Blocking participial *ge-* in Dutch: prosody or syntax?[*]

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Abstract. This paper discusses the prefix *ge-* in past participles in Modern Standard Dutch. I will compare the morpho-syntactic explanation for the absence of *ge-* in certain types of complex verbs and the prosodic explanation. I will then try to show that prosodic constraints that are similar but not identical to what has been proposed for German offer an explanation, but only in interaction with syntactic conditions. Finally, I will briefly discuss some data from colloquial Afrikaans where the constraint that blocks past participles with *ge-* is apparently not active.

1. *Ge*-prefixation in Dutch

1.1. *Basic facts*

In Modern Standard Dutch, past participles including those that are used as adjectives are regularly prefixed with the unstressed prefix *ge-*, phonetically [xə]. But *ge-* is absent when the verb stem itself has a prefix, except when the verb belongs to the [-native] part of the vocabulary. The relevant data are given below. The examples in (1) illustrate the regular participles, the examples in (2) give the past participles of prefixed verbs, and the examples in (3) give the past participles of [-native] verbs of Romance origin with the ending *+eer*.[1] In particle verbs participial *ge-* is left-adjoined to the verbal stem, as shown in (4a), but otherwise the same generalization applies: if the lexical stem of the verb is itself prefixed *ge-* is absent, as shown in (4b). In the examples, *-d* or *-t*, both pronounced [t], are the regular Tense suffixes, *-en* , phonetically [ə(n)], is the irregular Tense suffix. The location of primary and secondary stress is indicated.

		verbal stem	*past participle*			*verbal stem*	*past participle*
(1)	a.	loop	ge+lóop+en	b.	werk	ge+wérk+t
		'walk'	'walked'			'work'	'worked'
(2)	a.	ver+déel	ver+déel+d	b.	òver+wín	òver+wón+en
		'distribute'	'distributed'			'overcome'	'overcame'
(3)	a.	wàard+éer	ge+wàard+éer+d	b.	rè+par+éer	ge+rè+par+éer+d
		'evaluate'	'evaluated'			'repair'	'repaired'
(4)	a.	úit+vòer	úit+ge+vòer+d	b.	áf+be+tàal	áf+be+tàal+d
		'export'	'exported'			'pay off'	'payed off '

Two differences between the prefixed verbs in (2) and the particle verbs in (4) are relevant here. First, particle verbs have the stress peak on the particle and prefixed verbs have the stress peak on the verbal stem. Second, particles are stranded under Verb Second in the main clause, prefixes are inseparable. This is illustrated in (5a) and (5b), below:

(5) a. úit+vòer   *Ze úitvoeren koffie   b. òver+wín   Hij overwón z'n angst
     'export'   Ze voeren koffie uit   'overcome'   *Hij won z'n angst over
            'They export coffee'   'He overcame his fear'

Roughly the same generalizations apply in Modern Standard German except that the prefix *ge-*, phonetically [gə], is also dropped in verbs from the Romance vocabulary with the suffix *+ier*. Thus the past participle of German *reparier*, 'repair', is *repariert*, in contrast to Dutch *gerepareed* in (3b) above. Standard Afrikaans basically follows the rules for Dutch. To both German and Afrikaans, I will have occasion to return. Not a few dialects in the Dutch language area lack the *ge*-participle altogether, just like Frisian and English, or have replaced *ge-* with an equally stressless prefix *e-*, phonetically [ə]; those facts, however, I will not discuss.

1.2.   *Explanation: syntax*.

