# Quirky verb-second in Afrikaans: complex predicates and head movement
**DRAFT: DO NOT QUOTE**

*Mark de Vos*

Abstract
This is an annotated handout of a talk presented at CGSW 20 in Tilburg, The Netherlands from 9–11 June 2005. An improved version of this talk is to be published so make sure you only quote the final paper.

Hartmann, J. and Molnarfi, L.*From Afrikaans to Zurich German*: *Comparative studies in Germanic syntax*. Amsterdam: John Benjamins.

The central aim of this paper is to account for 'Quirky Verb Second', a peculiar construction in Afrikaans which optionally pied-pipes a coordinated verbal cluster to verb-second position. This is unique among the Germanic verb-second languages. It is demonstrated that narrow syntax can operate, not only over feature bundles, but over features within feature bundles. It is argued that verbal head-movement may indeed be phonological feature movement (Boeckx and Stjepanovic 2001, Chomsky 2000, Zwart 1997), but with the added caveat that it can also be true syntactic movement in certain instances. The proposal has implications for theories of head movement, excorporation and coordination.

## 1 Introduction

Cross-linguistically, posture verbs tend to become grammaticalized and to encode aspectual information such as durativity (Kuteva 1999). The fact that this occurs in a wide-range of unrelated languages makes posture verbs particularly interesting objects of study. Afrikaans uses a small set of auxiliary-like posture verbs as markers of durativity in a particular type of restructuring configuration.

(1) *Waarom sal Jan die olifante* ***staan en*** *weg**jaag**?*
Why will Jan the elephants stand and away.PRT-chase
'Why will Jan chase the elephants away'

This example illustrates a verb-second sentence with a coordinated verbal string in sentence-final position (bold). Like Dutch, Afrikaans is an OV language (Barbiers 2000) with verb-second in matrix clauses – and in embedded clauses in some registers and varieties (Biberauer 2002; 2003). Following established wisdom, I take verb movement to involve at least head movement from V to T along the lines suggested by Zwart (1997).[1] Whether T-to-C movement specifically involves head movement (Den Besten 1989) or not (Biberauer 2003, Nilsen 2003, Zwart 1997) is a question that will not be directly relevant to the issue at hand. Whatever mechanism is ultimately responsible for T-to-C movement is dependent on initial head-movement to T.

Returning to example (1), the clause-final verb string consists of a lexical verb, *wegjaag* 'chase away' coordinated with a verb of posture, *staan* 'stand'. The posture verb does not necessarily


*Mark de Vos*
*(m.devos@ru.ac.za ())*

imply that Jan was standing but rather denotes durativity. Thus, the coordinated predicates together refer to a single event of chasing the elephants away; not to a discrete event of standing and to another of chasing.

The posture verb is known in the Afrikaans literature as an Indirect Linking Verb (ILV) or *Indirekte Skakelwerkwoord* and is part of a closed class of such verbs including *loop* 'walk', *sit* 'sit', *lê* 'lie down' and *staan* 'stand'. The fact that the object occurs to the left of the posture verb (in Spec *v*P or alternatively Spec AgrOP) indicates that this is an instance of restructuring. What is remarkable about this Afrikaans construction is that the coordinated verbal string can be pied-piped as part of verb-second, stranding the separable particle. Henceforth, the pied-piped complex coordinated predicate will be called a Complex Initial. The non-pied-piped complex, coordinated predicate will be referred to as 'the verbal string'. The phenomenon itself will be called Quirky verb-second.

(2) a. *Waarom* ***staan en jaag*** *Jan die olifante* ~~*staan en*~~ *weg* ~~*jaag*~~*?*
Why stand and chase Jan the elephans away.PRT
'Why does Jan chase away the elephants?'

b. *Waarom* ***staan*** *Jan die olifante* ~~*staan*~~ *en wegjaag?*
Why stand Jan the elephants and away.PRT-chase
'Why does Jan chase away the elephants?'

Example (2a) illustrates how the Complex Initial (i.e. the fronted, coordinated verbal string) can undergo 'inversion', occurring in second position and to the left of the subject.[2] That this appears to be optional is demonstrated by (2b) which has the same denotation.[3]

There are several reasons why this phenomenon is fascinating. First, there is the obvious fact that a complex, coordinated predicate is pied-piped as part of verb-second. Such pied-piping is optional and does not lead to a semantic difference. This is unique among the Germanic verb-second languages and raises important questions about the nature of head movement.

### *1.1 The pied-piped constituent is a head*

There is a variety of evidence showing that pied-piped, coordinated predicates do indeed act as a single verbal head.[4] First, there is the fact that the Complex Initial displays the same distribution as an ordinary verbal head: it displays a matrix-embedded asymmetry with respect to verb-second. Examples (3a,b) illustrate the matrix-embedded asymmetry characteristic of simplex predicates.

(3) a. *Jan jaag die olifante weg*
Jan chase the elephants away.PRT
'Jan chases away the elephants'

b. *. . . dat Jan die olifante wegjaag*
. . . that Jan the elephants away.PRT-chase
'. . . that Jan chases away the elephants'




*Mark de Vos*
*(m.devos@ru.ac.za ())*

The same distribution is evident with Afrikaans coordinated complex predicates as illustrated in examples (4).

(4) a. *Jan* ***staan en jaag*** *die olifante weg*
Jan stand and chase the elephants away.PRT
'Jan chases the elephants'

b. *...dat Jan die olifante* ***staan en weg jaag***
...that Jan the elephants stand and away.PRT-chase
'...that Jan chases the elephants'

The fact that the ILV coordinated predicates and simplex verbs exhibit the same distribution strongly suggests that the pied-piped predicate acts as a single, verbal head. Moreover, the second position of the clause is usually reserved for verbal heads in a verb-second language like Afrikaans. This indicates that the complex predicate which occurs in second position must also be a head.[5]

The second major argument for the head status of the pied-piped predicate is the fact that no non-verbal material may intrude within it. In this regard, consider the position of the separable particle in examples (4). It will be noted that the particle occurs within the coordinated structure when the verbal string is *in situ*. However, when pied-piping occurs, the particle is stranded in sentence-final position. Importantly, the particle can never be pied-piped along with the coordinated verbs (5).

(5) **Jan* ***staan en weg jaag*** *die olifante*
Jan stand and away.PRT-chase the elephants

Similarly, neither high nor low adverbs can occur within the pied-piped complex predicate (egs (6) and (7)) and still retain the aspectual reading. It is thus a true verbal cluster in its pied-piped position.

(6) **Jan* ***staan en*** *sorgvuldig* ***jaag*** *die olifante weg*
Jan sit and carefully chase the elephants away.PRT
'(intended) Jan chased the elephants away with care'

(7) **Jan* ***staan en*** *waarskynlik* ***jaag*** *die olifante weg*
Jan stand and probably chase the elephants away.PRT
'(intended) Jan probably chased the elephants away'

These arguments strongly suggest that the pied-piped coordinated predicate is a single head.

### *1.2 Interim summary*

This section has outlined a curious phenomenon in Afrikaans that appears to challenge established ideas about verb-second and head movement. It has been demonstrated that a coordinated complex predicate can be pied-piped to verb-second position in Afrikaans. It is shown that the pied-piped constituent is indeed a head.

