  | 15          | 5.526          |  |
| 10 | popelen 'be impatient'          | 19  | 4.6587         | doen 'do'                        | 29          | 5.4062         |  |
| 11 | juichen 'cheer'                 | 19  | 4.6587         | stijgen 'rise'                   | 12          | 4.4165         |  |
| 12 | luisteren 'listen'              | 18  | 4.4122         | onderhandelen 'negociate'        | 16          | 4.1561         |  |
| 13 | pronken 'shine'                 | 14  | 3.4279         | zoeken 'search'                  | 16          | 4.1561         |  |
| 14 | genieten 'enjoy'                | 11  | 2.6911         | repeteren 'rehearse'             | 10          | 3.678          |  |
| 15 | aankomen 'arrive'               | 10  | 2.4458         | afnemen 'decrease'               | 12          | 3.5201         |  |
| 16 | denken 'think'                  | 8   | 1.9556         | dalen 'err, roam'                | 9           | 3.3091         |  |
| 17 | zwaaien 'wave'                  | 8   | 1.9556         | verliezen 'lose'                 | 8           | 2.9405         |  |
| 18 | eten 'eat'                      | 20  | 1.8515         | zakken 'sink, lower'             | 8           |                |  |
| 19 | zweten'sweat'                   | 10  | 1.7203         | verbouwen 'rebuild'              | 7           | 2.5721         |  |
| 20 | drinken 'drink'                 | 10  | 1.7203         | vervagen 'fade'                  |             |                |  |
| 21 | zijn 'be'                       | 7   | 1.7107         | voetballen 'play soccer'         | 7           | 2.5721         |  |
| 22 | roesten 'rust'                  | 9   | 1.512          | filmen 'film'                    | 6           | 2.2039         |  |
| 23 | staren 'stare'                  | 6   | 1.4659         | herstellen 'repair'              | 6           | 2.2039         |  |
| 24 | huilen 'cry'                    | 6   | 1.4659         | inhalen 'catch up'               | 6           | 2.2039         |  |
| 25 | schreeuwen 'yell'               | 6   | 1.4659         |                                  |             | 2.2039         |  |
| 26 |                                 |     |                | opbouwen 'build up'              | 6           | 2.2039         |  |
| 27 |                                 |     |                | voltrekken 'realise'             | 6           | 2.2039         |  |
| 28 |                                 |     |                | zwemmen 'swim'                   | 6           | 2.2039         |  |
| 29 |                                 |     |                | bidden 'pray'                    | 5           | 1.836          |  |
| 30 |                                 |     |                | gebeuren 'happen'                | 5           | 1.836          |  |
| 31 |                                 |     |                |                                  |             | 1.836          |  |
| 32 |                                 |     |                | toenemen 'increase' 5 1.83       |             | 1.836          |  |
| 33 | _                               |     | _              | afbouwen 'diminish' 4 1.46       |             | 1.4683         |  |
| 34 |                                 |     |                | afbrokkelen 'crumble (down)'     | )' 4 1.4683 |                |  |
| 35 |                                 |     |                | inventariseren 'make inventory'  |             |                |  |
| 36 |                                 |     |                | onderzoeken 'investigate'        | 4           | 1.4683         |  |
| 37 |                                 |     |                | terugkomen 'return'              | 4           | 1.4683         |  |
| 39 |                                 |     |                |                                  |             | 1.4683         |  |
| 40 |                                 |     |                | uitzoeken 'find out'             | 4           | 1.4683         |  |

Table 2: Significantly distinctive verbs in POS and PREP progressive

What conclusions can be drawn from Table 2 with respect to the differences between the two constructions? The theoretical assumption that underlies this analysis, one that is broadly carried by the cognitive-functional model (see, e.g., Langacker 1987, 1991; Goldberg 2006; Booij 2010, Hilpert 2014), is that more schematic (i.e., syntactic) constructions are also inherently meaningful. The underlying idea with a collostructional analysis is that the semantics of the verbs that are distinctive for a given constructions tell us something about the meaning of the construction. Bybee (2010) has criticised the collostructional analysis precisely on this point: it does not bring in semantic factors, so one cannot draw any semantic conclusions from it. While her premise is