In the literature two types of explanation are available for the blocking of *ge-* in Dutch, a morpho-sytactic explanation and a prosodic explanation. The morpho-syntactic explanation states that participial *ge-* is dropped in prefixed verbs because only one structural position for prefixes is available. A good example of this line of reasoning is to be found in Vanden Wyngaerd (1996). In his analysis, which essentially follows an earlier analysis by Hoekstra (1993), *ge-* is aspectual and generated in a Small Clause complement of the verb, where it has the same structural position as prefixes that change the meaning of the verb and sometimes also its argument structure, such as *be-* in *be+spreek*, 'to discuss (something)', a transitive verb formed on the basis of the intransitive verb *spreek*, 'speak'. The structure that Vanden Wyngaerd assumes looks as follows:

(6)   [$_{VP}$ V [$_{SC}$ NP ge/PREF]]

Since only one prefix can be left-adjoined to the verbal stem participial *ge-* loses the competition and the participle of *be+spreek*, 'discuss', is *be+sprook+en* rather than **ge+be+sprook+en*. This is an interesting analysis because it emphasizes the similarity between participial *ge-* and other verbal prefixes. But the claim that *ge-* and other prefixes are in complementary distribution is problematic for various reasons. First, it would follow automatically that prefixes in Dutch [-native] verbs are 'invisible', since past participles where *ge-* is left-adjoined to a prefixed [-native] verb are perfectly normal for speakers of Dutch as illustrated in (3), above. And we would also have to explain why prefixes are not invisible in the otherwise quite comparable verbs in German. It is of course possible that Dutch [-native] verbs are insensitive to whatever constraints block participial *ge-*, but we will see later that there is a more interesting explanation. Second, there exist complex verbs that contradict the claim that there is only one structural position for prefixes at the left edge. These are verbs prefixed with the stresseable prefixes *her-*, 're-, again', *over-*, 'too much, in excess' and *onder-*, 'too little'.

	verbal stem	past participle		verbal stem	past participle
(7) a.	hèr+ópen	*ge+hèr+ópen+d	b.	hér+ver+dèel	?ge+hér+ver+dèel+d
	reopen'	*hèr+ge+ópen+d		'redistribute'	*hér+ge+ver+dèel+d
		hèr+ópend			hér+ver+dèeld
(8) a.	hér+waard+èer	ge+hér+waard+èer+d	b.	óver+waard+èer	?ge+óver+waard+èer+d
	'reevaluate'	hér+ge+waard+èer+d		'overestimate'	óver+ge+waard+èer+d
		*hér+waard+èer+d			*óver+waard+èer+d

The examples in (7a) are as expected: *her-* is the only prefix, the stress peak is on the verbal stem, and *ge-* is dropped in the past participle. In some [native] verbs with only one prefix *her-* can have the stress peak instead, as in *hérplaats*, 'reappoint', and also in that case the preferred participle is *hérplaatst* rather than ?*gehérplaatst*. In (7b) *her-* precedes an unstressed prefix, *her-* has the stress peak, and judgements about *ge-* in the past participle are somewhat unclear. The more common form of the participle is *hérverdeeld*, without *ge-*, but ?*gehérverdeeld* is not totally unacceptable. The [-native] verbs in (8) contrast with the verbs in (7a) in that *her-* and *over-* always have the stress peak also when they are the only prefix. In (8a) participial *ge-* can precede both *her-* and the verbal stem but it can not be absent. In (8b) participial *ge-* preferably precedes the stem *waard+eer* and also cannot be absent. I will discuss these and other forms more fully later, but what is clear is that in [native] verbs some stresseable prefixes can precede another prefix. In that position the leftmost prefixes have the stress peak and therefore seem to behave like particles, but they cannot be stranded under Verb Second in the main clause whereas particles, including *over* and *onder* in their other meanings, are always stranded. Compare:

(9)   Hij hérverdeelt het geld   (10)   *Hij úitlas het boek
       *Hij verdeelt het geld hér   Hij las het boek úit
       'He redistributes the money'   'He finished reading the book'
(11)   Hij óverwaardeert haar   (12)   *Hij óverzet de passagiers
       *Hij waardeert haar óver   Hij zet de passagiers óver
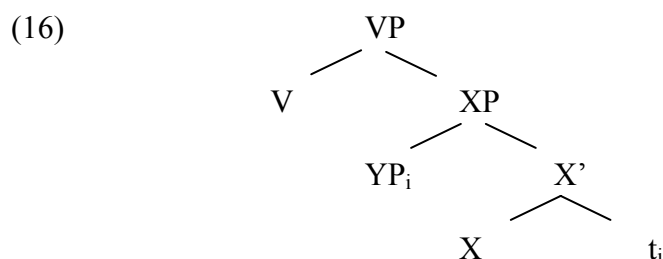   'He overestimates her'   'He puts the passengers across'