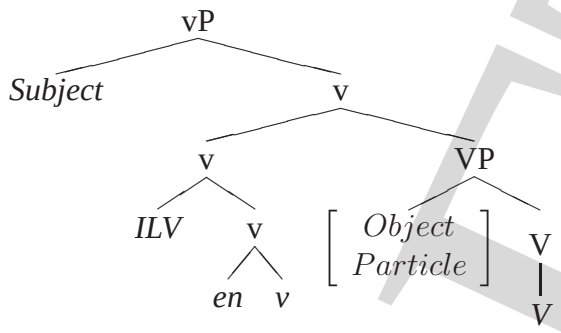



*Mark de Vos*
*(m.devos@ru.ac.za ())*

## 2 The base structure of Afrikaans coordinated predicates

In this section, the structure motivating ILV coordinated predicates is explored. ILV coordinated predicates behave like single verbs in the sense that they can undergo head-movement and refer to a single event. On the other hand, the presence of the separable particle *within* the coordinated structure in examples like (1) and (4b) suggests that the coordinated verbal string is not a constituent at all. This apparent paradox can be resolved by the following structure.

(8)




In this structure, the ILV is coordinated with a phonetically empty little *v*. In the absence of V-*v* raising, V remains *in situ* and occurs to the right of the object (Barbiers 2000). Thus, the lexical verb is not a constituent with the coordinated V+*en*+*v* complex. The position for objects is to the left of V. It is also assumed that the separable particle is adjoined to VP.[6] This structure is supported by the distributions of subjects, objects, particles and adverbs.

Given structure (8), there are potentially three adjunction positions for XP-like material. These are labelled A, B and C for convenience.

(9)

| | ILV | AND | LEXICAL VERB | |
|---|---|---|---|---|
| | staan | en | jaag | (as in example (1)) |
| $\uparrow_A$ | $\uparrow_B$ | $\uparrow_C$ | | |

Position A would be Spec *v*P or higher, including AgrOP. It is the unmarked position for subjects, objects, adverbials and other material associated with the functional layer. Position B corresponds to an adjunction point between two conjoined heads. Consequently, it is expected that no XP-like material could ever occur in this position. Finally, Position C is equivalent to VP adjunction and might potentially host low adverbs of manner, separable verbal particles and conceivably, some types of 'low' objects. These predictions are explored in the following subsections.

### *2.1 Distribution of subjects*

In the following examples, an expletive is located in subject position, forcing the indefinite subject to remain in Spec *v*P corresponding to Position A. Subjects can only occur in Position A (10a). As expected, it is not possible for the subject to occur in either Positions B or C (10b,c). This is consistent with the proposed structure.

(10) a. *Daar sal altyd* ***iemand*** *sit en eet*
there will always somebody sit and eat
'There will always be somebody reading' [In A]


*Mark de Vos*
*(m.devos@ru.ac.za ())*

b. **Daar sal altyd sit **iemand** en eet*
there will always sit somebody and eat
'There will always be somebody reading' [*In B]

c. **Wat sal daar altyd sit en **iemand** eet?*
what will there always sit and somebody eat
'There will always be somebody reading" [*In C]

*2.2 Distribution of adverbs*

The fact that different adverbs systematically select different points of adjunction (Ernst 2002) provides a useful tool to disambiguate structures. Position A corresponds to a variety of positions in the functional layer and is thus the unmarked position for many adverbs (11a).[7] Since adverbs are XPs, they cannot occur in Position B (11b). Finally, higher adverbs cannot occur in Position C, although lower adverbs which can adjoin to VP typically can (11c). This shows that the lexical verb is not a constituent with the ILV and the coordinator. This is congruent with the proposed structure (8).

(11) a. *Wat gaan Jan waarskynlik/ altyd/ herhaaldelik/ vinnig/*
What go Jan probably always repeatedly quickly
*sorgvuldig/ morsig sit en eet?*
carefully messily sit and eat
'What is Jan probably/ always/ quickly/ carefully/ repeatedly going to be reading?'

[In A]

b. **Wat gaan Jan sit waarskynlik/ altyd/ herhaaldelik/ vinnig/*
What go Jan sit probably always repeatedly quickly
*sorgvuldig/ morsig en eet*
carefully messily and eat
'What is Jan probably/ always/ quickly/ carefully/ repeatedly going to be reading?'

[*In B]

c. *Wat gaan Jan sit en *waarskynlik/ *altyd/ *herhaaldelik/*
What go Jan sit and probably always repeatedly
*?vinnig/ sorgvuldig/ morsig eet?*
quickly carefully messily eat
'What is Jan probably/ always/ quickly/ carefully/ repeatedly going to be reading?'

[Low adverbs in C]

It is interesting to note that these data also exclude a structure for the Afrikaans construction based on clausal subordination. The following kind of subordinative structure would predict that higher adverbs would be able to occur in Position C.




*Mark de Vos*
*(m.devos@ru.ac.za ())*

(12) …*dat Jan die olifante* $[_{VP}$ *staan* $[_{CP}$ *en* … $[_{VP}$ *wegjaag* ]]]
…that Jan the elephants $[_{VP}$ stand $[_{CP}$ and … $[_{VP}$ away.PRT-chase ]]]

Since this prediction is falsified by (11c), the clausal subordination structure cannot be correct.

### *2.3 Distribution of objects*

Afrikaans objects usually move to the left of the verb, to what I take to be a specifier of *v*P (13a).[8] However, a subset of objects can also occur in a lower position, presumably the base position for objects (13b).[9] No objects can occur in Position B (13c).

(13) a. *Daar sal altyd iemand* ***boeke*** *sit en lees*
there will always somebody books sit and read
'There will always be somebody busy reading books' [In A]

b. *Daar sal altyd iemand sit en* ***boeke*** *lees*
there will always somebody sit and books read
'There will always be somebody busy reading books' [In C]

c. *Daar sal altyd iemand sit **boeke** en lees [*In B]

Incidentally, it is worth noting that these 'low' objects are probably not incorporated into the lexical verb because otherwise they would be pied-piped with the complex, coordinated predicate. In fact, they can never be pied-piped in this way (14b).

(14) a. *Waarom sal Jan sit en boeke lees?*
Why will Jan sit and books read
'Jan will read books'

b. **Waarom sit en boeke lees Jan?*
Why sit and books read Jan

### *2.4 Distribution of separable particles*

Separable particles are XPs occurring in a VP-adjoined position as illustrated in (8). Whether or not they are base-generated in this position (as objects are) or whether they are generated as the heads of small clauses in a still lower position is not directly relevant at this point.

The distribution of separable particles has already been touched on in section (1.1). It is clear from example (1) adapted here as (15a) that a separable particle can occur in Position C. However, the separable particle cannot occur in either Position A (15b) or Position B (15c).[10]

(15) a. *Jan sal die olifante staan en* ***weg****jaag*
Jan will the elephants stand and away.PRT-chase
'Why will Jan chase the elephants away' [In C]

b. */??Jan sal die olifante* ***weg*** *staan en jaag* [*In A]
Jan will the elephants away.PRT stand and chase

c. **Jan sal die olifante staan **weg** en jaag* [*In B]
Jan will the elephants stand away.PRT and chase




*Mark de Vos*
*(m.devos@ru.ac.za ())*

### *2.4.1 Particles are evidence against a remnant movement approach*

Incidentally, these particle distribution facts are important evidence against an approach to Quirky verb-second based on remnant movement.

Over the past several years, there has been increased interest in recasting verbal head-movement as remnant movement. A approaches such as that of Nilsen (2003) and Biberauer (2003) retain head-movement for verb movement to the head of FinP/TP, but utilize remnant movement for verb-second itself (i.e. what was traditionally T-to-C movement (Den Besten 1989)). Other frameworks follow the stronger hypothesis that all head-movement is reducible to remnant movement (Mahajan 2000; 2001, Müller 2004). In fact, it might be suggested that Afrikaans Quirky verb-second is *prima facie* evidence for this kind of approach. After all, if all apparent head-movement to T did involve remnant movement, then it would be expected that verbal strings would be pied-piped. To explore this issue more fully, consider the following straw-man outline of a remnant movement derivation (16).

