

# The syntax of quirky verbal morphology

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## Part I – Danish Pseudo-coordination

### 1 Introduction

The subject of this thesis is quirky verbal morphology. Quirky verbal morphology I define as unexpected and/or semantically unmotivated morphology on verbs and my aim is to establish the structural conditions under which it may occur.

While the cases that I consider to be quirky display substantial variation on the surface, there are both immediately discernible similarities, and as I will show, structural parallels which justify treating quirky verbal morphology as a general phenomenon which is far more homogenous than its heterogeneous manifestations may lead one to believe.

Quirky verbal morphology is often connected to verb cluster formation and I therefore focus my investigations on cases where two or more verbs form close units or clusters, i.e. I do not concern myself with e.g. cross-clausal temporal dependencies. A striking similarity is that the verbs which are involved in such cluster formations (not necessarily the verbs that have a quirky form themselves) cross-linguistically form a fairly uniform and small group. I mainly concern myself with Northern and West Germanic languages, but will occasionally draw parallels to other languages which are not as closely related.

The hypothesis that I defend throughout my dissertation, is that quirky verbal morphology may occur when two or more verbs share one clausal domain. Essentially this means that two verbs form such a close connection that they share their argument structure and project the functional clausal structure together. The exact underlying structure differs slightly for different constructions, while the phonological output differs substantially. These substantial surface differences I ascribe to PF, i.e. I argue that they are not syntactic in nature. This view entails that the concept of status government must be reconsidered.

Traditionally, verbs which co-occur with non-finite complements are divided into three groups; Auxiliaries (including modal verbs), Raising verbs and Control verbs. With Plat-zack (2008) I will use the term ‘support verb’ as an umbrella term when referring to any



verb which may take a non-finite verbal complement. The connections these support verbs form with their verbal complement may be more or less intimate and the degree of intimacy between the verbs may result in different semantic and syntactic effects.

Intuitively the degree of support provided by a verb is related to its semantic weight, for example auxiliaries used for analytic tenses add virtually nothing to the semantics; they only influence the tense/aspect/*aktionsart* of the main verb, (2). Modal verbs are slightly less extreme, they contribute to the semantics of the verbal complex by giving it a modality, e.g. of possibility, volition, permission etc. but are semantically still clearly subordinate to the main verb, (3). At the other end of the spectrum, in German we find so-called non-restructuring verbs like *bedauern* ‘regret’ which also allows infinitival complements which are arguably full CPs (Wurmbrand 2001: 328). In a sentence like (4) it is hardly feasible to claim that the assisting verb is semantically weak; rather it denotes an event of its own. While (2) and (3) are clearly monoclausal, (4) is probably biclausal.

- (1) *Peter liest das Buch*  
Peter reads the book
- (2) *Peter hat das Buch gelesen*  
Peter has the book read.PAST.PART ‘Peter has read the book’
- (3) *Peter will das Buch lesen*  
Peter will the book read.INF ‘Peter wants to read the book’
- (4) *Peter bedauert das Buch gelesen zu haben*  
Peter regrets the book read.PAST.PART to have.INF  
‘Peter regrets having read the book’

These three examples are rather clear-cut cases as the assisting verbs are at the extremes of the spectrum. The really interesting question concerns the status of those verbs that are in between the extremes.

While verbs of all degrees of the spectrum will receive some attention, the main focus of the thesis will be on the verbs in the middle; the ones which can be considered semi-functional. This group includes particularly verbs of position, of movement, of change of state, of perception and certain other control verbs.

Cross-linguistically the behaviour of these verbs resembles both that of auxiliary verbs as well as that of main verbs. Generally, auxiliary verbs show real selection in the classical sense, for example when the German auxiliary *haben* ‘have’ is used to form the

perfect tense, the main verb must appear as a past participle, and German modals always have bare infinitives as their complements. Clause-like infinitival complements on the other hand are always introduced by an infinitive marker; in German, *zu*.

The verbs in between however show a variety of forms, some of which are very unexpected. Furthermore, when more than one instance of morphological selection takes place within one and the same clause, we get odd morphological effects.

One such (in)famous example is the West Germanic Infinitivus-Pro-Participio (IPP). IPP is triggered in certain 3-verb-clusters and consists of two interesting effects: One verb appears in the infinitive instead of the expected past participle and the internal ordering of the verb also diverges from the canonical order:

- (5)                   ...*dass Peter es nicht hat* (V<sup>1</sup>) *machen* (V<sup>3</sup>) *können* (V<sup>2</sup>)  
                           ...that Peter it not has       do.INF       can.INF

Throughout my dissertation, I will use superscript numbers refer to the hierarchical status of each verb. In this example the modal verb *können* ‘can’ appears in the infinitive despite being selected by *haben* ‘to have’ which normally selects a past participle. Importantly, *können* does have a past participle; it is only in this particular configuration that the infinitive is required. Furthermore, the canonical ordering of the verbs in a subordinate clause is such that a superordinate verb follows its complement. Under IPP however, the highest, finite, verb, must precede the other verbs.

My thesis takes IPP as its point of departure. In the literature, people have more or less successfully attempted to derive both morphological and word order effects by different technical and theoretical means. As mentioned, my aim is a different one. If one looks at different variants of German and Dutch, standard and sub-standard, the variation, both concerning allowed forms and word orders, is massive and a uniform account which covers this variation still remains to be given. Instead of attempting such an account, I will approach the problem from a different angle; I will compare superficially quite different constructions from different languages which involve unexpected verbal morphology and attempt to show that the structural conditions under which it occurs are quite similar.

Among other things the variation found with IPP, concerns which verbs are allowed as the matrix verb. Standard German (SG) allows only causatives, modals and perception verbs, while e.g. Dutch additionally allows for a number of control verbs to trigger IPP (Schmid 2005: 23)<sup>1</sup>:

- (6) a. *Sie hat ihn spielen lassen* **SG**  
 She has him.ACC play.INF let.INF
- b. *Sie hat ihn spielen hören /gehört* **SG**  
 She has him.ACC play.INF hear.INF /hear.PAST.PART
- (7) a. *Ik heb haar de kratten helpen dragen* **NL**  
 I have her.ACC. the crates help.INF. carry.INF.
- b. \* *Ik heb haar de kratten geholpen (te) dragen* **NL**  
 I have her.ACC. the crates help.PAST.PART. (to) carry.INF.

Data from non-standard German dialects furthermore illustrate that a number of different substitute forms can be found and also a bigger group of matrix verbs is allowed, cf. the following examples from the dialect Oberschwöditz (Höhle 2006: 57).

- (8) a. *Ij hãwe musd gi:e*  
 I have must.SUP. go.INF. ‘I have had to go’
- b. *Se hunn waisd danze*  
 they have.him show.SUP. dance.INF. ‘they have taught him to dance’

The word order variation found in the non-standard dialects is also much bigger than in the standard languages, such that of six potential word orders within 3-verb clusters, five are attested. This variation I argue is purely phonological.

In my analysis of quirky verbal morphology, I bring together a number of different constructions from the Germanic languages. In the Mainland Scandinavian languages we can also observe quirky verbal morphology in connection with multi-verb constructions. One such construction is the so-called Pseudo-Coordination (PC), exemplified in (9) and (10) where the two verbs must always show identical inflectional morphology, despite the fact that we are not dealing with a coordination, but a subordination structure.

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<sup>1</sup> In some German variants, *helfen* ‘help’ also allows IPP.

- (9) a. *Hvad for bøger sidder Peter og læser?*  
 What for books sits Peter and reads
- b. *Hvad for bøger sad Peter og læste?*  
 What for books sat.PRET. Peter and read.PRET.
- (10) a. *Hvad for en bog går Peter ud og køber?*  
 What for a book walks Peter out and buys
- b. *Hvad for en bog gik Peter ud og købte?*  
 What for a book walked.PRET. Peter out and bought.PRET.

That this structure involves subordination can be seen from the fact that extraction of the embedded object is possible and also because the two verbs act as one complex predicate with a fixed temporal and causal interdependence.

I argue that the structure underlying pseudo-coordinations is very similar to the one underlying IPP. My working hypothesis is that quirky verbal morphology occurs when two or more verbs form a very close connection; specifically I will identify three different structural conditions; I) When more than one verb is merged in the functional domain of the clause, II) when more than one verb is merged in the lexical domain (including vP) of the clause and III) when two vPs must share one clausal domain. The lack of functional structure causes semantic and syntactic interdependence between the verbs, sometimes giving rise to quirky morphology.

The quirky morphology itself I assume to be post-syntactic. Essentially, the idea is that the configuration dictates insertion of a bare stem but due to a surface filter in the languages in question, bare stems are generally not allowed to surface (in contrast to e.g. certain verb serialising languages). In order to license the verb to surface, a non-stem form will be assigned. I will uncover two different strategies for this form assignment which to some extent are language-specific; either a non-finite form is inserted (such as the bare infinitive) or the dependent verb copies the inflectional form of another verb.

I also include other cases of quirky verbal morphology. Examples from Danish include the otherwise rare present participle following *blive* ‘stay’ and *komme* ‘come’ when they combine with verbs of position or movement:

- (11) a. *Peter kom gående*  
Peter came walk.PRES.PART.
- b. *Peter blev stående*  
Peter stayed stand.PRES.PART.

From German, I also treat non-finite complements of verbs of movement as quirky morphology, such as the bare infinitive following *gehen* ‘go’ in (12) and the past participle complement of *kommen* ‘come’ in (13)a. vs. the bare infinitive complement of the same verb in the b.-example.

- (12) *Ich gehe einkaufen*  
I go shop.INF. ‘I’m going shopping’
- (13) a. *Sie kommt gelaufen*  
She comes running.PAST.PART.
- b. *Sie kommt mich besuchen*  
She comes me.ACC. visit.INF. ‘She’s coming to visit me’

Furthermore, I include a construction from the Southern German dialect Bodensee-Alemannic (14) where the construction corresponding to (12) shows a remarkable phenomenon, namely the *gi*-infinitive following verbs of movement (Brandner & Salzmann 2008: 82)

- (14) *I gang gi de Onggl bsuecha*  
I go GI the uncle visit.INF.  
‘I’ll go visit my uncle’

The origin and status of this element is disputed, probably it is derived from the preposition *gegen* ‘against/towards’ or it is a reduplication of the verb *gehen* ‘go’. Either way, in its current usage it appears to be a kind of infinitive marker related solely to verbs of movement. Brandner & Salzmann analyse this construction as a case of bare VP-complementation, i.e. the structural condition is typical for quirky verbal morphology.

Despite a large amount of similarities, the languages within the Germanic language family differ in certain crucial respects. One such difference is the one between basic word orders, creating the division between the Continental West Germanic Languages (roughly German, Dutch, Swiss German and their dialects, but also languages such as

Yiddish and Frisian) on the one hand, and the Northern Germanic languages (Mainland and Insular Scandinavian) on the other (see e.g. Zwart 1997b).

The Northern Germanic languages are characterised by being consistent SVO-languages, i.e. the basic word order is subject-verb-object. The internal ordering of verb and object holds regardless of the nature of the object, such that if the object itself is a verb it must follow the superordinate verb. The obvious exception to this order is the Verb Second effect in root clauses, which requires that the finite verb appears in  $C^\circ$ , i.e. after the first constituent of the clause.

The basic word order of the West Germanic languages is much less clear. If one is to follow Kayne (1994) all languages are basically head-initial, and any instance of surface OV must be derived. Others (such as e.g. Vikner 2001, Wurmbrand 2001, Bayer, Schmid and Bader 2005) assume SOV to be the basic order. An important distinction is of course the one between the basic order and the “basic” surface order; while claims such as Kayne’s Linear Correspondence Axiom (LCA) (1994) are theory-internally induced for reasons of parsimony, the “basic” surface order must be derived from the empirical facts of the language; a task which is anything but trivial for a language like German. I will give a brief discussion of the subject, but will not make any definite claims about the basic word order.

Another difference between the languages that I examine concerns the extent of inflectional morphology. While the continental West Germanic languages display a fairly rich inflectional morphology with specifications of person and number, the Mainland Scandinavian languages only inflect for tense. Though I cannot prove a 1:1 correlation between inflectional morphology and quirky morphology assignment, it appears to be a tendency that poor inflectional morphology favours copying of verbal morphology while more elaborate verbal inflection favours assignment of a non-finite form to the verb.

## **1.1 Theoretical framework**

This dissertation mainly explores the syntax of verbal complexes, but as my analysis is based largely on the internal structure of support verbs and their complements, we are moving at the syntax-semantics interface and as such some reflections and remarks concerning the relation between the internal structure of a verb and its semantics are indispensable. This in turn opens up for bigger questions about the organisation of the lexi-

con, i.e. what parts of language can be attributed to the lexical features of a word and what parts are combinatory, i.e. what meanings arise through syntax.

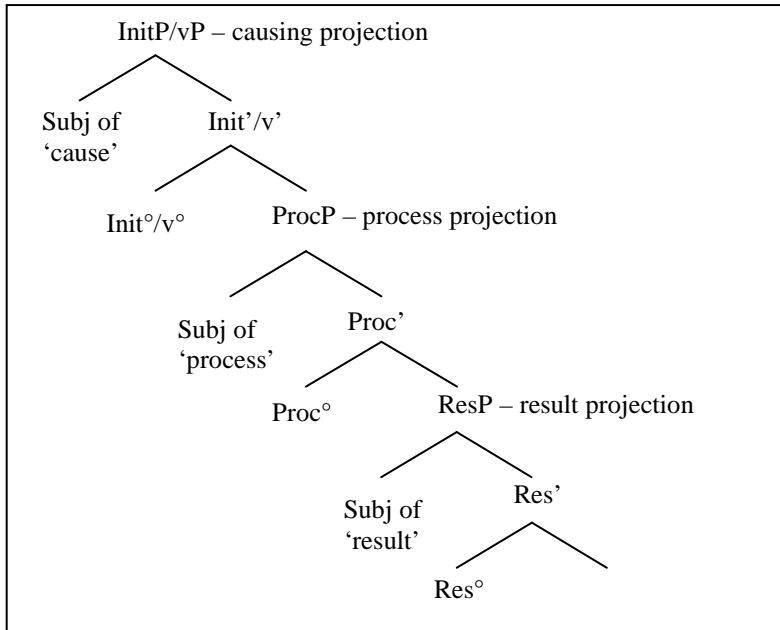
### **1.1.1 Theoretical assumptions**

Broadly speaking, I am assuming a combination of the Minimalist feature system (e.g. Chomsky 1995, 1998, Adger 2008) with a version of Cinque's (1999, 2001, 2004) cartographic approach, and the constructionist view on verb-internal structure proposed by Ramchand (2008), i.e. I am assuming a fine-grained structure for both clauses and word and that certain basic properties of verbs (such as telicity) are reflected in the argument structure, while other, more fine-grained differences can be reduced to different features.

Further, I will assume that (some) verbs (and possibly other lexical categories) exist in more than one version. In the realm of support verbs it is meaningful to distinguish between a full or heavy, main verb usage and a light, support verb usage. In order to trigger the light version of a verb, an agreement relation must be established between the verb in question and another element which carries the relevant feature. In the absence of such an agreement relation, the default meaning is kept.

### **1.1.2 Ramchand**

Starting with the verb internal structure, in order to implement the idea of optional augmentation, a layered VP-approach is necessary. I will follow some of the suggestions of Ramchand (2008), but while her approach is attractive in its simplicity, I will show that it is not able to account satisfactorily for quirky verbal morphology. Therefore I will adapt and elaborate her view on verb-internal structure. In its schematic form, she advocates that the structure of any given verb can be represented in terms of some or all of the projections in Figure 1 (Ramchand 2008: 39):



**Figure 1**

This tree constitutes what Ramchand refers to as the First Phase; the domain where the basic argument structure is created. The highest projection, the Initiation Phrase (InitP) is comparable to vP. It is the projection connected to causation and it licenses the external argument, the INITIATOR. The middle phrase specifies the process, i.e. the change and licenses the UNDERGOER, while the lowest expresses the Result State of the process and licenses the argument which is the holder of that state, the RESULTEE (Ramchand 2008: 40).

In Ramchand’s system there is a direct relationship between semantic and syntactic decomposition. The semantic role of an argument is a direct reflection of its syntactic position. Quite importantly, this system allows for one argument to receive more than one semantic role, meaning that an argument may be generated in the specifier of the Result Phrase and then move up through the specifier positions and receive additional roles. This would be the case for an intransitive verb like ‘arrive’. The sole argument of ‘arrive’ is an active initiator; it undergoes a change and ends up as the holder of a state (Ramchand 2008: 79).

The 1:1 relation between syntactic position and semantic role and the phrasal status of these three projections are points I will not commit myself to. The major advantage of Ramchand’s system is that it gives a very clear representation of the complexity of a given verb. Further, the internal organisation of the arguments seems solid and is highly



useful. What I do not want to make claims about is whether this can be derived from syntactic structure or from some semantic effects or other factors.

According to Ramchand (2008: 108), all verbs minimally have a ProcP and variation concerns only the presence/absence of the InitP and the ResP. This means that to her, the possible structures are the following:

| <b>STRUCTURE:</b>    |   | <b>EXAMPLES:</b>       |
|----------------------|---|------------------------|
| [Proc]               | → | melt, roll             |
| [Init [Proc ]]       | → | drive, push, eat, read |
| [Proc [Res ]]        | → | break, tear            |
| [Init [Proc [Res ]]] | → | enter, defuse, give    |

Here is another point where I distance myself from her views. Mainly this concerns the structure of stative verbs. These are, in Ramchand's own words (2008: 204) somewhat neglected. Essentially she believes that they are exceptions to the above generalisation; she considers them bare InitPs with rhematic complementation. She claims that the lack of a ProcP ensures that the initiator is not interpreted as being a causer, but simply as a holder of state (Ramchand 2008: 55).

This view, I find, has some weaknesses, mainly because it fails to capture the similarities between inherently stative verbs and derived states. Ramchand's RESULTEE is a holder of a state, as is intuitively the subject of a stative verb; therefore I will propose that states are bare ResP's (with a vP of a kind that I will account for shortly). If the syntactic position is really responsible for the semantic interpretation, it makes very little sense to suggest that the position associated with causation and initiation should also be associated with holding a state. Assuming stative verbs to be ResP's has the advantage that it captures a specific property of the semi-lexical verbs that are connected to quirky verbal morphology; they all have a ResP as their lowest projection.

Furthermore, a refinement of at least the InitP and the ResP is necessary. As for the ResP, at least two different types or flavours should be distinguished. This difference may simply be semantic, but it would seem that ResP's which denote position (simple or derived ResP) have some special properties. When this distinction is not relevant, I will simply use the notation ResP, when it is, I will speak explicitly of positional result phrases (Res<sub>pos</sub>Ps).

As for the Initiation phrase, the issue is more complicated. Ramchand's Spec-Init licenses both active initiation (agentivity) and non-agentive causation. Further,  $\text{Init}^\circ$  is the accusative case assigner. The refinement I suggest for InitP is the one proposed by Folli & Harley (2005, 2007). They distinguish between two "flavours" of little  $v$ ;  $v_{\text{do}}$  and  $v_{\text{cause}}$  where the former licenses an agent, and the latter a causer or an agent. Both flavours of the  $v$ -head can assign accusative case. This distinction is quite significant and necessary. Specifically we will see that in German some verbs allow agentive verbal complements ( $v_{\text{do}}$ ), but despite this no passives ( $v_{\text{cause}}$ ). The fact that a  $v_{\text{cause}}$  may but does not need to be agentive ensures the correct predictions as regards passivisation;  $v_{\text{cause}}$ 's are passivisable,  $v_{\text{do}}$ 's are not. The distinction also ensures a more adequate description of causatives embedded under motion verbs (where only agentive causatives are licensed).

Also in terms of Burzio's Generalisation (Burzio 1986: 179) it makes sense to make this distinction. The generalisation states that a verb must assign an external  $\Theta$ -role to its subject in order to assign structural accusative case to an object and vice versa. While this is valid for many cases across languages, in recent years it has been challenged several times (e.g. by Lavine & Franks (2008), Markman (2008), Woolford (2003), Bennis (2004) and Pylkkänen (2002)). One of the reasons for challenging the generalisation is the existence of verbs that appear to be non-agentive but nevertheless assign accusative case to their objects. Among these are psych verbs and verbs of passive perception. Introducing the concept of causation as opposed to agentivity can explain such cases, maintain the gist of Burzio's generalisation, and account for passivisation too.

Furthermore, possibly even a third flavour of  $v$  is necessary; a  $v_{\text{be}}$  which is the semi-functional head of stative predicates. Obviously this depends on what one assumes the role of little  $v$  to be, but descriptively it enables us to account for the differences concerning agentivity in different verb types. While  $v_{\text{do}}$  and  $v_{\text{cause}}$  appear to really be two different kinds of one head,  $v_{\text{be}}$  is slightly different as it may be embedded under another  $v$ . This is the case with derived States including passives. The flavours of little  $v$  help us decompose events, as illustrated in (15):

## (15) Decomposing events/states:

Process verbs:

*Peter reads a book*

[X v<sub>do</sub> [Proc (Y) ]]

(Peter is actively performing the action of reading (a book ))

State verbs:

*Peter knows your secrets*

[X v<sub>be</sub> [State (Y) ]]

(Peter is in the state of knowing (your secrets))

Causative transitives:

*Peter opens the door*

[X v<sub>cause</sub> [Y State (Z) ]]

(Peter causes the door to be in an open state)

Agentivity alternations:

*Peter annoys me (just by being here)*

[X v<sub>cause</sub> [Y State ]]

(Peter causes me to be in an annoyed state)

*Peter annoys me (by pulling my hair)*

[X v<sub>do</sub> [Proc Y ]]

(Peter does annoyance to me)

Passives e.g. 'see'

*Peter was seen by Mary*

[X v<sub>cause</sub> [Y v<sub>be</sub> [State ]]]

(Mary caused Peter to be seen (by Mary))

One might argue that the 'be' component of the last example is part of the ResP and not of a separate projection. This is quite possible, but this would entail that inherent states do not project a little v of any kind. For uniformity of exposition, I will therefore use the notion of v<sub>be</sub> but it is important to remember that the nature of this v-head is different from that of v<sub>do</sub> and v<sub>cause</sub> in that the specifier of v<sub>be</sub> is not really an external argument.

It is clear that assuming different kinds of little v is theoretically problematic in connection with Ramchand's first phase syntax. To Ramchand, there is a direct relationship between the structural position and the semantic interpretation and this 1:1 correlation is not compatible with different flavours of one head. Still, as I am using Ramchand's system as a representation without necessarily accepting all its theoretical implications, it is

defendable to combine the approach of Folli & Harley (2005, 2007) with that of Ramchand (2008).

Throughout my dissertation, I will therefore notationally replace Ramchand's *Init* with  $v_{do}/v_{cause}/v_{be}$  except when referring explicitly to Ramchand's own views. This also has consequences, both notationally and otherwise, for Cinque's (1999, 2002, 2004) system, consequences I will return to in the next subsection.

### 1.1.3 Cinque and the functional hierarchy

Above the first phase; i.e. above the thematic domain where roles are assigned to the arguments, is the clausal domain associated with notions such as tense, modality and aspect. I adopt the views of Cinque (1999 and later) and assume that this domain is made up of a cascade of functional projections, each with its own responsibility.

Parallel to the version of Ramchand (2008) that I adopt, I will not make definite claims concerning the phrasal status of all these projections but simply use the functional hierarchy as a means of representation of the internal ordering of functional elements, regardless of whether this ordering is due to semantic properties or other considerations. The version of the functional hierarchy that I base my analysis on is shown here in (16):

(16) Cinque's universal hierarchy of clausal functional projections (Cinque 1999: 106)

[Mood<sub>speech act</sub> [Mood<sub>evaluative</sub> [Mood<sub>evidential</sub> [Mod<sub>epistemic</sub> [T(Past) [T(future) [Mood<sub>ir-realis</sub> [Mod<sub>necessity</sub> [Mod<sub>possibility</sub> [Asp<sub>habitual</sub> [Asp<sub>repetitive(I)</sub> [Asp<sub>frequentative(I)</sub> [Mod<sub>volitional</sub> [Asp<sub>celerative(I)</sub> [T(anterior) [Asp<sub>terminative</sub> [Asp<sub>continuative</sub> [Asp<sub>perfect</sub> [Asp<sub>retrospective</sub> [Asp<sub>proximative</sub> [Asp<sub>durative</sub> [Asp<sub>generic/progressive</sub> [Asp<sub>prospective</sub> [Asp<sub>SgCompletive(I)</sub> [Asp<sub>PlCompletive</sub> [Voice [Asp<sub>celerative(II)</sub> [Asp<sub>repetitive(II)</sub> [Asp<sub>frequentative(II)</sub> Asp<sub>SgCompletive(II)</sub>

There are refinements within some of these categories but I will leave these out until they are relevant. To each projection, adverbs may be merged in the corresponding specifier, although nothing guarantees that a language actually has a lexical item for each function. Presumably the hierarchy is universal but it is not always the case that an adverb will surface in exactly that position; among other disturbing factors, Cinque (1999: 3) mentions focus movement of the adverbial itself or of a unit containing it, adverbial modification of another adverb and polysemy of one item as some of the factors which

sometimes make the picture murky. To these factors, I can add that in Danish, many adverbs tend to appear clause-finally, and not just circumstantial ones.

With respect to some of the projections Cinque (1999: 136) admits that there may be some cross-linguistic variation, but he maintains that the relative ordering of Tense, Mood, Aspect and Voice is fixed. Furthermore, for some of the projections, there is very little evidence for their exact position but this is not problematic to my analysis. Even if for some adverbs, the exact position is not quite certain, testing for the presence/absence of the corresponding functional projections is very useful for my purposes. As will become evident, the verbal complements of thematic verbs associated with quirky morphology appear to lack the entire functional structure above Voice (Cinque's variant of little *v*).

My hypothesis is that only non-thematic material may be merged directly into the functional domain of the clause. This means that temporal auxiliaries and modals head the appropriate functional projections while thematic verbs are regular VPs which on the one hand project the full clausal structure, while on the other, some of them select complements that are maximally vPs. The verbs that may select vP-complements are semi-functional; they are semantically weak and exist in two or more versions: a full lexical version and a light semi-functional one. Structurally the common denominator of the verbs is that they have a ResP as their lowest phrase. Presumably, because the verbal complement has no functional structure of its own, the matrix verb provides the aspectual information for the complement.

When I choose to assume a monoclausal structure for restructuring configurations and not clause union operations of two or more clauses, it is for methodological simplicity rather than for considerations of economy of language itself. This means I do not commit myself to any views on what is really more economical; to always project the same structure (i.e. the entire functional clausal domain) and then under specific circumstances delete it, or to project only what is needed in the first place. For methodological economic reasons, I will simply assume that if we fail to see evidence for specific projections, the most parsimonious solution is to assume they are not there.

## 1.2 The structure of the dissertation

My dissertation consists of three parts in all. Part I includes this introduction and a detailed account of the so-called Pseudo-Coordination (PC) construction. I primarily account for its behaviour in the Mainland Scandinavian languages, but also make a few excursions into other languages (Afrikaans, English and Marsalese). I provide here a detailed account and discussion of the syntactic and semantic properties of the construction. PC, I analyse as corresponding structurally to IPP with non-modal verbs, i.e. I assume that PC involves vP-complementation of semi-functional verbs which always have a ResP as their lowest projection. At the end of Part I, I compare PC to serial verbs and discuss whether it is reasonable to assume PCs to be a kind of serialisation. I will conclude that this depends entirely on definitions but that there are striking structural similarities. Part I provides the basis for my analysis of IPP.

Part II deals with IPP specifically. Here I give a detailed account of the syntactic properties of the construction, both as concerns selectional restrictions, morphological and word order variation, to some extent also in sub-standard variants. I also give a brief overview of the historical development of IPP and how it has previously been treated in the literature. Building on Part I, I attempt to demonstrate that IPP occurs under three different configurations; i) when a causative verb is involved, two verbs share one vP/VP, ii) modal verbs trigger quirky morphology because two verbs are present in the functional domain of the clause (a temporal auxiliary and a modal verb), and iii) when IPP occurs with other verbs, the matrix verb selects a bare vP-complement, i.e. there are two vP's to only one functional domain.

