Afrikaans directionality switch in 'triple' V-clusters with the auxiliary *het*

The general perspective of the paper is that all (dis)harmonic branching orders within the West-Germanic V-clusters imply a different categorization by the acquisition procedure that should be independently motivated. More specific, the paper discusses the directionality switch with the temporal auxiliary *het* ('have') in Afrikaans. Afrikaans has a right-branching V-cluster 1-2-3. The directionality switches in subordinate clauses when V_1 is the auxiliary *het*, which seemingly gives rise to the a-typical order 2-3-1 [[*leer*$_2$ *swem*$_3$] *het*$_1$]. V_2 is in this case an IPP (Infinitivus-pro-participio) infinitive. I propose to derive the directionality switch as a matter of category assignment by an acquisition procedure that is unaware of underlying structure followed by movements. I argue that sentence-final *het* has been reanalyzed as a morphological suffix on the V_3. This leads to a simplification of the apparent 2-3-1 V-cluster into a binary 1-2 V-cluster [*leer*$_1$ [*swem het*]$_2$].

Keywords: (dis)harmonic order, V-clusters, IPP, Afrikaans 2-3-1, acquisition procedure

1. A general West-Germanic problem with V-clusters

Although there is a certain amount of order variation in attested triple (three-verb) V-clusters, all West-Germanic languages typically show a main branching order. Afrikaans has, like Dutch, a rightward-branching order 1-2-3 when V_1 is a modal/aspectual.

(1)	omdat	jy	hom	moet$_1$	leer$_2$	swem$_3$
	omdat	jij	hem	moet$_1$	leren$_2$	zwemmen$_3$
	because	you	him	must	teach	swim
	'because you must teach him to swim.'					

This contrasts with German (and Frisian) where the same selection hierarchy requires a mirror order 3-2-1.

(2)	weil	du	ihn	schwimmen$_3$	lehren$_2$	musst$_1$
	because	you	him	swim	teach	must

The directionality switches in some languages when V_1 is the perfect auxiliary *have*. V_2 is in this case an IPP (Infinitivus-pro-participio) infinitive. In Afrikaans, *het* selects the V_2 *leer* to the left (3a). In German, *haben* selects the V_2 *lehren* to the right (3b).

(3)	a.	omdat	jy	hom	leer$_2$	swem$_3$	*het*$_1$
	b.	weil	du	ihn	*hast*$_1$	schwimmen$_3$	lehren$_2$
		'because you have taught him to swim'					

Wurmbrand (2005:232) observes that rearrangement rules that capture order differences in the V-cluster derive the distributional facts, but do not necessarily explain them. It is the intention of the present paper to explain the order differences from early category formation by the acquisition procedure.

The focus of the present paper will be the Afrikaans IPP cluster in (3a), as its 2-3-1 V-cluster order is a-typical in West-Germanic languages. Various accounts given for the 2-3-1

order involve a reordering by movement rules (Biberauer 2010, Abels 2013). The present learnability account avoids movements. Examples and figures are taken from the Afrikaans corpora in the CHILDES database. First I will shortly discuss the mirror directionality in (1)-(2) as a result of early category formation.

2. V-cluster directionality in West-Germanic

The present learnability perspective assumes that children build up grammar from quantitatively robust input data without having access to underlying structure. Finite verbs appear massively in V-second position before they appear in subordinate clauses and the first V-clusters appear in the child's speech before multi-clausal structures. Hence, neither a V-second movement rule nor a V-to-V raising rule seem particularly convincing devices to build up grammatical competence. The basic idea is that phrasal formation and the subsequent categorial licensing conditions are the central procedure for language acquisition. This yields an explanation of the leftward/rightward V-cluster difference without movement rules applied to an underlying structure. All order variations within the V-cluster are derived by binary Merge.

In Van Kampen (2016) I argued, using a quantification of acquisition facts, that the Dutch-German mirror difference between right-branching and left-branching V-clusters follows from early category formation by the acquisition procedure.