Actually, *her-* can also be adjoined to a particle verb, as in *her+uit+geev*, 're-publish':

(13)   Ze hebben dit boek her+uit+ge+geev+en
       they have this book re+out+GE+giv+en
       'They have re-published this book'

To summarize briefly: given that the prefix *ver-* in (9) is not in complementary distribution with *her-*, an analysis where prefixes compete for the same structural position has a problem in explaining why, and the claim that verbal prefixes and participial *ge-* exclude each other deserves further investigation. The issue is more systematically discussed in Sybesma and Vanden Wyngaerd (1997). They compare Dutch *ge-* with Chinese *le-* in sentences such as (14) and (15), below, where both *ge-* and *le-* express that the event is realized or completed.

(14)   Shan ca-gan-le boli   (15)   Zhang San heeft het glas drooggewreven
       Zang Shan wipe-dry-LE glass   Zhang Shan has the class dry-GE-wiped
       'Zhang Shan has wiped the glass dry' 'Zhang Shan has wiped the glass dry'

In their analysis *ge-* (or *le-*) is Head of an XP-complement to the verb, which in turn is complemented by a small-clause complement YP, [the glass dry]. YP moves into SpecXP, and for Dutch the relevant steps that follow are that *ge-* raises and is prefixed to V, the object NP moves to Spec AgrOP, and the predicate, in (15) *droog,* 'dry', ends up in a position to left of VP, possibly as part of a projection PredP. The initial structure is as in (16), *ge-* is in X.

(16)

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                        VP
                       /   \
                  V          XP
                            /   \
                      YPᵢ          X'
                                  /   \
                              X          tᵢ
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Prefixes like *be-*, exemplified in (17) and (18) below, are in Y and not in X since *be-*, unlike *ge-*, does not necessarily express telicity. Of the two sentences, only (18) with the perfect tense expresses that the event is realized.

(17) Ik be+plant de tuin met tulpen
      I BE-plant the garden with tulips
      'I plant the garden with tulips'

(18) Ik heb de tuin be+plant met tulpen
      I have the garden BE-planted with tulips
      'I have planted the garden with tulips'

This is an important result, since the analysis maintains the essence of Hoekstra's analysis but without the assumption that verbal prefixes all occupy the same position in the VP. A similar conclusion would have to be drawn for prefixes like *her-*: whatever its position in the VP or in a still higher projection as proposed in Koopman (1995), it is not likely that *her-* originates in the same position as *be-*, since *her-* clearly has scope over the entire prefixed verb in the examples in (10)-(13). But now, as Sybesma and Vanden Wijngaerd are careful to point out, it is unexplained why participial *ge-* cannot cooccur with *be-* in (18). Since participial *ge-* and other verbal prefixes are not a natural class in the sense of their semantic properties and also originate in different positions, they are not expected to exclude each other. Of course, we can stipulate that Dutch verbal stems cannot be preceded by more than one prefix but that is not much of an explanation and besides, the examples (7a) and (9) show that the generalization is not even correct. For these and similar reasons, various authors have proposed that the blocking of *ge-* in prefixed verbs has a different explanation and that the explanation is prosodic. This solution I will discuss in the next section.

2.2. *Explanation: prosody.*

Consider again the following contrast:

(19) We hebben het geld *deel+d / ge+deel+d
      'We shared the money'
(20) We hebben het geld ver+deel+d / *ge+ver+deel+d
      'We distributed the money'

A prosodic constraint that straightforwardly explains why the *ge*-participle in (19) is well-formed but the *ge*-participle in (20) is not could have the form of (21):

(21) Unstressed prefixes must not be adjacent.