Part III deals with other cases of quirky verbal morphology in relation to verbs of position and movement more generally and I try to uncover what is so special about these verbs, that they may so often be connected to quirky morphology. Here again I use data primarily from Danish and German, but I also make references to other West Germanic variants. I argue that these cases all involve structures that are parallel to those underlying PC and IPP.

Finally, I summarise the findings and my proposals and briefly discuss some of the questions that have yet to be solved.



## 2 Introducing Danish Pseudo-Coordination

The remainder of Part I is a detailed investigation of Mainland Scandinavian pseudo-coordination structures. This is a construction which at first glance appears to have little in common with IPP, but I intend to show that structurally, the two constructions are quite similar. I will demonstrate the semantic and syntactic properties of the construction and show that it is in fact a case of subordination. I will also develop the technical apparatus which I will apply to IPP in Part II of my dissertation.

Pseudo-Coordination (PC) is a frequent construction in the Mainland Scandinavian languages Danish, Norwegian and Swedish. It consists of two verbs that are joined by an element which is orthographically and phonetically identical to the coordinating conjunction *og* 'and'. The first verb ( $V^1$ ) is an intransitive verb denoting either a position or a change of position, while the second ( $V^2$ ) may be just about any verb (see 4.3.1 for comments on the restrictions on  $V^2$ ). Two typical examples are given below<sup>2</sup>:

(18) *Jeg sidder og tænker*  
I sit and think 'I'm thinking'

(19) *Louise gik ud og hentede avisen*  
Louise walked out and fetched the paper  
'Louise fetched the paper'

While on the surface, these constructions look like straight-forward coordinations, they differ from these both semantically and syntactically. The first hint that pseudo-coordination differs from ordinary coordination is seen in the translation of the examples where  $V^1$  is left out entirely and furthermore, in the translation of (18),  $V^2$  appears in the progressive *be + -ing*. This is because the lexical content of  $V^1$  is secondary (perhaps entirely irrelevant) to the action of  $V^2$ .

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<sup>2</sup> Many of the Danish examples are based on my own intuitions which are usually very clear when it comes to pseudo-coordination. Whenever the grammaticality is dubious I've based my judgements on the intuitions of at least five other speakers of my own variant of Danish, i.e. the Danish spoken in Eastern Jutland around Aarhus. Generally there would seem to be little regional variation.



My claim is that in both examples we are dealing with special cases of subordination structures. In essence, the two examples are the same construction, yet it is meaningful to classify them as positional (18) and directional (19) pseudo-coordination respectively<sup>3</sup>, depending on the nature of V<sup>1</sup>. Positional pseudo-coordinations have a progressive reading, while the directional ones have something like an inceptive one.

Before giving a thorough account of the phenomenon and its extension in Danish and a suggestion of an analysis, I will briefly turn my attention to how it has been treated in the past by two of the most recognised Danish grammarians: Mikkelsen (1911) and Diderichsen (1946). They say very little about the construction but what they do say makes obvious one of the major problems of pseudo-coordination.

#### MIKKELSEN

The classic grammar of Danish by Mikkelsen (1911<sup>4</sup>) does not regard pseudo-coordination as an extraordinary phenomenon at all. It is merely treated as a coordination of two verbs in which the first expresses a condition for or introduction to the action of the second one, and it is noted that when this is the case, adverbials are adjacent to the first verb (Mikkelsen 1911: 693). Although pseudo-coordination is treated as ordinary coordination, it is interestingly considered to belong to the subgroup of coordinations in which V<sup>2</sup> presupposes V<sup>1</sup>, i.e. cases which at least semantically show traits of subordination.

#### DIDERICHSEN

As for Diderichsen (1946: 72<sup>5</sup>), he does not treat pseudo-coordinations separately either. He basically considers the *og* in pseudo-coordinations as a conjunction “which is neutral with respect to hypotaxis/parataxis, because it joins elements which in some way or other make up a closer unit”<sup>6</sup>. This conclusion is based on the fact that *og* and the infinitive marker *at* are homophonous. In unmarked speech, they are both pronounced as [ɔ], a matter I will return to in subsection 3.6. Diderichsen furthermore compares the second verb to an embedded infinitive (1957: 156).

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<sup>3</sup> The terms ‘positional’ and ‘directional’ are mine. Despite Pseudo-Coordination as such being a recognised term, there is no consensus as to the different kinds.

<sup>4</sup> Mikkelsen (1911) is here cited from the 1975-edition which is a photographic reprint of the original.

<sup>5</sup> Diderichsen (1946) is here cited from the 2<sup>nd</sup> edition from 1975.

<sup>6</sup> My translation of “Denne konjunktion [å] er altsaa neutral over for Modsætningen Indordning : Sideordning, idet den blot sammenknytter Led, der i en eller anden Henseende udgør en snævrere Enhed”.

Despite not giving any elaborate analyses, these two extremely brief presentations of pseudo-coordination offer the intuitive insights and present the problem in a nutshell: Are we in fact dealing with coordination or subordination and is  $V^2$  finite or non-finite?

I will now present two existing analyses from the generative framework, pointing out why my investigation is necessary for understanding pseudo-coordination and copying phenomena.

## 2.1 Generative accounts

### JOSEFSSON (1991):

Gunlög Josefsson (1991) offers the first analysis of Scandinavian pseudo-coordination within the Principles & Parameters-framework. She treats pseudo-coordination as an instance of VP + VP-coordination. Obviously the technical apparatus available at the time was different from the current one, not least with regard to coordination structures. Her basic idea is that ordinary coordination is probably CP+CP coordination with deletion processes, while pseudo-coordination coordinates two VPs. Thus she circumvents the Coordinate Structure Constraint (CSC) (Ross 1967: 161) by saying that coordination is not in itself a barrier for movement; when it is blocked in ordinary coordinations it is simply due to the CP-barrier. While this would explain why extraction from the second conjunct in ordinary coordination is not allowed, the fact that movement from the first conjunct of an ordinary coordination to the C-domain is not possible, is not accounted for. As a kind of functional justification of the construction, Josefsson suggest that the structure is there to enable existential constructions with subjects for transitive verbs, as these are not independently licensed in the Scandinavian languages.

Josefsson's analysis of the sentence *Kalle sitter förmodligen och fisker aborre* 'Kalle sits probably and catches perch = Kalle is probably fishing for perch' essentially looks like this (Josefsson 1991:142):

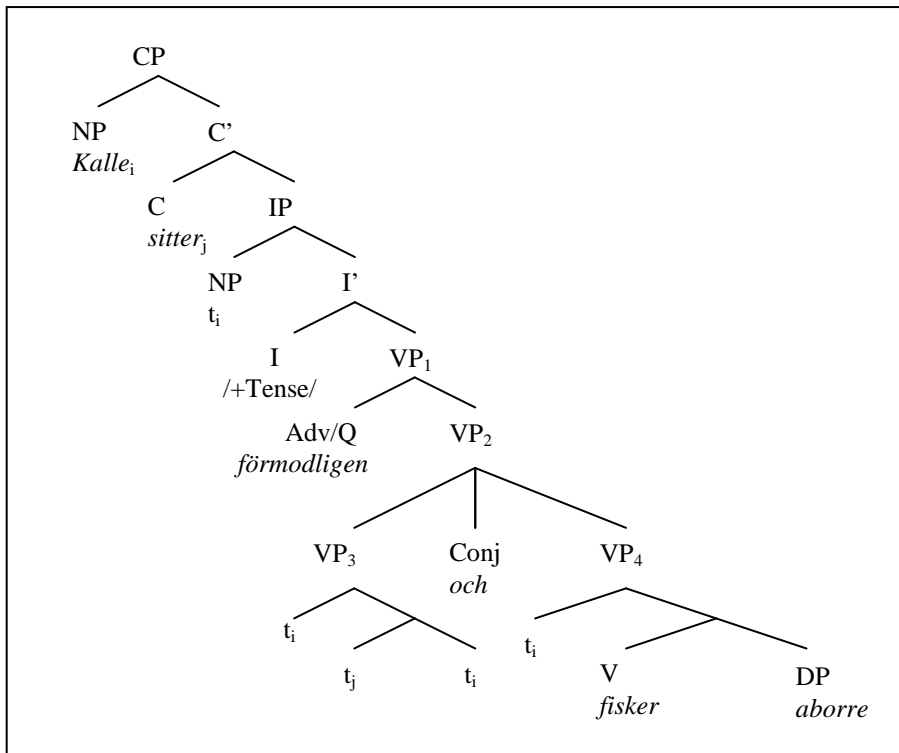


Figure 2

Obviously, since then it has become standard to assume among other things a split IP, a vP and a binary branching coordination structure, but still the intuition that ordinary coordination is coordination of CPs, while pseudo-coordination is coordination of smaller units, is one that could still be applicable (as argued by De Vos 2005).

There are a number of problems with Josefsson's analysis, the main one being that it is not sufficiently elaborate, yet this is largely due to the technical apparatus available at the time. As an example, even though she addresses the fact that only a very limited number of verbs may act as V<sup>1</sup> of pseudo-coordinations, her explanation is a rather vague non-technical one, namely that it is "the possibility of a verb to cooccur with another verb in creating a single SCENE" (Josefsson 1991: 146). By scene she means "an EVENT or a STATE that is held together by means of causality and time" (Josefsson 1991: 144). This intuition is quite likely to be true, yet it says nothing about what it is that allows a verb to be a part of creating such a scene. Intuitively verbs without an overload of semantic content are more likely to enter complex events, but it still remains to be specified what this really means.

**WIKLUND (2007):**

Wiklund's (2007) analysis of Scandinavian PCs is probably the most exhaustive one to date, presenting a wide range of data on 'copying'-phenomena, mainly from Swedish, but in part also from Danish and Norwegian.

Her analysis of PC is to be viewed in the light of her more general analysis of copying phenomena in Swedish. To her, copying is when a verb unexpectedly and without consequences for the interpretation appears to copy the features of another verb. In Swedish, copying can be divided into two groups: TMA (Tense/Mood/Aspect)-copying and Participle copying. Her general claim is that copying is a surface phenomenon, i.e. it is semantically vacuous, and copying possibilities reflect the size of the verbal complement. Thus, participle copying applies to bare VP-complements, while TMA-copying requires a larger complement (in her view, a full CP). An example from Wiklund (2007: 1) of participle copying is given below:

- (20)            *Lars har kunnat                      skrivit*  
                   Lars has could.PAST.PART. written PAST.PART.  
                   'Lars has been able to write'

According to Wiklund, PCs, which in Swedish occurs with more verbs than in Danish, are instances of TMA-copying, meaning that the  $V^2$  is an embedded CP and she presents three major arguments for this analysis.

The first argument is of a rather theoretical nature (and not really an argument for a CP but an argument against a bare VP-analysis). Her claim is that "Copying is a reflex of dependencies between functional heads of the same label" (Wiklund 2007: 68). It is only possible if the corresponding functional projection is present in the embedded clause. This means that since  $V^2$  of PCs show Tense/Mood/Aspect features, it must necessarily have TMA-projections.

This theoretical assumption has its empirical basis in the contrast found in Swedish (but not in Danish<sup>7</sup> between TMA-copying and Participle Copying. Participle copying is very

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<sup>7</sup> I will not completely exclude the possibility of finding examples of participle copying in Danish. They are, however, to be regarded as dialectal and considerably sub-standard.

restricted. As the name implies, it only applies to the Past Participle, and  $V^2$  is never preceded by any kind infinitival marker/complementiser/coordinating conjunction. Wiklund assumes that this is due to the fact that the  $V^2$  is a bare VP and since it lacks all functional projections, it is not able to appear in any other variants.

The existence of participle copying becomes the empirically based argument for PCs being larger than VPs. PCs appear in all tenses, and the theoretical assumption that copying requires that the relevant projection be present in the copying verb, appears to account for why some  $V^2$ s only allow copying of the past participle. In other words, the empirical difference between PC and participle copying motivates the theoretical assumption.

The third argument, and the main argument in favour of a CP-analysis, relates to the nature of [ɔ] which in Swedish too is the unmarked pronunciation of the coordinating conjunction *och* and the infinitive marker *att*). She claims that the finite clause complementiser *att* (Danish *at*) ( $at_{fin}$ ) and the infinitival marker *att* (Danish also *at*) ( $at_{inf}$ ) are of the same category, i.e. that they are both complementisers that reside in  $C^\circ$ . In this claim, Wiklund mainly cites Holmberg (1986, 1990) and Platzack (1986). Platzack's (1986) assumption is that the Norwegian and Danish infinitival marker is generated in  $I^\circ$ , while in Swedish (and Icelandic) it is generated in  $C^\circ$ . This is mainly based on the fact that in Swedish, adverbials may intervene between *att* and the infinitive (as illustrated in (21) (example from Platzack (1986))

- (21) *Han hade föresatt sig att aldrig slå hunden*  
 He had decided REFL to never beat the.dog

Furthermore in Swedish there are parallels with respect to deletion of [ɔ] and  $att_{inf}$ . (Wiklund 2007: 73):

- (22) a. *Han började (att) skriva brev*  
 He started to write.INF. letters
- b. *Han började (o) skrev brev*  
 he startede and wrote letters  
 Both: 'He started writing letters'

This only goes for those cases of TMA-copying where the infinitive is an alternative to the inflected construction, i.e. this is not valid for regular PC.

It is not an uncommon assumption that  $at_{\text{inf}}$  and  $at_{\text{fin}}$  are of the same category, in part because the two are orthographically identical and homophonous; at least when  $at_{\text{inf}}$  is pronounced carefully, they are both [at] and they appear to serve similar purposes. I shall not deny that the two are closely related; however I will argue in 3.6 that the resemblance is somewhat deceiving and that at least in Danish  $at_{\text{inf}}$  does not belong in  $C^\circ$ . Johnson & Vikner (1998: 21) defend the view that in Swedish the infinitival marker is merged in  $I^\circ$  and in Danish it is merged in  $T^\circ$ . The different usages of [ɔ] are summarised below:

|                | $at_{\text{fin}}$ | $at_{\text{inf}}$ | coord.conj. | PC        |
|----------------|-------------------|-------------------|-------------|-----------|
| orthography    | <i>at</i>         | <i>at</i>         | <i>og</i>   | <i>og</i> |
| unmarked usage | [æ]/[æt]          | [ɔ]               | [ɔ]         | [ɔ]       |
| emphatic usage | [æt]              | [æt]              | [ɔU]        | [ɔ]       |

**Table 1**

Unlike Wiklund, I take the more traditional stand that the [ɔ] in front of infinitives is in fact a phonetic variant of *at* and that also *og* has the alternative pronunciation [ɔ]. It does however not follow, as claimed by Wiklund, that the homonymous nature of [ɔ] is a mere coincidence; in fact it is highly plausible that *at* and *og*-usages of [ɔ] are intimately linked. I will not follow the issue any further right now, but it is by no means impossible, that [ɔ] is really derived from what is now a hypercorrect or emphatic pronunciation of the coordinating conjunction *og* [ɔU] and then applied as a variant of *at* due to e.g. ambiguous context, i.e. when the verb is in the infinitive or when the present or past tense is identical or almost identical to the infinitive, a situation that is not uncommon in the Mainland Scandinavian languages due to the complete lack of inflection for person and number. In fact, though I will not attempt a detailed analysis of [ɔ], I find it plausible that it is a kind of hybrid, containing both traits of coordination and subordination, such that despite it being used in a subordination structure, it phonologically triggers identity of inflection, i.e. traits of being a coordinating conjunction.

It is possible to account for the difference between Swedish on the one hand and Danish and Norwegian on the other, without taking  $at_{\text{inf}}$  to be a  $C^\circ$ , for example the way it is done by Christensen (2007: 158) who assumes that across the Scandinavian languages,

the infinitive marker is merged in  $v^\circ$ . In his view, In Swedish (and Icelandic) unlike in Norwegian and Danish, *att* obligatorily undergoes head movement to  $\text{Fin}^\circ$  to check the strong features on this head. Hence in Swedish, the infinitive marker may precede some adverbials.

Furthermore an alternative explanation is required to account for the fact that Swedish (also unlike Norwegian and Danish) allows floating quantifiers between *att* and the infinitive as well as sentential adverbs with narrow scope, as noted by Wiklund (2007: 70). One such explanation is given by Johnson & Vikner (1998: 21) who place Swedish *att* in  $\text{I}^\circ$ , above  $\text{Neg}^\circ$ .

- (23) a.            *De prövade att alla alltid jobba heltid*  
                       They tried     to all always work full.time
- b.            *De prövade att inte skrika*  
                       They tried     to not yell

Having presumably established that  $at_{\text{inf}}$  and  $at_{\text{fin}}$  are both C-heads, Wiklund turns to the [ɔ] in front of infinitives and rejects the standard assumption that it is a carelessly pronounced *att*. She argues that it is unlikely that [æt] and [ɔU] would be identical in careless pronunciation by coincidence and that the phonological change from [aæt] → [ɔ] is a very complex and implausible one. Consequently she assumes the [ɔ] in front of infinitives to be a variant of *och/og*.

Her claim that *och* is also in  $\text{C}^\circ$  is based exclusively on the claims that [ɔ] is really *och* and that  $at_{\text{inf}}$  is a C-head. She gives various examples where [ɔ] behaves just like *att* and consequently concludes that it must be a C-head. This argumentation is not completely convincing, seen as it relies completely on the argumentation of the two foundational claims, i.e. that  $at_{\text{inf}}$  resides in  $\text{C}^\circ$  and that [ɔ] cannot be a variant of *att*.

In 3.6 I will present an argument against a uniform treatment of  $at_{\text{fin}}$  and  $at_{\text{inf}}$ , and the examples given for all the parallels between [ɔ] and *att* can actually be seen as counter-arguments against Wiklund's own [ɔ] = *och*-analysis, as all the parallels point towards treating the two as variants of the same functional item. Consequently, the claim that [ɔ]/*och* is a C-head would have benefitted from more empirical arguments.

The fact that the analysis of [ɔ] is somewhat circular partially undermines the entire CP-analysis of pseudo-coordinations, as it was one of the main arguments in favour of it.

Furthermore, as I will show, there is no evidence of any functional structure above vP in  $V^2$ , in fact, the evidence is to the contrary. Although Swedish differs slightly from Danish in allowing floating quantifiers and sentential adverbs between *att* and the infinitive – which suggests that the infinitive marker is merged in or moved to a higher position than in Danish, it does not necessarily entail that this holds for PC too, unless one accepts Wiklund’s claim that [ $\sigma$ ] is a  $C^\circ$ -related complementiser.

The apparently missing functional projections of  $V^2$ , Wiklund explains by hypothesising that the functional heads are unvalued (and receive external valuation, i.e. from the functional projections of  $V^1$ ). While this is a theoretical possibility, it still does not explain the asymmetry, that in some cases, material requiring a subject position (and valued features) is allowed to appear. Further, along this same line, it seems odd that an otherwise deficient functional domain should have a normal  $C^\circ$  to host the complementiser. Saying that the functional structure is deficient is not far from my claim that the functional structure is just not there, but such claims having been made, we would assume that the situation would have to be the same for all projections above a certain point.

Another argument that is put forward is the fact that only the TMA-copying constructions (i.e. not the Swedish group of participle copying verbs) are allowed to appear in the imperative. Imperative licensing/checking arguably takes place in the C-domain and as such Wiklund uses this to back up her claim that  $V^2$  is a CP. The imperative of TMA-copying constructions can however be explained by other means (and I will return to this question in section 4.6), and the challenge is rather to explain why the participle copying constructions are so restricted.

## 2.2 Positional pseudo-coordination

My term, positional PC, refers to its  $V^1$  which is a “positional” verb, the core verbs being: *siddler/ligger/står/går* ‘sit/lie/stand/walk (go)’. To differentiate them from other very similar pseudo-coordination structures, I will refer to these as positional pseudo-coordinations, as opposed to the directional pseudo-coordinations, which are formed by verbs such as *komme* ‘come’, *sætte sig* ‘sit down (REFL.)’, *lægge sig* ‘lie down (REFL.)’,



*rejse sig* ‘stand up (REFL.), *gå ind/ud/hen* ‘walk in/out/over’. These will be more closely examined in section 2.3 of this chapter.

I will mainly be giving examples from Danish, but it can be assumed that particularly Norwegian and to some extent also Swedish largely pattern with Danish.

**THE CORE CASES:**

- (24) a. *Jeg sidder og tænker*  
I sit and think ‘I’m thinking’
- b. *Jeg går og synger*  
I walk and sing ‘I’m singing’
- c. *Jeg ligger og læser*  
I lie and read ‘I’m reading’
- d. *Jeg står og venter*  
I stand and wait ‘I’m waiting’

At first glance these look like regularly coordinated structures, yet the reading is aspectual and they also differ syntactically from coordinated structures.

From a semantic point of view, what is expressed by this construction is a progressive or imperfect aspect of the main verb, something which Danish is unable to express by means of verbal morphology. The verbs *sidde*, *ligge* and *stå* in PCs usually express that something takes place presently and within a limited time frame, whereas *gå* often refers to something that takes place over a longer time, cf. the following example in which the natural assumption would be that the person considers a change of jobs for at least some time.

- (25) *Jeg går og overvejer at skifte job*  
I walk and consider to change job  
‘I’m considering changing jobs’

This does however not alter the imperfect or progressive aspect, merely the amount of time which is considered to be ‘the present’ or ‘the moment’.

Despite *gå* ‘walk’ being a verb of movement, I consider it a positional PC-verb. The aspect it expresses is very much like the other positional verbs and radically different from the aspect in directional PCs. Further, it always denotes movement within a limited space, i.e. it is atelic, and as such there are good reasons to say that it expresses a kind of state/position. I will refer to the verb in this usage as a dynamic positional verb express-

ing a dynamic state (a notion which will be elaborated considerably in Part III on motion verbs)

It should be noted that I have deliberately translated *gå* with ‘walk’ and not ‘go’. This is due to the fact that *gå* is not grammaticalised as its English counterpart, i.e. it cannot mean ‘movement in an unspecified manner’ nor can it express immediate future (although perhaps this is part of the reading you get in cases of directional PC). Still, as can be seen from example (25) *gå* is perhaps less lexical than the other positional verbs, seen as the *walking* is not to be taken too literally. At least it can be assumed not to be taking place incessantly. A motion is and must however always be implied.

Generally there is a semantic correspondence between the positional verb and the position the person would be expected to be in while carrying out the action in  $V^2$ , i.e. if one is standing at the bus stop waiting for the bus, one has to say ‘I stand and wait’ and not ‘I sit and wait’ but it is not a rigid 1:1 correlation, cf. an example such as (26)<sup>8</sup> which may be considered almost idiomatic:

- (26) *Jeg ligger og kører til Vejle hver dag*  
 I lie and drive to Vejle every day  
 ‘I drive to Vejle every day’

Furthermore, despite the fact that  $V^1$  usually denoting the actual position of the subject, it is not uncommonly heard that speakers use *sit* and *lie* more or less arbitrarily if speaking of an action like reading. This can be taken to be errors of production, but it could also be seen as a step on a grammaticalisation path during which the first verb of pseudo-coordinations is becoming bleached semantically. Either way, it suggests that the semantic content of  $V^1$  is not considered crucial.

### 2.3 Directional pseudo-coordination

The telic counterparts of *sidde*, *ligge*, *stå* and *gå*, i.e. *sætte* (REFL) ‘sit down’, *lægge* (REFL) ‘lie down’, *stille sig* ‘stand (REFL)’, *gå ind/hen/over* ‘walk into/over’ can also enter

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<sup>8</sup> This example is probably licensed since the car is perceived as ‘lying’ on the road and by extension, so is the driver. Non-literal usage of *ligge* ‘lie’ is restricted to PCs with certain types of verbal complements, generally verbs of transportation. This could suggest that *ligge* has gone a small step further on a grammaticalisation path than the other PC-verbs.

pseudo-coordination constructions, yet their inherent telicity gives a rather different semantic effect. Unlike positional pseudo-coordinations, these are not progressive (and possibly not at all aspectual, though something like inchoativity could be argued to be present).

- (27) a. *Hun sætter sig og spiser (sin mad)*  
 She sits REFL and eats (her food) 'she sits down to eat'
- b. *Hun lægger sig og læser (sin bog)*  
 She lies REFL and reads (her book) 'she lies down to read'
- c. *Hun går hen og lægger sig (på sengen)*  
 She walks over and lies REFL (on the bed)

Unlike positional pseudo-coordinations, the directional ones always imply a change of state or position. The transitive verb *tage* 'take' will be dealt with separately in subsection 4.5 because it differs from the other PC-verbs in various respects. Syntactically the directional pseudo-coordination acts almost like the progressive one. The main difference appears to lie in the aspect expressed by the matrix verb.

A particular usage of verb + particle is the non-directional, i.e. non-literal, usage of *gå hen* 'go over' which imposes an aspect of unexpectedness (and perhaps undesirability). I will get back to this construction in 4.2.1.

- (28) *Han gik hen og døde*  
 He went over and died 'he just died (suddenly)'

A verb which may also be used in pseudo-coordinations and which appears different from other directional PC-verbs because it is semantically heavier, is *ringe* 'call (by telephone)'. It is however likely that this is interpreted as movement/change of position, even if it is in a metaphorical sense. Either way, syntactically nothing indicates that this verb should be different from other PC-verbs, cf. the following example:

- (29) *Hvad ringede han og fortalte dig?*  
 What called he and told you

## 2.4 Positional vs. directional PCs

Directional and positional PCs seem to behave very similarly. As will be shown, they obey more or less the same syntactic restrictions. There are however various reasons to maintain the distinction.

First of all, the aspects expressed in the two variants are different; the progressive and inceptive readings follow systematically from the class of  $V^1$ . Secondly the group of verbs that are allowed as  $V^1$ s behave differently; positional PC- $V^1$ s belong to a very restricted (if not completely closed) group, while directional PC- $V^1$ s form a semi-open class; all verbs of a specific kind are allowed.

Furthermore, cross-linguistically, the two classes are distinct. Here I will give a few representative examples, but will not assume my examples to be neither particularly systematic nor in any way exhaustive. They merely serve as illustration that other languages have similar distinctions.

English is one such language. As is well known, the progressive aspect is usually expressed by the auxiliary ‘be’ + -ing. This could be a functional motivation for the lack of positional PC. But when it comes to directional PC, English has a PC-like construction involving the verbs *come* and *go* (see e.g. Carden & Pesetsky 1977).

- (30) a. \* *What do you sit and read?*  
Intended: What are you reading?
- b. *I will go (and) talk to my professor*
- c. *He will come and visit me soon*

Dutch also displays constructions that resemble pseudo-coordinations. Other strategies are used, but still the distinction between the progressive and the inceptive is maintained and lexically encoded. To express progressive aspect, there are two options; one resembles the Danish PC in that it consists of a positional verb + infinitive marker *te* + infinitive (31). It is worth noticing that the same verbs are used as in Danish positional PC, i.e. *zitten, staan, liggen, lopen* ‘sit’ ‘stand’ ‘lie’ and ‘walk’ (Donaldson 1997: 194).

The construction resembling directional PC consists of *gaan* ‘go’ or *komen* ‘come’ + infinitive in contrast gives a reading which closely resembles that of directional PC (fu-

ture/inceptive/change of location). Notice that in the c.-example *gaan* has the particle *uit* ‘out’ which makes it unambiguous that there is a change of location. Without such a particle, it is context-dependent and may be truly ambiguous (e.), but clearly has the possibility of not containing any movement at all (d.) (all examples from the electronic ANS<sup>9</sup>).

- (31) a. *Ze zit een boek te lezen*  
She sits a book to read.INF
- b. *Vader gaat uit vissen*  
Father goes out fish.INF ‘Father is going fishing’
- c. *In verband met mijn nieuwe baan gaan we verhuizen*  
In connection with my new job go.3P.PL we move.INF
- d. *Het gaat regenen*  
It goes rain.INF ‘It will rain’

These examples provide a nice parallel to Danish PC since verbs of position and movement are used for progressive and inceptive-like constructions, even if the specific use and morphological marking is language-specific. Afrikaans and the Italian dialect Marsalese also display pseudo-coordination. Afrikaans only has positional PC as shown in (32) (De Vos 2005: 159), while Marsalese (33) (Cardinaletti/Giusti 2003: 31) only has directional PC. I will return to these languages in section 6.