West-Germanic languages like Dutch, Afrikaans, West Flemish and Swiss German that use *go*/*come* as an aspectual auxiliary to express inchoative aspect or future, develop a category <+aux> for aspectuals and modals that appears in V-second position. That category selects a category <+V> to the right, which has been formed earlier in so-called 'root infinitives'. The <+V> category selects its dependent arguments to the left. The category <+aux> does not change its rightward-selecting property in the sentence-final position. This yields the rightward-branching V-cluster.

West-Germanic languages like German and Frisian, by contrast, lack aspectual *go*/*come* and do not develop a category <+aux> for modals that selects to the right only. The modals join the category <+V> that involves a switch in the left/right selection of its dependents. German and Frisian generalize this selection switch to all elements in V-second position, <−aux> or <+aux>. All <+V> elements select to the right in V-second position and to the left in sentence-final position. This yields a leftward-branching V-cluster.

There is more linear variation in the West-Germanic V-cluster, so the question is whether a category-oriented acquisition procedure may capture these variations as well. In the next section I will discuss the IPP in West-Germanic.

3. The IPP in West-Germanic

Periphrastic predicates that involve a past participle give rise to other distributional problems for the acquisition procedure.

Historically, the past participle is an adjectival variant of the verb that required the use of the copula verb (*have*/*be*) to construct a complex predicate (Benveniste 1962:40ff). Past participles are acquired in early child Dutch as <−V> adjectival predicates (Van Kampen 2016). Like all <−V> predicates they are selected by a copula-like auxiliary to the left in sentence-final position. The leftward-selection of <−V> past participles is a distributional property of all West-Germanic O-V languages/dialects.

(4) a. dat hij zijn huis verkocht$_{pp2}$ heeft$_1$
that he his house sold has
'that he sold his house.'

The past participle preserves the argument selection of the underlying verb, but its <+Adj> category cannot mark structural relations (dependent arguments/infinitive). It needs the copula-auxiliary to do that. This syntactic restriction of the <+Adj> status may play a role in the fact that auxiliary modals/aspectuals cannot select a past participle. They need to select a <+V> element. Consider now the IPP V-cluster in (5).

(5) dat hij zijn huis heeft$_1$ moeten$_2$ verkopen$_3$
that he his house has must sell
'that he must have sold his house'

The former copula-auxiliary *heeft* selects the modal *moeten*, but it does so rightwards. Moreover, *heeft* does not select a past participle, but an infinitive, as if *heeft* is interpreted as a kind of aspectual auxiliary. The <+V> infinitive *moeten* may now select the infinitive *verkopen* as a complement. I now propose that the acquisition procedure recategorizes the perfect auxiliary as an aspectual if (and only if) the construction is blocked otherwise. The recategorization of the copula-auxiliary in (4) as a kind of aspectual-auxiliary in (5) is an option the acquisition procedure obviously can be forced into. The category change implies a directionality switch, since the aspectual <+aux> selects to the right.

Dutch IPP V-clusters are rightward-branching. The same 1-2-3 order is still possible in Afrikaans, but the 2-3-1 order is the 'neutral' order (Biberauer 2010). It is also the only order in the CHILDES corpora. The 2-3-1 order is a problem for the analysis above, since the auxiliary *het* seems to select the IPP V-cluster to the left. It is also a problem for the Final-over-Final-Condition (FOFC; Biberauer et al 2014), which captures a universal asymmetry in the grammaticality of disharmonic orders. Word order within an extended projection prefers uniformity of directionality ('harmonic branching'). Disharmonic branching is constraint by the FOFC. Structures with a head-initial phrase dominating a head-final one are rather common, but structures with a head-final phrase dominating a head-initial one are ruled out by the FOFC. The FOFC is said to hold for all heads of the extended projection. Biberauer (2010) derives the 2-3-1 order from an underlying 1-2-3 order by a movement that circumvents the FOFC. The present analysis stresses that all disharmonic branching orders imply a different categorization by the acquisition procedure that should be independently motivated. No underlying harmonic order is assumed.