(16) a. Start with a vP shell: $[_{vP}$ ILV *en* OBJECT VERB]

b. Evacuate the vP shell: OBJECT $[_{vP}$ ILV *en* ~~OBJECT~~ VERB]

c. Move the shell to T: $[_{vP}$ ILV *en* VERB] OBJECT ~~$[_{vP}$ ILV *en* OBJECT VERB]~~

The derivation begins with a *v*P shell containing an coordinated predicate. The non-verbal material is then evacuated from the *v*P. The *v*P is subsequently fronted to simulate verb-movement.

However, there are good reasons why Afrikaans Quirky verb-second is not derived by remnant movement (De Vos 2004b). The first of these is that a derivation like (16) does not conform to independently verified properties of remnant movement in Afrikaans. It is known, that remnant movement in Germanic in general (Den Besten and Webelhuth 1987), and Afrikaans in particular (Biberauer 2004) does not require obligatory evacuation of non-verbal material from the *v*P. Such material is typically pied-piped. Consider the following example of *v*P movement to Spec TP as proposed by Biberauer (2003) (17). Crucially, in this case, remnant movement pied pipes all non-verbal material (including the separable particle (17b)).[11]

(17) a. *. . . dat hy die olifante (ge-)staan en wegjaag het t*
. . . that he the elephants PST-stand and away.PRT-chase AUX
'. . . that he was chasing the cattle away'

b. **. . . dat hy die olifante (ge-)staan en jaag het weg t*
. . . that he the elephants PST-stand and chase AUX away.PRT

However, it might be argued that notwithstanding the previous argument, all non-verbal material might be extracted from *v*P for various reasons. For instance, arguments might be extracted for reasons to do with Case. Whatever the merits of this approach, there are serious problems with the extraction of separable particles.

Separable particles can typically scramble to the left of a verb cluster in languages like Dutch and Afrikaans when a coordinating marker is not present (18a). However, the presence of an ILV construction does not allow such scrambling as illustrated in (15c), adapted here as (18b).

(18) a. *Waarom sou Jan die olifante* ≺***weg***≻ *laat* ≺***weg***≻ *gaan?*
Why would Jan the elephants away.PRT allow go
'Why would Jan let the elephants go away?



*Mark de Vos*
*(m.devos@ru.ac.za ())*

b. *Jan sal die olifante* ≺***/??weg***≻ *staan en* ≺***weg***≻ *jaag*
Jan will the elephants away.PRT stand and chase

This means that, in the context of ILV constructions, separable particles cannot be scrambled outside the *v*P for independent reasons. However, these are precisely the configurations that *require* the particle to scramble if a remnant movement approach is to succeed (De Vos 2004b). This paradoxical situation is strong evidence against an approach requiring this type of remnant movement.

### *2.5 Summary of distributions*

This section has explored the distributions of subjects, objects, adverbs and separable particles. These distributional data are tabulated here. It is quite clear that they are congruent with the structure proposed in (8). The distributional evidence also suggests that explanations in terms of clausal subordination or remnant movement are unfeasible.

| Position | One | Two | Three |
|---|---|---|---|
| Subjects | ✓ | No | No |
| Higher Adverbs | ✓ | No | No |
| Low Adverbs | ✓ | No | ✓ |
| Bare Objects | ✓ | No | ✓ |
| Separable Particles | No | No | ✓ |

## 3 Coordination and feature bundles

The following section will provide an analysis of Quirky verb-second in Afrikaans. However, in order to do so, some assumptions about coordination must be outlined.

### *3.1 Selected assumptions about coordination*

Since coordination plays a central role in the following discussion, it is necessary to outline a few fundamental assumptions concerning it. The coordinator & takes (at least) two 'arguments' X and Y in the following, asymmetric configuration: $[_{\&}$ X $[_{\&}$ Y]]. Thus where XPs are coordinated, X is a specifier of & while Y is a complement (Johannessen 1998, Kayne 1994, Progovac 1998a;b, Van Koppen 2005, Zoerner 1995). In a bare-phrase-structure system (Chomsky 1995) the same configuration can apply to heads. It is known, that coordinative structures are different to other Spec-head-complement structures insofar as the features of the conjuncts are accessible on the mother node (Cormack and Breheney 1994, Johannessen 1998, Van Koppen 2005, Zoerner 1995).

Furthermore, coordinative structures are subject to the Law of Coordination of Likes (LCL) (Chomsky 1957, Munn 1993, Sag et al. 1985, Schachter 1977). It has long been known that a curious, yet important, lexical fact about conjunction, is that in natural language, coordination almost always targets 'like' constituents. This property is usually referred to as the Law of Coordination of Likes in the literature. The level of similarity may not be restricted to only syntactic features, but also extends to the semantic function or functional equivalence (Dik 1968, Haspelmath 2007, Munn 1993, Peterson 2004, Sag et al. 1985).


*Mark de Vos*
*(m.devos@ru.ac.za ())*

Coordination is also subject to the Coordinate Structure Constraint (CSC) (Ross 1967), abstracting away from the Across-the-Board (ATB) exception to it.

(19) a. **Coordinate Structure Constraint:** In a coordinate structure, no element contained in a conjunct may be moved out of that conjunct (Ross 1967:89).

b. **Across the Board Rule Application:** In a coordinate structure, the same constituent may be extracted from within all the conjuncts simultaneously (Ross 1967, Williams 1978).

The CSC is illustrated in the following example where no individual WH-item may be extracted from any single conjunct, but can be extracted in ATB-fashion from both conjuncts simultaneously.

(20) a. *Who did John see Mary and Peter observe t? [CSC]

b. Who did John see t and Peter observe t? [ATB]

In its original form, the CSC was a disjunctive condition incorporating a condition to the effect that no conjunct may be moved (Ross 1967:89). This will be referred to as the Conjunct Condition but will not play any role in the remainder of this article.

These fundamental assumptions about coordination are taken to be axiomatic and ultimately a function of a deep, lexical property of coordination. Having laid down these assumptions, it is possible to further explore the interaction of coordination with verbal heads.

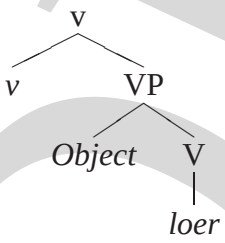
## 4 Deriving the base structure for ILV constructions

In this section, the derivation of the base structure for coordinated predicates will be outlined. The derivation of example (21) is as follows.

(21) *Waarom sal Jan vir die olifante* ***staan en loer****?*
Why will Jan for.OBJ-MARKER the elephants stand and look
'Why will Jan spy on the elephants?'

First, the lexical verb and object are merged, followed by the merging of little *v*.

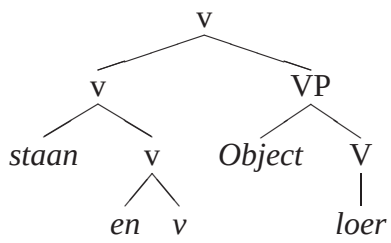
(22)




At this point, the coordinative head is merged directly to the *v* head, whereafter the posture verb is merged in the same way. This yields the structure in (23). It is important to note that this system of direct adjunction is not particularly novel. This is precisely the same adjunction mechanism used by head-movement and exploits the similarity between MERGE and MOVE.[12]


*Mark de Vos*
*(m.devos@ru.ac.za ())*

(23)




This derives the proposed base structure in (8). Note that the LCL is respected insofar as both *v* and the posture verb are (light) verbs. In addition, the object is not contained within a coordinative structure, so it can be freely raised to Spec *v*P (or Spec AgrOP) for Case licensing. This structure accounts for the 'restructuring' properties of this construction. Importantly, however, the lexical verb and the posture verb do not form a constituent. This opens the possibility for low adverbs, particles etc. to be adjoined at VP level. This accounts for all the distributional facts in section (2).

