

# On the syntactic nature of the Dutch prefix *be-*

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This paper provides a novel syntactic analysis of the Dutch prefix *be-*. This prefix can derive new verbs by attaching to verbs (*be-vind<sub>V</sub>-en* ‘to be located’), nouns (*be-dijk<sub>N</sub>-en* ‘to dam up’) or adjectives (*be-groot<sub>A</sub>-en* ‘to economize’). It can also form new adpositions by combining with adjectives (*be-need<sub>A</sub>-en*, ‘below’) or prepositions (*be-ove(r)<sub>P</sub>-(e)n* ‘above’). We propose an analysis of *be-* based on Aboh’s (2010) account for complex locative expressions in typologically different languages, including Gungbe, Zina Kotoko, English and Dutch. We extend this analysis to Dutch verbal complexes, and argue that *be-* expresses a functional category (F°) that embeds a predicate phrase containing the element it attaches to, in both adpositions and verbs. Our analysis goes against Hoekstra, Lansu and Westerduin’s (1987) small clause account of *be-* in verbal complexes in which *be-* is the head of a predicate phrase (Pr°).

**Keywords:** Dutch prefixes, predication, syntax, morphology

## 1. Introduction

This paper focuses on the status of the Dutch prefix *be-*, which can form both verbs and adpositions. *Be-* attaches to various parts of speech such as verbs, nouns, adjectives, adverbs and prepositions, as in examples (1a–d), as well as to roots, as in (1e) (also see De Haas and Trommelen 1993). The category of the base is given between brackets.

(1)	Base	Verb
a.	kijk ‘look’ (V)	be-kijk-en <sup>1</sup> ‘to watch’
b.	dijk ‘dike’ (N)	be-dijk-en ‘to provide with a dike’
c.	zat ‘drunken’ (A)	be-zat(t)-en ‘to hit the bottle’
d.	√GIN (root)	be-gin(n)-en ‘to start’

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1. All examples of verbs are followed by the infinitival suffix *-en*.

The meaning of *be-*, when forming a verb, can be described as ‘to direct an action towards an object such that the object is affected’ (De Vries 1975). The entity, property, or action denoted by the base lexical elements *be-* attaches to, plays a role in that action (Booij 2002: 113). In terms of productivity, *be-N* and *be-V* combinations are productive and *be-A* combinations are not.

Additionally, the prefix *be-* in Dutch may also form adpositions, as illustrated in (2). We follow Aboh (2010) in assuming that adpositions such as *buiten* ‘outside’ are derived phrases. Aboh argues that such an adposition is a morphologically and structurally complex item in which *be-* selects a phrase embedding *uit-en* ‘out-INFL’.

(2)	Base	Adposition
	a. ned(er) ‘low’ (Adv)	be-neden ‘below’
	b. ov(er) ‘on’ (P)	b-oven ‘above’
	c. zuid ‘south’ (A)	be-zuiden ‘south of’
	d. zijde ‘side’ (N)	be-zijden ‘alongside’

Adpositions formed with *be-* are not productive, whereas the verb forming *be-* is productive when it attaches to nouns and verbs. This paper focuses on the parallelism between the occurrence of the prefix *be-* in verbs and in adpositions, which has not yet been investigated.<sup>1</sup>

We aim to provide a novel and uniform syntactic analysis of the occurrence of *be-* in verbs as well as in adpositions, on the basis of Aboh’s (2010) account of complex locative constructions. We claim that the distribution of *be-* is best explained by assuming that it is a functional head ( $F^{\circ}$ ) that embeds a predicate phrase (Section 2). This analysis captures all occurrences of *be-* (i.e. in adpositions and verbs). We further contrast our analysis to the analysis by Hoekstra, Lansu and Westerduin (1987), in which the prefix *be-* is assumed to head a predicate phrase ( $Pr^{\circ}$ ) within a Small Clause. We show that this analysis runs into several problems that do not arise in our analysis (Section 3). In Section 4, we discuss some of the extensions of our approach and Section 5 concludes.