- (32) *Hy sal die heeldag na die wolke lê en kyk*  
He will the whole.day at the clouds lie.INF. and look.INF.  
‘He’ll lie looking up at the clouds all day’
- (33) *Va a pigghia u pani*  
go.3SG A fetch.3SG the bread  
‘He’ll go (and) fetch the bread’

While positional PC has a very easily identifiable aspectual (progressive) reading, it is less clear if directional PC is aspectual as such. Clearly they are not cases of additive, Boolean coordination, as the action of  $V^2$  presupposes the action of  $V^1$ , but the question arises if perhaps directional PC is to be treated on a par with other cases of asymmetric

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<sup>9</sup> The examples are from the electronic ANS (Algemene Nederlandse Spraakkunst) <http://www.let.ru.nl/ans/e-ans/> Paragraph 2.4.2. ‘De infinitief (onbepaalde wijs)’ and 18.5.4.3 iii ‘gaan’.

coordination. I will return to this question in 3.2, but until then I will assume that a uniform account of positional and directional PC is possible

### 2.4.1 PC vs. *for at*-infinitive

Another thing which distinguishes directional from positional PC is the possibility of alternating a directional PC with a non-finite purpose clause. In Danish this is done by means of the preposition *for* + infinitive marker *at* + infinitive, an alternative which semantically differs only minimally. The difference is that the *for at* ‘for to’ adds a purpose reading to the verbal complex; a reading which strictly speaking is not present in the pseudo-coordinated structure.

- (34) a. *Jeg går ud og henter avisen*  
I walk out and fetch the.newspaper
- b. *Jeg går ud for at hente avisen*  
I walk out for to fetch.INF. the.newspaper  
‘I go out in order to fetch the newspaper’
- c. \* *Jeg sidder for at læse min bog*  
I sit for to read.INF. my book

As can be seen from the examples, this alternative is only available to directional PC, not to positional PCs, but it is likely to be blocked either by the simultaneity of the two actions or by the fact that positional verbs are stative and hence incompatible with a non-finite purpose clause with an agentivity requirement.

Crucially, there is one way to distinguish the two constructions and this test furthermore supports the claim that even directional pseudo-coordinations which denote two actions taking place successively are monoclausal. The test consists of checking whether the second action must be carried out or not:

- (35) a. \* *Peter gik ud og købte mad, men butikken var lukket*  
Peter walked out and bought food, but the.store was closed
- b. *Peter gik ud for at købe mad, men butikken var lukket*  
Peter walked out for to buy food, but the.store was closed

As (35)a. shows, in directional pseudo-coordinations it is not possible to negate the latter action without including the former. If the ‘walking out’ and ‘buying food’ were separate events nothing should prevent that only one of the two actually came to be realised. This



An important fact to bear in mind is that, as discussed above, the coordinating conjunction *og* and the infinitival marker *at* are homophonous in unmarked speech (also in Norwegian and Swedish), and thus there is widespread insecurity among many speakers about when to use one or the other. In oral production, this is hardly ever a problem, but great variation can be seen in written texts.

While it is tempting to hypothesise that the coordination features have arisen through a reinterpretation of the construction, such that an *at* was taken for an *og*, the fact that pseudo-coordination also exists in other languages in which the infinitival marker and ‘and’ are phonetically very distinct, speaks against this hypothesis. This is for example the case in English and Afrikaans (de Vos 2006).

If *og* is really a coordinating conjunction, it would be expected that it could be modified by the particle *både* ‘both’ or substituted with another coordinating conjunction. This is, however not the case, as the contrast between the a. (PC) and b. examples (proper coordination) show.

- (37) a. \* *Laura både sidder og læser* **PC**  
 Laura both sits and reads
- b. *Laura både synger og spiller*  
 Laura both sings and plays
- (38) a. \* *Laura sidder eller læser hver fredag* **PC**  
 Laura sits or reads every Friday
- b. *Laura synger eller spiller hver fredag*  
 Laura sings or plays every Friday

A way to test if one or two events are denoted is to have them take place at different times. Two coordinated events can take place at different times, whereas one event can obviously only take place at one place in time. As expected the a.-example is only grammatical with the two-event reading, which is highly counter-intuitive since you would rarely talk of a sitting-event

- (39) a. \* *Hun sad i sidste uge og læste i går* **PC**  
 She sat in last week and read yesterday



- b. *Hun sang i sidste uge og spillede i går*  
 She sang in last week and played yesterday

### 3.1 Extraction:

The clearest difference between proper coordination and Pseudo-Coordination is the possibility of extraction<sup>10</sup>, although as will be clear, it is not sufficient as a defining trait.

Since Ross (1967: 161) it has been a well established fact that you cannot move a conjunct or a part of a conjunct out of a coordinated structure (Coordinate Structure Constraint, CSC). The exception is across-the-board-extraction (ATB), exemplified in (41)b. where the same element is extracted from both conjuncts.

Examples (40) show the CSC; the first conjunct is an intransitive verb, thus the complement DP can only be of V<sup>2</sup> and movement is blocked. In (42) it is shown that extraction is indeed possible in Pseudo-Coordinations and this presents a very strong argument against a coordination analysis of PCs.

- (40) a. *Hun griner og synger en sang*  
 She laughs and sings a song
- b. \* *Hvad griner og synger hun?*  
 what laughs and sings she
- c. \* *Hvad griner hun og synger?*  
 What laughs she and sings
- (41) a. *Paul skriver og John synger en sang*  
 Paul writes and John sings a song
- b. *Hvad skriver Paul og synger John?*  
 What writes Paul and sings John.
- c. \* *Hvad skriver Paul og John synger en sang?*  
 What writes Paul and John sings a song
- (42) a. *Hun går og synger en sang* **PC**  
 She walks and sings a song

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<sup>10</sup> The possibility of extraction has been noticed and used as a defining trait of PC by many others, e.g. Josefsson (1994), Wiklund (2007), Bjerre & Bjerre (2007).

- b. \* *Hvad går og synger hun?* **PC**  
 What walks and sings she
- c. *Hvad går hun og synger?* **PC**  
 What walks she and sings

The possibility of extraction makes Pseudo-coordinations pattern with regular embedded infinitives.

- (43) a. *Hun glemmer at læse sine lektier*  
 She forgets to read her homework
- b. \* *Hvad glemmer at læse hun?*  
 What forgets to read she
- c. *Hvad glemmer hun at læse?*  
 What forgets she to read

|   | ATB-extr. | non-ATB-extr. |
|---|-----------|---------------|
| object only of $V^2$ (40)                         | *         | *             |
| shared obj of $V^1 + V^2$ (41)                    | ok        | *             |
| pseudo-coordination, obj. of $V^2$ (42)           | *         | ok            |
| control verb + to-infinitive + obj. of $V^2$ (43) | *         | ok            |

**Table 2**

In short this shows that PCs pattern with control infinitive constructions, and not with ordinary coordinations. Clearly, we cannot be dealing with a kind of ATB-extraction as  $V^1$  is intransitive. Extraction of the embedded object being such a strong diagnostics of PC, I will be using examples where the object is extracted when I test for other properties, to ensure that only a PC-reading applies.

### 3.2 *What-for-split and asymmetric coordination*

So far I have merely maintained a distinction between ordinary coordination on the one hand and pseudo-coordination on the other without defining what “ordinary” actually means. When I speak of ordinary coordination, I refer only to strictly additive, Boolean coordination. I assume that an adequate analysis of Boolean coordination is as follows (Johannessen 1998: 109), i.e. a binary branching Conjunction Phrase (CoP) where one conjunct is in the specifier and the other in the complement position:

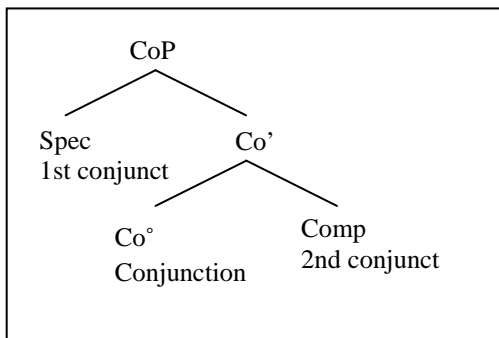


Figure 3

Pseudo-coordination appears extraordinarily frequent in Mainland Scandinavian languages, but many other cases of asymmetric coordination have been observed, in Danish as well as in various other languages. (44) and (45) are examples where the object of the second conjunct has been extracted; in (46) it is the object of the first conjunct (example (46) translated and adapted from Culicover & Jackendoff 1997: 196):

- (44) ? *Hvad for bil kan man drikke vodka og alligevel køre?*  
 What for car can you drink vodka and still drive?
- (45) *Hvad åbnede han døren og så?*  
 What opened he the.door and saw
- (46) ? *Hvad for fag kan man undervise og alligevel skrive gode artikler?*  
 What for classes can one teach and still write good articles

Although extraction distinguishes PC from ordinary coordination, these examples demonstrate that simple extraction is not a sufficient criterion. They allow extraction but other than that they appear quite different, both from each other and from pseudo-coordination as treated here. At first glance, the common denominator appears to be that there is a temporal and causal relationship between the conjuncts, which for instance excludes changing the internal ordering of the conjuncts.

Syntactically, (44) to (46) differ from standard PC in that they do not allow *what-for*-split of the object of the second conjunct<sup>11</sup>:

- (47) \* *Hvad kan man drikke vodka og alligevel køre for en bil?*  
 What can you drink vodka and still drive for a car
- (48) \* *Hvad åbnede han døren og så for noget?*  
 What opened he the.door and saw for something
- (49) \* *Hvad kan man undervise og alligevel skrive for artikler?*  
 How can you teach and still write for articles

It generally appears to be the case that whenever the relationship between two conjuncts is something other than a simple coordination, i.e. when there is a dependency of a temporal, clausal or other kind of nature, you get asymmetry effects, such as the extraction possibility. Importantly, this dependency needs not be triggered by subordinating conjunctions, although adverbs may be inserted to strengthen the dependency reading (such as *alligevel* ‘still’ in (44)). Examples like (44) and (45) are often considered CSC-violations, but it is entirely possible that the CSC only applies to Boolean coordination and that an entirely different and coherent treatment of asymmetric coordination is called for. This is however beyond the scope of the dissertation.

Finally, cases of repetitive/emphatic coordination such as (50) are arguably also instances of asymmetric coordination, but I will not pay any further attention to these either.

- (50) *Peter spiser og spiser*  
 Peter eats and eats ‘Peter eats a lot’

Despite the fact, that I will not make any claims concerning asymmetric coordination in other languages, nor attempt to give an analysis which is adequate for all instances of asymmetric coordination, it is still necessary to narrow down the definition criteria of PC in order to avoid that other constructions make the data more confusing than necessary.

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<sup>11</sup> *What-for-split* of an object of the first conjunct is possible, e.g. *Hvad kan man undervise for fag og stadig skrive gode artikler?* ‘what can you teach for classes and still write good papers’.

*What-for-split* allows a very clear distinction of PC both from cases of ordinary coordination and other instances of asymmetric coordination. There are other differences between PC and other asymmetric coordinations, but these are mainly of a semantic nature and are hard to substantiate. The syntactic *what-for-split* in contrast gives rather clear grammaticality judgements and hence, it is the test I will apply whenever there are doubts about the nature of a construction.

There are however two problems with the *what-for-split*:

I) When two verbs in an ordinary coordination share an object, i.e. when the conditions for ATB-movement are met, they also allow *what-for-split*, as in (51):

- (51) *Hvad synger og spiller du for en sang?* **ATB**  
 What sing and play you for a song

II) When a preposition intervenes due to Danish preposition stranding, i.e. when V<sup>2</sup> has a PP as its object and not just a simple DP-complement you end up with two adjacent prepositions and the sentence is much degraded:

- (52) ?? *Hvad sidder du og tænker på for ting* **PC**  
 What sit you and think of for things

Obviously this does not mean that (52) is not a PC. Rather it is a general effect which can be observed when preposition stranding and *what-for-split* are in conflict. This can be seen from the contrast between the following two sentences where *læse* ‘read’ may combine with a PP or DP-complement (with almost identical meaning):

- (53) a. *Peter læser (i) lingvistikbøger*  
 Peter reads (in) linguistics.books
- b. *Hvad læser Peter for bøger?*  
 What reads Peter for books
- c. ?? *Hvad læser Peter i for bøger?*  
 What read Peter in for books

The same effect can be observed with control infinitive structures:

- (54) a. *Hvad forsøger Peter at læse for en bog?*  
 What tries Peter to read for a book

- b. ?? *Hvad forsøger Peter at læse i for en bog?*  
 What tries Peter to read in for a book

Whether this is due to parsing difficulties triggered by two adjacent prepositions or to other factors, the fact is that the effect is observed independently of pseudo-coordinations. The consequence of this observation is that *what-for-split* cannot be used as the single defining property of PC. When *what-for-split* is not possible, one is forced to consider the other differences between the different kinds of coordination.

### 3.3 Topicalisation of V<sup>2</sup>:

Topicalisation of V<sup>2</sup> in PCs requires co-topicalisation of the object if there is one and it is only possible by insertion of the dummy verb *gøre* ‘do’. *Og* must remain in situ. That (55) c. has not been judged as completely grammatical is probably due to the fact that topicalisation of verbs is a strategy which is not often applied in Danish and that the relative weight of the topicalised element and the rest of the clause is highly marked.

- (55) a. Peter *sidder og spiller en sang* PC  
 Peter sits and plays a song
- b. \* *og spiller en sang sidder Peter* PC  
 and plays a song sits Peter
- c. ? *spiller en sang sidder Peter og gør* PC  
 plays a song sits Peter and does

Interestingly, there was quite a bit of disagreement among the speakers I have consulted with respect to the form of the topicalised verb. While some advocated the inflected form as in (55) c., others would only accept topicalisation of an infinitive. Crucially, these speakers also require an inflected dummy verb and [ɔ] may not precede the infinitive:

- (56) (\*[ɔ]) *spille en sang sidder Peter og gør*  
 play.INF. a song sits Peter and does

It was furthermore not the case that the speakers could accept both a finite and an infinitival topicalisation and the judgements were quite clear as to which one was grammatical for each speaker. As I have not been able to correlate this with any other effects, I tentatively conclude that it has to be related to topicalisation as such, rather than to PC. It is

however not wholly unexpected that we should see such an effect, given the dubious status of the inflection of the second verb.

In the case of embedded infinitives, topicalisation of the infinitive is possible, while proper coordination disallows it, regardless of whether the topicalised verb is finite or non-finite, whether the coordinated conjunction is co-topicalised or not, or whether a dummy verb is inserted or not:

- (57) a. *at spille en sang forsøger Peter* **Control**  
to play a song tries Peter
- b. \* *(og) spille /spiller en sang synger Peter (og gør)*  
(and) play.INF. /plays.FIN. a song sings Peter (and does)  
Based on: ‘Peter sings and plays a song’ **Object shared**
- c. \* *(og) skrælle /skræller kartofler arbejder Peter (og gør)*  
(and) peal.INF. /peals.FIN. potatoes works Peter (and does)  
Based on: ‘Peter works and peals potatoes’ **Object not shared**

Even if verb topicalisation in connection with PC is not a frequent or very felicitous strategy, it still contrasts sharply with proper coordinations in which the second conjunct may not be topicalised under any circumstances.

Still, PCs also do not pattern exactly with control infinitives; a trait that distinguishes pseudo-coordinated structures from embedded infinitives is that  $V^2$  cannot be pronominalised, cf.: (58) and (59):

- (58) a. *Peter forsøger at læse sin bog* **Control**  
Peter tries to read his book
- b. *Peter forsøger det*  
Peter tries it
- (59) a. *Peter sidder og læser sin bog* **PC**  
Peter sits and reads his book
- b. \* *Peter sidder og det* **PC**  
Peter sits and it
- c. \* *Peter sidder det* **PC**  
Peter sits it

This could be an argument against my claim that the inflection of  $V^2$  is not syntactically based; were it really an infinitive in disguise, one might argue it should be able to be

pronominalised. However, the simple fact that  $V^1$  is intransitive would explain why it does not allow a pronominal as its complement.

### 3.4 Negation

Another difference between ordinary coordination and PC concerns scope of negation; in positional PCs, negation always has scope over both verbs. However, the following two circumstances make this a lot more complicated to prove:

You can actually negate only  $V^2$  but only as constituent negation, cf. (63). In this case, matters are complicated by the fact that negation seems to apply to pseudo-coordinations the same way it does proper coordination, yet, in most of these cases, the negation forces a two-event, i.e. a proper coordination reading.

To avoid interference from the verb second property of Danish main clauses I will use subordinate clauses in the following examples. In subordinate clauses the verbs remain in situ, i.e. sentential negation precedes the verb:

#### NEGATION OF PROPER COORDINATION:

**Negation preceding  $V^1$ :** Narrow and wide scope possible.  $V^1$  negated,  $V^2$  probably negated (although a non-negated  $V^2$  is marginally available):

- (60) a.           ...*at hun ikke synger og spiller*  
                  ...that she not sings and plays

**Negation preceding  $V^2$ :** Unambiguous,  $V^1$  not negated,  $V^2$  negated:

- b.               ...*at hun synger og ikke spiller*  
                  ...that she sings and not plays

**Negation preceding each V:** Unambiguous  $V^1 + V^2$  negated

- c.               ...*at hun ikke synger og ikke spiller*  
                  ...that she not sings and not plays





Furthermore, under verb second, there is a contrast between PC and proper coordinations in that both verbs of proper coordinations may precede the negation (scope is ambiguous) while in PCs only  $V^1$  may precede the negation if non-narrow scope is to be achieved.

- (65) a. *Derfor synger og spiller hun ikke* **PC**  
 Therefore sings and plays she not
- b. \* *Derfor går og synger hun ikke* **PC**  
 Therefore walks and plays she not ≠ ‘she is not singing’
- c. *Derfor går hun ikke og synger* **PC**  
 Therefore walks she not and sings

These data indicate that  $V^2$  does not have a position that licenses a sentential negation.

### 3.5 Verb Second effects:

Pseudo-coordinations and proper coordinations also react differently to Verb Second (V2) effects, i.e. the phenomenon observed in most West- and North-Germanic languages that in root clauses, the finite verb must move to  $C^\circ$  (see for example Vikner 1995 or Haider 1986 and references there for accounts of V2).

In the case of ordinary coordination, it makes a difference whether the conjuncts have complements or not. If neither conjunct has a complement, both verbs combined by the coordinating conjunction move to  $C^\circ$ :

- (66) *Derfor synger og løber han aldrig i weekenden*  
 Therefore sings and runs he never in the.weekend

The same thing happens if both verbs share an internal argument:

- (67) *Derfor synger og spiller han aldrig sine sange mere*  
 Therefore sings and plays he never his songs anymore

When the first conjunct does not have a complement, but the second one does, it is however ungrammatical to move both verbs into the  $C^\circ$ -position, instead only the first verb moves.

- (68) a. \* *Derfor sang og læste han en bog*  
 Therefore sang and read he a book
- b. *Derfor sang han og læste en bog*  
 Therefore sang he and read a book

If the first conjunct has a complement, only this verb moves into the C-head, regardless of the nature of the second conjunct:

- (69) *Derfor sang han en sang og læste en bog*  
 Therefore sang he a song and read a book

Pseudo-coordinated structures on the other hand react differently to Verb Second. Since  $V^1$  is always an intransitive verb, we cannot test examples parallel to those in (67) and (69). We can only have cases like (66) and (68). Under V2, you get the same result, whether V2 has an internal argument or not:

- (70) a. *Derfor sidder hun ikke og arbejder* **PC**  
 Therefore sits she not and works
- b. *Derfor sidder hun ikke og læser sin bog* **PC**  
 Therefore sits she not and reads her book

Without going into the details of an analysis of proper coordination, this could indicate that (66) is an instance of coordination of heads, a type of coordination that may only take place when there is no internal argument. Whether (67) - (69) then are cases of VP-coordination or of CP-coordination with deletion of identical elements is not crucial, the fact is, they cannot be  $V^{\circ}$ -coordination..

In the case of PC, something else is clearly happening. If we accept that (66) shows that complex heads are allowed to move into CP, we can exclude a head-coordination-analysis of Danish PC (as the one suggested by De Vos 2005<sup>12</sup>), as PC never allows for both verbs to move to  $C^{\circ}$ .

- (71) \* *Derfor går og synger hun aldrig i weekenden* **PC**  
 Therefore walks and sings she never i the.weekend  
 Intended: 'Therefore she's never singing on weekends'

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<sup>12</sup> Importantly, De Vos (2005: 135) shows that exactly this is indeed possible in Afrikaans.

### 3.6 The nature of [ɔ]?

As mentioned at an earlier point, written Danish has the coordinating conjunction *og*, the complementiser of embedded finite clauses *at* ( $at_{fin}$ ) and the infinitival marker *at* ( $at_{inf}$ ). When pronounced carefully they are never interchangeable. Carefully pronounced, *og* is [ɔU], and *at* is [æt]. It should be noted that the careful pronunciation, particularly of *og* is very marked.

*Og* and  $at_{inf}$  are homophonous in unmarked pronunciation, while  $at_{fin}$  and  $at_{inf}$  are homophonous in more careful pronunciation.  $At_{fin}$  is pronounced [æt] while in unmarked speech,  $at_{inf}$  and *og* can always be pronounced [ɔ].

$At_{fin}$  may be deleted entirely (and perhaps reduced to [æ] or maybe even to [ə]), but the fact that  $at_{fin}$  is never pronounced [ɔ] indicates that it is a different category from  $at_{inf}$ . Although *og/at* are often homophonous, the *at* can always be reconstructed by means of careful pronunciation in an unambiguous context. The same usually holds for *og* except in pseudo-coordinations, the problem being that the carefully pronounced *og* [ɔU] is so contrastively marked, it automatically forces a two-event reading of a pseudo-coordinated structure, as can be seen from the fact that it blocks extraction, as exemplified in (72):

- (72) a. \* *Hans går [ɔU] læser sin bog* **PC**  
           Hans walks AND reads his book
- b. \* *Hvad går Hans [ɔU] læser?* **PC**  
           What walks Hans AND reads?

Still, it is a fair assumption that if an *at* cannot be reconstructed, then [ɔ] must be of a different category. Because reconstruction as [ɔU] may be excluded for other reasons, we cannot determine whether *og* is really underlying [ɔ]. A third option is to compromise and assume a third variant of [ɔ], namely one which is i) neither *at* nor *og* or ii) a hybrid of the two. As far as I can tell this third category would only be used in pseudo-coordinations.

In pseudo-coordinations, [ɔ] forms a prosodic word with V<sup>1</sup> (or whichever word immediately precedes it. Furthermore, [ɔ] may not be preceded by a glottal stop:

- (73) a. i. *Peter gik* → *gi[k]*  
           *Peter walked*

- ii. *Hvad Peter gik og læste...* → [gigɔ] / \*gik [ʔɔ] **PC**  
 What Peter walked and read
- b. i. *Peter blev stående* → [stå:nə]  
*Peter remained standing*
- ii. *Peter blev stående og læste* → [stå:nə] **PC**  
*Peter remained standing and read*
- c. i *Peter sætter sig* → [sai] / [sa]  
*Peter sit.CAUS REFL*
- ii *Hvad sætter Peter sig og læser* → \*[sai ʔɔ] / [saɔ] **PC**  
 What sit.CAUS Peter. REFL and reads

Consonant reduction is very frequent in Danish in general and as such it is not easy to say exactly which circumstances allow for this to happen. It is however striking that not only the highly focussed [ɔU] is not possible but even the glottal stop preceding vowel initial words is not an option. This is a strong indication that the *og* of pseudo-coordinations is not an independent word. Suggesting that it is a kind of particle belonging to V<sup>1</sup> does not seem feasible either, as it will attach to whatever word immediately precedes it. Could it then be attached to V<sup>2</sup> and by some phonological process be forced to excorporate? The following facts speak against this assumption:

Topicalisation of *at*<sub>inf</sub> [æt] or [ɔ] + infinitive is possible ([æt]/[ɔ] may also be deleted), while V<sup>2</sup> of pseudo-coordinations can only topicalise without [ɔ], regardless of whether a copied [ɔ] and a dummy verb is inserted.

- (74) a. ([æt] / [ɔ]) *læse sin bog har hun forsøgt*  
 ([æt] / [ɔ]) read her book has she tried
- b. \* [æt] / [ɔ] *drikker kaffe sidder hun (og gør)* **PC**  
 [æt] / [ɔ] drinks coffee sits she (and does)

This is a further indication that the [ɔ] of pseudo-coordinations is not an *at*<sub>inf</sub>. If *og* were a kind of complementiser it should be able to topicalise with its verb. Rather it seems that *og* always stays in the same position, marking in a way the status of what follows it. Possibly, as it has been proposed for the *zu* in German verb clusters (Vogel 2009), it marks the right edge of the clause and the reason it obligatorily attaches to the preced-

ing word is because it is syntactically not present. It is not a head and only exists as an enclitic. Speculatively, I suspect that it only serves at purpose at PF where it signals the right edge and triggers copying of inflectional features.

### 3.7 Subject-related material

In proper coordination, the subject can optionally be repeated; however, this is not possible in pseudo-coordination (cf. Bjerre & Bjerre: 41)

- (75) a. *Hun synger og hun spiller*  
She sings and she plays
- b. \* *Hun ligger og hun læser* **PC**  
She lies and she reads
- c. \* *Hvad ligger hun og læser hun?*  
What lies she and reads she

The fact that PCs do not allow repetition of the subject, in itself indicates that  $V^2$  does not have a subject position available. Furthermore, this suspicion is confirmed by the fact that  $V^2$  does not allow for subject-related material, such as secondary predicates or for floating quantifiers (a. examples). This contrasts with ordinary coordination (b. examples). Presumably the same thing that prohibits an overt subject of  $V^2$  in pseudo-coordinations also prohibits subject-related material more generally.

- (76) a. \* *Peter og Paul sidder og læser begge en bog* **PC**  
Peter and Paul sit and read both a book
- b. *Peter og Paul synger og læser begge en bog*  
Peter and Paul sing and read both a book
- (77) a. \* *Peter og Paul sidder og læser fulde* **PC**  
Peter and Paul sit and read drunk.PL.
- b. *Peter og Paul spiller og synger fulde*  
Peter and Paul play and sing drunk.PL.

Possibly, a repeated subject and subject-related material cannot surface because the finiteness is only apparent, i.e. not syntactic.

## 4 Restrictions on PC

### 4.1 Auxiliary selection

Danish has alternating auxiliary selection, and in this respect there is a difference between positional and directional PC-verbs. While transitive verbs always require *have* ‘have’ as their auxiliary, intransitive verbs may use either *være* ‘be’ or *have* depending in part on telicity, such that atelic usage requires *have* while telic requires *være*. The positional verbs *sidde* and *ligge* and *stå* are always atelic, thus obligatorily select *have*. *Gå* requires *have* in its atelic usage, while in the telic usage it selects *være*. Non-reflexive verbs denoting change of position like *stå op*, also selects *være*. Telicity (and transitivity for that matter) being the crucial factors indicate that the actual selection of the auxiliary depends on the internal structure of VP.

The telic counterparts of *sidde* and *ligge* i.e. *sætte + sig* and *lægge + sig* on the other hand use *have*. In this respect, they pattern with real transitive verbs. However, as will be shown in (120), there is a significant difference between reflexive pronouns and “real” internal arguments which receive a  $\Theta$ -role.

In languages which have two different perfect auxiliaries, the choice is often linked to the unergative/unaccusative distinction, such that unergative verbs choose ‘have’ and unaccusative ones select ‘be’. An unaccusative verb is usually defined as a verb which does not assign an external  $\Theta$ -role and no structural accusative case (e.g. Burzio 1986: 28). Telic manner-of-motion verbs are a bit tricky because they involve a kind of agentivity. They do however respond to unaccusativity tests, and as such are to be considered unaccusative. This is in line with e.g. Friedmann et. al. (2008: 357) and McFadden (2007: 696). Despite the apparent agentivity, the fact that telic motion verbs are unaccusative tells us that the little *v* must be of the kind which involves external causation, i.e. a  $V_{\text{cause}}$ .