### *4.1 Implications of the LCL for coordinated feature bundles*

In structures like (8) and (23) where heads are coordinated, the question of what exactly is being coordinated comes to the fore. The representation in (23) is not precise enough since it does not necessarily distinguish between two potential ways of representing the coordination of heads. Under traditional assumptions, it is usually categories that are coordinated. However, it could just as well be that coordination scopes over features within feature bundles. Assume feature bundles to be comprised of at least, categorial, formal, phonological and semantic features. These two possibilities are represented in (24) and (25), where the circle informally represents the scope of coordination.

(24) $\begin{bmatrix} \underline{A} \\ \text{PHON} \\ \text{CAT} \\ \phi \\ \text{SEM} \end{bmatrix}$ & $\begin{bmatrix} \underline{B} \\ \text{PHON} \\ \text{CAT} \\ \phi \\ \text{SEM} \end{bmatrix}$ [Atomic/categorial rule application]

(25) $\begin{bmatrix} \underline{A} \\ \text{PHON} \\ \text{CAT} \\ \phi \\ \text{SEM} \end{bmatrix}$ & $\begin{bmatrix} \underline{B} \\ \text{PHON} \\ \text{CAT} \\ \phi \\ \text{SEM} \end{bmatrix}$ [Subatomic/feature set rule application]

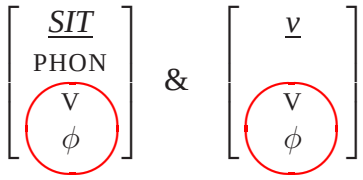
In (24), the entire feature bundle is coordinated with another. In (25), it is the features themselves that are coordinated. Generally, these two situations are empirically indistinguishable. Morphologically, the feature bundle is always isomorphic with a particular verbal form regardless of whether coordination operates over some or all of its internal features. From a syntactic perspective, all the features are within the scope of coordination in both instances. Thus it would not be possible to extract a feature from one conjunct without violating the CSC. However, it could be the case that Afrikaans ILV constructions provide a context subtle enough to distinguish between these two systems.

Consider the situation in (26) where one conjunct is a subset of the other. The LCL ensures that only 'like' features are coordinated. The fact that the first feature bundle has a phonological



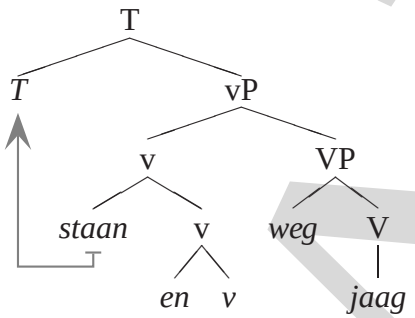

*Mark de Vos*
*(m.devos@ru.ac.za ())*

feature whereas the other does not means that the phonological feature must remain outside the scope of coordination. This opens the possibility for that feature to be extracted from the feature bundle without incurring a violation of the CSC.[13]

(26) 


### *4.2 Deriving a simplex initial*

Looking back at the structure in (23), it is evident that little *v* lacks a phonological feature whereas the posture verb has a phonological feature by default. In other words, structure (23) instantiates the situation described in (26). This means that the phonological feature can be extracted as part of V-T movement without incurring a CSC violation. This derives examples like (2b) repeated here.

(27) 


(28) *Waarom* ***staan*** *Jan die olifante* ~~*staan*~~ *en wegjaag?*
Why stand Jan the elephants and away.PRT-chase
'Why does Jan chase away the elephants?'

Afrikaans ILV constructions thus provide evidence for syntactic operations being able to manipulate features within feature bundles. In this particular instance, it is coordination that operates over features within feature bundles. Interestingly, this is not at odds with the original formulation of the CSC and LCL which were originally defined as operating over syntactic entities and not categories *per se*. Nevertheless, the CSC and LCL can now be explicitly defined over features. I call this subatomic syntax.

(29)
a. **Subatomic LCL:** Coordination always coordinates 'like' entities. Where 'entity' is a feature or set of features.
b. **Corollary:** A feature (or set of features) may only be coordinated with another feature (of set of features) of the same type, which are made available by the syntactic structure being coordinated.

(30)
a. **Subatomic CSC:** Extraction from within any coordinated entity is disallowed. Where 'entity' is a feature or set of features.[14]
b. **Corollary:** Extraction out of a coordinative structure is disallowed if that extraction is from within the coordinated entities themselves. Extraction is allowed if coordination does not scope over the extracted entity.



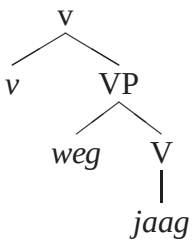

*Mark de Vos*
*(m.devos@ru.ac.za ())*

### 4.3 *Creating and moving a complex initial*

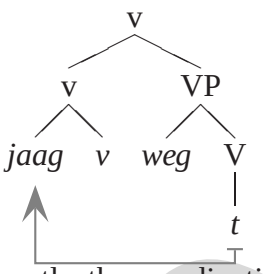
Thus far, only half the puzzle has been solved. It is still necessary to derive structures with complex initials, and more importantly, to show that such derivations are a function of what has already been proposed. Example (2a) is repeated here as (31).

(31) *Waarom* ***staan en jaag*** *Jan die olifante* ~~*staan en*~~ *weg* ~~*jaag*~~*?*
Why stand and chase Jan the elephans away.PRT
'Why does Jan chase away the elephants?'

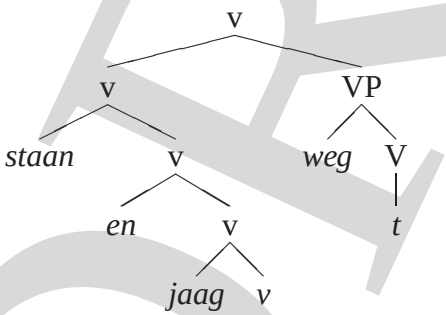
The derivation begins with merging the lexical verb, object and then *v* as for derivation (22).

(32)



If the lexical verb is to undergo verb-second, then it is necessary that it raises to *v* at an early stage of the derivation. This is a necessary condition for any theory of V-to-T movement. It is precisely this movement that sets the stage for the derivation of an example like (31).

(33)


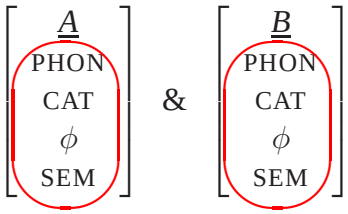

Subsequently, the coordinative head and the posture verb are directly adjoined to the V+*v* complex as described in derivations (22) and (23).

(34)


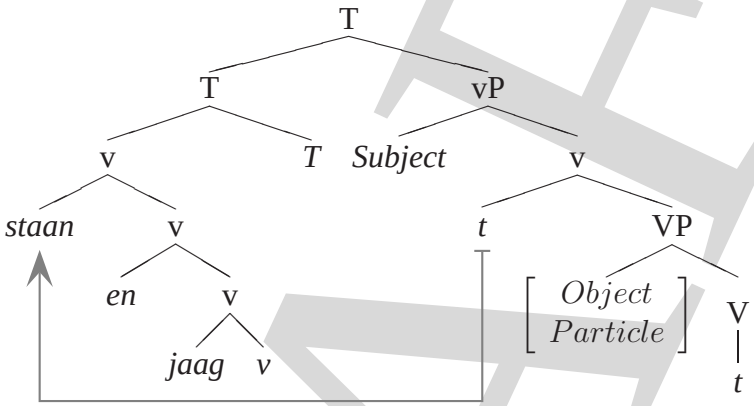

Now consider the nature of the feature bundles in derivation (34). The conjunct containing the posture verb has phonological features by default. Although, little *v* itself does not have any phonological features, the movement of V to *v* has effectively provided the second conjunct (containing V+*v*) with phonological material. According to the Subatomic LCL (29), all 'like' features must be coordinated. The feature bundles are illustrated in (35) where the circle informally represents the scope of coordination.