1. While this paper will only discuss the Dutch prefix *be-*, we do want to stress that similar constructions can be found in other Germanic languages, such as in English where one can find the same parallelism between verbs formed with *be-* (*be-come*, *be-fringe*) and prefixes formed with *be-* (*be-low*, *be-side*). Arguably, the analysis proposed here should extend to those cases as well. We return to these cases in future work.

## 2. *Be-* as a Functional Projection

This section first describes Aboh's (2010) analysis for adpositions, and shows that complex adpositions involve the same underlying structure cross-linguistically (2.1). Building on Aboh's analysis we propose a novel account for *be-*derived verbs in Dutch (2.2).

### 2.1 From Adpositions in Gungbe to Dutch (Aboh 2010)

Based on cross-linguistic data, Aboh (2010) argues that adpositions such as English *be-side* or *in-front-of* are complex phrases. An example of such a complex phrase is given in (3), in which the first part of the complex phrase (*in*) relates the FIGURE (*he*) to the GROUND (*the house*), and the other part of the phrase (*to*) represents the part of the GROUND that serves to locate *he* (following Talmy 2000).

- (3) He ran into the house.

As Aboh (2010:253) argues this would mean that *in* and *to* started out as two independent elements *to+in* though *in* subsequently raises to *to* in surface syntax. This view is compatible with data from Gungbe and Zina Kotoko. In both languages, adpositions are formed by the combination of two types of items derived from two distinct word classes and labeled as P1 (the RELATOR, such as *in* in (3)) and P2. Interestingly, P1 and P2 occur on both sides of the GROUND cross-linguistically, as shown in (4) and (5).

(4) **Gungbe**

Kòjò zé gò ló ɖó àkpótín ló mɛ̀  
 Kojo take bottle DET P1 box DET P2  
 'Kojo put the bottle inside the box' (Aboh 2010:225)

(5) **Zina Kotoko**

Kàrtà dé a gmá tábləl  
 cards DET P1 P2 table  
 'The cards are on the table' (Holmberg 2002:163)

In Gungbe, (4), we see that *inside* is expressed by a P1 item *ɖó*, which precedes the DP-GROUND, which in turn precedes a P2 item *mɛ̀* highlighting some part of ground. The complex adposition thus circumvents the DP-GROUND *àkpótín ló* 'the box' and the resulting order is P1>DP>P2. In Zina Kotoko, (5), *on top of* is expressed by *a gmá*, a P1 and a P2 item, which as a complex precedes the DP-GROUND *tábləl* 'table', resulting in the order P1-P2-DP. Under this view, English *to* corresponds to P1 while *in* corresponds to P2. This description further suggests

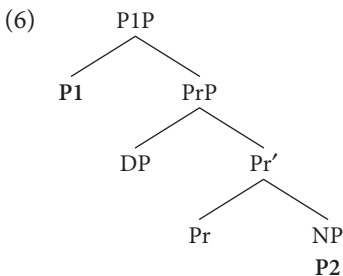
that English is just one stage further than Zina Kotoko as P2 seems to raise to adjoin to P1 yielding *in-to*. Aboh's (2010) crosslinguistic study further shows that P1 and P2 emerge from two word classes: verbs or relators, and landmark nouns, respectively.

As such, these items show different semantic and morphosyntactic properties. P1 items typically encode direction and may function as relators, introduce new arguments and assign case. P2 items, on the contrary, typically encode location but do not introduce new arguments and do not assign case. They generally occur inside a DP introduced by a verb or P1-like element (4–5). For a more extensive overview of the properties of P1 and P2 items and their independent syntactic behavior, the reader is referred to Aboh (2010). The relevant differences the reader should keep in mind are repeated and summarized in Table 1.