As for PCs, we can see that they are not as such banned in the perfect tense, but they are excluded if there is a conflict between the choice of auxiliary of  $V^1$  and  $V^2$ . This is true for both directional and positional PC. Note that the ban is not on interaction between telic and atelic verbs as such, but on conflicting auxiliaries:

- (78) a. *Peter lå og faldt i søvn* **PC**  
Peter lay and fell in sleep
- b. ?? *Peter har ligget og faldet i søvn* **PC**  
Peter has lain and fallen in sleep
- c. \* *Peter er ligget og faldet i søvn* **PC**  
Peter is lain and fallen in sleep
- (79) a. *Louise gik ud og hentede avisen* **PC**  
Louise walked out and fetched the.paper
- b. \* *Louise er gået ud og hentet avisen* **PC**  
Louise is walked out and fetched the.paper
- c. \* *Louise har gået ud og hentet avisen* **PC**  
Louise has walked out and fetched the.paper

Granting each verb its own auxiliary is not possible as seen from the ungrammaticality of (80) (and cf. (155) where I will use this to argue for the absence of the Asp-Domain above  $V^2$ ):

- (80) \* *Hvad er Louise gået ud og har hentet for aviser* **PC**  
What is Louise gone out and has fetched for papers

The only available option is for  $V^2$  to be an infinitive, an alternative only used for the periphrastic perfect, not for any other tenses. Here, the nature of [ɔ] is even more uncertain than in normal cases of PC:

- (81) a. *Louise er gået ud [ɔ] hente avisen* **(PC?)**  
Louise is walked out [ɔ] fetch.INF. the.paper
- b. ? *Hvad er Louise gået ud [ɔ] hente for en avis?* **(PC?)**  
What is Louise walked out [ɔ] fetch.INF. for a paper
- c. \* *Louise gik ud [ɔ] hente avisen* **(PC?)**  
Louise walked out [ɔ] fetch.INF. the.paper
- d. \* *Louise går ud [ɔ] hente avisen* **(PC?)**  
Louise walks out [ɔ] fetch.INF. the.paper

This option is not available to positional PCs:

- (82) a. \* *Peter har ligget [ɔ] sove* **(PC?)**  
Peter has lain [ɔ] sleep.INF.



- b. \* *Peter har ligget [ɔ] falde i søvn* (PC?)  
 Peter has lain [ɔ] fall.INF. in sleep

In (81)a. it may be that it is actually a non-finite purpose clause of the type mentioned in 2.4.1. The fact that this repair strategy is only applicable to directional PCs is a hint that this could be the case, but the ungrammaticality of (81) c. and d. speak against this assumption. Presently this is not crucial, the important observation is that the auxiliaries of  $V^1$  and  $V^2$  may not be in conflict, and if such a conflict arises, it is not possible to repair the construction by assigning each verb its own auxiliary. Again, this is evidence, that  $V^2$  is deficient; there is no position that would license an auxiliary of  $V^2$ .

## 4.2 Restrictions on $V^1$

### RESTRICTIONS ON SUBJECTS

The restrictions on subject selection in pseudo-coordination are determined by  $V^1$  which suggests that the matrix verbs are true thematic verbs and not auxiliaries merged directly into the functional structure of the clause. Thus for example, if  $V^1$  allows an inanimate subject in simplex constructions, the same subject may be part of pseudo-coordinations as well. Among the positional PC-verbs, *ligger* ‘lie’ *står* ‘stand’ and *sidder* ‘sit’ allow inanimate subjects. *Gå* ‘walk’ on the other hand does not:

- (83) a. *Bøgerne ligger på bordet*  
 The.books lie on the.table
- b. *Blomsterne står i vindueskarmen*  
 The.flowers stand in the.window.sill
- c. *Nøglen sidder i døren*  
 The.key sits in the.door

Consequently, the following PCs are also grammatical:

- (84) a. *Bøgerne ligger og roder på bordet* PC  
 The.books lie and make.a.mess on the.table  
 ‘The books are scattered on the table’
- b. *Blomsterne står og visner i vindueskarmen* PC  
 The.flowers stand and wither in the.window.sill
- c. *Nøglen sidder og ruster i døren* PC  
 The.key sits and rusts in the.door

In the examples in (84) the  $V^2$ s also allow nonagentive subjects, and in 4.2.1 I will show that it is indeed  $V^1$  that imposes the requirements on the subject by giving examples where the subject requirements of  $V^1$  and  $V^2$  are in conflict. This I take as evidence that even the internally simple positional verbs must be treated as main verbs and not, like modals, be assumed to be merged in a functional projection (such as  $Asp_{\text{progressive}}$ , cf. Cinque 1999: 99).

As for the directional pseudo-coordinating verbs, subject selection is even more restricted, in that they disallow inanimate subjects altogether, an exception being the non-literal use of  $gå$  + particle, in which case they are allowed. These verbs in turn are incompatible with pseudo-coordination:

(85)            *Lyset gik ud*  
The.light went out

(86)            *Smerten gik over*  
The.pain went over ‘the pain passed’

These examples may be almost idiomatic, yet there is also one very productive construction, namely the one mentioned in (28), consisting of  $gå$  + *hen* ‘go over/towards’, in which case the subject can be just about any category. I will deal with this construction in subsection 4.2.1.

Regular directional PC-verbs all have agentive subjects, while positional PC-verbs occasionally even allow inanimate subject. To sum this up in Ramchand’s terminology it means that  $V^1$  of PCs comes in two shapes; positional PC-verbs are non-agentive stative verbs: [ $v_{\text{be}}\text{P}$  [ $\text{ResP}$ ]] while directional PC-verbs must project the full structure, i.e. for the unaccusative ones [ $v_{\text{cause}}\text{P}$  [ $\text{ProcP}$  [ $\text{ResP}$ ]]] and [ $v_{\text{do}}\text{P}$  [ $\text{ProcP}$  [ $\text{ResP}$ ]]] for the others.

#### 4.2.1 Impersonal subjects

Danish has distinctive uses of the pronominally based impersonal subject *det* and the truly expletive, adverbially founded *der*. Weather verbs always use the pronominal *det* and are not allowed in pseudo-coordinations, neither positional nor directional:

- (87) a. \* *Det går og regner* **PC**  
It walks and rains

The same thing holds in general for constructions with impersonal subjects<sup>13</sup>:

- (88) a. *Det løb ham koldt ned ad ryggen*  
It ran him coldly down by the.back 'he got the chills'
- b. \* *Det gik og løb ham koldt ned ad ryggen* **PC**  
It walked and ran him coldly down by the.back
- (89) a. *Det sortnede for hans øjne*  
It blackened for his eyes 'he was blacking out'
- b. \* *Det gik og sortnede for hans øjne* **PC**  
It walked and blackened for his eyes

Thus, what we see here is that the subject requirements of V<sup>2</sup> (impersonal subject) and V<sup>1</sup> (personal subjects only) are in conflict and consequently pseudo-coordination is blocked.

#### THE EXCEPTION OF GÅ HEN 'WALK OVER'

As mentioned, *gå hen* 'walk over' differs radically from other directional pseudo-coordinations. It has one use which appears to be completely regular directional PC (as seen in (27) repeated here as (90)), and then another which is different (91).

- (90) *Hun går hen og lægger sig (på sengen)* **PC**  
She walks over and lies REFL (on the.bed)

This other use seems to be completely grammaticalised; there is no movement implied and syntactically it differs from regular directional PC in that it allows inanimate and impersonal subjects (and weather verbs) but disallows expletive subjects.

- (91) *Blomsterne gik hen og visnede* **PC**  
The.flowers went over and withered 'the flowers just died...'
- (*selvom jeg havde passet dem så omhyggeligt*)  
(even.though I had taken.care.of them so carefully)

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<sup>13</sup> Constructions with impersonal subjects are relatively rare in Danish, and the examples are rather idiomatic. Since we are dealing with subjects here, it should however not influence the grammaticality.

- (92) *Det gik hen og regnede på hendes bryllupsdag* **PC**  
 It went over and rained on her wedding.day  
 (selvom hun havde håbet på sol)  
 (even.though she had hoped for sun)

This is also what happened in the case of (28), repeated here as (93).

- (93) *Han gik hen og døde* **PC**  
 He went over and died 'he just died (suddenly)'

This example is ambiguous, it may either be interpreted as a regular directional pseudo-coordination, in which the subject moves to a different location before carrying out the action of  $V^2$ , or, more likely in this case, that the action in  $V^2$  happened unexpectedly (which is why I chose to translate *gå* in these example with 'go' and not 'walk'). Although there is an animate object, it is an unaccusative use of the verb, there is no *walking* or *going* taking place at all. In conclusion, in this particular use of the verbs *gå* is a lot more grammaticalised than when it stands on its own or with any other particle and it is also more grammaticalised than any of the other PC-verbs.

A very similar phenomenon was observed for English by Carden & Pesetsky (1977) in their paper on "fake coordination". They distinguish two usages of "go and V", one which is similar to ordinary directional PC and one which they refer to as the "unexpected-event reading" (Carden & Pesetsky 1977: 89). The difference between the two is illustrated by the contrast between the a. and b. examples of (94):

- (94) a. ?? As we had arranged, the President went and addressed the graduating class.  
 b. To our amazement, instead of addressing the graduating class, the President went and harangued the janitors.

While the a. -example is not ungrammatical, it is strongly degraded. Carden & Pesetsky assume that the underlying structure of this construction is different from that of other "fake" coordinations, as it does not obey "the bare stem condition", assumed by Carden & Pesetsky for pseudo-coordination, i.e. it appears in an inflected past tense.

I will not propose an actual analysis for the unexpected event reading of PC with *gå hen*. Supposedly the inflectional copying mechanism is the same, but whether *gå* is to be



overt pronominal subject of  $V^2$ , however, as the c.-example shows, if the subject of  $V^2$  is left out and the expletive has to be the subject of both verbs, the result is ungrammatical.

- (98) a. *Der arbejder en mand og han skærer løg*  
 There works a man and he cuts onions
- b. \* *Der arbejder en mand og skærer løg*  
 There works a man and cuts onions

(99) on the other hand, is perfectly grammatical.

- (99) *Der står en mand og skærer løg* **PC**  
 There stands a man and cuts onions

This is a very strong argument that pseudo-coordinations are radically different from ordinary coordinations. In order to license an expletive subject there must be an extra subject position, one that is standardly assumed to be missing in transitive verbs in those languages that disallow TECs. What we see is that the subject requirements of  $V^2$  in PC does not influence the availability of an expletive subject.

It appears that there is a cross-linguistic negative correlation between the occurrence of TEC and pseudo-coordination, such that one excludes the other. Based on this, the Germanic languages can be divided into two classes (Vikner 1995, de Vos 2005):

|       |      |              |   |
|-------|------|--------------|---|
| + TEC | - PC | strong infl. | German, Dutch, Frisian, Icelandic, Yiddish              |
| - TEC | + PC | weak infl.   | Danish, Norwegian, Swedish, Faroese, English, Afrikaans |

Most noticeable here are Icelandic and Afrikaans. The fact that they show a different behaviour than the languages they otherwise pattern with, indicate that the correlation is not arbitrary. It furthermore indicates that it is not a direct consequence of the SOV/SVO-difference. There does however seem to be a pattern concerning (lack of) inflectional morphology. Vikner's (1999: 105) definition of strong inflectional morphology is the following: I) SVO-languages: Inflection for person in all tenses and II) SOV-languages: a) no inflection for tense without inflection for person and + b) inflection for person in all tenses. With this definition, the above grouping is covered, if still unexplained.

Regarding expletive subjects there is an interesting contrast between Danish and Norwegian on the one hand and Swedish on the other.

Like Danish, neither Norwegian nor Swedish usually allow TECs, but have no problems with expletive subjects for intransitive verbs. Note that both languages have a pronominally based expletive *det* ‘it’ while Danish has an adverbially based *der* ‘there’. Still, Norwegian patterns completely with Danish, thus this cannot be a determining factor.

- |          |    |  |                  |
|----------|----|--|------------------|
| (100) a. | *  | <i>Det leser en mann en bok</i>                | <b>Norwegian</b> |
| b.       | *  | <i>Det läser en man en bok</i>                 | <b>Swedish</b>   |
|          |    | It reads a man a book                          |                  |
| (101) a. |    | <i>Det kommer noen!</i>                        | <b>Norwegian</b> |
| b.       |    | <i>Det kommer någon</i>                        | <b>Swedish</b>   |
|          |    | It comes someone                               |                  |
| (102) a. |    | <i>Det sitter en mann og drikker kaffe</i>     | <b>Norwegian</b> |
| b.       | *  | <i>Det sitter en man och dricker kaffe</i>     | <b>Swedish</b>   |
|          |    | It sits a man and drinks coffee                |                  |
| c.       | ?? | <i>Det går ut en kvinna och ser till maten</i> | <b>Swedish</b>   |
|          |    | It walks out a woman and saw to the.food       |                  |

The ungrammaticality of (102)b. and c. is unexpected but a possible explanation could be that in Swedish, the pseudo-coordination must be unambiguous. This I base on the fact that for both positional and directional PC, an expletive subject is allowed if a locative/directional expression is added (Maia Andreasson, p.c.):

- |          |  |  |                |
|----------|--|--|----------------|
| (103) a. |  | <i>Det sitter en man i vardagsrummet och dricker kaffe</i> | <b>Swedish</b> |
|          |  | It sits a man in the.living.room and drinks coffeee        |                |
| b.       |  | <i>Det gick ut en kvinna i köket och såg till maten</i>    |                |
|          |  | It walked out a woman in the.kitchen and saw to the.food   |                |

Because manner is incompatible with result, when a directional expression is added, a manner-reading of the motion verb is not available. The same thing holds for positional PC; if a locative expression is added, the positional verb is necessarily interpreted as expressing position and not posture. Why Swedish differs from Norwegian and Danish in this requirement, I leave an open question.

Pseudo-coordination is highly productive in Danish, yet there are quite a few restrictions on the construction. Among other things these restrictions apply to what kind of verbs that are allowed as matrix verbs (4.2.3), as main verbs (4.3.1), and as to what kind of adjuncts/arguments that may be connected with either verb (4.2.4 for V<sup>1</sup> and 4.3.2 for V<sup>2</sup>).

### 4.2.3 Verb selection

Only intransitive verbs may function as V<sup>1</sup> in pseudo-coordinations. There are a few cases in which a transitive verb appears to head a PC, but I will show that this is not the case. These apparent exceptions are reflexive verbs and *tage* ‘take’ (which I deal with separately in 4.5).

PC-verbs fall into two classes, and while the differences between the two are quite clear (telicity being the determining factor), I will also try to establish why only some verbs are allowed to be PC-verbs.

#### POSITIONAL PC

Only very few verbs are allowed as V<sup>1</sup>s of positional PC, the core ones being *sidde* ‘sit’, *stå* ‘stand’, *ligge* ‘stand’, *gå* ‘walk’. A few other verbs may be allowed, although their use is much more context-dependent and they often require an element like *rundt* ‘around’ to emphasise their non-directional use (in the example (104) the verb *rende* has a non-literal reading):

- (104) a. *Hun render rundt og tænker på alt muligt pjank* **PC**  
 She runs around and thinks about all possible nonsense  
 ‘She only has nonsense on her mind’
- b. ? *Hvad render hun rundt og tænker på?* **PC**  
 What runs she around and thinks about
- (105) a. *Han løber rundt og sparker til en bold* **PC**  
 He runs around and kicks at a ball
- b. *Hvad løber han rundt og sparker til?* **PC**  
 What runs he around and kicks at

#### DIRECTIONAL PC

Compared to the positional PC-verbs, there is a much larger flexibility with respect to the choice of matrix verb for directional PC; all verbs that denote a change of position may enter directional pseudo-coordinations. Even low-frequent verbs indicating a very



specific manner of motion are allowed (although perhaps slightly degraded (106)). Common to the directional PC-verbs compared to the positional ones is that they always contain either a telicity-inducing particle or a reflexive pronoun.

- (106) a. *Peter hinkede ud og hentede posten* **PC**  
 Peter hopped.on.one.leg out and fetched the.mail
- b. ? *Hvad hinkede Peter ud og hentede?* **PC**  
 What hopped.on.one.leg Peter out and fetched?
- (107) *Hvad lagde hun sig og læste for en bog?* **PC**  
 What laid she REFL. and read.PRET. for a book

#### 4.2.4 Augmentations of V<sup>1</sup>

In cases of proper coordination, both V<sup>1</sup> and V<sup>2</sup> allow a great variety of arguments and adverbials modifying both conjuncts or either one of them:

- (108) a. *Hun synger i et kor og spiller i to bands*  
 She sings in a choir and plays in two band
- b. *Hun drikker aldrig cola og spiser sundt*  
 She drinks never coke and eats healthy.ADV.
- c. *Formentligt laver hun mad og gør rent i dag*  
 Probably makes she food and makes clean today  
 ‘Probably she’ll cook and clean today’

In (108)a. two different circumstantial PPs modify a verb each and this interpretation is the only one available. In b. an adverb modifies the second verb (and the second verb only) while the negation above the first verb is ambiguous between having scope over just the higher or over both verbs. Proper coordinations may take place at a rather high level (CP) or lower, and therefore both verbs are allowed a variety of modifications. In c. there are a sentential adverb ‘probably’ and a temporal PP ‘today’ which both have scope over both verbs. ‘Probably’ is a high adverb in the (1999: 11) Cinquean sense while ‘today’ is circumstantial.

Thus we see that ordinary coordinations allow adverbs to have either narrow or non-narrow scope depending on the context and the level at which the conjuncts are coordinated.

**POSITIONAL PC**

In pseudo-coordinations, the use of adverbials is restricted. If an adverbial is semantically or syntactically only applicable to one verb, it will cause the construction to lose its aspectual meaning, forcing a reading of ordinary coordination.

- (109) a. \* *Hvad gik hun hurtigt og tænkte på* **PC**  
 What walked she fast and thought about
- b. \* *...at hun ligger i bilen og kører til Vejle hver dag* **PC**  
 ...that she lie in the.car and drive to Vejle every day

The ungrammaticality of (109) contrasts with (110) and (111) which are grammatical. In the a. example the problem could be that an adverb must be able to modify both verbs and since *hurtig* cannot modify *tænke* (at least not in the common usage of the word), there is a semantic mismatch. The b. example could lead one to the erroneous conclusion that locative expressions are not allowed but the problem is a different one and one that relates to this particular non-literal usage of *ligge*; while one may ‘lie in the car’ this can only be understood quite literally and not as an instrumental ‘drive the car’, which would have required an indefinite NP, i.e. in Danish ‘you drive in car’. In both cases, a PC-reading is not available/grammatical.

Adverbials that are able to modify both verbs are positioned higher than the finite verb, the exception being circumstantial (e.g. local) PPs/AdvPs, as in (110). These adverbials obligatorily have scope over both verbs. The important point here is that adverbials in positional PC always have scope over the entire verbal complex.

- (110) a. *...at hun ligger i sengen og tænker på skolen*  
 ...that she lies in bed.the and thinks about school.the
- b. *...at hun ligger hjemme og tænker på skolen*  
 ...that she lies at.home.LOC and thinks about school.the
- (111) a. *...at hun lige/bare sidder og læser*  
 ...that she just/just sits and reads
- b. *...at hun aldrig/ikke sidder og læser*  
 ...that she never/not sits and reads

- c.       ...at *hun dagligt ligger og kører til Vejle*  
           ...that she daily lies and drives to Vejle
- d.       ...at *hun hver dag ligger og kører til Vejle*  
           ...that she every day lies and drives to Vejle

Two kinds of adverbials show a particular behaviour, namely locative/directional expressions and manner adverbs. If we take up (109)b. again but change the PP to a locative expression compatible with both verbs the result is grammatical:

- (112)       ...at *han ligger på motorvejen og kører til Vejle*  
           ...that he lies on the.motorway and drives to Vejle

In this context *ligge* is not the most illustrative example as its usage is non-literal. If we look at the regular usages we find that locative expressions are always possible, and probably even preferred:<sup>14</sup>

- (113)       *Hvad sidder Peter i haven og læser?*  
           What sits Peter in the.garden and reads?

The positional verbs *sidde*, *ligge*, *stå* being stative, they only combine with locative expressions, although for *gå* ‘walk’, directional expressions should in principle be possible too. As it turns out, these are grammatical but not compatible with a progressive reading. Instead they are turned into directional PCs:

- (114) a.       *Hvad går Peter nede i byen og laver*       **Pos PC**  
           What walks Peter down.LOC in the.town and does  
           ‘What’s Peter doing in town?’
- b.   #   *Hvad går Peter ned i byen og laver*       **Pos PC**  
           What walks Peter down.DIR in the.town and does  
           ‘What will Peter go do in town’

Trivially assuming that positional verbs (including non-telic verbs of movement, as I consider these dynamic positional verbs) have a semantic feature which could be labelled

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<sup>14</sup> This is not the case when extraction takes places; here focus is perforce on the object and location becomes less interesting. Still I will use examples with the embedded object extracted to make sure only a PC-reading is available.

something like [+position], it is not at all surprising that they are always compatible with locative expressions which have that very same feature.

*Køre rundt* ‘drive around’ can also be used as a positional PC-verb and with this verb we have the advantage that it can be transitive, i.e. you can drive someone around. In its transitive usage it is however incompatible with PC. Presumably because, as a transitive verb, *køre rundt* is semantically too heavy:

- (115) a. \* *Hvad kørte hun rundt og tænkte på?*  
 What drove she around and thought about
- b. \* *Hvad kørte hun ham rundt og tænkte på?*  
 What drove she him around and thought about

As for manner-of-posture, my claim is that all positional verbs exist in (at least) two varieties; one specified for manner, one unspecified (or with a latent semantic manner feature). I claim that, in most usages, manner is not specified on these verbs, even if it looks as if it were. Compare the difference between Romance and Germanic verbs of position and motion where roughly speaking, Romance languages have verbs of directed motion and Germanic languages have manner-of-motion verbs (see e.g. Zubizarreta & Oh 2007), and while Romance languages do have manner-of-motion verbs too, to my knowledge the only verb German has of directed motion without any element of manner is *(an)kommen* ‘arrive/come’. Considering that it has often been argued (see e.g. Levin & Hovav (2008)) that manner and result are in complementary distribution, it is not unreasonable to suggest that the manner-component of positional verbs is repressed when position as opposed to posture is the intended reading<sup>15</sup>. It is fairly banal to say that telic verbs of motion are resultative, yet I also claim that this holds for States, and hence for positional verbs. Or rather one could say that resultant states and inherent states are very similar (and I will discuss this claim again in 4.4). Due to the parallel between the achieved state of a resultative verb and the unchanging state of inherently stative verbs, I claim that positional verbs are in fact bare Result Phrases (i.e. without InitP and ProcP). To capture this similarity, it might make more sense to exchange the term Result Phrase

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<sup>15</sup> There are those who have argued against this generalisation, e.g. Koontz-Garboden & Beavers (2009), but even if it is not a strict generalisation, it remains a strong tendency.

for State Phrase, however, to avoid terminological confusion, I will continue to use Ramchand's term ResP.

Explication of manner can be triggered either by the context (a "how-question") or by manner adverbs. As can be seen in the following examples, pseudo-coordination is not available, when the manner component is activated. "How-questions" may however relate to the second verb, as illustrated by (117):

- (116) **Q:**            *Hvordan sidder Peter og læser?*  
                       How        sits        Peter and reads
- A:**    \*    *Han sidder godt*  
   He    sits        comfortably
- (117)                *Peter går og friserer sig hele tiden*  
                           Peter walks and combs.hair REFL all the.time  
                           'Peter is combing his hair all the time'
- Q:**            *Hvordan går Peter og friserer sig hele tiden?*  
                           How        walks Peter and combs.hair REFL all the.time
- A1:**            *Med en kam*  
   With a    comb
- A2:**    \*    *Med gummistøvler på*  
   With rubber.boots    on
- (118)                \*    *Peter går stærkt og tænker*  
                           Peter walks strongly (fast) and thinks
- \*    *Hvad går Peter stærkt og tænker på?*  
   What walks Peter strongly and thinks about

The adverb *stærkt* used in (118) is very illustrative as its basic meaning is 'strong' and not 'fast'. The default meaning is not compatible with *gå* and the alternative meaning is only available with motion verbs and hence it is incompatible with V<sup>2</sup>. Hence either usage of the adverb is incompatible with one or the other verb and the result is ungrammaticality. I draw the conclusion that "manner" is incompatible with PC, and that the verbs involved in pseudo-coordination are light versions of themselves.

**DIRECTIONAL PC**

In positional PC,  $V^1$  is always an intransitive verb and as such it will never need to have an internal argument; in this respect, directional PC-verbs differ in that they have the option of having a nominal argument of their own. Yet in PCs, this is highly restricted. Only when the object is a reflexive pronoun is it allowed to pseudo-coordinate, as can be seen from the following contrast, between (119)b. and (120)b.:

- (119) a. *Hun lagde sig på sengen og læste sin bog*  
 She laid REFL on the.bed and read her book
- b. *Hvad lagde hun sig på sengen og læste?*  
 What laid she REFL on the.bed and read
- (120) a. *Hun lagde barnet på sengen og læste sin bog*  
 She laid the.child on the.bed and read her book
- b. \* *Hvad lagde hun barnet på sengen og læste*  
 What laid she the.child on the.bed and read

In a scenario where e.g. a disabled person lies himself down by means of an aid, we could insert the strong reflexive pronoun *sig selv* ‘him/herself’, i.e. a reflexive pronoun which receives a  $\theta$ -role from  $V1$ . In such a case, PC is ungrammatical.

- (121) *Hvad lagde han sig selv og læste?*  
 What laid he refl self and read

This means that in (119) there cannot be any  $\theta$ -role assignment and thus the presence of a reflexive pronoun does not mean that  $V^1$  may be transitive (cf. Vikner 1985: 13). Whatever the exact internal structure of these verbs be, the crucial point is whether the internal argument receives a  $\theta$ -role or not.

While the positional verbs either denote a stationary position or (in the case of *gå*) movement within a limited space, the directional verbs are all telic and denote a change of location, the archetypal examples being *komme* ‘come’ and *gå hen/over/ud/ind* ‘go towards/over/out/in’.

More often than not, after these verbs, a directional specification will occur, usually in the shape of a PP or an AdvP. This is parallel to the locative specifications of positional

PC, and similarly here only directional expressions are licensed, as locative expressions will force a positional PC-reading.

- (122) ? *Hvad gik Peter ind i huset og hentede for aviser?* PC  
 What went Peter in.DIR. in the.house and fetched for papers

Usually, circumstantial adverb like expressions of location are assumed to be adjuncts as they create islands for extraction. However, motion verbs cannot usually stand alone, suggesting that they may have locative/directional expressions for complements.

Directional expressions relating to directional PC allow us to draw a conclusion we could not for positional PC. When a locative expression is added to positional PC, the scope of it cannot be tested as the locative expression may relate to either one or to both verbs. This is different in directional PC. In Danish, certain locational adverbs differ depending on whether they are directional or locative and here it becomes unambiguous that the directional expression relates to V<sup>1</sup>:

- (123) *Hvad går Peter hjem og spiser?*  
 What walks Peter home.DIR and eats

In (123), *hjem* can only relate to *gå*, in a simplex clause with ‘eat’ the locative variant *hjemme* would be required. However, I assume that motion verbs may take their path as a complement, not as adjuncts, and as such this is not evidence that the structure is biclausal. Rather, it is evidence that the internal structure of directional PC-verbs is allowed to be relatively complex.

Parallel to positional PC, directional PC-verbs may not be specified for manner. If the manner component is triggered, pseudo-coordination becomes ungrammatical:

- (124) a. \* *Hvad gik Peter stærkt ind og hentede?*  
 What walked Peter strongly (fast) inside.DIR and fetched
- b. \* *Hvad gik Peter til fods ud og købte?*  
 What walked Peter on foot out and bought

What these data tell us is first of all that also with respect to adverbials, do positional and directional PC behave the same way. They differ in whether they allow directional or locative expressions, but this can easily be derived from their semantics. We have addi-

tional confirmation that PC-verbs are light(er) verbs and that specifically the manner component is incompatible with pseudo-coordination.