I will show how the 2-3-1 order fits in the Afrikaans verbal system, considering that the acquisition procedure is confronted with reduced verbal morphology (section 4) and with a peculiarity of Afrikaans modals (section 6). Finally (sections 7-9), I will argue, following Conradie (2007), that sentence-final *het* has been reinterpreted as a morphological suffix on the main verb. This turns the V-cluster in the subordinate clause (3a) into a binary 1-2 V-cluster [leer$_1$ [swem *het*]$_2$]. For the sake of exposition, I will continue to subscript the V-cluster in (3a) as an a-typical triple 2-3-1 IPP construction up till section 9.

4. The Afrikaans verbal paradigm

Afrikaans has a reduced verbal paradigm. All verbs have a base form. The base form covers finite/infinitive forms. There is no verbal agreement and no present/past opposition, except for the modals *kan*/*kon*, *moet*/*moes*, *wil*/*wou*, *sal*/*sou*. Past participles are preserved, but they are

only formed with main verbs, basically by adding the prefix *ge-* to the base form, which remains invariable, i.e. *loop*, *kry*; *ge-loop*, *ge-kry*.

Table 1.

	base form	past form	past participle
auxiliary *het*	+	–	–
modal verbs	+	+	–
main verbs	+	–	+ (*ge-* + base form)

Table 1 shows that the auxiliary *het*, the only temporal auxiliary in Afrikaans, has nothing but the base form. This contrasts with the main verb *hê* ('have') and with *wees* ('be'), which still have a finite/infinitive/participle opposition.

The loss of the simple past on main verbs (including *gaan*/*kom*) has consequences for the expression of past tense. The periphrastic form has broadened into a general past tense (Van der Kleij 1999, De Vos 2003). Afrikaans can only locate an event in the past by using the periphrastic past. In (6) there is an individual-level predicate that describes an inherent property, where Dutch would use a simple past.

(6) En hy het sulke flap oortjies gehad
and he has such flap ears had
'And he had such jug ears.'

De Vos (2003:523f) argues that the periphrastic past is specified for past tense, not for aspect. The perfective interpretation can be determined, but only by context/adverbs. We will see below that the periphrastic construction may even go without a tense specification.

5. Triple V-clusters with modal and non-modal verbs in Afrikaans

In present-day Afrikaans the IPP V-cluster has almost completely disappeared with modal verbs (Donaldson 1993:8.13.3, Van der Kleij 1999, De Schutter 2001:200). I found only 1 example (out of 113) of the IPP construction with a modal in the corpus.

Instead a different (English)-type of V-cluster is used, which I will call Type I. This type is also available in Dutch. In (7) *het* is selected by the modal in V-second position and it selects a past participle to the left.

(7) Modals: Type I
Sy wou$_1$ vir jou gevra$_{pp3}$ het$_2$
she wanted to you asked have
'She wanted to ask you.'

The IPP V-cluster appears with all other verbs. In contrast to modal verbs, the Type I V-cluster is not an available alternative for aspectuals, causatives, duratives, perception verbs. They cannot select a temporal auxiliary as V_2 (Coupé 2015:252). As a consequence, the Afrikaans verbs *gaan*, *kom*, *laat*, *begin*, *bly*, *leer*, *sien*, *hoor* all opt for the IPP solution, which I will call Type II.

(8) Non-modals: Type II (IPP)
Sy het$_1$ by hom gaan$_2$ swem$_3$
she have at him go swim
'She went swimming at his place.'

It is now expected that the acquisition procedure maintains the rightward/leftward selection properties of the categories from previously acquired main clauses.

The selection order of the Type I V-cluster in sentence-final position is as expected. The modal selects the auxiliary *het* ('infinitive') to the right. This fits the general rightward selection of Afrikaans V-clusters. The auxiliary *het* selects the past participle to the left. See (9a).

The expectation for the Type II cluster now is the following. If *het* is a perfect auxiliary selecting an IPP infinitive, it would develop a rightward selection in the IPP V-cluster, just like modals/aspectuals. This expectation is not born out. See (9b). Notice that the sentence-final *het* is the V_2 in (9a), but the V_1 in (9b).