This is actually the formulation that Sybesma and Vanden Wyngaerd (1997) choose, following suggestions from Schultink (1973) and Don (1993). In fact, the idea that the blocking of *ge*- is prosodic goes back at least to Kiparsky's analysis (1966) of prefixing *ge*- in German. But as it stands the formulation in (21) is not adequate for Dutch, as appears from the examples in (22) and (23) below.

		verbal stem	*past participle*			*verbal stem*	*past participle*
(22)	a	ver+déel	*ge+ver+déel+d	(23)	a	àan+váard	*ge+àan+váard
		'distribute'	ver+déel+d			'accept'	àan+váard
	b	be+spréek	*ge+be+spróok+en		b	òver+wín	*ge+òver+wón+en
		'discuss'	be+spróok+en			'overcome'	òver+wón+en
	c	ont+néem	*ge+ont+nóom+en		c	ònder+néem	*ge+ònder+nóom+en
		'take away'	ont+nóom+en			'undertake'	ònder+nóom+en

The verbs in (22) contain unstressed prefixes, the verbs in (23) contain prefixes that are stressed, but the participles with *ge*- in (22) and in (23) are equally ill-formed. What these verbs have in common is **not** that the prefix is unstressed, but that the stress peak is on the lexical stem at the right edge. This takes us back to Kiparsky's original formulation of the condition on participial *ge*- in German[2] (1966) which I informally summarize in (24):

(24) An unstressed prefix cannot precede a verbal stem when the first syllable of the stem does not have the stress peak.

But also (24) has to be modified since in Dutch it applies only when the verb has a prefix that does not have the stress peak. Though there are not many examples, [native] verbs with an unstressed syllabe at the left edge **do** take *ge*- in the past participle, for instance *vernís*, 'varnish' – *geverníst*, 'varnished' and *krakéel*, 'quarrell', - *gekrakéeld*, 'quarreled'. Minimally we would have to replace (21) with (25):

(25)An unstressed prefix cannot be left-adjoined to a verbal stem which has a prefix at the left edge that does not have the stress peak.

The constraint can be violated at the lexical level since complex verbal stems with two unstressed prefixes at the left edge exist, as shown in (26). Also, nominalizations like the example in (27) where an unstresseable prefix *ge*- is adjoined to a prefixed verbal stem for some speakers are less unacceptable that past participles where *ge*- precedes a prefix.

(26) ver+ge+líjk   (27) zijn ?ge+ver+béter wordt vervelend
      VER+GE+like   his GE+VER+better becomes boring
      'compare'   'his always correcting people becomes annoying'

The judgements about the *ge*-nominalizations in (27) are not firm enough to base a conclusion on, but the formulation in (25) already implies that the blocking of participial *ge*- in Dutch is conditioned and can not be explained by one prosodic constraint only. In order to see what the role of prosody exactly is, I will consider verbs with stresseable prefixes in somewhat more detail. Compare:

(28) a. hèr+néem   (29) a. hér+be+wàpen   (30) a. hér+analys+èer
          'resume'   'rearm'   'reanalyse'
      b. òver+wéeg   b. hér+over+wèeg   b. hér+organis+èer
          'consider'   'reconsider'   'reorganize'
      c. ònder+néem   c. hér+ver+zèker   c. hér+waard+èer
          'undertake'   'reinsure'   'reevaluate'

The [native] verbs in (28) have one stresseable prefix and the stress peak is on the verbal stem. In [native] verbs with two prefixes, exemplified in (29), the stress shifts to the leftmost prefix and the verbal stem at the right edge has secondary stress. In the [-native] verbs in (30) with a single stresseable prefix we see the same pattern as in (29), and this alternating pattern also occurs in verbs with a sequences of *her*- and a particle, (31), or a sequences of particle and prefix, (32).