**Table 1.** P1 and P2 items in Gungbe and Zina Kotoko

Property	P1 items	P2 items
source	verbs	nouns
code	source, direction, goal	location

Based on the syntactic behavior of the P items, Aboh proposes the structure in (6) for such complex adpositions.<sup>2</sup>



Aboh builds his analysis on Bowers' (1993) theory of the predicate phrase (PrP). The PrP hosts the external object in its specifier and takes a predicate, such as a VP

2. The reader should keep in mind that the structure in Aboh (2010) is in two ways more complex: (i) In between the P1P and PrP there is a FP where the inverted P2 element in Zina Kotoko can land; (ii) Aboh (2010) assumes that a small clause, PrP, consists of a defective clause which includes IP and CP. Therefore, P2 may include inflection. However, for ease of exposition, we will use P1P > PrP throughout the paper, since nothing in our analysis hinges on the presence or absence of these functional projections.

or NP, as its complement.<sup>3</sup> In the structure in (6), the P1 item is the head of a functional phrase above the PrP; the P2 item is the head of a predicative bare NP selected that functions as complement of Pr<sup>o</sup>. This creates the classical configuration for N to be incorporated into Pr<sup>o</sup> (Baker 1988). In terms of the structure in (6), adpositions as in Gungbe can be represented as in (7); the DP *àtín lɔ* ‘the tree’ is in SpecPrP, while the element *jí* ‘top’ expressing P2 incorporates into Pr<sup>o</sup>.

- (7)  $[_{P1P} [_{P1} \text{dó} [_{PrP} \text{àtín lɔ} [_{Pr^o} \text{jí} [_{NP} \text{jí}]]]]]$   
           P1       tree DET       P2  
 ‘on the tree top’

The structure in (6) can also explain the adpositions found in Zina Kotoko. The only difference in this language is that P2 incorporates into Pr<sup>o</sup> and that the so-formed complex P2-Pr<sup>o</sup> further raises to a higher position to the left of the GROUND, as shown in (8).<sup>4</sup>

- (8)  $[_{P1P} [_{P1} \text{a} \text{ gmá} [_{PrP} \text{táblɔl} [_{Pr^o} \text{gmá} [_{NP} \text{gmá}]]]]]$   
           P1 P2-PR       table       P2-PR  
 ‘on the table’

As mentioned above, Aboh (2010) argues this analysis holds for English and Dutch complex adpositions as well. This is illustrated for Dutch *buiten* ‘outside’ in (9).

- (9)  $[_{P1P} [_{P1^o} \text{b-uit-en} [_{PrP} [_{DP} \text{de cirkel} [_{Pr^o} \text{uit-en} [_{NP} \text{uit}]]]]]]]$   
           P1-P2-PR               the circle       P2-PR  
 ‘outside the circle’

Aboh assumes that *buiten* consists of P1 item *be-* and P2 item *uit*. The assumption is that *be-* is comparable to relators, while *uit* derives from a locative noun. In the P1 position we find *be-* above the PrP. The P2 position, being the complement of PrP, hosts *uit*, which obtains infinitival inflection by incorporation into the Pr<sup>o</sup>. Next, *uit* moves up further to P1 item *be-*, forming a complex element, similar to the adpositions in Zina Kotoko. Note that the same can also be said of English adpositions as *beside*, which can be decomposed into *be* (P1) and *side* (P2).

To summarize, Aboh shows that spatial expressions in Gungbe, Zina Kotoko, Dutch and English are complex phrases involving the underlying structure in (6). A major prediction of this analysis is that one expects elements functioning as P1

3. The PrP has the potential to create a small clause when taking a NP or AP as a complement. Such a small clause can function as a separate discourse unit (see e.g. the small clause *John crazy* in *They consider*  $[_{PrP} \text{John} [_{AP} \text{crazy}]]$ ).