(9) a. dat sy vir jou wou$_1$ gevra$_{pp3}$ *het*$_2$ (Type I)
that she to you wanted asked have
'that she wanted to ask you.'
b. toe sy by hom gaan$_2$ swem$_3$ *het*$_1$ (Type II; order switch)
when she at him go swim has
'when she went swimming at his place.'

The auxiliary *het* then seems to select the IPP V-cluster to the left.

It has been reported that the IPP effect appears optionally (Biberauer 2010:9). However, the optionality of the IPP effect predominantly appears with posture verbs like *lê, sit* and *staan* (De Vos 2001:85, De Schutter 2001:201, Zwart 2007:96). These verbs have a different status in Afrikaans. A corpus-based study (Augustinus & Dirix 2013) shows that the IPP effect is obligatory with all others verbs: of the 5.679 potential IPP constructions, 99% show the IPP effect. This is confirmed by the data in the CHILDES corpora: there is only one Type II construction with a past participle instead of an infinitive (43/44=98% IPP effect). As a consequence of the IPP effect, the Type II clusters have no morphological marking on any of the three verbs.

6. Afrikaans past tense markings with modal verbs

Modal verbs in Afrikaans have simple past forms. Periphrastic constructions with a past tense modal and a main verb may undergo 'assimilation' (Donaldson 1993; Ponelis 1993). The assimilation appears either on the modal auxiliary (preteritive assimilation) or on the selected main verb (perfective assimilation).

In (10) there is an example of preteritive assimilation on the modal auxiliary. The assimilation is given in italics. The equivalent interpretation is given in parenthesis for Dutch.

(10) semantically vacuous past morphology on the modal
Sy *moes*$_1$ vir jou gevra$_{pp3}$ het$_2$
she must to you asked have
(Zij moet je hebben gevraagd.)

The perfective assimilation appears on the selected main verb. See (11).

(11) semantically vacuous past morphology on the main verb
Sy moes$_1$ vir jou *gevra*$_{pp3}$ *het*$_2$
she must to you asked have
(Zij moest je vragen.)

The examples in (10) and (11) are identical Type I V-clusters. It is only the interpretation deduced from context that is different; (10) gives a present perfective reading and (11) a non-perfective past reading.

By far the most frequent interpretation of the modal + main verb with assimilation is the one expressing simple past tense as in (11). This is reflected in the acquisition data presented below. The acquisition procedure initially establishes syntactic categories and their selection properties. Semantic distinctions and their pragmatic effects need not be immediately present.

7. The order of acquisition steps in Afrikaans

I use two Afrikaans corpora from CHILDES: for early examples, the Stellenbosch corpus (2 children, Jean and Chanel, aged 1;6-2;11), and for later examples, the Southwood corpus (Corver et al 2012; 36 children aged 3;0-6;11). For a comparison with child Dutch, I use the Sarah corpus (1;6-5;3).

The present analysis derives the V-cluster order from categorial selections acquired earlier in elementary structures. In a first step (between 2-3 years), the acquisition procedure establishes 1. the rightward selection of <+V> main verbs by modals/aspectuals (the V-second property), and 2. the leftward selection of the <−V> past participles by *het* (in sentence-final position, the O-V property).

7.1 The acquisition of binary V-clusters

Between 2;1-2;11, the two children from the Stellenbosch corpus use main clauses with verbs in V-second position, but hardly any subordinate clause (Jean 4 examples). I counted all aspectuals (*gaan*/*kom*) and modals selecting a main verb and calculated the ratio w.r.t. all verbs (single and periphrastic) in unambiguous V-second position.

Table 2. V-second main clauses (Stellenbosch corpus)

	all verbs in V-second position	aspectuals/modals + main verb
Chanel	697	290 42%
Jean	539	214 40%

Table 2 shows a high 40% percentage of periphrastic aspectual/modal + main verb. There are also 19 examples of main clause V-clusters as in (12). In sentence-final position, the aspectual *kom* maintains its rightward selection of the main verb *kuier*.