correct (no semantic parameters are brought into play), the results of our analysis clearly invalidate her conclusion: comparing the two lists of distinctive verbs in Table 2, a clear *semantic* pattern can be observed. The verbs distinctive for the POS progressive (even if a limited list) confirm the earlier analysis in Lemmens (2005) which showed that the POS progressive is characterised by a marked preference for 'stative' verbs (*wachten* 'wait', *opwachten* 'wait for', *slapen* 'sleep'), cognitive and/or attitude verbs (*denken* 'think', *huilen* 'cry', *schreeuwen* 'yell', *staren* 'stare', *kijken* 'watch') and idiomatic expressions (*juichen* 'cheer', *popelen* 'be anxious', *dringen* 'jostle'; *aankomen* 'happen').<sup>8</sup>

The verbs that are distinctive for the PREP progressive are strikingly different and, overall, express the notion of "change". It is no coincidence that the verbs worden 'become' (e.g., ouder worden 'become older', vuil worden 'become dirty') and veranderen 'change' emerge as most distinctive verbs; one further observes change verbs such as afbrokkelen 'crumble down', afbouwen 'diminish', opbouwen 'build up', ontwikkelen 'develop', toenemen 'increase', vervagen 'fade', etc. or goal-directed motion verbs such as stijgen 'rise', dalen 'sink, lower', zakken 'drop', etc. (possibly used metaphorically).

In more general terms, we can posit, on the basis of the above analysis, that the PREP progressive has a marked preference for *telic* verbs (often CHANGE or MOTION verbs), while the POS progressive has a preference for *atelic* verbs. The most distinctive verbs for each construction, *worden* 'become' resp. *wachten* 'wait', crystallize this semantic contrast quite nicely. This is further confirmed when one classifies all the attestations according to the traditional four Vendlerian aspectual categories (Vendler 1967), as presented in Table 3. This classification was done manually for each sentence, for which contextual features were taken into account, e.g., *ik zit te schrijven* 'I sit to write' (=atelic) vs. *ik zit een brief te schrijven* 'I sit to write a letter' (=telic).

The combinations 'stand to cheer/jostle/be anxious' are mostly used to refer to a state of being impatient without any location or posture being at issue. The combination *zitten+aankomen* ('sit+arrive') builds on a progressive reading of *aankomen* 'arrive'; literally the expression means "be arriving" whence the idiomatic meaning "happen soon".

Cornelis (1997:88) characterises *worden* 'become' as a "gradual change verb" which expresses the evolution of a process to its final state.

|                    | PREP |      | POS  |       |       |
|--------------------|------|------|------|-------|-------|
| ASPECTUAL<br>CLASS | Freq | Pct  | Freq | Pct   | TOTAL |
| activity           | 512  | 49%  | 1282 | 93.4% | 1794  |
|                    |      | 29%  |      | 71.5% | 100%  |
| achievement        | 331  | 32%  | 47   | 3.4%  | 378   |
|                    |      | 88%  |      | 12%   | 100%  |
| accomplishment     | 197  | 19%  | 36   | 2.6%  | 233   |
|                    |      | 85%  |      | 15.5% | 100%  |
| state              | 0    |      | 8    | 0.6%  | 8     |
| (zijn 'be')        |      |      |      | 100%  | 100%  |
| TOTAL              | 1040 | 100% | 1373 | 100%  | 2413  |

Table 3: Aspectual preference of POS and PREP progressive

The differences are significant: Chi<sup>2</sup>= 622.565, df=2, p=0 (the category 'state' was not taken into account, given its low frequency).<sup>10</sup>

These differences lie in the same line as those resulting from the quasi-experiments by Behrens *et al.* (2013) who conclude that "the *aan het*-construction [...] is significantly more likely to occur with change-in-state situations: 161 out of 173, or 93.06%" (p. 119). While their experimental results confirm to some extent the findings of our collostructional analysis, it remains necessary to look at other factors that determine the choice of constructions, as we will do in the next section, looking at adverbial modifiers.<sup>11</sup>

#### 3.3. Adverbial modifiers

The adverbial modifiers that occur in the two progressive constructions strengthen the semantic differences. We will subsequently consider three types of modifiers: temporal, locative, and process modifiers.