### CINQUE'S FUNCTIONAL PROJECTIONS

I will now turn to Cinque's (1999, 2004, 2006) functional hierarchy which has the advantage that it provides a means to determine the presence or absence of functional projections. Having demonstrated that  $V^1$  is a regular thematic verb and not an auxiliary merged directly in a functional head, I trivially assume that it projects the entire range of Aspectual, Modal and Temporal projections. The projections Voice and the few projections below it do however make up the (semi-)lexical domain (vP/VP) and as the realisation of these very low adverbs seems to be dependent on specific phrases being present verb-internally, Cinque's adverbial hierarchy can give some insights into the nature of  $V^1$ . Cinque himself is in fact not too explicit about it, but since Voice is the head connected to the passive, I take it to be the one corresponding to little *v*. He says even less about the projections below Voice, and hence I will try to establish how these projections relate to verb-internal structure. This piece of the hierarchy looks like this (Cinque 1999: 106):

(125) [Voice [Asp<sub>celerative(II)</sub> [Asp<sub>repetitive(II)</sub> [Asp<sub>frequentative(II)</sub> [Asp<sub>sg.Completive(II)</sub>

Recall from the introduction that I apply Folli & Harley's (2005, 2007) flavours of little *v* and further distinguish a third kind, such that we get  $v_{do}$ ,  $v_{cause}$  and  $v_{be}$ . Positional PC-verbs being stative then project a  $v_{be}$  while the agentive directional PC-verbs project a  $v_{do}$  or a  $v_{cause}$ .

As for the Asp<sub>celerative(II)</sub>, it seems to be related manner-of-process of the verb and as such it cannot occur with even simplex positional verbs, and its activation blocks directional pseudo-coordination:

- (126) a. \* *Peter sad hurtigt*  
Peter sat quickly
- b. \* *Hvad satte Peter sig hurtigt og læste?*  
What sat Peter REFL quickly and read

Asp<sub>repetitive(II)</sub>, I understand to be the projection that hosts restitutive *igen* 'again' and we would not expect any difficulties when inserting it, however, as illustrated in (127), this



is ungrammatical. That this projection is verb-internal is confirmed by the fact that in Danish, on some verbs, restitutive ‘again’ be expressed by the prefix *gen-* which corresponds to English *re-*. Nevertheless, as we can see from the b.-example, *gen-* ‘re-’ cannot attach to *sidde* in a simplex usage, even if semantically it ought to be possible:

- (127) a. \* *Hvad sad han igen og læste for en bog?* **Restitutive**<sup>16</sup>  
 What sat.PRET. he again and read for a book
- b. \* *Han gensad på stolen*  
 He resat on the.chair

This suggests that  $\text{Asp}_{\text{repetitive(II)}}$  (Cinque 1999: 114) is connected to a phrase which is higher than ResP (as I assume that stative verbs are bare ResP’s).

Directional PC-verbs differ slightly from the positional ones with respect to verb-internal modification. The first difference concerns restitutive readings of  $V_1$ . These are possible, even if the restitutive prefix is not:

- (128) a. *Hvad satte Peter sig igen og læste?*  
 What sat.PRET. Peter REFL again and read.PRET.
- b. \* *Peter gensatte sig.*  
 Peter resat REFL.

As I argue that directional PC-verbs project the full verb-internal structure [InitP [ProcP [ResP]]] and according to Cinque, the  $\text{Asp}_{\text{repetitive(II)}}$  is the second-highest verb-internal projection, it is not surprising that the restitutive reading is available. I cannot determine the exact location of  $\text{Asp}_{\text{repetitive(II)}}$  but it seems an educated guess that it is connected to ProcP. Without a process, there can be no distinction between repetitive and restitutive ‘again’.

$\text{Asp}_{\text{frequentative(II)}}$  also seems incompatible with PC-verbs, at least I am unable to get any other reading of (129) than a high frequentative adverb with scope over both verbs:

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<sup>16</sup> The sentence is grammatical, but only if *igen* ‘again’ has scope over both verbs.

- (129) a. # *Hvad sad Peter ofte og læste?*  
 What sat Peter often and read
- b. # *Hvad satte Peter sig ofte og læste?*  
 What sat Peter REFL often and read

Asp<sub>completive(II)</sub>, I would speculate corresponds to a resultative event, and hence we would expect it to be compatible with positional verbs. This is however not the case.

- (130) \* *Hvad sad Peter helt og læste?*  
 What sat.PRET. Peter completely and read.PRET.

Such completive adverbs are much better with directional PC-verbs, and so this may be a difference between resultative states and inherent states. Specifically, as I will get back to in the chapter on IPP, I assume that the Asp<sub>completive(II)</sub> is dependent on the presence of a Process Phrase. Only when there is a change, does it make sense to express whether the change is complete or not.

Nevertheless, with directional PC-verbs and Asp<sub>completive(II)</sub>, we encounter the same problem as we did with positional PC-verbs. Semantically they are simply incompatible with adverbs of completion, even if one completely discards cases with PC. Possibly this is because the Asp<sub>completive(II)</sub>P equals the ResP, and hence two elements compete for the same position; Spec-ResP:

- (131) a. \* *Han gik fuldstændigt ud*  
 He walked completely out
- b. \* *Han satte sig fuldstændigt /helt*  
 He sat REFL completely /wholly

In other words, what we see is that verb-internal modification is highly restricted, particularly for positional PC, and slightly less so for directional PC.



The only way to rescue this construction is by insertion of a particle such as *bare* ‘just’ or ‘only’<sup>17</sup>. This ensures that the repetitive/emphatic coordination (De Vos 2005) is blocked and it turns the second *ligger* into a process verb instead of a state.

- (135) ? *Jeg ligger bare og ligger*  
 I lie just and lie ‘I am just lying (here)’

It is however not only PC-verbs that are blocked from pseudo-coordinations. Due to the fact that V<sup>1</sup> has its own lexical content which must be respected, generally verbs of position and to an even larger extent, verbs of movement, are blocked. It is however not in the nature of these verbs themselves, logically, nothing should prevent a verb of movement to be progressive, but a consequence of the specific configuration of pseudo-coordination. For these verbs there is another strategy, but this will be treated in chapter four which deals with motion verbs more generally.

Furthermore, verbs that resist a progressive reading due to their own semantics are also blocked from pseudo-coordinations. Hence, strictly punctual verbs are thus ruled out, unless they allow an iterative reading (as in (136)b.), and so are proper stative verbs.

- (136) a. \* *Ballonen ligger og springer* **PC**  
 The.balloon lies and explodes
- b. *Ballonerne ligger og springer* **PC**  
 The.balloons lie and explode  
 ‘the balloons were exploding’ (i.e. one after the other)
- (137) \* *Peter sidder og ved en hel masse* **PC**  
 Peter sits and knows a whole mass ‘Peter knows a lot’

#### **DIRECTIONAL PC**

Just as positional PC disallows V<sup>2</sup>s that reject a progressive reading, directional PCs do not allow verbs that cannot have an inchoative reading, thus states cannot be complements of directional PC, but punctual verbs can.

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<sup>17</sup> Admittedly, this example is not likely to appear, but this is due to pragmatics. As positional PC-verbs only express states and not active activities they are not likely to be referred to as such. In a relevant context it is however perfectly grammatical, e.g. it would be an appropriate answer to the question: “Are you asleep, yet?”

- (138) *Peter gik ud og eksploderede* **PC**  
 Peter walked out and exploded 'Peter threw a fit'
- (139) \* *Peter går ud og ved en hel masse* **PC**  
 Peter walks out and knows a whole lot

### 4.3.2 The functional domain of V<sup>2</sup>

In the following I want to establish the possibilities of modifying V<sup>2</sup> and thereby attempt to establish the exact size of V<sup>2</sup> in terms of Cinque's (1999) functional projections. While a variety of material may follow V<sup>2</sup>, circumstantial and non-circumstantial adverbials alike, these always have scope over both verbs, i.e. they must be merged in the functional domain of V<sup>1</sup>. Only modification below vP can have narrow scope. For convenience, I repeat here from the introduction, the functional hierarchy that I base my investigation on (Cinque 1999: 106):

- (140) [Mood<sub>speech act</sub> [Mood<sub>evaluative</sub> [Mood<sub>evidential</sub> [Mod<sub>epistemic</sub> [T(Past) [T(future) [Mood<sub>irrealis</sub> [Mod<sub>necessity</sub> [Mod<sub>possibility</sub> [Asp<sub>habitual</sub> [Asp<sub>repetitive(I)</sub> [Asp<sub>frequentative(I)</sub> [Mod<sub>volitional</sub> [Asp<sub>celerative(I)</sub> [T(anterior) [Asp<sub>terminative</sub> [Asp<sub>continuative</sub> [Asp<sub>perfect</sub> [Asp<sub>retrospective</sub> [Asp<sub>proximative</sub> [Asp<sub>durative</sub> [Asp<sub>generic/progressive</sub> [Asp<sub>prospective</sub> [Asp<sub>SgCompletive(I)</sub> [Asp<sub>PICompletive</sub> [Voice [Asp<sub>celerative(II)</sub> [Asp<sub>repetitive(II)</sub> [Asp<sub>frequentative(II)</sub> Asp<sub>SgCompletive(II)</sub>

#### POSITIONAL PC

##### THE MOD-DOMAIN (EPISTEMIC + ROOT):

Modal verbs cannot be embedded in positional PC, regardless of the reading. It is to be noticed that epistemic modal verbs are obligatorily finite (as I will return to in the chapter on IPP), however this requirement is met in (138), and hence this cannot explain the ungrammaticality. Despite the fact that some of the epistemic projections are above T, I will treat them together with the lower epistemic as well as the root modals; the outcome is always ungrammatical. I show here only two examples, but the same holds for other modals:

- (141) a. \* *Hvad sidder Peter og vil lave*  
 What sits Peter and wants/will.FUT.AUX. do.INF.

- b. \* *Hvad sidder Peter og må lave*  
 What sits Peter and may.PERMISSIVE/must.NECESSITY do.INF.

### THE T-DOMAIN:

Given that the two verbs in a PC must always display identical inflection, we have a sound indication that V<sup>2</sup> does not have its own TP. We can back up this suspicion by showing that the two verbs are temporally dependent and cannot have separate time adverbials:

- (142) a. \* *Hvad sad Peter i sidste uge og læste i går?*  
 What sat.PRET. Peter in last week and read.PRET. yesterday
- b. \* *Hvad vil Peter sidde nu og læse i morgen?*  
 What will Peter sit.INF. now and read.INF. tomorrow

### THE ASP-DOMAIN

The next section of functional projections is the aspectual domain. Here the main test is for perfective verbal complements. These are also not allowed in pseudo-coordinations:

- (143) \* *Hvad sidder Peter og har læst for en bog?*  
 What sits Peter and has read.PAST.PART. for a book

Although adverbials provide less solid evidence, we can demonstrate that these cause problems too. First some of the high adverbs, which are ungrammatical regardless whether the adverbs are pre- og post-verbal:

- (144) a. \* *Hvad sidder Peter og stadig læser for en bog?*  
 What sits Peter and still reads for a book
- b. \* *Hvad sidder Peter og læser stadig for en bog?*  
 What sits Peter and reads reads for a book
- (145) a. \* *Hvad sidder Peter og med vilje tegner på bordet?*  
 Hvad sits Peter and intentionally draws on the.table
- b. \* *Hvad sidder Peter og tegner med vilje på bordet?*  
 Hvad sits Peter and draws intentionally on the.table

The functional projection immediately above Voice is Asp<sub>completive(II)</sub>. An adverb of completion may however not modify V<sup>2</sup> in positional PC.

- (146) \* *Hvad sad Peter og læste færdig for en bog?*  
 What sat Peter and read to.the.end for a book

Hence it would seem that the entire Modal, Temporal and Aspectual domain of  $V^2$  is missing

### THE VOICE-DOMAIN (VP)

Implicitly, I have shown several times that verbs with agentive subjects are allowed as the complement of a PC-verb, which would indicate the presence of a vP. Furthermore, passives may be embedded too, given of course, that an appropriate  $V^2$  is chosen. According to the hypothesis of flavours of little v, passives project  $v_{\text{cause}}$ 's, meaning that both  $v_{\text{do}}$ 's and  $v_{\text{cause}}$ 's may be embedded under positional PC-verbs. Obviously, we can no longer extract an object as the passive only has a subject but the progressive reading is obvious.

- (147) *Peter sidder og bliver fotograferet.*  
 Peter sits.PRES. and PASS.AUX.PRES. photographed

If the embedded passive has an additional prepositional object, this may be extracted:

- (148) *Hvad sad Peter og blev hørt i?*  
 What sat.PRET. Peter and pass.AUX.PRET. heard in  
 'What was Peter being examined in?'

The possibility of embedding passives under positional verbs confirms that a vP is present in the complement. There is a restriction on passive verbal complements as well as on active ones; they must be compatible with a progressive reading. Passives of States and punctual verbs are therefore not licensed:

- (149) a. \* *Hun sad og blev hadet af sin mand.*  
 She sat and PASS.AUX. hated by her husband  
 b. \* *Hun stod og blev set af sine fans.*  
 She stood and PASS.AUX. seen by her fans

### ASP<sub>repetitive</sub>(II)

A restitutive reading of 'again' is, not unexpectedly, possible in pseudo-coordinations. Even the restitutive prefix *gen-* 're-' is allowed, given that the lower verb is of a kind that allows for it

- (150) *Hvad sad Peter og genforhandlede for en kontrakt?*  
 What sat Peter and renegotiated for a contract?  
 ‘Which contract was Peter renegotiating?’

For unknown reasons, restitutive *igen* ‘again’ seems to create an island, such that it is not possible to do a *what-for* split of the object. Possibly, these are independent reasons; with a simple object extraction, the sentence is grammatical and the progressive reading is not altered:

- (151) a. *Hvad sidder Peter og (\*igen) forhandler for en kontrakt (\*igen)*  
 What sits Peter and again negotiate for a contract again
- b. *Hvad for en kontrakt sidder Peter og forhandler igen?*  
 What for a contract sits Peter and negotiates again

I will now draw the conclusion that the complement of a positional PC-verb is maximally a vP, either a  $v_{do}$  or a  $v_{cause}$ .

#### **DIRECTIONAL PC**

As was the case with positional PC, a number of adverbials, circumstantial and others, in Danish occur clause-finally, and hence we cannot immediately see whether such adverbs have scope over both verbs or only over  $V^2$ . There is however one way we can test this. Since  $V^1$  of directional PC is a perfective verb, we would not expect it to be compatible with durative adverbs. As PCs of a perfective and an imperfective verb are not ruled out on principled grounds, if a durative adverb under PC were acceptable, we could assume that it would only have scope over the lower, imperfective verb. As illustrated here, this is not the case:

- (152) b. \* *Hvad gik Peter ud og læste i mange timer?* **PC**  
 What walked Peter out and read in many hours

Now I will turn to a more systematic investigation of the functional domain of  $V^2$  in directional PC and I will show that by all appearances the verbal complement has the same structure as in positional PC, i.e. it is a  $v_{do}P$  or a  $v_{cause}P$ . As it could be the case that a motion verb + directional particle would behave differently from the telic positional verbs involving reflexive pronouns, in the following examples, I will show what applies to both kinds of verbs.



**THE MOD-DOMAIN (EPISTEMIC + ROOT):**

As was the case with positional PC, modal verbs may not be embedded under directional PC-verbs. Again I test for the epistemic and the root modal projections simultaneously.

- (153) a. \* *Hvad sætter Peter sig og vil lave?*  
 What sits Peter REFL. and wants/will.FUT.AUX. do.INF.
- b. \* *Hvad går Peter ud og må lave?*  
 What walks Peter out and may.PERMISSIVE/must.NECESSITY do.INF.

**THE T-DOMAIN:**

Given the fact that with directional PC, the two verbs do not express that simultaneous but consecutive actions, we might expect that  $V^2$  has a  $T^\circ$ . However, the temporal dependence remains and  $V^2$  must follow immediately after  $V^1$  (and presupposes  $V^1$ )

- (154) a. \* *Hvad satte Peter sig i sidste uge og læste i går?*  
 What sat.PRET. Peter REFL. in last week and read.PRET. yesterday
- b. \* *Hvad vil Peter gå ud nu og læse i morgen?*  
 What will Peter walk.INF. out now and read.INF. tomorrow

**THE ASP-DOMAIN**

Here I will test for the presence of the aspectual domain of  $V^2$ . Again, the first test I apply is that of embedding a verb in the perfect tense and again, we see that these are disallowed.

- (155) a. \* *Hvad sætter Peter sig og har læst for en bog?*  
 What sits Peter refl and has read.PAST.PART. for a book
- b. \* *Hvad går Peter ud og har læst for en bog?*  
 What walks Peter out and has read.PAST.PART. for a book

Aspectual adverbs are also not licensed, regardless whether they occur before or after the lower verb:

- (156) a. \* *Hvad sætter Peter sig og stadig læser for en bog?*  
 What sits Peter REFL and still reads for a book
- b. \* *Hvad sætter Peter sig og læser stadig for en bog?*  
 What sits Peter REFL and reads still for a book

- (157) a. \* *Hvad går Peter ud og stadig læser for en bog?*  
 What walks Peter out and still reads for a book
- b. \* *Hvad går Peter ud og læser stadig for en bog?*  
 What walks Peter out and reads still for a book
- (158) a. \* *Hvad sætter Peter sig og med vilje tegner på bordet?*  
 Hvad sits Peter REFL. and intentionally draws on the.table
- . \* *Hvad sætter Peter sig og tegner med vilje på bordet?*  
 Hvad sits Peter REFL. and draws intentionally on the.table
- (159) a. \* *Hvad går Peter ud og med vilje tegner på bordet?*  
 Hvad walks Peter out and intentionally draws on the.table
- b. \* *Hvad går Peter ud og tegner med vilje på bordet?*  
 Hvad walks Peter out and draws intentionally on the.table

As for Asp<sub>completive(II)</sub>, it would seem more likely semantically that it would be combinable with a telic verb. Still, this is also ungrammatical.

- (160) a. \* *Hvad satte Peter sig og læste færdig for en bog?*  
 What sat Peter REFL. and read to.the.end for a book
- b. \* *Hvad gik Peter ud og læste færdig for en bog?*  
 What walked Peter out and read to.the.end for a book

Again, I draw the conclusion that V<sup>2</sup> has no Modal, Temporal and Aspectual domains of its own.

### THE VOICE-DOMAIN (VP)

As for the Voice-Domain, we have evidence that the lower verb indeed has its own. Agentive subjects (v<sub>do</sub>'s) (161) are allowed as well as passives (v<sub>cause</sub>'s) (162):

- (161) a. *Hvad sætter Peter sig og læser for en bog?*  
 What sits Peter REFL and reads for a book
- b. *Hvad går Peter ud og læser for en bog?*  
 What walks Peter out and reads for a book
- (162) a. *Peter sætter sig og bliver fotograferet.*  
 Peter sits.PRES. refl. and PASS.AUX.PRES. photographed
- b. *Peter går ud og bliver fotograferet.*  
 Peter walks out and PASS.AUX.PRES. photographed

Again, we can only extract prepositional objects. As *what-for-split* is very marked because of the preposition stranding, I demonstrate a simple extraction:

- (163) a. *Hvad satte Peter sig og blev hørt i?*  
 What sat Peter REFL. and PASS.AUX.PRET. heard in
- b. *Hvad gik Peter ind og blev hørt i?*  
 What walked Peter in and PASS.AUX.PRET. heard in  
 Both: Approx. ‘What did Peter go/sit down and get examined in?’

Unlike positional PC, directional PC-verbs do not impose restrictions on which passives may be embedded under them. Only States which do not passivise in the first place are excluded:

- (164) a. *Hun gik ud og blev set af sine fans.*  
 She walked out and PASS.AUX. seen by her fans
- b. \* *Hun gik ud og blev hadet af sin mand*  
 She walked out and PASS.AUX. hated by her husband

Again, I must draw the conclusion that since agentive subjects and passives are possible under directional PC-verb, the verbal complement must have a vP as its highest functional projection, whether it is a  $v_{do}P$  or a  $v_{cause}P$ .

#### ASP<sub>repetitive(II)</sub>

As we expect, a restitutive ‘again’ is also possible under directional PC-verbs with the restitutive prefix *gen-* ‘re-‘.

- (165) *Hvad gik Peter ud og generobrede for en by?*  
 What walked Peter out and reconquered for a town  
 ‘What town did Peter go reconquer?’

The same thing holds for the telic positional verbs:

- (166) *Hvad satte Peter sig og genforhandlede for en kontrakt?*  
 What sat Peter REFL and renegotiated for a contract

## 4.4 The structures

Before providing the structures I propose underlie pseudo-coordinations, a point of Ramchand’s First Phase theory must be addressed; recursion. Ramchand (2008: 152) points out that recursion of the entire first phase is allowed. This is based on examples from

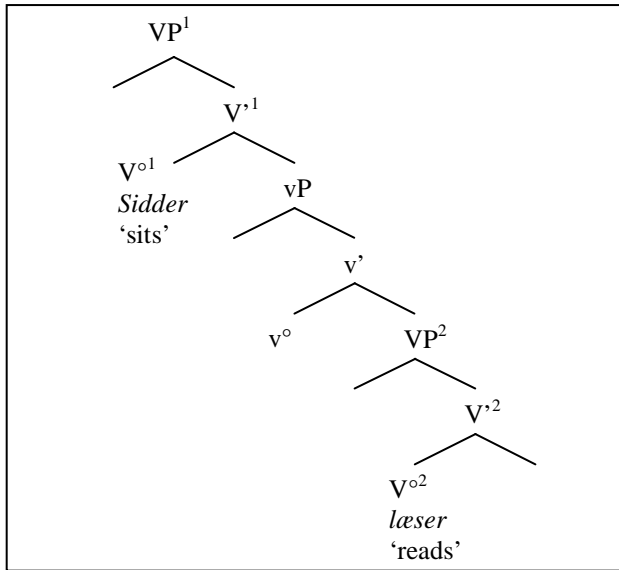
Hindi/Urdu where roots that are morphologically specified as being causative may be embedded under a permissive light verb (an InitP in her words). Ramchand (2008) gives only few examples of such recursive structures, but it is a crucial notion for my analysis of quirky verbal morphology. I argue that in many cases, the structural condition which enables quirky morphology to appear is exactly recursion of the first phase. In other words this means that below the lowest phrase of the matrix verb (which as it turns out is always a ResP) a new first phase may stand without independent clausal structure, and that exactly this configuration is in fact fairly common with semi-functional verbs, and not just with a few functional verbs such as causative verbs. This lower first phase may project the full argument structure (three projections) or only some of them.

Another option, (which was already pointed out in Ramchand & Butt (2005)), is that in a few rare cases, more than one verb may make up one first phase. Schematically it is the case when a light verb heads the InitP and takes a ProcP as its complement (the complement may of course also have a ResP), and in reality it is when a causative verb takes a non-causative complement. This is exactly the analysis I will apply in the next chapter to a specific usage of German *lassen* ‘let’ + infinitive, i.e. I assume the structure [<sub>VP</sub> *lassen* [<sub>VP</sub> main verb]]. As far as I can tell, this phenomenon is indeed exclusive to causative verbs (for the time being ignoring the  $v_{do}$  and  $v_{cause}$  distinction).

The basic idea I would like to advocate is that PCs are complex predicates, base generated as monoclausal structures where only  $V^1$  has any functional structure above  $vP$ .  $V^1$  has a ResP as its lowest projection and requires a predicational augmentation which is realised by the *og* +  $V^2$ .

Finite verbs are usually not immediately licensed as complements; you cannot have a structure like *Han sidder læser* ‘he sits reads’. The joining element *og* is not present in the syntactic structure, but it serves as a phonological copying marker. The apparent finiteness of  $V^2$  is deceiving. It is semantically vacuous and simply a means to license the lower verb which would otherwise have had to surface as a bare stem – which is not licensed in Danish and would have caused the derivation to crash. In other words, PCs are to be viewed as a subtype of control infinitives, where the difference is that the complement is structurally deficient.

In its most basic form, the analysis can be seen in Figure 4:



**Figure 4**

The next question regards the internal structure of the individual VPs, a question that is complicated by the fact that PC-verbs do not form a homogenous class. We are basically dealing with two different types: Positional PC-verbs which have no additional complements and form a very small class consisting of only the 4 “basic” verbs ‘sit’, ‘stand’, ‘lie’, and ‘walk’, directional PC-verbs with a particle or a reflexive pronoun. The latter, though restricted, is a much more open class. It is therefore crucial to establish what it is that these verbs have in common and how they differ from other verbs.

The two classes are not as different as they may appear; the directional PC-verbs can actually be considered enhanced positional verbs in the sense that the result of a directional verb is position. Thus, when you have a clause like *Peter går ud* ‘Peter walks out’, the result is ‘Peter is outside’. In a parallel fashion, *Peter sætter sig* ‘Peter sits himself – Peter sits down’ results in *Peter sidder* ‘Peter sits’. In other words, the lowest phrase is identical to that of a positional verb, and we can draw the tentative conclusion that ResP is required as the lowest projection of a PC-matrix verb.

For positional PC-verbs I suggest the following structure: The argument structure is simple, there is only a subject, no active initiation nor a change of state and in this usage no manner component or locative specification, hence they have to be bare Result Phrases. The semantic feature [position] defines the ResP as a Res<sub>pos</sub>P. As discussed in the intro-

duction, I assume that stative verbs have a semi-functional projection,  $v_{be}$ , though this is mainly for uniformity of exposition.

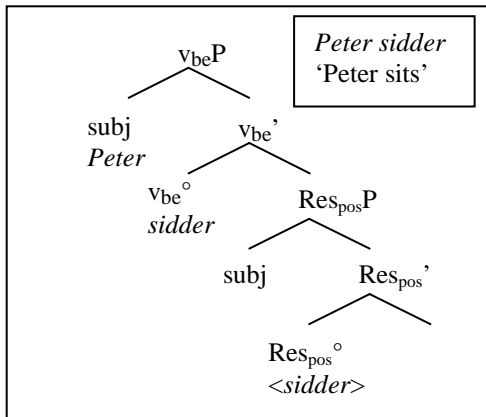


Figure 5

Directional PC-verbs have a more complex internal structure; the unaccusative ones project a  $v_{cause}$  with external causation while the telic positional verbs with a reflexive pronoun have an agentive subject ( $v_{do}P$ ). Both kinds also contain change (ProcP) and an achieved result state (ResP). The reflexive pronoun or goal particle I take to be in ResP as these elements are what signal a result state. Just as for the simple positional verbs, the ResP is a  $Res_{pos}P$ . When in Figure 6 and Figure 7 I paraphrase the lexical content of the ResP as *sit* or *be out*, I do not intend to express that they are base generated as simplex positional verbs and then pick up more semantic features as more phrases are projected. I simply want to capture the similarity between derived states and inherently stative verbs.

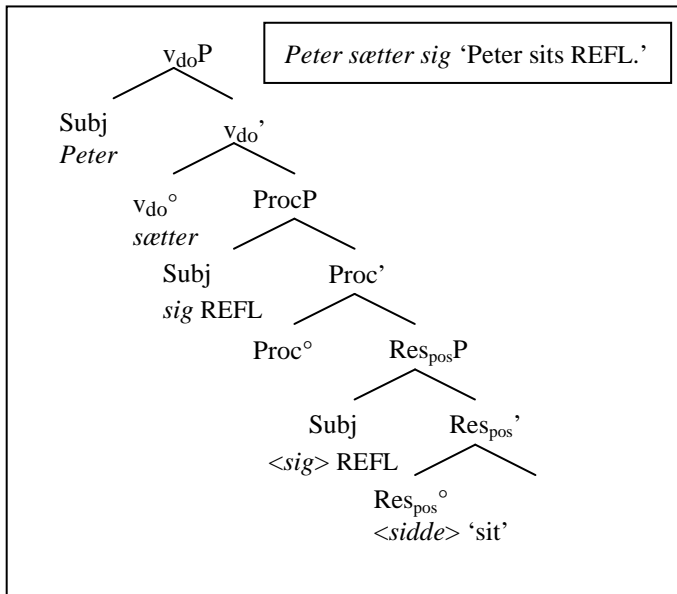


Figure 6

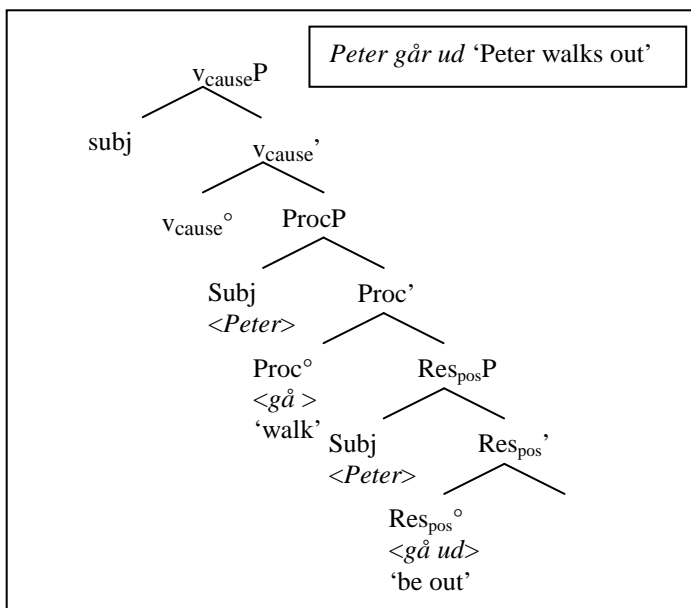


Figure 7

In the particle verb construction, it is the locative particle which defines the ResP as a Res<sub>pos</sub>P. Figure 6 and Figure 7 are essentially identical, the differences being whether the little v is a v<sub>do</sub> or a v<sub>cause</sub>, and whether the Res° is occupied by a particle or a pronoun. Comparing the structures for positional and directional PC respectively, we see that the lowest phrase is a result phrase, and more specifically one which positions the subject.