(31) a. úit+gèev   b. hér+uit+gèev
          out+give   re+out+give
          'publish'   'republish'
(32) a. ònder+hándel   b. úit+onder+hàndel
          under+deal   out+under+deal
          'negotiate'   'negotiate till the end'

We can summarize the above in the following scheme:

(33) [pref $_V$[Y]]   stress peak on Y   hèr+zíen   'review'
(34) [pref$_1$ $_V$[pref$_2$ [Y]]]   stress peak on pref$_1$ hér+be+wàpen 'rearm'

From this, incidentally, it follows that the location of the stress peak is not really diagnostic for the difference between particles and prefixes. That would force us to conclude that *her*- is a prefix in (28a) and a particle in (29a), for which there is no independent reason since *her*- has the same meaning and the same scope in both examples. But a prosodic explanation for (33) and (34) is available. When a prefix is left-adjoined to a simplex verbal stem, the stress peak is on the verbal stem (and in some cases on the prefix), but when a prefix is left-adjoined to a prefixed verb, the stress peak must be on the leftmost prefix. The latter is possible only when the leftmost prefix is stresseable, and when it is not, the output is rejected. So, the answer to the question why participial *ge*- can not be adjoined to prefixed verbs in Dutch is that prosody can override syntax. We expect *ge*- in the output but there is a constraint which says that it cannot stay there.

The next question is what type of prosodic constraint is responsible. Booij (2001) tries to explain the blocking of participial *ge-* by invoking the following constraint:

(35) Parse syllable: syllables must be parsed into Feet.

Since Feet in Dutch are trochaic, any regular participle of the form [ge$_V$[Ý]] violates (35), and any sequence of the form[ge$_V$[pref [Ý]]] violates it twice. Apparently, Dutch tolerates the first type, with the single unparsed syllable [xə] directly adjoined to the Prosodic Word in violation of Strict Layering but a sequence of two unstressed prefixes like [xə-bə] cannot be saved. This would work, but I think that the blocking of participial *ge-* is more complicated and results from an interaction of various prosodic and syntactic conditions. This will be the topic of the next section.

3. Blocking *ge-* revisited: the interaction of syntax and prosody.

3.1. *The Dutch facts*

Assume that the following basic conditions apply but have the form of violable constraints:

(36) [ge$_V$[Y]]
'Past participles are prefixed with *ge-*'.
(37) [préf $_V$[pref [Y]]]
'If a prefix precedes a prefixed verb, the stress peak must be on the leftmost prefix'

Consider next possible outputs of prefixing past participles with *ge-* in the [native] verbs *herzíen*, 'review', *hérbewapen*', 'rearm', and the [-native] verbs *reorganiséer*, 'reorganize', and *hérwaardeer*, 'reappreciate'. The participles are shown in c-f, and only the location of the stress peak is indicated in the examples.

(38) a. -
  b. her+zíen
  c. *ge+her+zíen
  d. *ge+hér+zien
  e. *hér+ge+zien
  f. her+zién

(39) a. be+wápen
  b. hér+be+wapen
  c. ?ge+hér+bewapen+d
  d. *ge+her+be+wápen+d
  e. *hér+ge+be+wapen+d
  f. hér+be+wapen+d

(40) a. organis+éer
  b. re+organis+éer
  c. ge+re+organis+éer+d
  d. *ge+ré+organis+eer+d
  e. *rè+ge+organis+éer+d
  f. *re+organis+éer+d

(41) a. waard+éer
  b. hér+waard+eer
  c. ?ge+hér+waard+eer+d
  d. *ge+her+waard+éer+d
  e. hér+ge+waard+eer+d
  f. *hér+waard+eer+d

I will discuss the [native] formations first. Prefixing *her-* to *bewápen* in (39b) is unproblematic: the stress peak shifts to *her-*, and also the participle in (39f) is fully acceptable. But if *hérbewàpend* is prosodically well-formed, it is unclear why we cannot have a prefixed participle of $_V$[her $_V$[zién]] in (38) by adjoining *ge-* to the innermost verbal domain $_V$[zien] and shifting the stress peak to *her-*, as in (38e). That form, however, is totally