All Chi<sup>2</sup> calculations were done using K. Preacher's online tool: Preacher, K. J. (2001, April). Calculation for the chi-square test: An interactive calculation tool for chi-square tests of goodness of fit and independence [Computer software]. Available at http://quantpsy.org.

It is precisely in respect to the factors that these adverbial modifiers express that the experimental study by Behrens *et al.* remains insufficient; see Lemmens 2015 for a more detailed critique.

#### 3.3.1. Temporal modifiers

The temporal modifiers at issue here are durative modifiers (e.g., *de hele dag* 'all day', *nog steeds* 'still', *nog* 'still'), repetitive modifiers (e.g., *steeds weer* '(over and over) again'), punctual modifiers (e.g., *op dat ogenblik* 'at that moment', *net* 'just', *nu* 'now') and general temporal modifiers that indicate a larger temporal frame (e.g., *vandaag* 'today'). Table 4 gives an overview of the frequency of these modifiers with the two constructions in our corpus. In total, there are 350 sentences with the PREP progressive that have such modifiers (34%, on a total of 1,040), for the POS progressive there are 336 (24%, on a total of 1,373), a difference of 10%. A Chi² test indicates that the presence of such a modifier gives a significant difference between the two constructions, with more temporal modifiers than expected with the PREP progressive (obs. 350 vs. exp. 295.7) and less than expected (336 vs. 390.3) for the POS progressive. This indicates that temporal modifiers are a more relevant semantic complement for the PREP progressive than for the POS progressive. Differently put, this can be interpreted as an indication that the PREP progressive in general is more focused on the temporal reference frame of the action, of which these adverbial modifiers are the explicit confirmation.

A Chi<sup>2</sup> test applied to the subset of sentences with adverbial modifiers (686 in total) with the four different categories (Table 4) also gives a significant result (Chi<sup>2</sup>=43.526, df=3, p=0), which confirms that there are statistically significant differences between the constructions with respect to the distribution of these modifiers.

The Chi<sup>2</sup> tests were computed on the basis of the 4 subtotals at the bottom of Table 4.

|  | PREP                    |      | POS                 |      |       |  |
|--|-------------------------|------|---------------------|------|-------|--|
|  | Freq                    | Pct  | Freq                | Pct  | TOTAL |  |
| durative   | 162                     | 46%  | 133                 | 40%  | 295   |  |
|  | (exp.=150.5)            |      | (exp.=144.5)        |      |       |  |
| punctual   | 113                     | 32%  | 61                  | 18%  | 174   |  |
|  | (exp.=88.8)             |      | (exp.=85.2)         |      |       |  |
| repetitive   | 35                      | 10%  | 44                  | 13%  | 79    |  |
|  | (exp.=40.3)             |      | (exp.=38.7)         |      |       |  |
| general  | 40                      | 11%  | 98                  | 29%  | 138   |  |
|  | (exp.=70.4)             |      | (exp.=67.6)         |      |       |  |
| SUBTOTAL   | PREP                    |      | POS                 |      |       |  |
| with adv. mod.   | <b>350</b> (exp.=295.7) | 100% | 336<br>(exp.=390.3) | 100% | 686   |  |
| without adv. mod.  | 690                     |      | 1,037               |      | 1,727 |  |
| TOTAL  | 1,040                   |      | 1,373               |      | 2,413 |  |
| $\text{Chi}^2 = 24.519$ ; df=1; p= 7.4 <sup>-7</sup> *** |                         |      |                     |      |       |  |

Table 4: Aspectual and temporal modifiers

Durative and punctual modifiers occur more than expected with the PREP progressive and taken together account for 78% of the adverbial modifiers occurring in this construction. That durative modifiers are more frequent with the PREP progressive than with the POS progressive, can possibly be explained by the fact that the latter (more than the former) already express durative aspect; such modifiers are thus, as Kuteva (1999:209) claims, "redundant rather than necessary" for the POS progressive. In turn, punctual modifiers that refer to a specific point in time (e.g., net 'just', op dat moment 'at that moment', juist toen 'just when', etc.) play an important role in the PREP progressive. The following example from the INL corpus even contains two punctual modifiers:

(3) Jonge mensen die er *net* wat aan het drinken waren *op het moment van de beschietingen* (INL) young people who there just something to drink were on the moment of the shooting 'Youg people who were just drinking something there at the moment of the shooting.'