*Mark de Vos*
*(m.devos@ru.ac.za ())*

(35) 


This means that the phonological feature resides within the scope of coordination and cannot be extracted individually without incurring a CSC violation.[15] The only possible outcome is for the entire coordinated head to be pied-piped to T.[16] Subsequent operations ultimately derive a verb-second effect. This derive examples like (2a) repeated below. Importantly, this means that head-movement of a complex, coordinated head is not necessarily movement of a phonological feature at all, but is an operation of narrow syntax.

(36) 


(37) *Waarom* ***staan*** ***en*** ***jaag*** *Jan die olifante* ~~*staan en*~~ *weg* ~~*jaag*~~*?*
Why stand and chase Jan the elephans away.PRT
'Why does Jan chase away the elephants?'

At this point, analyses have been been proposed that can account for the Afrikaans facts as described in the introduction. The optionality between examples (2a) and (2b) ultimately reduces to the question of whether the lexical verb moves to *v* or not. When V raises to *v*, a complex initial results; when V-*v* raising does not occur, a simplex initial is the outcome.

## 5 Other types of moved verbal clusters

Until now, the entire discussion has focussed exclusively on coordinated predicates formed with ILVs. However, there are also other types of verbal clusters that can undergo V-to-T movement. These include complex initials with aspectual, restructuring, raising verbs (i.e. Direct Linkg Verbs/DLVs) as well as reduplicative, coordinated predicates. It will be demonstrated that these types of complex can also be accommodated in the proposed analysis.




*Mark de Vos*
*(m.devos@ru.ac.za ())*

## 6 Coordinated predicates in comparative perspective

### *6.1 Modern Aspectual constructions*

Modern Germanic languages that utilize posture verbs to indicate aspect tend to have a semantically 'light' functional head that can have the morphological form of a subordinator (*te*(38a)) or a coordinator *en*((38b,c) or be homophonous between the two *å/at* ((38d). In all forms, simplex initials are possible (where verb movement is obviously a necessary condition) and complex initials are impossible.

(38) a. *Wat zat hij te eten*
What sat he to eat-INF

b. What did he sit and eat?

c. *Wat sit hy en ëet*
what sit he and eat

d. *Hva sitter han og spiser?*
what sit-FIN he and eat-FIN

If one looks only at standard languages then it would seem that there is a generalization regarding agreement:

(39) **Agreement correlations:**

a. For subordinators, the aspectual verb may be finite but the embedded verb is always infinitival

b. For coordinators, the aspectual verb and the embedded verb must have the same morphological form.

However, a closer look at dialectal microvariation shows this to be untrue. The following examples of West-Flemish show that a coordinative morpheme can also be associated with a disjunctive tense. Thus, there is no correlation between the morphological form of the coordinator/subordinator and tense.

(40) a. *Jan zat een boek en lezen* [Izenberge: (Haslinger and Van Koppen 2003)]
Jan sat a book and read-INF

b. *En stoan en zagen*
he stand-FIN and complain-INF
'He was busy complaining' [Merckeghem:(Haslinger and Van Koppen 2003)]

c. *Dien jongen zit voorzekers televisie en kijken*
the boy sit-FIN surely television and watch-INF
'The boy was definitely busy watching TV' [Wulvergem: (Haslinger and Van Koppen 2003)]




*Mark de Vos*
*(m.devos@ru.ac.za ())*

These data are supported by historical evidence which show essentially the same thing. Ijbema (2003) gives the following nineteenth century example.

(41) a. *daer sy sat en huylen*
there she sat and cry-INF
'she was sitting there and crying' (Ijbema 2003)

Interestingly however, there does appear to be a correlation between the formation of complex initials and agreement. A complex initial may only contain verbs with the same morphological form of agreement. Consider the following paradigm from Ijbema (2003) citing (Gerritsen 1991).

(42) a. *Marie zit aardappelen te schillen* [Throughout Netherlands]
Marie sits potatos to peel-INF

b. *Marie zit te aardappelen schillen* [Friesland, Groningen, Drenthe]
Marie sits to potatoes peel-INF

c. *Marie zit aardappelen en schilt* [Zeeland]
Marie sits potatoes and peels

d. *Marie zit en schilt aardappelen* [Throughout Netherlands; regionally restricted]
Marie sits and peels potatos

e. **Marie zit en schillen aardappelen*
Marie sits and peel-INF potatos

With respect to coordinative morphemes, these data show that verbs can have the same agreement marking (42c,d) or different agreement marking (40). The pair in (42d,e) are especially important because (42d) appears to be a complex initial. This is supported by the ungrammaticality of (42e), a fact which would be explained if both verbs are adjoined to T at some point in the derivation and consequently must have the same agreement.

### *6.1.1 Conclusion*

These comparative data lend credence to the assertion by (Ponelis 1993) that Afrikaans complex initials arose as a consequence of a loss of verbal inflection – where the finite and non-finite forms of the verb were non-distinct and so examples like (42d,e) would have been indistinguishable.

This begins to explain the paucity of complex initials in modern Germanic languages. All modern Germanic languages, except Afrikaans, have at least some inflectional morphology. The preceding data show that the morphological component constrains the form of coordinated predicates. Thus, it follows that Afrikaans will be far less restricted in forming coordinated predicates than other Germanic languages. This also predicts that complex initials are, in principle possible in Germanic languages, provided that (a) a coordinative strategy is used and (b) that the agreement matches on both verbs. While this strategy seems to be restricted, the data in (42d) show that it is, in principle, possible.




*Mark de Vos*
*(m.devos@ru.ac.za ())*

### *6.2 Why does Dutch not use coordination?*

- At one level, Dutch verbs select a *te* complement. There is no explanation for why this is so other than stipulation. However, taking this into consideration, it is clear that *te* cannot function in the same way as *en* because it does not have the same properties of (a) requiring two conjuncts of the same type and (b) being subject to the LCL. Of course both morphemes can be used because both are semantically empty, having pure subordinative or coordinative syntactic status. As such, they are morphemes that can be turned to a variety of purposes. They are useful to lexicalizing strange functional heads and are good for linking things together.
- So the big question is why Dutch does not use *en*?
- it does in the dialects.
- So then the question is why complex initials are not formed
- It seems that they do – in some dialects – but with the restriction that the agreement is the same in both instances.
- what will a child learn: Given a coordinative SI: it is compatible with subordinative EN, or an Afrikaans type structure. Given a coordinative CI: it is compatible with lexical coordination or an Afrikaans type structure. In other words, there are always alternative analyses for the child. But in Afrikaans,

### *6.3 Other types of complex initials*

Afrikaans complex initials are not restricted to ILVs with overt coordinators. A subset of aspectual verbs capable of undergoing verb-raising are Direct Linking Verbs (DLVs). These can also occur in complex initials. Verb-raising refers to the creation of a contiguous verbal cluster (bold) in OV languages like Dutch and Afrikaans (Evers 1976).