(12) Enya wil$_1$ by my kom$_2$ kuier$_3$ (Chanel 2;11)
Enya want at me come stay
'Enya wants to come and stay with me.'

Since Afrikaans main verbs do not have a simple past form, the periphrastic past is more frequent in Afrikaans than in Dutch, even in subordinate clauses where past participle + *het* appears sentence-finally. See Table 3 for Dutch Sarah and the Southwood children.

Table 3. Past tense in subordinate clauses

Subordinate past (main verbs/aspectuals)	Dutch Sarah	Afrikaans children
total	182	148
past participle + *have*	12	44
have + past participle	8	----
simple past	24	----

The Afrikaans children's 44 past participle + *het* constructions constitute 30% (44/148) of all subordinate clauses with sentence-final verb(s), whereas Dutch Sarah's 12 past participle + *hebben* constructions only constitute 7% (12/182).

Subordinate periphrastic past participle + *het* is acquired early, at 3;0 in the Southwood corpus, see (13). The 4 subordinate clauses in the Jean files appear at 2;7, all with a past participle followed by *het*.

(13) omdat ek so baie water gedrink$_{pp2}$ het$_1$ (Faan 3;0)
because I so much water drunk have
'because I drank so much water.'

Both the rightward-selecting property of modals/aspectuals and the leftward-selecting property of *het* are acquired before the age of 3. The early acquisition of these selection properties is identical to the acquisition in Dutch (Van Kampen 2016 and references therein). In both languages, the directionality acquired early in binary clusters constitutes a bootstrap for the directionality in the later triple V-clusters. The Type I V-cluster, though, appears a lot earlier in child Afrikaans than in child Dutch.

7.2 The acquisition of 'triple' V-clusters in Afrikaans

The Type I V-cluster has a past tense modal verb that selects a periphrastic main verb by assimilation. The situational context clarified that the periphrasis in (14) does not express perfective aspect.

(14) Hulle moes$_1$ vir hom 'n verband omgedraai$_{pp3}$ het$_2$ (Enrica 4;6)
they must$_{<past>}$ for him a bandage wrapped around have
'They needed to wrap a bandage around him.'

Due to the semantic simplification, the Type I V-cluster is frequently used in main clauses and it is acquired around the age of 3. This contrasts with Dutch, where it does not appear in the speech of Sarah or her mother, due to its semantic complexity in Dutch.

Table 4 below gives the numbers with a modal in the past tense selecting a base form or selecting a past participle + *het*. One may see that the semantically vacuous perfective assimilation is twice as frequent as the base form. The interpretation remains the same.

Table 4. Type I V-cluster with past modal (Southwood corpus)

past modal	adult		children	
+ base form	28		12	
+ past participle + *het* final	59	68% (59/87)	23	66% (23/35)

The two constructions are in competition, but the Type I V-cluster with assimilation on the main verb seems on the winning side. This is supported by the fact that the assimilation on the main verb also appears with non-past modals, which is considered as ungrammatical by standard Afrikaans grammars, although it is acceptable to most Afrikaans speakers, especially with *moet* and *kan* (Donaldson 1993:245, Conradie 2016). I found 30 examples (adult 13, children 17) in the Southwood corpus not only with *kan* and *moet*, but also with *wil* and *sal*.

(15) Ek wil$_1$ 'n huisie gebou$_{pp3}$ het$_2$ (Lester 3;0)
I want a house built have
'I want to build a house.'

The situational context clarified that (15) has a present tense reading.

The Type II cluster in main clauses is acquired a year later, and even later in subordinate clauses. See Table 5 and the examples in (16). The attested IPP verbs are *gaan, kom, laat, begin, bly, leer, sien.*

Table 5. Type II V-cluster (Southwood corpus)

het + non-modal + main verb		
main clause	16	(first at 4;2)
subordinate clause (*het* final)	2	(first at 6;4)

There are only 2 subordinate examples. In addition, there are 9 attested examples in the adult speech. The main point is that all 11 instances have sentence-final *het*.