We can conclude from this that, more than expected, the PREP progressive involves a punctual focus on the event or action.

With the POS progressive there are in contrast more *repetitive* and *general* temporal modifiers than expected, but they still represent only 42% of the cases.<sup>13</sup> Percentagewise durative modifiers

In Table 4 frequencies that are higher than expected will be presented in **bold-italics**.

are the largest group also for the POS progressive (40%), even if they occur less frequently in comparison to the PREP progressive, as already observed above. Strikingly, the largest divergence between the expected and observed frequencies with the POS progressive occurs with the general modifiers (with the PREP progressive, the largest difference concerned the punctual modifiers), which indicates that the POS progressive involves a more general perspective. This is a point to which we will return shortly.

#### 3.3.2. Locative modifiers

As far as the locative modifiers are concerned, some marked differences can be observed as well. In the (abundant) non-progressive uses of posture verbs (see Lemmens 2002) a locative complement is usually obligatory (unless we are dealing with a 'pure' postural use of the verbs, e.g., *hij zit niet, maar staat* 'he is not sitting but standing'), but in the progressive construction, the locative modifier is optional: *Hij zit (op een stoel) te lezen* (litt. he sits (on a chair) to read). A locative modifier occurs in 601 cases (44%, on a total of 1,373) for the POS progressive (also frequent in metaphorical usage); in the PREP progressive such modifiers only occur in 126 cases, or 12%, on a total of 1,040.

|                           | PREP                          |      | POS                 |      |       |
|---------------------------|-------------------------------|------|---------------------|------|-------|
|                           | Freq                          | Pct  | Freq                | Pct  | TOTAL |
| with locative modifier    | 126<br>(exp.=313.3)           | 12%  | 601<br>(exp.=413.7) | 44%  | 727   |
| without locative modifier | 914<br>(exp.=726.7)           | 88%  | 772<br>(exp.=959.3) | 56%  | 1,686 |
| TOTAL                     | 1,040                         | 100% | 1373                | 100% | 2,413 |
|                           | $Chi^2 = 281.721$ ; df=1; p=0 |      |                     |      |       |

Table 5: Locative modifiers with PREP and POS progressive

For the calculation presented in Table 5 every sentence with a locative clause was counted as 1, irrespective of the number of such modifiers. If one counts the number of locative modifiers *per sentence*, a marked difference stands out: of the 126 PREP progressives with a locative modifier,

there are (only) 13 sentences in which there are two locative modifiers (1.25% of the total; 10.3% of the 'locative subset'). With the POS progressives, there are 41 sentences that have two locative modifiers and 3 sentences that even have three (taken together this gives 44 sentences, or 3.2% of the total and 7.3% of the locative subset). Here are some nice examples from the INL corpus that illustrate such more elaborate locative focus:

- (4)a. [Achter hem] lag Los Angeles te sputteren [in een frituurmand van elektrische lichtjes] (INL)
  [behind him] lay Los Angels to sputter [in a frying basket of electric lights]
  - b. de walvisribben staan [in het maanlicht] spookachtig-wit te glanzen [op de graven] [rondom de kerk] (INL) the whale ribs stood [in the moonlight] spookily white to shine [on the graves] [around the church]
  - c. [In het keukentje] [naast de knusse eetruimte] staat de eigenaar [achter een houtgestookt fornuis] te koken met knuisten zo groot als kolenschoppen (INL) [in the small kitchen] [next to the cosy dining room] stands the owner [behind a wood stove] to cook with fists as big as coal shovels

The different locative modifiers do not all present the exact location of the action or event, but there often is a kind of hierarchy, one location serving as the larger setting or reference point for another. If one counts the total weight of all these locative modifiers individually, then one ends up with a total of 648 modifiers with the POS progressive versus 139 for the PREP progressive; this increases the percentages to 13.3% and 47.2% respectively. Despite the optional character of locative modifiers with the POS progressive, the corpus examples clearly indicate that they are not only frequent but also quite salient and specific in these sentences. The locative modifiers occurring with the PREP progressive are more vague, often anaphoric, indications such as, for example, *hier* 'here' and *daar* 'there', or larger locations such as *in Nederland* 'in the Netherlands'.