(43) …*dat Jan het balletje ergens* ***moet laten vallen***
…that Jan the.NEUT ball-DIM somewhere must let-INF fall-INF
'…that Jan must drop the ball somewhere' [Dutch]

(44) …*dat Jan die bal iewers* ***moet laat val***
…that Jan the ball somewhere must let fall
'…that Jan must drop the ball somewhere' [Afrikaans]

Afrikaans DLVs include verbs like *bly* 'keep on doing' (45), *kom* 'come'(46) and *laat* 'CAUSATIVE' (47).[17] Most of these can also optionally alternate between simplex and complex initials. Importantly, however, the coordinator is not overt in these cases.

(45) a. *Waarom* ***bly lees*** *Jan die boek?*
why stay read Jan the book
'Why does Jan keep reading the book?'


*Mark de Vos*
*(m.devos@ru.ac.za ())*

b. *Waarom* ***bly*** *Jan die boek lees?*
why stay Jan the book read

(46) a. *Waarom* ***kom*** ***eet*** *Jan by ons?*
why come eat Jan with us
'Why does Jan come and eat at our house?'

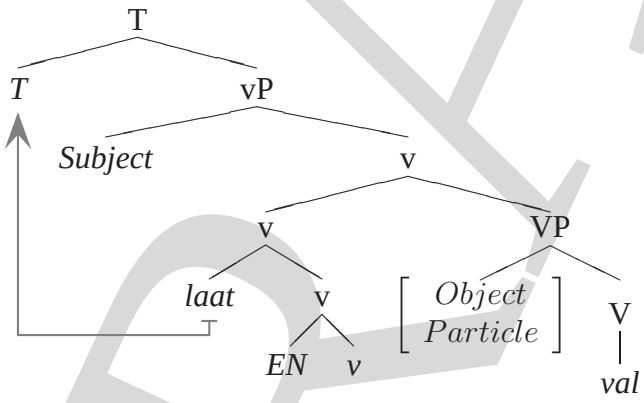
b. *Waarom* ***kom*** *Jan by ons eet?*
why come Jan with us eat

(47) a. *Die heelagter* ***laat*** ***val*** *die bal*
the full-back let.CAUS fall the ball
'The full-back dropped the ball' (Van Niekerk 1995:150)

b. *Die heelagter* ***laat*** *die bal* ***val***
the full-back let.CAUS the ball fall
'The full-back dropped the ball' (Van Niekerk 1995:150)

The class of DLVs in Afrikaans is not homogenous (De Vos 2005, Robbers 1997) and full justice cannot be done to the entire class here. Nevertheless, it has been shown that many DLVs have formal properties very similar to ILVs (see De Vos (2005) for a comprehensive overview). Thus, there does not appear to be any reason why the same structure that was applied to ILV structures (8) should not also be applied to DLV structures. The only caveat is that in these cases the coordinator is covert.[18]

(48)




(49) *Die heelagter* ***laat*** *die bal* ***val***
the full-back let.CAUS the ball fall
'The full-back dropped the ball' (Van Niekerk 1995:150)

As for the ILV instances, in the absence of V-*v* raising, *v* remains devoid of phonological features. This means that the phonological features of the DLV (in this instance *laat*) must remain outside the scope of coordination. Consequently, they are free to move to T without incurring a violation of the CSC.

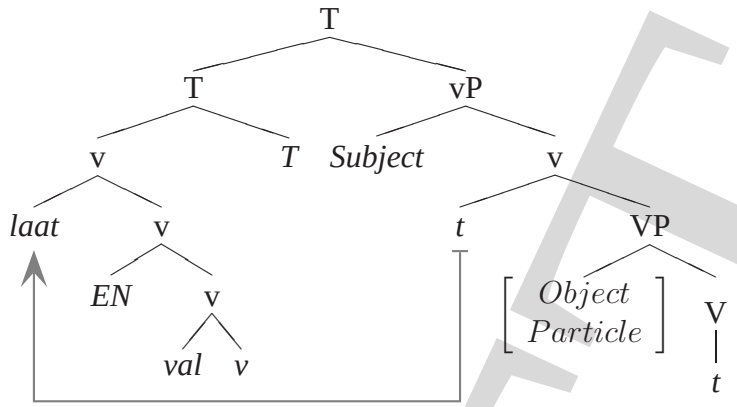
However, when V-*v* raising occurs *v* is lexicalized by V. Thus, both the first conjunct (containing the DLV) and the second conjunct (containing V-*v*) have phonological features. Consequently, the phonological features lie within the scope of coordination and the entire complex predicate must be pied piped, should movement be required.





*Mark de Vos*
*(m.devos@ru.ac.za ())*

(50)



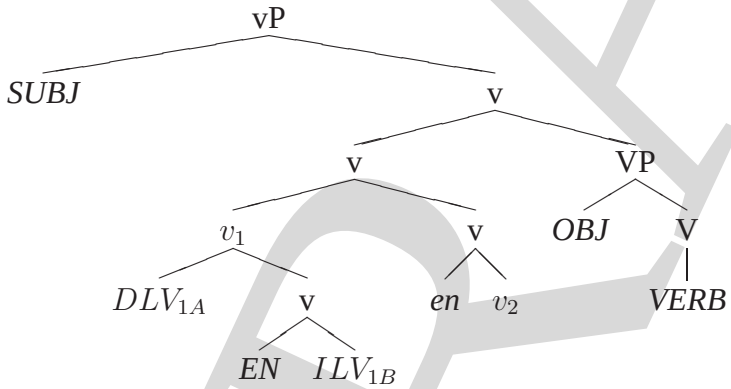

(51) *Die heelagter* ***laat*** ***val*** *die bal*
the full-back let.CAUS fall the ball
'The full-back dropped the ball' (Van Niekerk 1995:150)

The the proposed structure, in conjunction with the LCL and CSC can also derive Quirky Verb Movement with DLVs.

### *6.3.1 Additional prospects*

In natural language, coordination allows conjuncts to themselves be coordinated. Since the proposed structures (8) and (48) explicitly utilize coordination, it should also be possible to coordinate DLVs and ILVs in a single structure.

(52)




This prediction is fulfilled by examples like (53) which illustrate pied-piping of a complex verbal predicate with both an overtly coordinated ILV and a (covertly coordinated) DLV.

(53) *Waarom* ***loop staan en lees*** *Jan die boek?*
why walk stand and read Jan the book
'Why is Jan busy reading the book?' [CI]

What is interesting about this structure (52) is that it makes a prediction about what verbs can be pied-piped and which cannot. The second conjunct (subscript 2) consists of *v*. Since it lacks phonological features, it predicts that the first conjunct (subscript 1) should be able to be pied-piped. This is demonstrated in (54). Such examples are possible but not common, according to Ponelis (1993).




*Mark de Vos*
*(m.devos@ru.ac.za ())*

(54) *Waarom* ***loop staan*** *Jan die boek en lees?*
Why walk stand Jan the book and read
'Why is Jan busy reading the book?'

In structure (52), within the first conjunct (subscript 1), there is an overt verb in each conjunct (1A and 1B respectively). There is thus phonological material in both conjuncts. This predicts that it will not be possible to extract the DLV separately, but that the entire first conjunct (i.e. $v_1$) should be pied-piped. The impossibility of extracting the first verb individually is illustrated in (55) which is worse than either of the preceding two examples.

(55) *??Waarom* ***loop*** *Jan die boek staan en lees?*
why walk Jan the book stand and read
'Why is Jan busy reading the book?'

Thus, it would appear that the proposed structure makes predications about which heads can be excorporated from the complex predicate. These predictions turn out to be true.

### *6.4 Other types of coordinated predicates*

The proposed analysis is also robust enough to account for certain other contexts where coordinated predicate heads *do not* excorporate. Consider the following example of reduplicative coordination.