#### 4.5 The exception of *tage* ‘take’

The verb *tage* ‘take’ is a somewhat extraordinary case. In addition to being a transitive lexical verb (167)a., it has at least two other usages, one of which is rather intangible.

While *gå* in Danish does not correspond to the English *go*, i.e. in the unspecified-movement-reading, *tage* actually covers this use, cf. (167)b. and c. where *tage* can be assumed to be a main verb. It is also a part of several idioms (d. and e. examples), and thus it is a rather flexible verb.

- (167) a. *Han tog tasken fra hende*  
He took the.bag from her
- b. *Jeg tager til Tyskland næste år*  
I take to Germany next year  
‘I’m going to Germany next year’
- c. *Jeg tager af sted*  
I take off place ‘I’m taking off/I’m leaving’
- d. *Han tog billetten*  
He took the.ticket ‘He died’
- e. *Jeg tager afsked*  
I take leave ‘I’m saying goodbye’

Further, it may combine with a particle or a PP and enter directional pseudo-coordinations as in (168). This usage appears to be standard directional PC, as can be seen from the *what-for-split* possibility:

- (168) a. *Jeg tager ind og køber tøj* **PC**  
I take in and buy clothes
- b. *Hvad tager du ind og køber for tøj?* **PC**  
What take you in and buy for clothes

The auxiliary selectional properties of this usage of *tage* confirm that we are dealing with a verb of directed motion (PC is not an option then, due to auxiliary selection clash) and not with a light version of the transitive verb *tage*:

- (169) a. *Peter er taget ind til byen*  
Peter is take.PAST.PART in to the.town



- b. \* *Peter har taget ind til byen*  
 Peter has take.PAST.PART in to the.town  
 ‘Peter has gone to town’

The last usage I will refer to here is the really tricky one. It looks like a pseudo-coordination, in that *tage* interacts with another verb with identical inflection and they are combined by *og*. Yet it is difficult to pinpoint what *tage* actually means. It adds little, if any additional information, and it shows properties that deviate from standard PC. Further unlike the other PC-verbs, it has a counterpart which is a transitive verb. According to Vannebo (2003: 172), it is only compatible with subjects that are potential agents. This patterns with the fact that it appears most frequently either with modals or in the imperative. These contexts require a cognizant subject and *tage* seems to have a weakening effect on the predicate, i.e. it may turn an order into a more polite request or recommendation:

- (170) *Du skal tage og læse den bog* **PC**  
 You shall take and read that book ‘You should read that book’

In this case there is no actual ‘taking’ of the book, as the following example shows, nor is there any movement involved:

- (171) *Du skulle tage og høre efter* **PC**  
 You should take and hear after ‘You ought to pay attention’
- Nu tager jeg og holder mund* **PC**  
 Now take I and hold mouth  
 ‘I’m shutting up now’

*Tag* furthermore shows the odd property of not working (well) in past tenses:

- (172) a. ?? *Han tog og holdt mund* **PC**  
 He took and held mouth ‘he did shut up’
- b. \* *Han har taget og holdt mund* **PC**  
 He has take.PAST.PART. and hold.PAST.PART. mouth
- c. \* *Han er taget og holdt mund* **PC**  
 He is take.PAST.PART. and hold.PAST.PART. mouth

This deficiency contrasts with the motion verb *tage*, even if this cannot form PCs in the perfect tense

Presumably, we are actually dealing with pseudo-coordination, but a case where V<sup>1</sup> has grammaticalised in a way otherwise not common to PCs.

As for the other characteristics of PC, generally the same things hold, i.e. the subject may not be repeated, negation has scope over both verbs and subject-related secondary predicates are disallowed. Admittedly, it will not allow the expletive subject *der* but this may be derived from the fact that it has a transitive main verb counterpart. This fact in itself is also potentially problematic; although there may in principle be nothing to hinder transitive verbs in PCs, it is remarkable that all other PC-verbs are intransitive. Furthermore, the other PC-verbs maintain the semantics of the main verb (even if slightly bleached), while *tage* has a radically different meaning, both in its directional PC-usage and in the particular usage in (170) and (171). A more detailed study of this particular verb is necessary in order to give a credible analysis, and I therefore content myself with noting the problem.

#### 4.6 Imperative copying?

A few Danish verbs allow something that looks like a restricted pseudo-coordination, namely one which is restricted to the imperative, although it is difficult to determine if it really is the case, as Wiklund claims that it is. Example (174) is from Wiklund (2007: 190)

(173) *Vær sød* [ɔ] *gå din vej* (PC?)  
 Be nice [ɔ] go your way 'please leave'

(174) *Begynd* [ɔ] *læs læse* (PC?)  
*Start* [ɔ] *read.IMP. /READ.INF.*

One immediate problem with (173) is that the imperative and the infinitive of *gå* 'walk' are homophonous. In (174) however, the imperative and infinitive of *læse* 'read' are phonologically distinct, although the difference is very small. A bigger problem is that testing imperatives is practically impossible, particularly in a language like Danish where the imperative is always form identical with the stem. Tests for extraction, scopal properties etc. are not applicable to imperatives.

There is another peculiar property relating to imperatives. In a directional PC with *komme* 'come' in the imperative, [ɔ] may optionally be omitted. There is no intonational

break between the verbs, i.e. they are not just juxtaposed. The following examples are two adjacent lines of a Danish pop song which illustrates the optionality:

- (175) a.            *Kom*        *lige* *og* *læg*    *dig*  
                   Come.IMP. PRT. and lay.IMP. REFL.
- b.            *Kom*        *lad*        *mig* *mærke* *dig* *igen*  
                   Come.IMP. let.IMP. me feel.INF. you again

I will return to this construction at the end of this chapter in subsection 8.3.1. I have speculated that quirky morphology emerges when a language does not permit bare stems to surface. Imperatives are an exception and I therefore hypothesise that when a bare stem is independently licensed, the copying marker [ɔ] is redundant. This would mean that in (175)b. the form of  $V^2$  has not emerged due to copying; rather the bare stem is exceptionally allowed to surface.

## 5 Summary

So far we have established that pseudo-coordination differs radically from ordinary coordination. These differences concern extraction, expletive subjects, restrictions on the verbs that may enter PCs, scope of negation, scope of adjuncts, topicalisation possibility, subject-related secondary predicates and floating quantifiers. Thus, the evidence that PCs are different from ordinary (i.e. minimally the additive Boolean) coordination is overwhelming. Furthermore, it has been shown (and this will be elaborated in the next section) that asymmetric coordination is a phenomenon that is not exclusive to Mainland Scandinavian progressive constructions, for which reason a more widely applicable analysis would be preferable.

As for the nature of the two “conjuncts”, it has been established that although  $V^1$  is a light, but thematic verb, its semantics must be respected and subject selection depends on  $V^1$ . It is thus not feasible to claim that  $V^1$  is a functional verb *per se*; the exceptions perhaps being *tage* ‘take/go’ and *gå hen* ‘walk over  $\approx$  happen suddenly’.

The common denominator between directional and position PC-verbs is essentially that the lowest verb-internal phrase of  $V^1$  is a ResP. While it is not clear why this is so, it seems a general requirement for quirky verbal morphology that the higher verb is a state, whether a derived or a simple one.

As for  $V^2$ , all things indicate that there is no functional structure above vP. Evidence for the lack of clausal structure was that modals, perfect tenses, negations and sentential adverbs may never intervene between the verbs (except when the higher verb has moved to  $C^\circ$  under V2 and then scope is still always over both verbs).

Regarding the joining element [ə], I have so far shown that it is not a coordinating conjunction, nor a complementiser introducing a non-finite clause. My suggestion is that while it may have originated as a coordinating conjunction, it has been syntactically bleached, retaining only its phonological features, but no longer serving any syntactic function at all.

## 6 Non-Scandinavian PC:

I will now make an excursion into pseudo-coordinations in three other languages, Afrikaans, English and Marsalese, a Western Sicilian dialect. Afrikaans and English pseudo-coordinations are treated in depth by Mark De Vos (2005) while Cardinaletti & Giusti (2001, 2003) give accounts of Marsalese.

### 6.1 Marsalese

Cardinaletti & Giusti (2001) and (2003) essentially defend the same analysis, and as the data immediately relevant to the present discussion is almost the same in the two papers, here I will be quoting the most recent one. In the Sicilian dialect Marsalese there is a construction very similar to directional PC, consisting of one of the motion verbs *iri* ‘go’, *viniri* ‘come’ or *passari* ‘pass’ + *a* + verb. Just as with Scandinavian PC, the second verb shares inflection with the first verb and the status of the joining element *a* is uncertain. An example is provided below (Cardinaletti & Giusti 2003: 31):

(176)            *Va     a pigghia u pani*  
                   go.3SG A fetch.3SG the bread

This construction always has the alternative of having the second verb in the infinitive as in (177):

(177)            *Va     a pigghiari u pani*  
                   go.3 SG to fetch.INF the bread

Cardinaletti & Giusti argue that in the PC-version (what they refer to as “the inflected construction”), the motion verb *iri* is an auxiliary in a high position in the functional clausal domain and that together the two verbs form a monoclausal predicate, in contrast to the infinitival construction.

This conclusion is reached by first arguing against a coordination analysis of the construction based on criteria similar to the ones that I am applying; the order of the verbs is fixed and extraction from the embedded complement is possible. The joining element /a/ is not homophonous to the regular coordinating conjunction /e/ but to the infinitive marker /a/ (as illustrated in (177))<sup>18</sup>.

They also address the etymology of /a/ and /e/ and based on Rohlfs (1969), they state that the coordinating conjunction /e/ is derived from Latin *ac*, the infinitive marker /a/ from the Latin preposition *ad*, and importantly, the /a/ in the inflected construction also from *ac* (Cardinaletti & Giusti 2003: 33). If this is correct, we have evidence from a non-Scandinavian language that the joining element of a pseudo-coordination may be derived from the coordinating conjunction.

The inflected construction does however not pattern completely with the infinitival counterpart. Differences can be observed with respect to the position of adverbs; in the inflected construction, frequency adverbs and/or negations obligatorily appear after the first verb, while in the infinitival construction they may occur before or after. The same pattern is found in auxiliary constructions with *aviri* ‘have’. Furthermore, no floating quantifiers are allowed to surface between the two verbs, in contrast to the infinitival constructions. Cardinaletti & Giusti deduce from this that the inflected construction is monoclausal. To them, the motion verb is an auxiliary merged in an unspecified but necessarily very high functional projection (Cardinaletti & Giusti 2003: 45). As such their analysis is very much in line with my analysis of quirky verbal morphology.

There is further evidence that the motion verbs in the inflected construction in Marsalese are more grammaticalised than in Scandinavian pseudo-coordination. One such piece of evidence concerns complements of the motion verb. Parallel to Danish, the

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<sup>18</sup> But note that in the Italian dialect, Calabrese, the joining element of the inflected construction is homophonous to the coordinating conjunction /e/.

manner-of-motion can only be explicit in the infinitival construction, cf. (178) (Cardinaletti & Giusti 2003: 37):

- (178) a. *Peppe va a mangiari c'a machina*  
 Peppe go.3SG to eat.INF. by car 'Peppe goes to eat by car'
- b. \* *Peppe va a mangia c'a machina*  
 Peppe go.3SG A eat.3SG by car 'Peppe goes to eat by car'

However, unlike the case of Scandinavian PC, directional complements of the motion verb are not allowed. Locative expressions are possible, but necessarily relate to the second verb (Cardinaletti & Giusti 2003: 39):

- (179) a. \* *Va agghiri a casa a mangia*  
 go.3SG toward to home A eat.3SG
- b. \* *Va a mangia agghiri a casa*  
 go.3SG A eat.3SG toward to home
- c. *Peppe va a mangia a casa*  
 Peppe go.3SG A eat.3SG \*DIR./LOC home

Recall that in Scandinavian, locative/directional expressions are not only allowed, they seem to be preferred. The fact that these are not licensed in Marsalese suggests that the motion verbs have indeed been grammaticalised to a degree where the argument structure of the main has been altered. This is reminiscent of the fact that in Spanish, an alternative to the morphological future tense, is *ir* 'go' + *a* + infinitive, cf. example (180). Importantly, in the non-reflexive version of the verb, actual movement may be involved, but it is not a requirement:

- (180) *Va a hablar con su jefe*  
 Go.3SG to talk.INF. with his boss 'he will talk to his boss'

A further peculiarity of some Marsalese auxiliaries is the occurrence of certain invariant verb forms. The core of this phenomenon is that when the verbs *iri* 'go' *aviri* 'have' and *stari* 'stay' appear as auxiliaries, the 3<sup>rd</sup> person singular form may be used for any person/number<sup>19</sup>.

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<sup>19</sup> There are some limitations to this usage, but these are irrelevant for the current purpose.

This property is also observable in the inflected construction (with the exception of 1<sup>st</sup> and 2<sup>nd</sup> plural), but not in the infinitival construction, suggesting that in the latter, a less grammaticalised version of the verb is used, as this seems to be a property of auxiliaries:

- (181) a. *Eo vajo /\*va a pigghiari u pani*  
 I go.1SG /go.3SG to fetch.INF. the bread
- b. *Eo vajo /va a pigghio u pani*  
 I go.1SG /go.3SG A fetch.1SG the bread

Another interesting point made by Cardinaletti & Giusti concerns inflection. As I have suggested, the presence of agreement inflection on the verb seems connected to the possibility of pseudo-coordinating. At first glance, Marsalese seems to be counterevidence to this assumption. Interestingly however, not all forms are allowed and particularly the past tense, the imperfect and the subjunctive are banned. Even in the present tense, 1<sup>st</sup> and 2<sup>nd</sup> person plural are ruled out too. The verb *iri* has two allomorphs, and exactly those forms which are disallowed all belong to one allomorph, while those allowed belong to the other group. Cardinaletti & Giusti do not pursue this property any further, and neither will I. Suffice it to say that inflection plays a role for the licensing of pseudo-coordination, but Marsalese provides evidence that person/number agreement in itself is not a sufficient criterion for excluding pseudo-coordination constructions.

Cardinaletti & Giusti's (2003) analysis gives an interesting parallel to Scandinavian PC, with the main differences between the constructions being the degree of grammaticalisation that the first verb has undergone. Unfortunately, they do not draw any conclusions as to the exact nature of the joining element *a* other than saying it is neither an infinitive marker nor a coordinating conjunction. Also left unanswered is the question of how the second verb comes to be inflected. It remains an important observation though that PC is not exclusive to Germanic languages and that verbal agreement morphology is not completely ruled out from pseudo-coordinations.

## 6.2 English and Afrikaans PC

In his dissertation, Mark de Vos (2005) discusses Pseudo-coordinations in English and Afrikaans and defends a coordination analysis.

### 6.2.1 English PC

De Vos distinguishes three classes of English pseudo-coordinations, exemplified in (182)-(184) (De Vos 2005: 195). (182) is what he calls Scene-setting coordination (SceCo), (183) is Contiguous Coordination (ConCo), and (184) is Reduplicative Coordination (ReCo). ReCo corresponds to what I referred to as repetitive/emphatic coordination; a phenomenon I will not be dealing with here.

- |       |   |              |
|-------|---|--------------|
| (182) | <i>Caesar went to Gaul and devastated it</i>                        | <b>SceCo</b> |
| (183) | <i>Caesar saluted his legions before he went and addressed them</i> | <b>ConCo</b> |
| (184) | <i>Caesar's legions marched and marched for days</i>                | <b>ReCo</b>  |

In SceCos a PP or particle intervenes between the two verbs, while in ConCos adjacency is a strict requirement, but this is not the only difference. Supposedly there are also syntactic differences between the two.

De Vos establishes certain criteria to separate the different kinds of pseudo-coordinations. Below I list the most important criteria and how the distribution of the two kinds of English pseudo-coordination is w.r.t. these criteria:

- Violation of the Coordinate Structure constraint:
  - ConCo: Arguments and adjuncts may be extracted
  - SceCo: Arguments may be extracted. Low adjuncts may not

This means that while ConCos are not islands at all, SceCos are selective islands, as illustrated in (185)b. ii. (De Vos 2005: 25).

- |          |   |              |
|----------|---|--------------|
| (185) a. | <i>How did you go and pay the proprietor?</i>         | <b>ConCo</b> |
|          | * i. <i>By bus</i>                                    |              |
|          | ii. <i>By credit card</i>                             |              |
| b.       | <i>How did you go to town and pay the proprietor?</i> | <b>SceCo</b> |
|          | i. <i>By bus</i>                                      |              |
|          | * ii. <i>By credit card</i>                           |              |



- XPs in the verbal string:
    - ConCo: No XPs allowed in the verbal string.
    - SceCo: Certain XPs allowed.
- (186) a. *What did the hermit...  
... sit and \*never/ \*carefully/ \*regularly /\*in 2004 read?* **ConCo**
- b. *What did the hermit...  
... go off/ to town /\*last week /\*with dignity and buy?* **SceCo**
- Restrictions on matrix subjects (De Vos 2005: 30):
    - ConCo: V<sup>2</sup> selects the subject (187)
    - SceCo: V<sup>1</sup> selects the subject (188)
- (187) a. *It rained*  
 b. \* *It went*  
 c. *It went and rained*
- (188) a. *It rained*  
 b. \* *It went out over the English Channel*  
 c. *It went and rained out over the English Chanel* **ConCo**  
 d. \* *it went out over the English Channel and rained* **SceCo**
- Semantic bleaching (De Vos 2005: 36)
    - ConCo: First conjunct semantically bleached if the subject is inanimate (189)a.
    - SceCo: No semantic bleaching (189)b.
- (189) *It's not worth using an iron post to prop up that tree;...*
- a. *...it'll just go and rust in the rain* **ConCo**  
 b. \* *...it'll just go off and rust in the rain* **SceCo**
- VP-deletion
    - ConCo: disallow partial elision
    - SceCo: Partial elision is possible:
- (190) a. \* *Mary will go and get pregnant and Sarah will go too.* **ConCo**  
 b. *John goes to town and watches a movie and Mary goes too* **SceCo**

To sum up, two basic kinds of PC are distinguished in English, one (ConCo) in which  $V^1$  is strongly grammaticalised, i.e. it has lost its lexical specifications and as such it only adds aspectual/temporal information to the main verb.  $V^2$  is responsible for subject selection as  $V^1$  is “transparent” due to lack of semantic contents.

In SceCos on the other hand,  $V^1$  is still a lexical verb and contributes to the meaning, creating a complex event, consisting of two actions whose temporal (and possibly causal) relationship is fixed, such that  $V^1$  is a condition for  $V^2$ . As a consequence,  $V^1$  imposes restrictions on the subject selection and has a literal meaning.

My proposal would be that the ‘go’ of ConCo’s is a functional verb merged in a functional projection, while the SceCo ‘go’ is a thematic verb which selects a small verbal complement, in parallel to directional PC.

### 6.2.2 Afrikaans PC

De Vos applies the same criteria to pseudo-coordination in Afrikaans. In Afrikaans, PC only occurs with the four positional verbs *sit, loop, staan, lê* ‘sit, walk/go, stand, lie’ (2005: 148), i.e. exactly the same verbs as in Danish positional PC. The aspect is also progressive and the behaviour of the construction is almost identical to that of Danish PC, although Afrikaans PC-verbs are possibly more grammaticalised than their Danish counterparts. Afrikaans like Danish, has no verbal inflection to speak of, it is unable to express aspect by means of verbal morphology and shows Verb Second effects in root clauses. There is, however, one fundamental difference between the two languages, namely that Afrikaans is an SOV-language and this obviously triggers somewhat different effects.

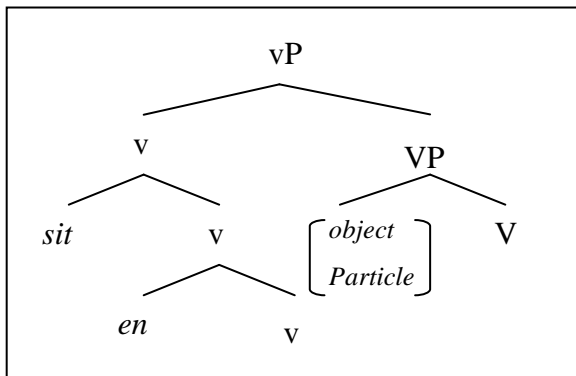
Another particular property of Afrikaans regards the V2-effect; in some cases, including pseudo-coordinations, there are two possibilities, either only  $V^1$  moves to  $C^\circ$  or the entire verbal string, i.e.  $V^1 + en + V^2$  move to  $C^\circ$ . De Vos convincingly shows (2005: chap. 6) that the optionality is real, i.e. the basis of the two derivations is one and the same despite different spell-outs. This is a significant challenge for the analysis.

By applying the criteria proposed for English PC, De Vos reaches the conclusion that PC in Afrikaans is of a different kind, one that is very similar to English *try and*-PC (which is different from both SceCo’s and ConCo’s). He states the following empirical facts about Afrikaans PC (2005: 151):

- Allows non-ATB argument and adjunct extraction
- Disallows an overt subject of  $V^2$
- Disallows coordinator substitution
- Disallows *both* modification
- Disallows stressed coordinator
- Wide-scope reading of quantifier is possible
- Restrictions on possible  $V^1$ s
- Subjects are restricted by  $V^1$
- $V^1$  is semantically bleached

De Vos suggests this underlying structure for the sentence (2005: 159):

- (191) *Hy sal die heeldag na die wolke lê en kyk*  
 He will the whole.day at the clouds lie and look  
 ‘He’ll lie looking up at the clouds all day’



**Figure 8**

What Figure 8 shows is that the coordination is at the level of  $vP$ , more specifically it is a coordination of features, reminiscent of Zwart (1997), as shown in Figure 9 (adapted from De Vos 2005: 167):

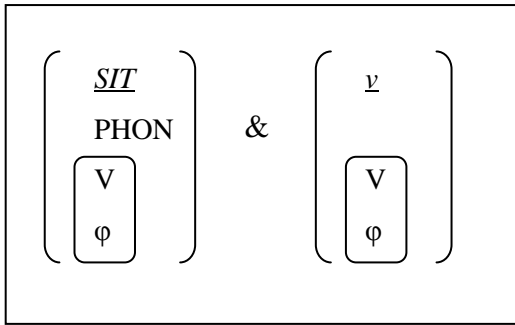


Figure 9

This means that only certain features (categorical  $v$ -feature and  $\phi$ -features) of  $V^1$  are coordinated, and not with the lexical material of  $V^2$ , but only with its  $v^\circ$ . The point is that in this way, the phonetic features of  $V^1$  are unaffected by the coordination and thus they are free to be extracted. The same thing holds for  $VP^2$  and its inventory.

The idea is then, that when only  $V^1$  moves to the  $C^\circ$  under Verb Second, this coordination is all that happens, i.e.  $V^2$  stays *in situ*. When the entire PC moves to  $C^\circ$ , what happens is that the lexical verb moves to  $v^\circ$  and then the whole verbal string continues to  $C^\circ$ .

There are certain problems with this analysis. One major concern is the claim that  $V^1$  is only a  $vP$ ; De Vos claims that  $V^1$  is semantically bleached but as far I can judge from his examples,  $V^1$  does not behave much differently in Afrikaans than in Danish PC. Although the PC-verbs seem slightly more grammaticalised in Afrikaans than in Danish (e.g. *staan* marginally allows an impersonal subject (de Vos 2005: 142)), their semantics still have to be respected. This means that although the importance of the lexical content is reduced, it is still there and it is dubious to refer to a PC-verb as a *light verb* in his interpretation of what a light verb is (a bare  $v$ ) (De Vos 2005: 159).

Another issue is the claim that V-to- $v$  movement only takes place when followed by movement to C. This issue is however addressed by De Vos and is backed up by Barbiers (2000).

### 6.2.3 De Vos and Danish PC

While the distinction between SceCo and ConCo, based on (non)adjacency may be relevant for English, I have shown that it is not feasible for Danish Pseudo-coordination. First of all, in Danish,  $V^1$  in PCs is always responsible for subject selection. Secondly,

the adjacency effects are not consistent either. In positional PC, certain non-obligatory elements such as locative expressions are allowed to intervene between the two verbs. In directional PC, on the other hand, you almost always have an intervening element (verb particle or reflexive pronoun). Importantly this is not a requirement of the configuration, but a lexically determined requirement. This is shown by the verb *komme* ‘come’ which creates directional PC but due to its lexical specifications does not require an intervening element.

It would seem that the tests that distinguish English ConCos are not applicable to Danish positional PC, but seeing as the English ConCo-verbs are directional in nature, this is not all that surprising. It does however indicate that the relevant grouping of PC-verbs should not be based on whether it allows something to intervene between its conjuncts, but rather whether it signifies change of state or constancy.

Roughly speaking, directional pseudo-coordination corresponds to SceCo, while ConCo and positional PCs are two different categories altogether. One may hypothesise that English has no need for positional PCs due to the progressive *-ing*-form which serves a very similar purpose, even if it differs radically in its expression. ConCo-like constructions do not exist in either Danish or in Afrikaans.

## 7 Motivating PC

I will try to answer the question of why the pseudo-coordination construction even exists or in non-technical terms: what is the function or purpose of pseudo-coordination?

As for positional PC, an obvious answer would be that at times there is a need for expressing that an action is taking place right here and now, i.e. a progressive reading. This however does not motivate the existence of directional PC. So what do the two kinds of PC have in common? They both denote complex events, consisting of a main action ( $V^2$ ) and one other action which is semantically very light. In fact, one might claim that  $V^1$  is little more than an overt expression of the existence of the subject. Whenever you have a simple clause such as *Peter læser en bog* ‘Peter reads a book’, Peter’s very existence is presupposed and a prerequisite for him to be able to read a book.

In English progressives, the copula ‘be’ is used as an auxiliary. If you have a clause like *Peter is reading* you are saying two things: i) ‘Peter is’ and ii) ‘Peter reads’. Com-

binning an existential predicate with another verb triggers a progressive reading in English. Similarly, in the Danish pseudo-coordination *Peter sidder og læser* ‘Peter sits and reads’ one is saying i) ‘Peter is’ and ii) ‘Peter reads’.

Verbs of position or movement, i.e. the Danish PC-verbs, obviously have more lexical content than the existential copula *be*, but they can hardly be said to be full predicates. The copula *be*, whether it is existential or positional, needs a specification of some kind, i.e. out of context, you are very unlikely to hear the sentence *Peter is*, either you must specify where *Peter* is (e.g. *Peter is in the garden*), what state or position he is in (e.g. *Peter is asleep/Peter is lying down*), or what he is doing (e.g. *Peter is reading*).

In a parallel fashion, at least Danish positional verbs and verbs of motion require some kind of augmentation. By themselves *Peter sidder* ‘Peter sits’ or *Peter går ud* ‘Peter walks out’ are not sufficiently specified. Minimally, they require a location, i.e. an AdvP or PP specifying where ‘Peter’ is sitting or where he is going. Thus, in sentences like *Peter sidder i haven* ‘Peter sits in the garden’ or *Peter går ud i haven* ‘Peter walks into the garden’ the argument structure of the verb is saturated.

An alternative to specifying the location is specifying the activity, i.e. *Peter sidder og læser* ‘Peter sits and reads’ or *Peter går ud og læser* ‘Peter walks out and reads’.