4. The movement of P2 is motivated independently by Aboh, on the basis of predicate (head) inversion data from Hausa and Gbe genitive constructions (Aboh 2010: 39–47).

to derive other phrases than locatives. We claim that this is the case in *be-V*, *be-A*, and *be-N* combinations in Dutch, in which P1 selects for a nominal, verbal, or adjectival predicate.

## 2.2 Our proposal

We argue that the examples in (1) and (2) can be derived on the basis of the same structure as complex adpositions. Our claim is that *be-* realizes a functional projection (PIP) that embeds a predicate phrase, that can be headed by a verb, a noun or an adjective. In other words, we treat these elements synchronically as verbs, adpositions, nouns, adjectives, but their internal structure is complex.

The next examples show how the syntactic structures of the verb *beschouwen* ‘consider’ and the adposition *buiten* ‘outside’ are identical from this point of view. Compare the structures of *buiten* in (9), and *beschouwen* in (10).<sup>5</sup>

- (10)  $[_{PIP} [_{P1^o} \text{be-schouw -en} [_{PrP} [_{Pr^o} \text{schouw-en} [_{VP} \text{schouw}]]]]]$   
           BE-consider-INFL                    consider-INFL  
           ‘to consider’

In the adpositional phrase (9) and verbal phrase (10), *be-* is base-generated in a P1P above the PrP. In both structures, the P2 item, *uit* or *schouw* respectively, moves into the head position of *be-*. Note that the complex head in P1P can move further in Dutch main clauses and end up in second position, due to verb second (Den Besten 1983). However, we will not discuss this here, as the structure between C and P1P is not relevant for our proposal. Comparing the structures in (9) and (10), we see that the syntactic structure and operations are completely similar in both adpositions as *buiten* ‘outside’ and verbs as *beschouwen* ‘consider’. Note also that our analysis explains the distribution of *be-*: it selects a predicate phrase whose head can be any major category therefore resulting in a *be-V*, *be-N* or *be-A* combinations.

One may wonder how an adposition ends up as an adposition and how a verb ends up as a verb, if their structure is completely identical. In our analysis, all *be-* phrases are predicates of some kind and what distinguishes between a verbal and an adpositional predicate, is the nature of the predicate that is selected by the PrP. Note that adpositional *be-* phrases all contain locative or directional predicates. This is not the case for *be-* phrases that are verbs. The ‘fate’ of *be-* constructions thus

5. An interesting by-product of our analysis is that it solves one of the problems Trommelen and Zonneveld (1986) have in their morphological analysis of Dutch as a language that obeys the right-hand head rule. They observe that the head of a morphological complex word is always the right part, which seems to be contradicted by prefixes as *be-*, since these are the left part of the word yet do determine the category of the complex item. Our analysis is compatible with this observation.

rests on the lexical semantics of the predicate selected by PrP (also see Lieber and Baayen 1993).

To sum up, we argued that the Dutch prefix *be-* in adpositions can be optimally analyzed as a P1 item that selects a predicate phrase. This analysis applies to Dutch *be-V*, *be-N*, and *be-A* combinations, thus showing that predicative heads in general can combine with *be-* to derive new phrases. We further argued that the sequence *be-V*, *be-N* or *be-A* is derived by movement of the verb, noun or adjective in question. The selected predicate is the complement of the PrP, and moves up to *be-* in order to form a complex adposition or verb with *be-*. Note that in the introduction we mentioned that there is a difference in productivity as adpositions and *be-A* verbal complexes are not productive whereas *be-N* and *be-V* verbal complexes are. We will address this in Section 4. First, in the following section, we contrast our analysis to a different analysis for verb forming *be-* as proposed by Hoekstra, Lansu and Westerduin (1987) in which the prefix is assumed to head a predicate phrase (Pr<sup>o</sup>) within a Small Clause. We will show that this analysis runs into several problems that do not arise in our analysis.