unacceptable. A possible explanation is that participal *ge-* must be left-adjoined to a domain that is defined by the syntax as the outmost verbal domain, represented in bold in $_V$[hèr$_V$[zíen]], after which (37) rejects the output [ge$_V$[hèr$_V$[zíen]]], (38c). That still leaves the question why we cannot repair (38c) by shifting the stress peak to *her-*, as in (38d). Since this form is also unacceptable, the conclusion must be that the option to shift the stress peak exists within the domain of the lexical verb only, and that participial *ge-* creates a distinct domain where that option is no longer available.To use a concrete example: the location of the stress peak in $_V$[be[wápen]] can change to the prefix *her-* in $_V$[hér$_V$[be[wàpen]]]**,** but the location of the stress peak in $_V$[hèr$_V$[zíen]] cannot change to the prefix *her-* in [ge$_V$[hér$_V$[zìen]]]. This analysis supports the claim by Sybesma and Vanden Wyngaerd (1997) that *ge-* originates in a separate position in the VP, though it may also be taken as an argument that *ge-* is inflectional and originates in a separate functional projection ASP, below TNS. The constraint that the stress peak in the Base must be preserved in the Output (Kager 2001) also explains (38e), **hérgezien*. The participles in (39) are explained in the same way: the output in (39d) is rejected because the stress peak has shifted, the output in (39e), itself a violation of the condition on the domain where *ge-* is adjoined to, is rejected by (37). In contrast to (38c), however, the output in (39c) is semi-acceptable. But since the stress peak in ?*gehérbewàpend* is on the prefix following *ge-* the output violates (37) only once, as compared to participles like **geverdéeld*. The preferred form in both (38) and (39) is the only option left: a participial form where *ge-* is dropped, in violation of (36). We can now add a second syntactic constraint, (42), and a second prosodic constraint, (43):

(42)   *$_V$[X ge $_V$[Y]]
         Participial *ge-* is left-adjoined to the outmost domain $_V$[   ] when X is a prefix.
(43)   Peak MAX B/O
         The stress peak of the Base must be preserved in the Output.

The constraints work differently in the [-native] formations (40) and (41), but the differences are less absolute than they appear to be. For instance, the output *gehérwaardeerd* in (41b) sharply contrasts with **gehérzien* in (38d) but that is independently explained by the fact that in (41b) but not in (38d) the location of the stress peak in the participle is faithful to the location of the stress peak in the base. We cannot easily explain, however, why the [native] participle ?*gehérbewapend* in (39c) is semi-acceptable only whereas *gehérwaardeerd* in (41c) is unproblematic. *Gehérbewapend* violates (37) only once, but there is still an appreciable difference in acceptability with the [-native] participle *gehérwaardeerd*. Similarly, *hérgewaardeerd* in (41e) shows that in [-native] verbs *ge-* can be adjoined to the innermost domain $_V$[   ] in violation of (42), though only when the lefmost prefix has the stress peak; the output **règeorganiséerd* in (40e), where *re-* does not have the stress peak in the base *rèorganiséer* is ill-formed.**[3]** *Hérgewaardeerd* clearly contrasts with participles like ?*hérgeplàatst*, from *hérplàats*, 'reappoint' or ?*hérgeschòold* from 'hérschòol', 'give (somebody) a training for another job' for which dictionaries only list the participles without *ge-*. Notice that *hérgewaardeerd* is not rejected by (37) because the base form *waardeer* does not contain a prefix. The clearest contrast is that in prefixed [native] verbs participial *ge-* is dropped whereas in prefixed [-native] verbs it is not. Nevertheless, and contrary to the traditional view, I assume that the same constraints on participial *ge-* operate in both lexicons but that the ordering of the constraints on adjoining *ge-* is different in the two phonologies. It may be true that in [-native] verbs morphological domains are less clearly distinguishable and

affixes are sometimes invisible, but it is doubtful whether that also applies to [-native] verbs that are prefixed with [native] prefixes such as *her-*. The data briefly discussed above does not support the conclusion that the global explanation: 'constraints on prefixing past participles with *ge-* are inert in [-native] verbs' is the correct one.

Returning to the original question: we can maintain that the blocking of participial *ge-* in Dutch has a prosodic explanation only if we assume at the same time that the relevant constraints compete with constraints that are syntactic. Also, it looks as if the basic constraint in (37) is not an instance of Parse Syllable but rather an instance of the Obligatory Contour Principle, OCP.