(56) a. *Waarom wil hy oor die duine loop en loop?*
why want he over the dunes walk and walk
'Why does he want to walk and walk over the dunes?'

b. *Waarom* ***loop en loop*** *hy oor die duine?*
why walk and walk he over the dunes?
'Why does he walk and walk over the dunes?'

c. **Waarom* ***loop*** *hy over the dunes en loop?*
why walk he over the dunes and walk

Example (56a) illustrates the base order of a coordinated, reduplicative predicate. It is an ordinary matrix clause with the reduplicated predicate in sentence-final position. Importantly, the coordinated predicate does not refer to two, distinct events of walking. Rather, it is a single event of walking with the added implication that it was an extended duration or intensive process. The coordinated predicate thus has an aspectual value of durativity. This is quite similar to the ILV construction in (1) which also refers to a single, durative event.

It is also important that the reduplicated predicate is 'restructuring' in the sense that the prepositional object occurs to the left of the coordinated string. This illustrates that we are not dealing with two coordinated clauses. This too is similar to the ILV construction in (1).

Finally, the fact that the coordinated verbs do indeed function as a single verbal head is emphasized by the fact that the coordinated predicate can raise to T and can even undergo inversion, occurring to the left of the subject (56b). Where the reduplicated predicate differs from the Afrikaans ILV construction is that it does not license excorporation, illustrated in (56c).

Other types of coordinated predicates include coordination of modals (57a,b). Here too, excorporation is not licensed (57c).




*Mark de Vos*
*(m.devos@ru.ac.za ())*

(57) a. *Alle kinders **kan en moet** skooltoe gaan!*
all children can and must school-PREP go
'All children can and must go to school'

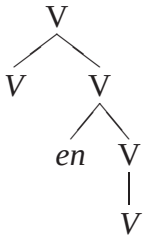
b. *Waarom **kan en moet** alle kinders skooltoe gaan?*
Why can and must all children school-PREP go
'Why can and must all children go to school?'

c. **Waarom **kan** alle kinders en moet skooltoe gaan?*
Why can all children and must school-PREP go

These kinds of coordinated complex predicates are fairly common in all the Germanic languages I am aware of. What makes them different from the Afrikaans ILV construction is that the ILV construction allows optional excorporation of a verbal head as illustrated in (2b).

I propose that in these cases, there exists a base-generated, coordinative, complex predicate with the following kind of structure (58).[19]

(58)




This complex head is merged in the same way that an ordinary verb or modal might be. Since both conjuncts contain overt phonological material, coordination scopes over all the features and extraction of any single phonological in isolation feature is disallowed. Consequently, it is not possible for excorporation to occur (examples (56c) and (57c)). Thus, the mechanisms proposed to account for Afrikaans ILV constructions are constrained enough to predict that not every complex predicate allows excorporation.

## 7 Conclusion

This paper has explored Afrikaans complex, coordinated predicates with Indirect Linking Verbs. These appear to act both as contiguous, verbal heads when they occur in T, but also as non-constituents when they occur *in situ*. Moreover, they also allow for optional pied-piping of the entire coordinated verbal cluster to T. This appears to be fairly unique among the Germanic verb-second languages and hitherto there was no detailed account for it.

An analysis is proposed that derives the alternations from basic assumptions about coordination. It is suggested that the Law of Coordination of Likes and the Coordinate Structure Constraint may operate, not only over feature bundles and categories, but also over subsets of feature bundles. In fact, this is not really a reformulation of the LCL and CSC so much as a strong interpretation of them. This is because the original constraints were not formulated with respect to categories *per se* but with respect to syntactic elements.

The proposal has implications for theories of excorporation insofar as it allows for limited excorporation under very specific circumstances. In addition, the analysis also suggests that head




*Mark de Vos*
*(m.devos@ru.ac.za ())*

movement can be movement of phonological features. This is a common point with the proposal of Zwart (1997) who argues that verbal head movement is feature movement. Importantly, however, the proposal also demonstrates that entire, coordinated predicate structures can undergo head movement. The implication is that head-movement is not necessarily always movement of phonological features but also has some substance in narrow syntax contra Chomsky (2000) and Boeckx and Stjepanovic (2001)

## Notes

[1]But also see Biberauer (2003), Nilsen (2003).

[2]The phenomenon is not limited to coordinated predicates (i.e. ILVs) but can also occur with a subset of restructuring, raising verbs of an aspectual nature (i.e. Direct Linking Verbs/DLVs). This will be discussed in section (5).

[3]That both sentence types have the same meaning is attested to by Donaldson (1993), Ponelis (1993), Robbers (1997).

[4]The head-status of Complex Initials of this type is hardly controversial and has been noted by many researchers including Den Besten (1988; 2002), Donaldson (1993), Ponelis (1993), Robbers (1997).

[5]It might be suggested that if verb movement to T is recast in terms of remnant movement (Mahajan 2001, Müller 2004), then this argument might be vacuous. This option is discussed and rejected in section (2.4.1).

[6]Whether or not the separable particle itself is base-generated in a still lower small clause is immaterial for the moment. It is only necessary that the particle occurs to the left of the lexical verb at some point in the derivation.

[7]Ernst (2002) points out that many adverbs which adjoin to VP can also adjoin to PredP, which I take to be equivalent to *v*P – i.e. Position A.

[8]The question of whether the object moves to a specifier of *v*P or Spec AgrOP does not have any bearing on the data discussed here.

[9]Objects appearing in this position tend to be no longer than a single word (Donaldson 1993) and so tend to be mass, generic terms or bare plurals. These tend to be the same principles restricting the types of non-verbal material occurring in raising-verb clusters in Afrikaans more generally (Robbers 1997).

[10] For some speakers (15b) is strongly ungrammatical. However, some informants claim that examples like (15b) are strongly dispreferred but not ungrammatical. However, for all speakers, the contrast between (15a,c) is robust. Given the contrast and the strength of the relative judgements, I consider (15b,c) ungrammatical. It's ungrammaticality does not follow directly from structure (8) and is assumed to be an independent but important fact about this construction in Afrikaans.

[11]In fact, this is a crucial property of this movement for Biberauer (2004) who exploits it to provide an interesting account of the EPP. Also note that the participle prefix *ge-* is a preferred option on ILVs in standard Afrikaans but is not necessarily obligatory.

[12]The present adjunction mechanism eliminates the well-known problem whereby a head-moved element does not c-command its trace. Since *staan* 'stand' has been merged directly (and not head-moved), there is no trace that requires government. Admittedly, the question still remains as to whether such an adjunction obeys the Extension Condition, but this is a problem faced by head-movement approaches in general and is not unique to the system presented here.

[13]The fact that one conjunct is a subset of the other is important for constraining this type of structure; it is equivalent to underspecification of one conjunct. Were it not for this principle, any category could be coordinated with any other category with which it shared at least one feature. This is not supported by empirical evidence.

[14]The second part of the CSC, namely the Conjunct Constraint is presumably affected in the same way: extraction of any single conjunct of a coordinated entity in its entirety is disallowed.

[15]ATB movement of the phonological feature in both conjuncts is also excluded on the basis that ATB cannot move all the phonological material within a conjunct as is illustrated by the following example.

(1) *Who did John meet t and t?]

[16]This tree abstracts away from object movement to Spec vP and subject movement to Spec TP.

[17]In addition, so called 'control' verbs such as *probeer* 'try' and *begin* 'to begin' can also occur in these kinds of constructions (De Vos 2005).





*Mark de Vos*
*(m.devos@ru.ac.za ())*

[18]Interestingly, in Nupe, it is precisely the coordination of verbal categories that requires a null coordinator. In addition, Nupe also allows for extraction from the verb cluster (Kandybowicz 2005).

[19]See De Vos (2004a) for a discussion of reduplicative coordination in English.