### 3. Why an analysis of *be-* as Pr<sup>o</sup> does not work

In the previous section we have argued that the prefix *be-* can best be analyzed as a P1-type element that selects a predicate phrase as its complement. A different account for verbal complexes with *be-* has been offered by Hoekstra, Lansu and Westerduin (1987) (henceforth HL&W), who argue that *be-* should be analyzed as the head of the predicate phrase (Pr<sup>o</sup>). Section 3.1 will first briefly explain HL&W's analysis, after which we show, in Section 3.2, that such an account runs into several problems that do not arise in our analysis.

#### 3.1 Hoekstra, Lansu & Westerduin (1987): *be-* as Pr<sup>o</sup>

HL&W compare the behavior of *be-* derived verbs in Dutch to resultative verb constructions, for which a small clause analysis is assumed (cf. Bowers 1993; Den Dikken 1998, 2006). They found that these constructions have similar (resultative) meanings in some contexts like in the examples in (11).

- (11) a. dat ik [<sub>SC</sub> de tuin vol] plant  
           that I    the garden full plant  
       b. dat ik [<sub>SC</sub> de tuin be-] plant  
           that I    the garden BE plant  
           ‘That I plant/cultivate the (entire) garden’

In (11a), the verb *plant* semantically selects the complement denoting a mini proposition, i.e. the resultative small clause (RSC) *de tuin vol* ‘the garden full’. HL&W further note that while resultative small clause constructions can include a wide range of verb classes, they cannot combine with *be*-derived verbs. This is illustrated in (12).

- (12) \*dat ik de tuin vol *be*- plant  
 that I the garden full BE plant

Because *be*-derived verbs and RSC have the same meaning and are in complementary distribution, HL&W conclude that they have the same underlying structure. This means that in (11a) the verb *plant* selects the small clause (SC) *de tuin vol* ‘the garden full’; whereas it selects the SC *de tuin be-* in (11b).

HL&W’s analysis of *be*-derived verbs and RSCs builds on Kayne’s (1985) and related studies on particle constructions such as *opeten* in which the particle *op* heads a SC, as instantiated in (13).

- (13) dat hij [<sub>SC</sub> zijn brood op] eet  
 that he his bread up eats  
 ‘that he finishes his sandwich’

In terms of this description, the complementary distribution between *be*-derived verbs and RSCs is taken to result from the fact that the prefix *be-*, just as the particle *op* in (13) and the predicate *vol* ‘full’ in (11a), represent the predicative part of the SC, though in the case of *be-* it cliticized to the verb on surface form. This analysis is illustrated in (14).

- (14) dat ik [<sub>SC</sub> de tuin *be-*] plant  
 that I the garden BE plant  
 ‘that I plant/cultivate the (entire) garden’

HL&W argue that the prefix *be-* and resultative elements such as *vol* ‘full’ in (11) are in complementary distribution because they involve the same structure (and express similar semantics). In other words: Because the prefixes head a SC that expresses a resultative state, they simply cannot select for another resultative predicate. According to HL&W then, verbal *be*-complexes are best analyzed as small clauses headed by *be-*.

Comparing this analysis to our own, we observe that the two differ in that HL&W argue that *be-* should be the head of the predicate phrase (Pr<sup>o</sup> or in their terms: the head of the small clause), whereas we propose that *be-* should be external to the small clause. It expresses P1, which selects a predicate phrase (arguably a small clause) as complement. These differences are not trivial as they make different predictions, which we discuss in the following section.



### 3.2 Why *be-* cannot be $\text{Pr}^\circ$

In Section 2, it was shown how Aboh's extended account explains the usage of *be-* in adpositions and verbs. A crucial difference between this account and HL&W's account is that HL&W can only account for verbal *be-* constructions that are resultative. In their view, *be-* is the head of a RSC and therefore, *be-* must have a resultative meaning. The consequence is that those verbal occurrences of *be-* that are not resultative should be accounted for in another way. Under HL&W's account, we thus end up with three types of *be-*; (i) a prefix explaining verbal occurrences with a resultative meaning; (ii) a prefix explaining the verbal occurrences without a resultative meaning; and (iii) a prefix found in adpositions. In HL&W's approach, commonalities between these *be-* particles would be coincidental.<sup>6</sup> In the remainder of this section, we will show that *be-* verbs are not necessarily, and thus not inherently, resultative and that our account can explain the complete distribution of *be-* in a more elegant way.