3.2. *Participles in colloquial Afrikaans: where syntax overrides prosody.*

Confirmation that blocking participial *ge-* is actually the result of an interaction between syntactic and prosodic conditions comes from colloquial and dialectical Afrikaans. Afrikaans is in many relevant respects the Germanic language that is closest to Dutch, of which historically it is an offshoot. Grammars of Standard Afrikaans (Donaldson 1993) state that the situation with respect to *ge-* in participles is the same as the situation in Standard Dutch, except that Afrikaans sometimes also accepts participles without *ge-* in Romance verbs with the suffix +*eer*, an option that does not exist in Standard Dutch. However, data from Afrikaans dialects and from colloquial Afrikaans show a picture that is different in an interesting way. Compare the following data from De Vos (2003)[4]:

(44)   (a) Die kos   het   ge+ver+brand
           the food   AUX   PST-PRT-burn
        (KBA: Calitz 1957)
       (b) ...die brief ... kan ik aamber nie ge+ver+staan   het   niet
           ...the letter... can I almost not PST-PRT-understand AUX not
        (BA: Rademeyer, 1938)
       (c) Die lorrie het   al   vroegmôre   ge+ver+trek
           the lorry AUX already early-morning PST-PRT-left
        (V.A., Heiberg, 1950)

Data about present-day colloquial Afrikaans confirms the picture: it is not at all uncommon to use *ge-* in participles of prefixed verbs which have the stress peak at the right edge, yielding forms like *geverbránd* like in (45a) that sharply contrasts with Dutch *ge*verbránd*. A possible explanation is that the prosodic constraint (37) is simply absent in colloquial Afrikaans though present in the standard variety which always has tended to follow Standard Dutch. But the explanation might actually be deeper than that. Afrikaans has only one past tense, which in its form is like the Dutch perfect tense. The following sentence can have two different meanings that in Dutch would be expressed with the simple past tense and with the perfect tense, respectively.

(46)   Toen hy sy eksamen ge+skryf het, het hy koffie ge+drink
          when he his exam   GE-write has, has he coffee GE-drink
       (a) 'As he was writing his exam, he was drinking coffee'
       (b) 'After he wrote his exam, he drank coffee'

Also, past participles in Afrikaans lack the Tense suffix that Dutch participles have. In the analysis presented in De Vos (2003) the claim is made that *ge-* in Afrikaans has different properties because it is generated as a Tense marker and therefore higher in the structure and in a different syntactic cycle than perfective *ge-* in Dutch. Schematically, the difference can be represented as follows:

(47) a. Dutch [**[**ge [speel]**]**d]   b. Afrikaans [ge**[**speel**]]**
          [**[**ge [ver [werk]]**]** t]   [ge**[**ver[werk]**]]**

A more detailed analysis is beyond the scope of this paper, but a possible explanation of the data in (44) is that the constraint (37) which in Dutch operates within the domain indicated by bold in (47a), in Colloquial Afrikaans (but not in Standard Afrikaans) is inert in the domain created by *ge-* indicated by the outer brackets in (47b). Colloquial Afrikaans would then be on one extreme of a scale in West Germanic, with Frisian and English which lost the participial prefix long ago on the other end. German has generalized the prosodic constraint, and in Dutch the interaction between prosodic and syntactic constraints has different results, especially for [-native] verbs. Thus, an OT approach to possible outputs, together with a morphosyntactic analysis of the nature of *ge-* in Afrikaans on the one side and Dutch and German on the other side, makes it possible to fruitfully compare what happens to participial *ge-* in these languages and to more precisely state what actually is going on in Dutch.

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*   This is a preliminary version of a more detailed study of Dutch and Afrikaans *ge-* (Kooij and De Vos, in prep). I am grateful to Mark de Vos for suggestions, data, and discussion, and to audiences in Amsterdam and Leiden for comments on earlier presentations on prefixation in Dutch. The usual disclaimers apply.