One problem for this claim is that you actually do hear sentences like *Jeg går ud* ‘I walk out’. I will however maintain my claim and say that in these cases the context provides the necessary information which makes a locative specification unnecessary. This claim is backed up by the fact that certain conditions must be met, for instance that both interlocutors are at the same place, such that ‘out’ is understood to be relative to their current position.

In other words, positional verbs and verbs of movement can be considered slightly augmented existential verbs. This also holds for the reflexive directional verbs; while a sentence like (192)b. is perfectly grammatical, in the a. -example something is missing. It is not completely degraded, since the requirement of some kind of object is satisfied by the presence of the reflexive pronoun, but there is something incomplete about it as long as it is not specified where Peter sits down. This leads me to suggest that it is not enough to take into consideration the strict selectional requirements of a verb; one also has to take in account “preferred predicational augmentation”, i.e. the fact that certain verbs do re-

quire (or strongly prefer) some kind of augmentation, but this augmentation need not necessarily be of a specific kind.

- (192) a. ? *Peter sætter sig*  
Peter sits REFL 'Peter sits down'
- b. *Peter sætter tasken*  
Peter sits.VT the.bag 'Peter puts the bag down'

As an aside, it is worth mentioning that Danish seems to have a general preference for expressing overtly the often presupposed existential binding. This can also be observed in the extensive use of clefts (193) and existential constructions (194).

- (193) a. *Det er Peter, der har gjort det*  
It is Peter who has done it 'Peter did it'
- b. *Peter har gjort det*  
Peter has done it 'Peter did it'
- (194) a. *Der er mange mennesker, der kommer for sent på arbejde*  
There are many people who come too late at work  
'Many people are late for work'
- b. *Mange mennesker kommer for sent på arbejde*  
Many people come too late at work  
'Many people are late for work'

The lack of TECs in Danish (cf. 4.2.2) may motivate the latter strategy; since (195)a. is not available, the b. -example can be seen as an alternative way to rescue the existential construction (PC being the other way to do it).

- (195) a. \* *Der drikker en mand kaffe*  
There drinks a man coffee
- b. *Der er en mand, der drikker kaffe*  
There is a man, who drinks coffee

### 7.1.1 An alternative progressive strategy

In Danish there is another widespread construction which has a progressive reading. This one is exemplified in (196):

- (196) *Jeg er ved at lave mad*  
 I am at to make food 'I am cooking'

I will not discuss this construction in any detail, but simply state that although it differs from pseudo-coordinations, there are some similarities, namely that the subject is introduced explicitly by the copula *være* 'be' and that the "at"-phrase gets some sort of pseudo-locative reading. As in PCs, here the subject is situated in time and space before the action of the main verb, and again this results in progressive reading. As I will touch upon in the next subsection, this appears to be a very general trait of progressive constructions in both the Romance and the Germanic languages. I will briefly return to this construction in part III of the dissertation.

### 7.1.2 Progressives in other languages

While the specifics of how progressive aspect is expressed are language-dependent, it seems to be a general strategy, in Romance and Germanic at least, to combine an existential verb with a main verb.

Until now, I have paid little attention to German, due to the fact that German does not have constructions similar to pseudo-coordinations. German is however, still able to express something like progressive aspect. One option is to use the adverbial *gerade* 'right now' as in (197) but this strategy is obviously not very interesting in this context.

- (197) *Ich lese gerade*  
 I read right.now 'I am reading'

There are also two other ways, as exemplified in (198) (Duden 4: §540):

- (198) a. *Er ist am /beim Arbeiten*  
 He is at.the /at.the work.NOM.INF. 'He is working'
- b. *Ich bin dabei zu kochen*  
 I am there.at to cook.INF. 'I am cooking'

In the a.-example the verb is nominalised and in the b.-example there is a regular infinitive with the infinitive marker *zu*, and as such the construction differs quite a lot from PCs. Interestingly, both constructions involve the copula *sein* 'be' and a location-like element. In the a.-example the PP 'at the cooking' the activity is conceptualised as a kind of pseudo-location. Similarly in the b.-example the pronominal adverb *dabei*, which is



formed by the locative adverbial *da* ‘there’ and the preposition *bei* ‘at’, add a location-like element.

Thus, the underlying principle of the progressive reading is the same as in Danish; you have a semantically light verb, a location and a main verb, resulting in a progressive aspect. The subject of the main verb is explicitly located in time and space, and although it is not quite clear why this is so, this triggers that the main verb is understood to be taking place at the present moment.

The situation is almost identical in Dutch. As mentioned in section 2.4 of this chapter Dutch both has the option of applying *zitten* ‘sit’, *staan* ‘stand’, *liggen* ‘lie’ and *lopen* ‘go/walk’ + *te* + infinitive, and the other option is the one in (199) where the existential *zijn* ‘be’ combines with the preposition *aan* ‘at’ and a nominalised infinitive (in the example the clitic form ‘*t*’ of the definite article *het* is used):

- (199) *Ik ben urenlang aan 't koken geweest*  
 I am for.hours at the cook.NOM.INF been.PAST.PART.  
 ‘I have been cooking for hours’

So the strategy here is the same as in the German examples, the subject is introduced explicitly, i.e. its existence is expressed followed by a location-like element; in this case the activity is perceived as a kind of location.

As mentioned in 6.2.2 Afrikaans has regular pseudo-coordination, much as in Danish, but furthermore, they also have the same option as German and Dutch (Donaldson 1993: 221) of using a prepositional phrase containing a nominalised infinitive:

- (200) *Ek is 'n brief aan die skryf*  
 I am a letter at the write ‘I am writing a letter’

The strategy is not limited to the Germanic languages; also the Romance languages have a similar way to express progressive aspect as exemplified here in (201):

- (201) a. *Está hablando con su jefe*  
 Be.3SG talking.GER. with his boss ‘he is talking to his boss’

We also find a similar strategy in Urdu, which is only remotely related to the Germanic languages (data from Butt 2005: 4)

- (202) a.        *bulli*        *bistar*    *ke*        *nic<sup>h</sup>e* *so*    *rah-i*        *hε*  
 cat.F.SG.NOM    bed.M.SG    GEN.OBL.    under sleep    stay.PERF.F.SG    be.PRES.3SG  
 ‘The cat is sleeping under the bed’
- b.                *nadya*        *saddaf=se*        *bat*        *kar rah-i*        *hε*  
 Nadya.F.SG.NOM    Saddam.F.SG.=INST    talk.F.SG.NOM    do    stay.PERF.F.SG    be.PRES.3SG  
 ‘Nadya is talking to Saddam’

Obviously this construction is different from the Germanic ones, and here it is not the simple ‘be’ that creates the progressive reading, but the durative verb *rah* which is semantically heavier, yet semantically a variant of ‘be’. The exact shape and function of the auxiliaries does not concern us presently, yet it should be noted that these are semantically very light verbs too and seem to serve only the purpose of introducing the subject prior to the main verb, in order to create a progressive reading.

## 8 Serial verb constructions

Serial verb constructions (SVCs) are a much discussed phenomenon for which there is little consensus. In this section I will provide some of the basic characteristics of the SVCs with examples to illustrate and sketch a few of the most significant analyses. Following that, I will discuss whether it is feasible to analyse pseudo-coordinations as a kind of SVC.

SVCs constitute a non-uniform type of construction and as such it has proven very difficult to define them. While some linguists have a narrow definition of SVCs and hence distinguish these from “apparent” SVCs which are in fact different constructions, others divide SVCs into subgroups, arguing that these may display different behaviour due to properties like verb class (including argument selection), temporal relation between the verbs etc. but that they belong to the same basic category, i.e. that they have the same underlying structure.

Very roughly, SVCs can be described as multi-verb constructions in which one verb carries all the functional information and the remaining verbs appear to be simply adjoined<sup>20</sup> to this verb, adding lexical information, and together the verbs form complex

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<sup>20</sup> “Adjoined” is here used in a non-technical sense, i.e. I am not saying that the remaining verbs are adjuncts, but only that a number of verbs appear like beads on a string.

event. SVCs often occur in certain West-African, Asian and Creole languages and although shape and behaviour vary significantly as does the view of linguists on SVCs, the following characteristics are considered by most to be typical of SVCs, even if no single point is defining (Hagemeijer 2001: 415ff and Aikhenvald 2006: Chap. 1):

- (203) SVCs consist of a series of verb which:
- a. Act together as a single predicate
  - b. Have no overt coordination or subordination marker
  - c. Show monoclausal properties
  - d. Have only one tense/aspect/polarity value
  - e. May share arguments (internal/external)
  - f. Can each appear alone in other contexts

In what follows I deviate from the norm by referring to the higher/first occurring verb as the ‘serialising verb’. I do this because this verb is usually restricted, i.e. only certain types of verbs (varying across languages) may be followed by bare stems.

Serialising languages differ with respect to which verbs are allowed in SVCs but across non-related languages, certain verb types are very frequent. These include motion verbs, positional verbs, ‘take’/‘give’ and verbs of perception. In the following, I will give some examples of what SVCs may look like in different languages:

Examples involving motion verbs can for example be found in Jamaican Creole (examples from Winford 1993 184):

- (204) a. *Di pikni ron kom hoom*  
The child run come home ‘the child ran home’
- b. *Mieri kyari di pikni go a skuul*  
Mary carried the child go to school  
‘Mary carried the child to school’

Another language showing SVCs is Sranan, a Creole language spoken in Suriname, based on Dutch, English, Portuguese and West-African languages (examples from Baker 1989: 516):

- (205) a. *Kofi hari a ston puru na ini a olo*  
 Kofi pull the stone remove LOC in the hole  
 ‘Kofi pulled the stone out of the hole’
- b. *Kown seni wan boskopu gi Tigri*  
 King send a message give Tiger  
 ‘King sent a message to Tiger’

In (205)a. the interesting thing is that it is not proper motion verbs that form the SVCs, but still the verbs are related to motion verbs in that they both specify directed movement, in the a. example towards the reference point, in b. away from the reference point. Both SVCs consist of two transitive verbs, in the b.-example the second verb is a ditransitive. The verbs share the first object (obligatorily, according to Baker 1989: 527), but the ditransitive may allow for an additional object which is not shared. The subject is also shared by both verbs and they are not joined together by any overt element.

Serial verb constructions differ with respect to the degree of grammaticalisation of the relevant verbs, in some case - such as (205) in which the verb ‘give’ has been grammaticalised to an extent where all that is left semantically is directionality or benefit to someone. This SVC does not denote that the message was first sent and then given, i.e. there is complete simultaneity. This is in fact a rather typical case and a parallel one from Yoruba<sup>21</sup> is given here (Baker 1989: 514):

- (206) *Ó ra iu fún mi*  
 He buy yam give me ‘he bought a yam for me’

This high degree of grammaticalisation is however not a requirement as the next example, also from Yoruba, shows (Baker 1989: 516):

- (207) *Wón bú omi mu*  
 They pour water drink ‘They poured water and drank it’

A very frequent occurrence in SVCs is that a directional verb (be it a proper verb of motion or not) unspecified for manner combines with a manner-of-motion verb such as in (208) with an example from São Tomense, a Portugese Creole (Hagemeijer 2001: 416):

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<sup>21</sup> Yoruba is a West-African language spoken by approx. 28 mill. speakers, mainly in Nigeria, Benin and Togo

- (208) *Bisu vwa subli*  
 Bird fly go.up ‘The bird flew upwards’

This example is reminiscent of the distribution of verbs of directed motion and manner-of-motion in the Romance languages, as in (209) where the finite verb simply denotes putting/moving oneself somewhere else and the gerund signifies the manner of motion. Here a Spanish example from Morimoto (2001: 195).

- (209) *El ratón se metió corriendo debajo de la mesa*  
 The mouse REFL put run.GER under of the table  
 ‘The mouse ran under the table’ (directional)

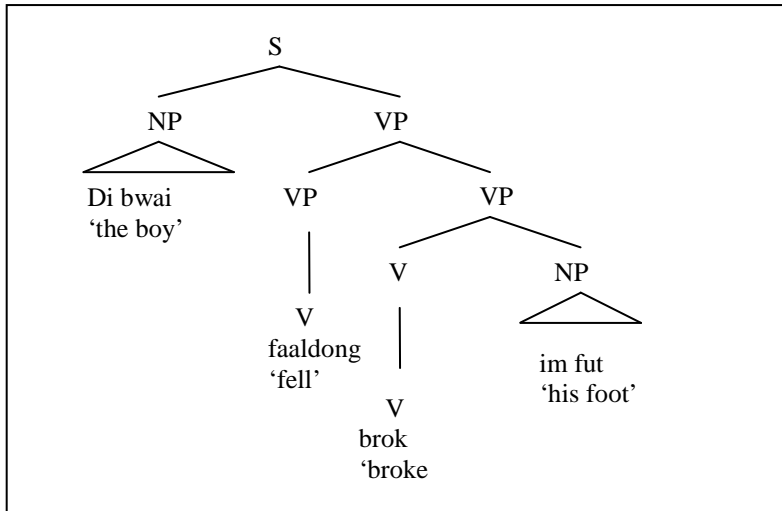
Positional verbs are also serialisation candidates as this example from Nupe shows. As the translation indicates, the positional verb acts as an aspectual marker, in a fashion parallel to positional pseudo-coordination (George 1975<sup>22</sup>):

- (210) *Tsoda èlele ci kata o*  
 Tsoda sleep lie house LOC ‘Tsoda is sleeping in the house’

As for simultaneity vs. consecutivity + causality, researchers differ in whether they consider simultaneity a prerequisite for serialisation or not. Winford (1993: 186), for example, rejects that SVCs (at least in a strict sense) may be consecutive, i.e. that they may denote a series of sub-events following each other, and when they appear to, they are really cases of parataxis without overt conjunction, to be analysed as in Figure 10 (but cf. that exactly this is by some considered the underlying structure of SVCs):

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<sup>22</sup> George 1976 here quoted from Baker 1991: 80.



**Figure 10**

This view is also shared by Hyman (1971: 29) and Lee (1993), in contrast to e.g. Baker (1989) and Baker & Stewart (2002). Data from Sranan (Baker 1989: 548) show that consecutivity and apparent lack of argument sharing need not mean that a construction is not an SVC. In the following example, despite the verbs being sequential and  $V^1$  not being semantically bleached, extraction is possible from both conjuncts (data from Sebba 1987) and hence it cannot be a case of covert coordination:

(211) *Kofi teki a nefi koti a brede*  
Kofi take the knife cut the bread

(212) a. *San<sub>i</sub> Kofi teki a nefi koti t<sub>i</sub>?*  
what Kofi take the knife cut  
'What did Kofi cut with the knife?'

b. *San<sub>i</sub> Kofi teki t<sub>i</sub> koti a brede?*  
what Kofi take cut the bread  
'What did Kofi cut the bread with?'

In this case, the two verbs take different internal arguments and only share the subject. As mentioned, definitions of SVCs vary, some arguing that argument sharing must take place for a construction to be an SVC, others have less rigid definitions.

When researchers reject consecutivisation in SVCs, it may be due to the fact that in a language like English, verbs are often internally very complex but as this is a general trait, it often goes unnoticed. For example a verb such as 'fetch' can be decomposed into

a series of sub-events; the “fetcher” leaves his original position, moves somewhere else, picks up an object, carries it to (yet) another position where he may hand the object over to someone else. As such, the semantic bleaching and simultaneity claimed to take place may in fact not there. Rather, in SVCs each subevent is made explicit by verbs which each has much more reduced semantics than their, say English, counterparts. As such it is debatable whether a verb such as ‘give’ in (206) <he buy yam give me> ‘he bought a yam for me’ is in fact semantically bleached or whether it is simply the overt spellout of a subevent.

The issue of consecutivity is of course relevant in the context of Danish pseudo-coordination, as it constitutes an example of two constructions - one establishing simultaneity between two verbs (positional PC), one establishing a consecutive-causal relationship between two (directional PC) – which syntactically behave the same.

Another issue that should be considered regarding consecutivity is the so-called Temporal Iconicity Condition (Li 1993: 499<sup>23</sup>)

”Let A and B be two subevents (activities, states, changes of states, etc.) and let A’ and B’ be two verbal constituents denoting A and B, respectively; then the temporal relation between A and B must be directly reflected in the surface linear order of A’ and B’... “

This condition is based on the observation that even in SOV languages with serialisation, the internal order of the verbs does not reflect the assumed SOV-base order but instead they obey the order in which the subevents take place in the actual world.

It remains speculation, but this condition may be relevant for the absence of pseudo-coordination in German. If pseudo-coordination is in fact a kind of serial verb construction, the fact that pseudo-coordination involves copying and not bare stems combined with German being an SOV-language may block the occurrence of pseudo-coordinations.

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<sup>23</sup> Supposedly, Li’s (1993) formulation is in part based on a manuscript by Pieter Muysken (1988) with the title “Parameters for Serial Verbs”.

As for the point of serial verbs having only one Tense/Mood/Aspect value, this does not necessarily entail that TMA is only marked once. In some cases it may or must be marked on more than one verb. This is illustrated here with another example from São Tomense (Hagemeijer 2001: 417) and, in order to show that this is not exclusive to Creole languages where interference effects may be involved, an example from Akan<sup>24</sup>. (used by Baker (1989) but originally from Schachter (1974).

- (213) a. *Zon ka dese ba poson* **São Tomense**  
 Zon ASP go.down go city ‘Zon usually goes down to the city’
- b. *Zon ka dese ka ba poson*  
 Zon ASP go.down ASP go city ‘Zon always goes down to the city’
- (214) a. *Me-yεε adwuma me-maa Amma* **Akan**  
 1sS.do work 1sS.give Amma ‘I work for Amma’
- b. *Ma-yε adwuma ma-ma Amma*  
 1sS.PERF.do work 1sS/PERF.give Amma  
 ‘I have worked for Amma’

In (213) the aspectual marker is always attached to V<sup>1</sup> and obligatorily has scope over both verbs (as in a.), however, it may appear on V<sup>2</sup> too for emphasis (b.). Importantly, this does not signify independent aspect; if V<sup>2</sup> is marked, the marking must be identical to that of V<sup>1</sup>. Similarly, in (214), the tense/aspect marking (b.) and subject agreement (a. + b.) must be identical on both verbs. Clearly, this is reminiscent of Scandinavian PC where V<sup>2</sup> may or may not be finite, as long as any marking for Finiteness/Tense is identical on the two verbs involved.

## 8.1 Analyses of SVCs

### BAKER

The first analysis I will take a closer look at, is that of Baker (1989). Baker suggests that the following parameter is responsible for whether serialisation takes place in a language or not (Baker 1989: 519):

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<sup>24</sup> Akan is a Kwa language spoken mainly in Ghana.



## (215) Generalised Serialization Parameter

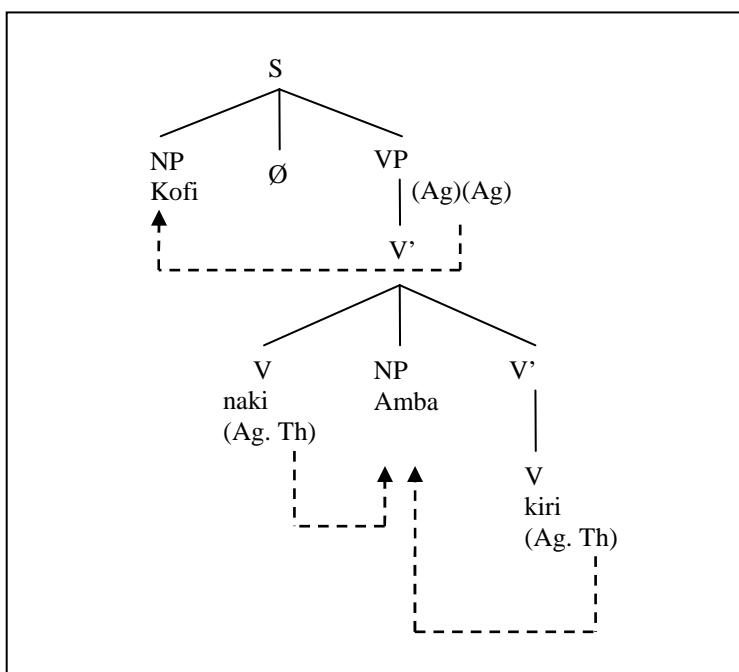
VPs {can/cannot} count as the projection of more than one distinct head:

CAN: Yoruba, Sranan, Ijo, ...

CANNOT: English, French, ...

In other words, his claim is that serialisation is essentially when a VP contains more than one head. For a sentence like (216) we get the representation in Figure 11 (Baker 1989: 520):

- (216) *Kofi nake Amba kiri*  
 Kofi hit Amba kill 'Kofi struck Amba dead'



**Figure 11**

In Figure 11, the arrows show theta-role assignment and the structure is able to explain the object sharing effect. The object  $\theta$ -role is assigned by both verbs and as they project one VP only, the agent theta-role of both verbs percolate to VP, and hence they get to share the subject too. This double  $\theta$ -assignment is made licit by this formulation of Chomsky's (1986) theta assignment condition:

- (217)  $\alpha$  may  $\theta$ -mark  $\beta$  only if
- a.  $\alpha$  and  $\beta$  are structural sisters, *or*
  - b. a projection of  $\alpha$  is a structural sister of  $\beta$

Hence, in Figure 11 *naki* may theta-mark *Amba* because they are sisters (a.), and *kiri* may do so because a projection of it is a sister of *Amba* (b.). In Baker's view, serialisation and complex predication are structural phenomena, not lexical ones.

Figure 11 represents one of the first attempts at splitting up the verb-internal structure (cf. Larson's 1988 VP-shells hypothesis). Basically, this is the same approach that has now become elaborated and refined by e.g. Ramchand, and also the baseline that I adhere to. Essentially it allows one to argue that verb serialisation is an overt spell-out of individual components of complex events. In other languages the same components may be inherent in an individual verb or they may be expressed by means of for example adverbial modification. For the example in Figure 11 we can – in the terms of Ramchand (2008) for example assume that *naki* 'hit' occupies the InitP and ProcP while *kill* is the head of the ResP, i.e. adding a terminal point to the hitting. *Amba* is in the specifier of the ResP filling the role of 'holder of state' and moves to fill the specifier of the ProcP, as 'undergoer' or 'patient'.

Baker's syntactically based analysis is also able to account for those cases where the internal argument of  $V^1$  is the subject of  $V^2$ . This is for example the case in the following Yoruba example from Bamgbose (1974) (quoted from Baker 1989: 529):

- (218) *Olú ti ọmọ náà şubu*  
 Olu push child the fall 'Olu pushed the child down'

Here the fact that the child can be the object of  $V^1$  and subject of  $V^2$  is explained by the fact that 'fall' being unaccusative holds only one theta-role to assign. Hence no agent theta role is percolated to VP, i.e. *Olu* is only the subject of 'push'.

But what about (211)? There, both verbs appear to have their argument structure saturated independently of each other, at least with respect to the internal argument. Baker (1989: 539) argues that this is due to the fact that the verb *koti* 'cut' has an optional in-

strumental theta-role. As such the two verbs in fact do share the argument ‘knife’ but assign it two different thematic roles. The example is reminiscent of a dubious case of pseudo-coordination, namely a sentence such as (45) from Danish, for convenience repeated here as (219) where a causal relationship between two verbs trigger pseudo-coordination-like behaviour, despite the verbs generally not being allowed to pseudo-coordinate:

- (219) *Hvad åbnede Peter døren og så?*  
 What opened Peter the.door and saw

The exact status of this construction is still uncertain but as I have shown, it does not pattern completely with pseudo-coordination. Rather, it appears that the semantic subordination here (the causal relationship between the two verbs) by whatever mechanism dissolves the coordination structure, making it transparent for extraction.

#### **BAKER & STEWART (2002)**

Baker & Stewart’s (2002) work on Edo, Nupe and Yoruba depart from the double-headed VP approach of Baker (1989), but maintain some of the earlier insights. Preceding their analysis they argue against Kratzer (1996) and Chomsky (1995) whose claim is that licensing of the agent theta role and assignment of accusative case takes place in one head (Voice or little *v*). Baker & Stewart argue that these two tasks are carried out by two different heads; the higher head “Voice” being responsible for the agent theta role and *v* for accusative case. In between the two heads, they further assume the presence of an Asp/MoodP with a specifier available for operator movement, giving this representation [TP [VoiceP [Asp/MoodP [vP [VP ]]]]] (Baker & Stewart 2002: 9).

They argue that three kinds of SVCs can be distinguished in the relevant languages (although not claiming that SVCs cannot be different from those); consequential (CSVC), purposive (PSVC) and resultative (RSVC) as illustrated below (Baker & Stewart 2002: 2-3):

- (220) a. *Musa du etsi kun* **Nupe – CSVC**  
 Musa cook yam sell ‘Musa cooked a yam and sold it’
- b. *Òzó ghá gbè éwé wù* **Edo – RSVC**  
 Ozo FUT hit goat die ‘Ozo will strike the goat dead’

- c. *Òzọ ghá miè̀n iyán èv́á lé* **Edo – PSVC**  
 Ozo FUT find yam two cook  
 ‘Ozo will find two yams to cook’ (assertive)

Their focus is on consequential SVCs but analyses of all three kinds are presented, and summarised in this table:

| Type | Size of VP2 | Object of VP2 | Attachment site               |
|------|-------------|---------------|-------------------------------|
| CSVC | vP          | pro           | adjoined to vP <sup>1</sup>   |
| RSVC | VP          | none          | complement of V <sup>1</sup>  |
| PSVC | AspP        | wh-trace      | adjoined to AspP <sup>1</sup> |

**Table 3**

The main difference from Baker (1989) is that now a pro object of V<sup>2</sup> is assumed for some SVCs and that the notion of double-headed verb phrases has been abandoned. Also of importance is that Baker & Stewart admit the possibility that some instances of SVCs are cases of complementation and others are of adjunction.

It should be noted that the SVCs under investigations are of a different type than those relevant to Danish pseudo-coordination. In Baker & Stewart’s manuscript all SVCs have a transitive verb as V<sup>1</sup> and this obviously affects the analysis. Their analysis is however still relevant in this connection, in part because it allows different kinds of underlying structures of SVCs but also because they show that the second verb is always functionally reduced. For CSVCs they argue that the second verb is a vP, but it should be kept in mind that due to their separation of agentivity from vP, it is a non-agentive complement. Also the AspP of PSVCs is below the VoiceP containing the agent.

As for the attachment site of V<sup>2</sup>, things get slightly more problematic. Recall, that it is argued that RSVCs are complements, whereas PSVCs and CSVCs are adjuncts. For RSVCs, Baker & Stewart (2002: 36) rely on Saito & Hoshi’s (1998, 2000) analyses of complex predicates involving incorporation of V<sup>2</sup> into V<sup>1</sup> at LF. As incorporation is not allowed from an adjunct, they conclude that in RSVCs, V<sup>2</sup> is a complement of V<sup>1</sup>. They back up this claim with Edo data showing that V<sup>2</sup> of RSVCs may not co-occur with goal PPs or resultative APs, presumably because the complement position of V<sup>1</sup> is already filled.

The problem is that PSVCs and CSVCs are assumed to be adjuncts and this makes it difficult to explain extraction facts; objects of the second verb of CSVCs but not of PSVCs may be extracted. This is accounted for by arguing that only the latter type contain a *wh*-trace and are formed by null operator movement (Baker & Stewart 2002: 29). In the former type there is no operator to scope over the second verb, and hence it is not an island for extraction. The lack of extraction from PSVCs indeed suggests that the purposive SVCs are adjoined (as most purpose clauses in the Germanic languages, too, cf. the chapter on motion verbs), but it does not entail that CSVCs are adjunction structures as well. Rather, the fact that extraction is possible is a strong indication that we are dealing with a subordination structure.

This, they argue, cannot be the case because no V-V-incorporation takes place (based on compounding facts from Edo) and therefore the second verb must be in a position that disallows incorporation. It is however quite possible that incorporation is blocked for independent reasons, e.g. a filter blocking incorporation of transitive verbs or something similar.

Furthermore Baker & Stewart (2002: 37) argue that “X can be the complement of Y if and only if X and Y enter into a thematic relationship”. Since in their terms, a *vP* cannot assign a theta-role (cf. the separation of *VoiceP* from *vP*) there is no thematic relationship between the verbs. However, it would appear that in some cases the limits of what a speaker can perceive as one (complex) event are stretched and semantic subordination may be achieved (cf. Culicover & Jackendoff 1997).