Example (16a) is a main clause and (16b) a subordinate clause. They do not have a perfective reading.

(16) a. Nou het$_1$ hulle iewers gaan$_2$ wegkruip$_3$ (Erica 4;6)
now have they somewhere go hide
'Now they hid themselves somewhere.'

b. toe ek somme begin$_2$ doen$_3$ het$_1$ (Alet 6;11)
when I sums begin do has
'when I started to make sums.'

For both cluster types then hold that the periphrastic construction with *het* is underspecified for perfective aspect. Semantic distinctions, though, need not be part of the child's competence yet. These may follow later on with more pragmatic understanding.

8. The morphological status of sentence-final *het*

Conradie (2007) proposes that sentence-final *het* has been reinterpreted as a morphological suffix on the past participle. I will recapitulate his three major considerations.

First, the auxiliary *het* became more and more frequent. Due to the loss of agreement and of the finite/infinitive distinction, the only form that remained was *het*.

Second, *het* is phonetically reduced to [ət] or [t], in particular sentence-finally. This suggests that sentence-final *het* has become a suffix on the past participle.

Third, the auxiliary *het* that follows the past participle must be adjacent to the past participle. This is exemplified by (17b) and (18).

Like in Dutch, the particle *te* marks a <+V> 'infinitive'. In (17a) *te* precedes *word* because it marks <+V> *word*. This contrasts with (17b) where *te* cannot appear in-between the past participle and *het*. In (17b) *te* does not mark *het*, but it marks [*geleer het*], obviously a category <+V>.

(17) a. Dit hoef nie getranskribeer te [word]$_V$ nie
This need not transcribed to be not
'This need not to be transcribed.'

b. Ek hoef nie somme te [geleer het]$_V$ nie
I need not sums to learned have not
'I do not need to learn sums.'

Past participles are <−V> 'cluster creepers' (Evers 2003). They can take any position leftward of *have* in the V-cluster. Due to the affixation of *het*, the past participle loses its <+A> and cluster creeper status. The past participle *oopgebreek* in (18) can appear separated from the auxiliary, but *gewees* must stay adjacent to *het* (Conradie 2007:216).

(18) totdat dit wat oopgebreek$_{Adj}$ kon [gewees het]$_V$, verdroog
until this which open-broken could been have, up-dry
'until that which could have been broken open withers.'

I take the observations in (17) and (18) to support the hypothesis that the past participle + *het* becomes a category <+V> due to the morphological affixation of *het*.

9. The suffixation of *het* in Type II V-clusters

The V-cluster order in Afrikaans is learned from main clauses before any triple V-cluster appears in the speech of the child. Two directionality patterns are initially established, due to their frequency and early appearance. 1. the rightward selection of <+V> main verbs by modals/aspectuals, and 2. the leftward selection of the <−V> past participles by *het*.

The establishment of the sentence-final position of *het* is further guaranteed by the assimilation on the main verb. The assimilation process with its semantic simplification ensures that the Type I cluster is frequently used in main clauses. When the past participle + *het* lost its inherently perfective meaning, *het* has grammaticalized. Due to the assimilation process, the auxiliary *het* turns into a morphological suffix and may be phonetically reduced *ət* or *'t*.

The past participle + *het* turns into a single <+V> category. The Type I cluster with modals reduces to a binary rightward-branching [V_1 V_2] cluster. See (19a). In the surface representation, Type I only differs from Type II as to the past participle morpheme *ge-* on the

main verb. Type II is acquired when the Type I cluster is fully in operation**.** Suppose that the Type I binary pattern is transposed to the Type II subordinate cluster. See (19b).