As discussed, the equivalence of sentences such as in (11) and the complementary distribution of the resultative item *vol* and the particle *be-* leads HL&W to assume that *be-* is resultative as well. Consequently, it is expected that *be-* is always in complementary distribution with a resultative item. However, the data do not support this. The examples in (15) illustrate that not all *be-* verbs have a resultative reading similar to the resultative meaning of *bepplanten* 'to cultivate' in (11b). Wechsler (2005) argues that based on entailment patterns, one can test if a sentence is resultative or not. Applying this to (11) gives a correct result: When a garden is *beplant*, it entails that the garden is full with plants and/or trees. However, applying this test to the *be-* verbs in (15) gives rise to problems. Crucially, the resultative items that *be-* is expected to be in complementary distribution with are, to the best of our knowledge, not available for verbs as *bemoederen* 'to mother' and *begroten* 'to estimate costs'. As a result, Wechsler's entailment test fails for these verbs, since the only possible continuation for (15a)'s *she mothers the child*, would be, *as a result, it became mothered*. Clearly, this is circular.

- (15) a. Dat zij [<sub>SC</sub> het kind *be-*]moedert  
 that she the child BE-mothers  
 'That she is mothering the child'  
 #she mothers the child, as a result, it became mothered.

6. One could argue these commonalities are a historical remnant. Based on the RSC account, however, one would be forced to assume that all occurrences of *be-* once occurred in RSCs and grammaticalized into non-resultative verbs and adpositions.

- b. Dat ik [<sub>SC</sub> de kosten *be-*]groot  
 that I de costs *BE*-big  
 ‘That I estimate the costs’  
 #I estimate the costs, as a result, they become estimated.

Note that the examples in (15) are not exceptions; rather it seems easier to come up with *be*-verbs that lack a resultative reading than with verbs that have a true resultative interpretation.<sup>7</sup>

In contrast, if we compare HL&W’s approach to our approach we see that the latter accounts for the commonalities and differences between the verb forming *be-* and the adpositional forming *be-*. in a straightforward manner.<sup>8</sup> The similarities result from the fact that these *be*-X combinations have the same underlying structure, while the differences are the consequences of the nature of X (i.e., V, N, A). One such difference relates to productivity: not all *be-* constructions are productive in Dutch. We turn to this question in the next section.<sup>9</sup>

#### 4. Discussion

In this section we will focus on issues concerning the productivity and the synchronic structure of the words prefixed by *be-*. We will first go through the attested productivity patterns. Thereafter, we will inspect the less productive cases by using a test for compositionality as was proposed by De Belder (to appear).

The process of attaching *be-* to a stem varies in productivity, as has been noted in the previous section: (i) in forming verbs, *be*-N and *be*-V combinations are productive while *be*-A combinations are not; and (ii) in forming adpositions, attaching *be-* is not productive. The productivity seems to correlate with

7. To illustrate: of the first 20 verbs formed with *be-* that are listed in the dictionary, only 8 have a resultative meaning: *beangstigen* ‘to frighten’, *bebakenen* ‘to mark out’, *bebossen* ‘to aforest’, *beboteren* ‘to cover with butter’, *bebouwen* ‘to cultivate’, *bederven* ‘to spoil’, *bedienen* ‘to serve’, *bedijken* ‘to surround with dikes’. Verbs that lack a resultative meaning are the following: *beademen* ‘to breathe air into’, *beamen* ‘to agree with’, *beantwoorden* ‘to answer’, *beargumenteren* ‘to argue’, *beboeten* ‘to fine’, *bebroeden* ‘to incubate’, *becritisieren* ‘to criticize’, *bedanken* ‘to thank’, *bedaren* ‘to calm down’, *bedekken* ‘to cover’, *bedenken* ‘to consider’, and *bedingen* ‘to insist on’.