## References


Barbiers, Sjef. "The Right Periphery in SOV Languages: English and Dutch." In *The Derivation of VO and OV*, edited by Peter Svenonius, Amsterdam: John Benjamins, 2000, 181–218.

Biberauer, Theresa. "Verb Second in Afrikaans: Is This a Unitary Phenomenon?" *Stellenbosch papers in linguistics* 34: (2002) 19–69.

———. *Verb Second (V2) in Afrikaans: A Minimalist Investigation of Word Order Variation*. Ph.D. thesis, St John's College, Cambridge, 2003.

———. "Reconsidering the EPP and Spec-TP in Germanic." *Cambridge Occasional Papers in Linguistics* 1: (2004) 15–40.

Boeckx, Cedric, and Sandra Stjepanovic. "Head-Ing Toward PF." *Linguistic Inquiry* 32: (2001) 345–355.

Chomsky, Noam. *Syntactic Structures*. The Hague: Mouton, 1957.

———. "Bare Phrase Structure." In *Government and Binding theory and the Minimalist Program*, edited by Gert Webelhuth, Cambridge MA: Basil Blackwell, 1995, 383–439.

———. "Minimalist Inquiries: The Framework." In *Step by Step*, edited by Roger Martin, David Michaels, and Juan Uriagereka, Cambridge MA.: MIT Press, 2000, 89–155. Reprinted.

Cormack, A., and R. Breheney. "Projections for Functional Categories." *UCL working papers in linguistics* 6: (1994) 35–62.

De Vos, Mark. "Pseudo Coordination is Not Subordination." In *Linguistics in the Netherlands 21*, edited by Leonie Cornips, and Jenny Doetjes, Amsterdam/Philadelphia: John Benjamins, 2004a, volume 21, 181–192.

———. "Verbal Compounding and Complex Initials." In *Proceedings of the Second Postgraduate Conference on Language Research*, edited by D. Austin, V. Chondrogianni, E. Daskalaki, N. Katsos, M. Mavrogiorgos, G. Newton, E. Orfanidou, M.J. Reeve, and J. Srioutai. Cambridge, UK, 2004b.

De Vos, Mark. *The Syntax of Verbal Pseudo-Coordination in English and Afrikaans*. Ph.D. thesis, Leiden University Centre for Linguistics, 2005.

Den Besten, Hans. "Universal-Grammatik und/Oder Zweitsprachenerwerb: Der Fall Afrikaans." In *Essener Kolloquium über Sprachkontakt, Sprachwandel, Sprachtod*, edited by Norbert Boretzky, Werner Enninger, and Thomas Stolz, Bochum: Studienverlag Dr. N. Brockmeyer, 1988, 11–44.






*Mark de Vos*
*(m.devos@ru.ac.za))*

———. *Studies in West Germanic Syntax*. Ph.D. thesis, Katholieke Universiteit Brabant, Tilburg, Amsterdam, 1989.

———. "Khoekhoe Syntax and its Implications for L2 Acquisition of Dutch and Afrikaans." In *Focus on Afrikaans Sociohistorical Linguistics. Part II*, edited by Rajend Mesthrie, and Paul Roberge, Journal of Germanic Linguistics, 2002, volume 14, 3–56.

Den Besten, Hans, and Gert Webelhuth. "Remnant Topicalization and the Constituent Structure of the VP in the Germanic SOV Languages." *GLOW Newsletter* 18: (1987) 15–16.

Dik, Simon. *Coordination: Its Implications for a Theory of General Linguistics*. Amsterdam: North Holland Publishing Company, 1968.

Donaldson, Bruce. *A Grammar of Afrikaans*. Berlin: Mouton de Gruyter, 1993.

Ernst, T. *The Syntax of Adjuncts*. Number 96 in Cambridge Studies in Linguistics. Cambridge, UK: Cambridge University Press, 2002.

Evers, A. *The Transformational Cycle in Dutch Language and German Language*. Ph.D. thesis, Ann Arbor MI, 1976.

Gerritsen, M. *Atlas Van de Nederlandse Dialectsyntaxis (AND)*. Amsterdam: P. J. Meertens Instituut, 1991.

Haslinger, Irene, and Marjo Van Koppen. "De Verbale Hendiadys Als Pseudocoördinatie." *Taal en Tongval* 15-16: (2003) 102–122.

Haspelmath, M. "Coordination.", 2007. To appear in 2007: "Coordination" In: Shopen, T. (ed.) Language typology and syntactic description. 2nd ed. Cambridge. Cambridge University Press.

Ijbema, A. "Grammaticalization and Reanalysis in Dutch Aspectual Constructions.", 2003. M.s. University of Leipzig.

Johannessen, J. *Coordination*. New York: Oxford University Press, 1998.

Kandybowicz, Jason. "On the Syntax of Nupe Coordination.", 2005. Presented at BLS 31, 10 February 2005.

Kayne, Richard. *The Antisymmetry of Syntax*. Cambridge MA: MIT Press, 1994.

Kuteva, Tania. "On *sit*/ *stand*/*lie* Auxiliation." *Linguistics* 37, 2: (1999) 191–213.

Mahajan, Anoop. "Eliminating Head Movement." *GLOW Newsletter* 44: (2000) 44–45.

———. *Word Order and (Remnant) Movement*. Ph.D. thesis, UCLA, 2001.

Müller, Gereon. "Verb-Second as vP-First." *Journal of comparative Germanic linguistics* 7: (2004) 179–234.

Munn, A. B. *Topics in the Syntax and Semantics of Coordinate Structures*. Ph.D. thesis, University of Maryland, 1993.



*Mark de Vos*
*(m.devos@ru.ac.za))*

Nilsen, Øystein. *Eliminating Positions: Syntax and Semantics of Sentential Modification*. Ph.D. thesis, Utrecht Institute of Linguistics OTS, 2003.

Peterson, Peter. "Coordination: Consequences of a Lexical-Functional Account." *Natural language and linguistic theory* 22: (2004) 643–679.

Ponelis, Fritz. *The Development of Afrikaans*. Frankfurt am Main: Die Deutsche Bibliothek, 1993.

Progovac, Ljiljana. "Structure for Coordination (Part I)." *GLOT International* 3, 7: (1998a) 3–6.

———. "Structure for Coordination (Part II)." *GLOT International* 3, 8: (1998b) 3–9.

Robbers, Karin. *Non-Finite Verbal Complements in Afrikaans*. Ph.D. thesis, University of Amsterdam, 1997.

Ross, John Robert. *Constraints on Variables in Syntax*. Ph.D. thesis, Massachusetts Institute of Technology, 1967.

Sag, I., G. Gazdar, T. Wasow, and S. Weisler. "Coordination and How to Distinguish Categories." *Natural language and Linguistic theory* 3: (1985) 117–171.

Schachter, Paul. "Constraints on Coordination." *Language* 53: (1977) 86–103.

Van Koppen, Marjo. *One Probe-Two Goals: Aspects of Agreement in Dutch Dialects*. Ph.D. thesis, University of Leiden Centre for Linguistics, 2005.

Van Niekerk, J. "'n Medewerkwoordklien vir Afrikaans." *South African Journal of Linguistics* 13, 4: (1995) 146–153.

Williams, Edwin. "Across the Board Rule Application." *Linguistic Inquiry* 9: (1978) 31–43.

Zoerner, Ed. *Coordination: The Syntax of &P*. Ph.D. thesis, University of California, Irvine, 1995.

Zwart, Jan-Wouter. *Morphosyntax of verb movement: A Minimalist approach to the syntax of Dutch*. Studies in Natural Language and Linguistic Theory. Dordrecht: Kluwer Academic Publishers, 1997.





*Mark de Vos*
*(m.devos@ru.ac.za))*