[1] The ending *+eer* in Romance verbs is represented throughout as a suffix, though the morphology is sometimes quite opaque. Also in loanwords from English participial *ge-* freely occurs before prefixes and even before particles, as in *ge+re+view+ed* from *re+view*, 'review INF', and *ge+down+load* from *down+load+en*', 'download INF'.

[2] Actually, Kiparsky's analysis of stress in German has much wider implications, also for a comparison between Dutch and German, but these issues I will not consider here.

[3] There is a parallell here with the construction *te*+Infinitive. Infinitival *te* cannot split prefixed verbs: *te overwínnen* / **óver te winnen*, 'to overcome', but it does split particle verbs, as in **te úitgeven* / *úit te geven*, 'to publish'. For prefixes that have the stress peak both possibilities exist: *te hérbewapenen* / *hér te bewapenen*, 'to rearm', in contrast with *herzíen*, 'review', where splitting is impossible: *te herzíen* / ** her te zíen*, **hér te zien*.

[4] The abbreviations are to be read as follows: KBA: Knysna Boswerker Afrikaans; BA: Baster Afrikaans (a variety of Orange River Afrikaans); VA: Velddrifse Vissertaal.

References

Booij, G.: 2001, 'Prosodic restrictions on affixation in Dutch'. In G. Booij and J. Van Marle (eds.), *Yearbook of Morphology 2001,* pp. 183-201.
Calitz, F.: 1975, *Die Krysnaboswerkers: Hulle Taalvorm als Denkvorm, met Spesiale Verwysing na Hulle Bedrijfsafrikaans*. Master's Thesis, Stellenbosch University.
Don, Jan: 1993, *Morphological Conversion*. PhD Dissertation, Utrecht University.
Donaldson, B.: 1993, *A Grammar of Afrikaans*. Mouton / de Gruyter, Berlin, New York.
Heiberg, L.: 1950: *Die Taal van die Velddrifse Vissers*. PhD Thesis, University of Stellenbosch.
Hoekstra, T: 1993, 'Small Clause Theory', *Belgian Journal of Linguistics* **7**, pp. 121-151.

Kager, R.: 2001, 'Stem stress and peak correspondence in Dutch.' In: J.Dekkers, F. van der Leeuw, and J. Van de Weijer (eds.), *Optimality Theory: Phonology, Syntax and Acquisition*, Oxford University Press, Oxford, pp. 121–150.

Kiparsky, Paul: 1966, 'Über den Deutschen Akzent'. *Untersuchungen über Akzent und Intonation im Deutschen, Studia Grammatica* **7**, pp. 69-98.

Koopman, Hilda: 1995, 'On Verbs that Fail to Undergo Verb Second'. Linguistic Inquiry **26**, 137-163.

Kooij, Jan: 2002, 'Onderbetalen, herbewapenen, oververhitten: prefixen en partikels in het Nederlandse werkwoord'. Paper read at the Morfologiedagen Amsterdam, dec. 2002.

Rademeyer, J.: 1938, *Kleurling Afrikaans: Die Taal van die Griekwas En Rehoboth Basters*, Zwets en Zeitlinger, Amsterdam.

Schultink, H.: 1973, 'Het prefix ge- in Nederlandse (en Duitse) verleden deelwoorden'. *De Nieuwe Taalgids* **66**, 409-418.

Sybesma, R. and G. VandenWyngaerd: 1997, 'Realizing end points: The syntax and semantics of Dutch *ge* and Mandarin *le*.' In J. Coerts and H. De Hoop (eds.), *Linguistics in the Netherlands*, John Benjamins, Amsterdam/Philadelphia, pp. 207–218.

Vos, Mark de: 2003, 'Dutch and Afrikaans inseparable prefixes'. Ms, University of Leiden Center for Linguistics.

Wyngaerd, G. vanden: 1996, 'Participles and Bare Argument Structure', in W. Abraham, S. Epstein, H. Thráinsson and J.-W. Zwart (eds), *Minimal Ideas*, John Benjamins, Amsterdam.