8. The question of complementary distribution between *be-* and other resultative items bears also on a far more detailed analysis of PrP and the selectional requirements of PIP. We leave this for future work.

9. Another possibility is that Pr<sup>o</sup> hosts the *-en* morpheme in Dutch as this is an inflectional element. Recall that Aboh (2010) assumes that small clauses are defective clauses which includes IP and CP — see footnote 2.

the compositionality of the meaning of the complex element: when the formation is not productive, there is no systematic and clear meaning of *be-*. Thus, when forming a *be*-verb with a noun as its base, the meaning of the complex element is compositionally derived from both parts: *bebossen* ‘to form a forest’ in (16a) has both the meaning of ‘forest’ and ‘*be-*’, in which the latter conveys the meaning ‘to cover something completely with x’. The same holds for *be*-V constructions, such as *bekijken* ‘to look at’ in (16b). This verb differs from *kijken* ‘to look’ in the sense that *bekijken* has more focus on the object. In contrast, in most *be*-verbs with an adjective as its base, the meaning of the adjective is not visible anymore in the complex word, as for instance in *begroten* ‘to estimate costs’ in (16c). The same holds when *be-* forms an adposition, as in (16d).

- |      |    |           |                     |
|------|----|-----------|---------------------|
| (16) | a. | bos       | be-bos              |
|      |    | ‘forest’  | ‘to afforest’       |
|      | b. | kijk      | be-kijk             |
|      |    | ‘to look’ | ‘to look at’        |
|      | c. | groot     | be-groot            |
|      |    | ‘big’     | ‘to estimate costs’ |
|      | d. | over      | b(e)-oven           |
|      |    | ‘over’    | ‘upstairs’          |

The examples in (16) show the difference in compositionality: some *be*-X combinations seem to have lexicalized while others have not. This is also what Lieber and Baayen (1993) found, who did a corpus study and listed *be*-verbs that did not occur in existing and extensive lists of *be*-verbs (provided in Schultink 1962, De Vries 1975) and that therefore ‘share an intuitive flavor of newness’ (Lieber and Baayen 1993:73). Lieber and Baayen show that there are only 8 occurrences of *be*-A verbs, whereas new *be*-N verbs occur 50 times and *be*-V verbs 34 times.

In order to evaluate the degree of lexicalization, we will use De Belder’s (to appear) test for compositionality. She uses a compounding test to show the difference between morphologically complex and morphologically simplex words. De Belder notices that verbs formed with the prefix *ver-* in Dutch can behave in different ways, as illustrated in the examples in (17) (to appear: 13–14). First, when a *ver*-V combination has a compositional meaning (i.e. when the verbs are derived by means of a productive word-formation process), the word is morphologically complex and *ver-* behaves like a derivational affix. An example is provided in (17a), in which *ver-* refers to an increasing degree. Second, when the meaning of *ver*-V is opaque (i.e. the meaning of the complex item is not determined by the meanings of its parts) as in (17b), the word is simplex. In these unproductive cases, De Belder argues that *ver-* does not have the status of a prefix, but rather is part of the root.