(19) a. Type I (modals)

V_1	V_2	
[sal	[gesit	het]]
[wil	[gery	het]]
[kon	[gespeel	het]]
[wou	[gepraat	het]]
[moes	[gewerk	het]]
[sou	[geëet	het]]

b. Type II (non-modals)

V_1	V_2	
[bly	[sit	het]]
[laat	[ry	het]]
[sien	[speel	het]]
[begin	[praat	het]]
[gaan	[werk	het]]
[leer	[eet	het]]

When the distinction present/past and finite/infinitive is no longer present, there is in Type II subordinate V-clusters no morphological clue to determine the V_1 status of *het* and the V_2 status of the aspectual. The main directionality in Afrikaans is learned as rightward-branching with modals and aspectuals (*gaan*/*kom*). Suppose the acquisition procedure mistakenly takes the aspectuals/non-modals as the V_1. Then *het* cannot be the selected V_2, because non-modals cannot select a temporal auxiliary. By consequence, *het* will appear sentence-final suffixed to the main verb.

There are two problematic points for the reanalysis of the Type II triple V-cluster into a binary cluster. First, in contrast to modals, the non-modals need the periphrastic past to express past tense. Second, the main verb is not a past participle, but a base form. However, the following striking facts reasonably accommodate the objections.

First, when a modal verb is added to the Type II V-cluster, there seems to be assimilation as well, see (20). The main verb *werk* is followed by *het*, but there is no perfective interpretation. The only tense interpretation comes from the past form modal *moes*. Examples like (20) are frequent on the internet.

(20) Ek moes$_1$ nie gister gaan$_2$ [werk het]$_3$ nie
I must$_{<past>}$ not yesterday go work have not
'I didn't need to work yesterday.'

Crucially, the V-cluster order is not (*moes*) *het gaan werk*. It seems that [*werk het*] is a morphological unit <+V> that is in competition with [*werk*]. Any interpretation of <+aux> *het* selecting the aspectual *gaan* is lost here.

Second, in nonstandard varieties of Afrikaans *ge-* may be affixed to the main verb (De Vos 2003:521).

(21) Type II (nonstandard Afrikaans)

V_1	V_2	
[begin	[gepraat	het]]
[gaan	[gewerk	het]]
[kom	[gedrink	het]]

When in the Afrikaans subordinate Type II V-cluster *het* is realized as a morphological suffix on the main verb, the acquisition procedure may start to generalize the past participle + *het* to modal and non-modal V-clusters. In nonstandard Afrikaans the subordinate V-cluster with non-modals is identical to the V-cluster with modals.

10. Concluding remarks

The basic problem of the present paper is the placement of the Afrikaans *het* in the final position of the IPP V-cluster. The final position of *het* disrupts the general rightward-branching property of the Afrikaans V-cluster and the systematic adjacency of V-cluster elements that select each other. If one were to solve the distribution exceptionality of the 2-3-1 V-cluster by a movement rearrangement, it would remain unclear how a West-Germanic oddity succeeded to outperform the expected 1-2-3 order that was used before. The present analysis derives the a-typical V-cluster order from an acquisition procedure that is unaware of underlying structure followed by movements.

The first indication for the present analysis was the ease with which the Afrikaans children acquire and use complex V-clusters as compared to Dutch children. The second indication was the disappearance of the IPP V-cluster with modal verbs (Type II) in favor of another type *moes gewerk het* (Type I). My proposal has been that the suffixation of *het* in sentence-final position [*gewerk het*]$_V$ (Conradie 2007), induced the acquisition procedure to the general suffixation of sentence-final *het* on main verbs. The problematic triple V-cluster is now seen to be a rightward-branching binary V-cluster [*gaan*$_1$ [*werk het*]$_2$].

The present analysis for the binary Type II V-cluster holds only in subordinate clauses. The V-second position in main clauses will still guarantee the V_1 status of *het* and the rightward-branching 1-2-3 order and a triple IPP cluster. This might seem problematic. In the main clause, *het* in V-second position has the status of a full word, but in sentence-final position it is a suffix. However, a parallel development has taken place for the disappearance of the Type II V-cluster with modal verbs. Conradie (2007:212) remarks that this type has become "atrophied and limited to main clauses". It is to be expected that, due to the reduced verbal morphology in Afrikaans, the change first takes place in subordinate clauses that lack a V-second position.

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