In short, the frequency and type of locative modifiers confirm the more descriptive nature of the context in which the POS progressive is used: in the most typical (and thus distinctive) cases, the activity expressed by this construction is situated in a (rather specifically described) location.

## 3.3.3. Process modifiers

Finally, we take a look at what we have called process modifiers which, in one way or another, express a modification of the action itself; they can for example refer to DEGREE (e.g., erg 'badly'), PROGRESS (e.g., geleidelijk 'gradually', langzaam(aan) 'slowly') or MANNER (e.g., efficient 'efficiently'). Also here, one notices a marked difference. In the POS progressive, there are 148 attestations (11%) with such modifiers; of these, 132 (89%) are modifiers that pertain to the MANNER in which the action is carried out, such as hevig 'loudly' in example (5a), or modifiers that relate to the Agent, such as geduldig 'patiently' in example (5b), and that thus, indirectly, say something about how the action was carried out.

- (5)a. Aan de overkant van de sloot, helemaal op de hoek van het weiland, stond een koe hen *hevig* toe te loeien. Verderop bleek een andere koe in het gras te liggen (INL) on the other side of the ditch, completely on the end of the prairie, stood a cow to-them energetically PRT to moo. (= a cow was mooing loudly at them). A bit farther on, another cow turned out in the grass to lie (= was lying in the grass).
  - b. ze stonden *geduldig* te wachten (INL). they stood patiently to wait (= were waiting patiently).

In addition to a reading relating to the posture of the cows (standing vs. lying), example (5a) perfectly illustrates the situational character that typifies the descriptive context in which the POS progressive occurs: the context provides a clear locative situation with four locative modifiers: 'on the other side of the ditch', 'completely at the end of the prairie', 'a bit farther', and 'in the gras'. The addition of *hevig* 'energetically' strengthens the descriptive character.

Strikingly, modifiers of DEGREE hardly occur at all with the POS progressive (1%) (e.g., *Het publiek op de tribunes zit wat van de zon te genieten* 'the audience on the stand sits a bit the sun to enjoy = 'is enjoying the sun a bit') and if they occur, it is almost invariably the vague (*maar*) wat '(just) a bit'. This modifier expresses a certain purposelessness which is also typical of the POS progressive; it is one of the aspects which trigger the negative connotations that are often

associated with the POS progressive.<sup>14</sup> In the INL corpus there are no occurrences of PROGRESSION modifiers with the POS progressive.

For the PREP progressive there are in total 242 sentences with process modifiers (23%), but the distribution is quite different: 115 of these modifiers (48%) are modifiers of DEGREE, e.g.,

(6)a. Nederland is **flink** aan het vergrijzen The Netherlands is considerably at the grey 'The Netherlands is aging considerably.'

28 (12%) are PROGRESS modifiers, e.g.,

- (7) a. hoe ik mijn eigen leven **langzaam maar zeker** aan het kapotmaken was (INL) how I my own life slowly but certainly at the destroy was 'How I slowly but certainly was destroying my life.'
  - b. deze kennis is **snel** aan het verdwijnen (INL) this knowledge is fast at the disappear 'This knowledge is rapidly disappearing.'
  - c. de rente in Nederland is **stapje voor stapje** aan het dalen (INL) the interest in the Netherlands is step by step at the decrease 'The interest in the Netherlands is decreasing gradually.'

and 25 (10%) are modifiers of MANNER, e.g.

(8) a. een film waaraan hij reeds vier jaar **diskreet** aan het werken was a film which-at he already four years discretely at the work was 'A film which he had already been working on for four years.'