(17)	Base	Verb
a.	Vlaams	ver-vlaams-en
	Flemish	VER-flemish-INFL
	‘Flemish’	‘to become more Flemish’
b.	wen	ver-wen-en
	get.used.to	VER-get.used.to-INFL
	‘to get used to’	‘to spoil’

To test the different types of *ver*-X combinations, De Belder looks at root primary compounds. This type of compound consists of two parts that are non-categorized elements, so-called roots. For the details of her analysis, we refer the reader to De Belder (to appear). Importantly for us, her claim is that in these compounds, derivational affixes cannot occur in the first part of a compound, as is shown in (18a). This explains the different ways in which *ver-* behaves: Exactly those *ver-* words that have a compositional meaning, cannot occur as the left hand part of a compound, illustrated in (18b). In contrast, the *ver-* words that are more opaque can occur as the left hand part of a compound, as in (18c). From this De Belder concludes that in the latter cases, *ver-* is not an affix, and the word is thus simplex — unlike its productive counterpart.

(18)	a.	*spaar-zaam-attitude
		save-ZAAM-attitude
	b.	*ver-slaap-tijd
		VER-sleep-time
	c.	verdwijjn-truc
		disappear-act
		‘disappearing act’

If we now apply this test to *be-*, we see similar behavior as with *ver-*. In case of the adpositions formed with *be-*, the adposition clearly may occur as the left part of a compound, as is illustrated in (19).

(19)	a.	boven-verdieping
		upstairs-floor
		‘higher floor’
	b.	binnenhuis-architect
		inside.house-architect
		‘interior designer’
	c.	buiten-zwembad
		outside-swimmingpool
		‘outside swimmingpool’

However, in the case of verbs formed with *be-*, the judgments become less clear. First, if *be-* attaches to a category-less root, it is certainly possible to have it as the left part of a compound, as in (20a). In contrast, when *be-* attaches to nouns or verbs, the result is ungrammatical (20b,c). Finally, although words formed with adjectives do not have a compositional meaning, it is hard to find a grammatical compound with *be-A* (20d), contrary to De Belder's predictions.

- (20) a. begin-staat  
start-state  
'starting position'
- b. \*be-dijk-plan  
BE-dike-plan
- c. \*be-kijk-verbod  
BE-look-prohibition
- d. ??be-groot-probleem  
BE-big-problem

This leads us to conclude that in the case of adpositions and verbs with a root as its base, the structure in (6) is most likely not present anymore in the synchronic grammar. However, we would like to propose that this structure can be indicative of the grammaticalization path of the prefix, in terms of Roberts and Roussou (2003) and the subsequent lexicalization of the *be-* phrase. Moreover, if *be-* has grammaticalized in an adposition as *boven*, it is not surprising that the schwa in the prefix has disappeared. In the case of the verb-forming prefix, the status of the structure is less clear. Probably the proposed structure is still present if *be-* attaches to verbs and nouns, since the meaning can be easily derived and it is not possible to form a compound. Moreover, we can easily come up with non-existing, yet possible *be-N* combinations, as was also shown by Lieber and Baayen (1993). The example in (21) illustrates this once more.

- (21) be-deur-en  
BE-door-INFL  
'to provide something with doors'

Finally, the status of *be-A* is unclear. As mentioned above, the formation of verbs with *be-* and an adjective as its base seems to be not productive, but the root-compounding test as proposed by De Belder is not conclusive for this complex. When *be-A* occurs as the left part of the compound, the result is ungrammatical, but the meaning of *be-A* is certainly not (completely) compositional. Therefore, we think that this word-complex is on its way to becoming fully lexicalized. However, it remains an open issue what exactly the relation is between our proposed structure and issues of grammaticalization and compositionality.

## 5. Conclusion

In this paper we have presented a uniform analysis of the Dutch prefix *be-*, which forms both verbs and adpositions. We extended Aboh's (2010) analysis of adpositions formed with *be-* to verbs formed with *be-*. We argued that there is one prefix that spells out a functional category, embedding a predicate phrase. This captures the fact that *be-* can attach to all parts of speech and forms both adpositions and verbs. Finally, we provided arguments against Hoekstra, Lansu and Westerduin's (1987) small clause account of *be-*, showing that *be-* cannot be the head of a predicate phrase (Pr°), but is best analyzed as a functional category (P1°) that embeds a predicate phrase.

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