The rest is a fairly heterogeneous bunch. In other words, the process modifiers that occur with the PREP progressive are more concerned with the process itself and how it proceeds (or not). The MANNER modifiers do admittedly create some overlap with the POS progressive, but this is precisely because these modifiers are on the crossroads of process and Agent: in example (8) the adverb *diskreet* 'discretely' says something about creation as well as about the Agent, just like *hevig* 'energetically' in example (5a) pertains to both the mooing and the cows. In these cases, the dividing line between modification of process or of Agent is not always easy to draw.

Assembling all these observations on the temporal, locative and process modifiers, we can conclude that the PREP progressive clearly has a more *processual* focus (punctual time adverbials,

In their analysis of English *sit/stand/lie* and *V* construction, Newman and Rice (2004) observe that the particle *around* is also typical for this construction and often refers to idling, e.g., *sitting* around and doing nothing.

few and unspecific locative modifiers, frequent modifiers of degree and progress), while the POS progressive has a more *situational* focus (wider time frame, salient locative modification, modifiers of manner and Agent-related modifiers). This situational character is furthermore often strengthened by additional descriptive elements. In the different examples in (4) we see some good illustrations of this: in (4a) for example there is the striking image of a frying basket of lights, the ribs of a whale in (4b) are said to shine in ghostly white light, the restaurant owner in (4c) is additionally described as someone with fists as big as coal shovels. Such strongly descriptive elements are markedly absent in the sentences with a PREP progressive; if any descriptive element occurs at all, they concern the evolution of the process itself or the exact time of its occurrence.

## 4. Conclusion

The PREP and POS progressive undoubtedly share some features: (i) they both are frequently used expressions to refer to ongoing activities or events; (ii) they are both ungrammatical with state verbs, and (iii) they are both derived from a locative construction. Our more detailed study, based on a corpus of written texts, has shown that despite these similarities, the two constructions have a different semantic profile. From our comparison of verbs that are used in these constructions, it emerged that there is a very small overlap (a mere 10%) of types of verbs. This difference was confirmed by the collostructional analysis which shows that the constructions attract different type of verbs: the POS progressive clearly prefers static, atelic predicates (with wachten 'wait' as the exemplar verb), the PREP progressive clearly prefers telic verbs, and in particular those that express a change or a goal-directed motion (two notions that are semantically related), where worden 'become' and veranderen 'change' can be taken as exemplars. Finally, our comparison of the adverbial modifiers that occur in these constructions has confirmed the different semantic profiles. The modifiers occurring in the PREP progressive, mostly concern the evolution of the

process itself (its speed or degree of change) or refer to a specific moment in time (e.g., *net op dat moment* 'just at that moment'). The modifiers in the POS progressive are mostly locative modifiers or modifiers that concern the manner in which the Agent carries out the action. Other elements in the clause or the larger context also often contribute to a more descriptive character.

In more general terms, we have characterised the differences between the two constructions as one between a *processual focus* (for the PREP progressive) versus a *situational focus* (for the POS progressive). From an onomasiological perspective, the latter can actually be related to the non-progressive use of posture verbs in Dutch. These verbs are the preferred, unmarked coding when one wants to express the location of an entity in space in Dutch. For example, one says *Mijn sleutels liggen op de tafel* 'my keys lie on the table' or *Het boek staat in het rek* 'the book stands on the shelf' rather than *Mijn sleutels zijn op de tafel* 'my keys are on the table' or *Het boek is in het rek* 'the book is on the shelf', which –out of context– sound both very unidiomatic. Similarly, when Dutch speakers locate an Agent carrying out an action, they will be strongly inclined to follow the same logic and use a POS progressive, rather than a PREP progressive, even if the latter is not always excluded. As indicated above, the locative nature is often explicitly expressed via modifiers, but this need not be so.

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This does not mean that *zijn* 'be' is impossible; for example, it may be common in questions about the whereabouts. Lemmens & Perrez (2010, 2012, forthc.) present a discussion of the use of *zijn* 'be' in the productions of French learners of Dutch, and show that it is particularly the **accumulation** of *zijn* 'be' that comes across as unidiomatic rather than a single use.

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