I will leave this issue unresolved at this point, and merely state once again that the data and considerations delivered by Baker & Stewart are by no means conclusive evidence that SVCs are adjunction structures. Rather, there is evidence to the contrary.

Baker & Stewart (2002: 14) make another highly relevant point; that presence/absence of resultative and consequential SVCs is related to verbal inflection, such that languages with verbal inflection do not serialise and vice versa. That there actually is a correlation between these properties is backed up by a language like Igbo. Igbo is of the Kwa family where serialisation is very common, but Igbo has relatively rich verbal morphology and does not display serialisation.

Baker & Stewart first establish the following two principles for SVCs and then the parameter which supposedly distinguishes serialising vs. non-serialising languages (Baker & Stewart 2002: 16):

**PRINCIPLES**

- (221) The two verbs of an RSVC and a CSVC must match morphologically
- (222) Each tense node has a unique morphological realization in the clause

**PARAMETER**

- (223) Verbs must be inflected for tense and finiteness

If the parameter is active in a language (as it generally is in the European languages) it is incompatible with the two principles.

As for (221), note that PSVCs are not mentioned. This is due to two facts. For one, English has a construction which is similar, namely of the type *Chris bought a book to read* (Baker & Stewart 2002: 15). Secondly there is a difference between PSVCs vs. RSVCs and CSVCs in Edo. Edo has one tense-suffix (for the past perfective) and when it is realised, only PSVCs are possible.

Under 8.3, I will return to Baker & Stewart's analysis and see how it relates to constructions in the Germanic languages.

The main views of Baker & Stewart (2002) which I share are the relationship between inflectional morphology and serialisation and the partial or entire lack of functional structure above the second verb.

**LEFEBVRE (1991):**

Lefebvre (1991) looks specifically at ‘take’-serials, i.e. constructions where ‘take’ is the highest verb in the series and she suggests a complementation analysis. ‘Take’ she understands as a causative verb which selects a propositional complement (a bare VP). Based on the argument structure changing effects related to SVCs, she concludes that the verbs not only form one event, they even conflate their “Lexical Conceptual Structures” (LCS). She says explicitly that, unlike Baker (1989, 1991), she considers serialisation to be essentially a lexical operation, not a syntactic one.

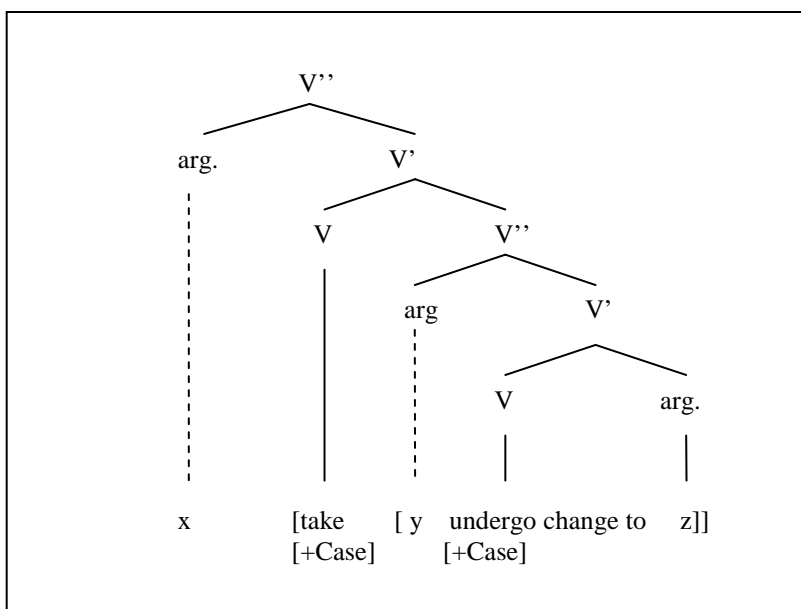
For the sentence <Koku take crab go market> ‘Koku brings a crab to the market’, the conflation presumably looks like this (Lefebvre 1991: 60):

LCS of ‘take’: [x cause]

LCS of ‘go’: [y undergo change of location to z]

LCS of ‘take-go’: [x cause [y undergo change of location to z]]

After this conflation has taken place, the derived lexical element projects in the syntax into a Larsonian layered VP, resulting in the following representation (Lefebvre 1991: 66):



**Figure 12**

The main reasons Lefebvre attributes serialisation to lexical properties are that i) not all verbs serialise, ii) hierarchical and word order properties of SVCs are fixed, and iii) the argument structure of the verbs involved is altered. Therefore serialisation cannot be taking place in syntax, she argues.

In the context of this dissertation, the main points of interest in Lefebvre's analysis are that she considers SVCs to be subordination structures and that the size of the embedded VP is so reduced as to not contain any independent functional structure. Whether or not a lexical conflation takes place is not directly relevant, but her semantic (de)composition closely resembles my own.

### **COLLINS (1997)**

Collins (1997) presents a different analysis of SVCs, based on Ewe (a Kwa language spoken in Ghana, Togo and Benin) and mainly concerns himself with the SVC property of object sharing. His analysis goes explicitly against Baker's (1989) analysis.

In essence, Collins' proposal is also a VP-shell analysis with an empty category (pro object) which is coreferent with the higher object, hence mediating the object sharing. Collins' analysis crucially depends on the semantically empty element *yi*, a case assigner which Collins describes as follows (Collins 1997: 469):

- (224)            *Case assignment by yi*  
                   Any NP in the government domain of a verb that has not been assigned Case can be assigned Case by the postposition *yi*.

This case assigner may not appear if case has already been assigned, or if there is no potential case receiver, i.e. a nominal element, present:

- (225)            *Kofi fo Yao (\*yi)*  
                   Kofi hit Yao POSTPOS.

Collins shows that in true SVCs<sup>25</sup> consisting of two transitive verbs, the postposition is optional, suggesting to him that there must be a potential case receiver present which has not been assigned case already, i.e. a pro object.

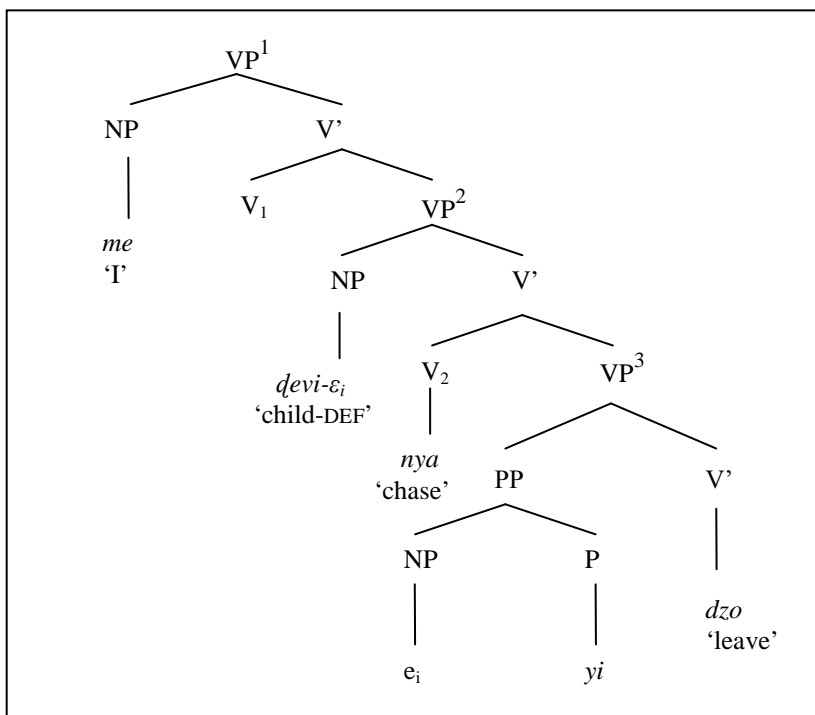
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<sup>25</sup> Collins accepts Baker's distinction between true SVCs and cases of covert coordination or parataxis (Baker: 1989: 546 ff and Collins: 1997: 464)



This renders the following basic structural representation in Figure 13 for the sentence in (226) (Collins 1997: 474):

- (226)            *Me nya dɛvi-ɛ<sub>i</sub> dzo [ɛ<sub>i</sub> (y<sub>i</sub>)]*  
 I    chase child-DEF leave            POSTPOS. ‘I chased the child away’



**Figure 13**

The insertion of VP<sup>1</sup> is done in order to derive the actual word order observed in (226); it provides a landing site for the V<sup>2</sup> ‘chase’. It follows that for Collins, object sharing *per se* is not taking place; instead it is a case of obligatory control (i.e. the object of the higher verb must necessarily be the subject of the lower verb). Finally, Collins (1997: 485) assumes that the second verb incorporates into the first at LF.

Collins’ analysis is relevant in the present context for a number of reasons. He defends a subordination analysis of SVCs with layered VP-shells, as I do too, and the structure is close to my analysis of ECM-cases with IPP which I will develop in Part II.

## 8.2 Preliminary Conclusion on SVCs

As could be seen, the analyses of SVCs differ significantly, particularly with respect to the way,  $V^2$  is joined to  $V^1$ . There are however similarities, particularly as regards the structure of the complement verb. As I have shown, linguists also disagree with respect to whether lower serial verbs have objects, and if they do, what the nature of these will have to be but it is generally agreed that the lower verbs (all except the first in the series) are bare VPs or maximally vPs.

We have furthermore seen that the verbs that serialise cross-linguistically form relatively homogenous groups. Motion verbs are high-frequent serialising verbs; sometimes they can be seen either as light verb versions of their full verb counterparts, signifying for example only that a change of state/location takes place whereas at other times they are to be considered the overt spell-out of subevents. As such, there are cases of simultaneity and of consecutivity in a nice parallel to positional and directional pseudo-coordination

We have also seen a less homogenous group of serialising verbs. These verbs do not appear to be characterised by their own internal structure as such, but they become able to serialise when a causal, consecutive relation is established between two verbs. These constructions display similarities with the PC-like asymmetric coordinations described in 3.2.

In the following, I will compare serial verb constructions to pseudo-coordination in Danish and English, and entertain the notion that these superficially rather different constructions are in fact structurally very similar.

## 8.3 Germanic serial verb constructions?

### DANISH

I will now briefly touch upon the topic of PSVCs, the Purposive SVCs that are not included in Baker and Stewart's (2002) principles and parameter. The prototypical example used by Baker & Stewart was <Ozo<sub>FUT</sub> find yam two cook> 'Ozo will find two yams to cook', i.e. a SVC with object sharing. In Danish there is a comparable construction, but it is highly restricted, only with indefinite pronoun objects is the sentence unproblematic; with a proper DP, the example is much degraded:

- (227) a. *Jeg vil have noget at spise*  
 I want have something to eat
- b. ?? *Jeg vil have en burger at spise*<sup>26</sup>  
 I want have en burger to eat

Bayer & Brandner (2004) examine this construction in two German dialects, Bavarian and Alemannic and compare it to Standard German. In Standard German, the construction is parallel to the Danish with what looks like a regular infinitive, including the standard infinitive marker, taking an indefinite pronoun object.

In Bavarian and Alemannic, however, in this particular construction, the verb that surfaces shows a particular form, cf. (228) (Bayer & Brandner 2004: 2):

- (228) a. *gib ire ebbes z'essit* **Alemannic**  
 give her something to.eat
- b. *host vos z'trinka?* **Bavarian**  
 have.you something to.drink

In Alemannic, the morphological curiosity is the dental stop at the end of the infinitive which otherwise does not appear at the end of infinitives, and in Bavarian, the infinitive marker is not the regular *zum/zun*, instead it is a cliticised version of it, *z'*. This indicates that the construction is structurally different from a clausal infinitive, and Bayer and Brandner analyse the infinitive as a small clause predicate with the indefinite pronoun as its subject. The fact that the restrictions on these infinitives are similar to those of Standard German (and Danish) indicates that these cases too, despite superficially looking like a clausal infinitive, have a different underlying structure.

If we are willing to assume that object sharing is not necessary in SVCs, we have another parallel to PSVCs; directional pseudo-coordination, in which the second verb is semantically and syntactically dependent on the first, i.e. in which the purpose of the first verb is to achieve the second.

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<sup>26</sup> This sentence is marginally available to some speakers, however, as pointed out by Bayer & Brandner (2004) the intonation is different and so is the interpretation. It can be paraphrased as 'I want a burger, and then I'll eat it' which is a different structure. Also, while the sentence may be processable, it is unlikely to be uttered and the processing probably applies repair strategies to get an interpretation at all.

Furthermore, in German there is a construction which also differs from both normal final clauses and from standard infinitives, namely motion verb + bare infinitive, which will be examined and analysed in chapter four.

As mentioned earlier in this chapter, Danish shows some peculiarities with respect to imperatives, specifically that in the imperative and the imperative only, verbs such *prøve* ‘try’ and *begynde* ‘begin’ are allowed to pseudo-coordinate. As for *komme*, in colloquial speech, there is one more peculiarity, namely that in the imperative you may add a second verb without any joining element:

- (229) *Kom* *hør* *hvad jeg kan spille*  
 Come.IMP hear.IMP/STEM what I can play

An option is that there is a pause between the two verbs in which case we would be dealing with an ordinary coordination structure where the coordinating conjunction has been elided. For several reasons, this is not very likely. First of all, there is no intonational break between the verbs. This is obviously a somewhat unreliable criterion, unless backed up by actual measurements of recordings or the like. A more principled argument can however be derived from the fact that the construction is only possible with *komme* as V<sup>1</sup>.

Generally the verb *gå* cannot appear in the imperative without a particle or a PP-complement. When such a particle is present, it is still not possible to add another verb without a connecting element. When *komme* appears with a particle or a directional PP, the construction is equally ungrammatical:

- (230) a. \* *Gå ud hør hvad jeg kan spille*  
 go.IMP out hear.IMP/STEM what I can play  
 b. \* *Kom ind hør hvad jeg kan spille*  
 come.IMP in hear.IMP/STEM what I can play

The only way to save this, is to make a proper pseudo-coordination:

- (231) *Kom ind i stuen*                      *og hør, hvad jeg kan spille*  
 come into the.living room OG hear what I can play

#### AMERICAN ENGLISH

American English also displays this apparent serialisation with motion verbs, and to an even higher degree than Danish. First of all, in American English both ‘come’ and ‘go’ allow bare verbal complements when they show no overt inflection (Jaeggli & Hyams 1993: 316 ff).

#### IMPERATIVE:

- (232) a. *Go see your supervisor as soon as possible*  
       b. *Come see me when you have the time*

#### INFINITIVE:

- (233) a. *I will go get a doctor as soon as possible*  
       b. *He will come visit me soon*

#### FINITE +/- INFLECTION

- (234) a. *They go see him every day*  
       b. *They come visit very often*  
       c. \* *He goes sees his supervisor every day*  
       d. \* *He comes visits me every day*

Recall from 6.2.1 that English PC is less restricted than the examples where the verbs serialise without a joining element, such that only in those cases where the verb is inflected for person (3<sup>rd</sup> ps. sing.), PC is not possible. Past tense inflection alone is not a problem.

While the Germanic languages appear to have a kind of surface filter prohibiting bare stems, they do allow it when the bare stems, such as in (229) and (232)-(234), are licensed for other reasons, either by the imperative context, or in (233) and (234) where non-inflected forms that also equal the stem. This leads me to draw the tentative conclusion that we do have serial verb constructions in the Germanic languages, even if it is very restricted.

My analysis patterns with Carden & Pesetsky (1977) which was one of the first attempts to give an account of “V<sub>1</sub> V<sub>2</sub>” construction in English. As do I, they consider *come/go* (and to some extent ‘run’) + V a subtype of pseudo-coordination.

Their main contribution concerns the bare surface forms which are always required in English. They argue that in English, the present tense (except 3<sup>rd</sup> person singular), infinitives, and imperatives are in fact bare stems, i.e. they do not have a Ø-morpheme. The main argument comes from the verb *come* whose past participle is homophonous with the infinitive. However, a past participle of *come* cannot take a bare verb as its complement, cf. the following examples (Carden & Pesetsky 1977: 83):

- (235) a.            *John will come live with us*  
           b.        \* *John has come live with us*

This means that the filter regulating which verbs may take bare verbal complements is not sensitive to the surface output but rather to whether a tense morpheme is at all present. While a parallel test cannot be set up for Danish because the past participle of *komme* ‘come’ is morphologically distinct from the infinitive, I will assume that the same generalisation holds there too.

It looks as if the surface filter against bare stems essentially works the same way in English as it does in Danish, the difference being that in English, many more verbal forms are identical to the stem, hence allowing occurrences of finite and non-finite verbal complements without a subordination marker.

### 8.3.1 SVC properties revisited

Keeping in mind the general properties of pseudo-coordination and specifically the properties of ‘come’/‘go’ + bare form in Danish and English, we will see how they fare with respect to the properties of serial verb constructions listed at the beginning of section 8.

- Serial verbs act together as a single predicate:

Pseudo-coordinations have been shown to work as one predicate. For example modal verbs and negation (constituent negation excluded) obligatorily have scope over both verbs. Temporally and aspectually the two verbs are codependent. Furthermore, in directional PC, the action expressed by  $V^2$  cannot take place, if  $V^1$  is not realised.

- SVCs have no overt coordination or subordination marker:

Normal Scandinavian pseudo-coordination has the element [o] between the verbs. It is evident that this element is neither a proper coordinating conjunction, nor an infinitive marker. In my analysis, it is a kind of “light” coordinator, stripped of its syntactic features and hence not present in the syntactic structure. It has retained its phonological features and therefore it surfaces. In other words, the status of normal PCs with respect to the SVC-property depends on the exact definition of “overt marker”. I will leave this open and simply state that despite the fact that an element does surface between the verbs, its status is not that of ordinary coordination or subordination markers.

In the imperative, it has been shown that the element between the verbs may be left out entirely, arguably because the bare stems are licensed independently and therefore a phonological copy marker is not required. To back up this hypothesis, I presented evidence from English where finite and non-finite forms of verbal complements of ‘come’ and ‘go’ are licensed without an element mediating, as long as the surface form is identical to the bare stem.

- SVCs show monoclausal properties:

As clear restructuring effects such as object scrambling or other kinds of movement have not been established for Danish, it is hard to test for this property. However, the fact that the temporal reference is fixed, is a strong indication that it is a monoclausal structure. Even in directional pseudo-coordination, where the two verbs are not simultaneous, they must be immediately consecutive and cannot have different time references.

- Serial verbs have only one tense/aspect/polarity value

Pseudo-coordination may be finite or non-finite but must always appear in the same form, i.e. despite tense being marked on both verbs, there is always one tense value only. Verbal inflection is very limited in Danish but the dependency is present in both the indicative and the imperative.

- Serial verbs may share arguments (internal/external)

Pseudo-coordinations always have a shared subject which is not allowed to be repeated. As the PC-verb is always intransitive, object sharing is not a relevant parameter. Only reflexive pronouns acting as non-thematic objects of causative positional verbs are allowed.

- Serial verbs can each appear alone in other contexts

All PC-verbs are full-fledged lexical verbs that may act as the main predicate in other contexts. By virtue of being positional verbs and verbs of movement, they do however always require complementation of some kind or other, be it a final non-finite clause, a locative/directionality expression or a specification of manner.

After presenting data and analyses of serial verb constructions, we can now add one further property:

- “Complements of serial verbs have little if any functional structure above vP”

In fact this is not an additional property, but rather the underlying reason for the properties listed above. As other people have showed it for SVCs, I have shown that this is likely to be the case under PC too.

I will now return to Baker & Stewart’s (2002) principles and parameter for serialisation ((221) - (223)), repeated here as (236) - (238).

#### **PRINCIPLES**

- (236) The two verbs of an RSVC and a CSVC must match morphologically  
 (237) Each tense node has a unique morphological realization in the clause



**PARAMETER**

(238) Verbs must be inflected for tense and finiteness

The question to be explored now, is whether these criteria can be applied to English and Danish pseudo-coordination and ‘come’/‘go’ + bare stem and whether that brings us any closer to an explanation.

First, consider pseudo-coordination. As for principle (236), we see that this criterion is met. The two verbs in a pseudo-coordination always show identical inflection. As for (237), it is not a problem either. It has been argued that there is no tense node associated with the second verb and as such only one morphological realisation is required (i.e. the one on the first verb).

Next we consider the variable parameter. Baker & Stewart claim that in the European languages this parameter value is positive, even though this claim is actually not trivial. True, it does hold for most European languages, including many instances in English and Danish, but it is remarkable that exactly those languages that allow pseudo-coordination are the ones in which the verbal morphology has been significantly weakened (cf. Mainland Scandinavian vs. Icelandic or Dutch vs. Afrikaans). Danish shows no person/number agreement at all and for many verbs the infinitive and the present tense are homophonous (or the present tense marking consists of a change of vowel quality only), and sometimes these equal the stem. In English the present tense (excluding 3<sup>rd</sup> person singular), and the infinitive of almost all verbs are identical, and these in turn are identical to the stem.

One possibility could be that this parameter setting is weakening as part of a grammaticalisation process. In other words, it could look as if at least Danish and English are in the process of resetting this parameter. It still has not been reset completely, verbal stems are not allowed to surface unless licensed independently and therefore the languages must resort to repair strategies such as copying. However, Mainland Scandinavian and English PCs are very stable and have existed for centuries. Also, these languages at least superficially appear to have a “mixed setting” for this parameter; we generally do inflect for Tense and finiteness, but not always.

Next, consider the Danish imperative of ‘come’ + bare stem and the English come/go + bare stem. Here the first criterion is met and the two verbs always appear in the same

morphological form. As for the second criterion, it can be assumed that it is also met. I assume that imperatives are bare VPs and hence no tense node is present at all. As such they show the same properties as pseudo-coordination. They do however differ from these with respect to the parameter of marking of tense/finiteness. Imperatives are neither finite nor non-finite and cannot appear in any other shape, i.e. they cannot show inflectional agreement or appear in different tenses. They can be taken to be bare lexical roots and because of this they are allowed to serialise without overt marker of coordination or subordination.

In other words it would seem that Baker & Stewart's (2002) parameter is too strongly defined. Languages may have a tendency to either mark finiteness/tense or not, but it need not hold for all cases in any one language. Rather, it should probably be considered a principle of true SVCs which could be reformulated something like (239):

- (239) If a verb is inflected for tense and finiteness, serialisation without overt marking of subordination/coordination is not possible.

I will not commit myself to a firm answer to the question of whether Danish and English have serial verb constructions or not; it all depends on the definition of SVCs, and as such the question is not even that interesting. What I will conclude is that the structure underlying serial verb constructions and constructions with verbs of movement and position in Danish and English is very similar. In all cases we have complex event formation, with one verb carrying the functional load (and sometimes adding lexical information too) and the second verb being a purely lexical element with only a minimum of functional structure (vP).

The surface differences between SVCs (in general, as they differ significantly too) on the one hand, and Germanic complex predicate formation are just that, surface differences – which can possibly be reduced to a single surface filter against bare stems (or in Baker & Stewart's (2002) terminology to the parameter in (238)). This filter in turn probably has to do with the fact that the European languages are inflectional; even in languages like English and the Scandinavian ones where inflection has become greatly reduced, we do nevertheless usually mark (non)finiteness/tense on our verbs.



## Part II – Infinitivus Pro Participio

### 9 Introduction to IPP

IPP or the Infinitive for Participle is a well-known riddle of West Germanic syntax<sup>27</sup>. The amount of literature on the subject is immense yet still no consensus as regards its analysis has been reached.

In this chapter, I will first give a characterization of the basic properties of IPP, both with respect to the morphology and the word order properties and give an overview of which languages have IPP and to what extent. Then I will move on to give a presentation of some of the most significant accounts of IPP, a presentation that will be far from exhaustive due to the amount of literature on the topic. Finally I will present my own analysis of IPP, according to which IPP should be seen in a larger context of quirky verbal morphology. In defending this view, I base myself on the chapter on Scandinavian pseudo-coordination. I argue that IPP is independent of (or at least not caused by) reordering effects. Rather, I claim, it is an effect that arises when a verbal complement is too small for independent form assignment to take place. In this, to a large extent, I follow Zwart (2007)

#### 9.1 Basic properties of IPP

The phenomenon of IPP is characterised by the occurrence of an infinitive where a past participle would have been expected as in (1) where the modal must obligatorily be an infinitive (superscript numbers refer to the hierarchical position of the verb, such that V<sup>1</sup> is superordinate to V<sup>2</sup>)

- (1) a. *Ich habe* (V<sup>1</sup>) *es nicht sehen* (V<sup>3</sup>) *wollen* (V<sup>2</sup>)  
I have it not see.INF. want.INF.
- b. \* *Ich habe* (V<sup>1</sup>) *es nicht sehen* (V<sup>3</sup>) *gewollt* (V<sup>2</sup>)  
I have it not see.INF. wanted.PAST.PART.

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<sup>27</sup> Although English is also a West Germanic language, for all intents and purposes of this chapter, it belongs to a different sub-group than the Continental West Germanic languages. For ease of exposition, I am using the term “West Germanic” throughout, but unless stated explicitly, I am not including English.

Importantly this is not due to a defective paradigm; in other contexts the past participle is available (and in fact obligatory):

- (2) a. *Ich habe es nicht gewollt*  
I have it not wanted.PAST.PART.
- b. \* *Ich habe es nicht wollen*  
I have it not want.INF.

While the extent to which IPP occurs varies within the relevant languages, the following formal criteria are valid for all cases of IPP:

- [TP {V<sup>n</sup>, V<sup>n+1</sup>, V<sup>n+2</sup>}], where n is arbitrary
- V<sup>n</sup> is a perfect tense auxiliary
- V<sup>n+1</sup> is an IPP-verb

This means that all cases of IPP contain a verb in the perfect tense. This verb has a verbal complement in the shape of an infinitive with or without an infinitive marker. Above and below other verbs may occur. The variable responsible for the varying extents of IPP in the different languages is which verbs are classified as IPP-verbs. I will get back to what defines an IPP-verb in section 9.3.

In Standard German, IPP is obligatory with the causative verb *lassen* and with modal verbs, and optional with perception verbs:

- (3) a. *Der König hat seinen Diener holen lassen*  
The king has his.ACC. servant fetch.INF. let.INF.
- b. \* *Der König hat seinen Diener holen gelassen*  
The king has his.ACC. servant fetch.INF. let.PAST.PART.  
Both: 'The king had his servant fetched'
- (4) a. *Maria hat Peter nach Hause kommen sehen*  
Maria has Peter to home come.INF. see.INF.
- b. *Maria hat Peter nach Hause kommen gesehen*  
Maria has Peter to home come.INF. see.PAST.PART.  
Both: 'Maria heard Peter come home'

As for the internal word order of the verbs, potentially it could be ascending, descending or mixed. A descending word order is one where the higher verb precedes its complement, i.e. it is the dominant word order in head-initial languages such as English (superscript numbers refers to the hierarchical status of the verb, such that V<sup>1</sup> selects V<sup>2</sup>)

(5) *Peter has (V<sup>1</sup>) wanted (V<sup>2</sup>) to read (V<sup>3</sup>) a book for a long time*

The descending word order is found in Dutch 3-verb clusters with IPP with a modal verb (<http://www.let.ru.nl/ans/e-ans/> § 18·5·7·2·ii) (an embedded clause is used to avoid interference from Verb Second):

(6) *Ik hoor dat Jan die brief heeft (V<sup>1</sup>) moeten (V<sup>2</sup>) schrijven (V<sup>3</sup>)*  
 I hear that Jan the letter has must.INF. write.INF.  
 ‘I hear Jan has had to write the letter’

In contrast, the ascending word order is found e.g. in German future tense constructions or constructions with certain control verbs:

(7) a. *...dass er das Buch morgen lesen(V<sup>3</sup>) können(V<sup>2</sup>) wird(V<sup>1</sup>)*  
 ...that he the.ACC. book tomorrow read.INF. can.INF. will.AUX.  
 ‘...that he will be able to read the book tomorrow’

b. *...dass Max die Vögel zwitschern (V<sup>3</sup>) gehört (V<sup>2</sup>) hat (V<sup>1</sup>)*  
 ...that Max the birds twitter.INF. heard.PAST.PART has

In connection with IPP, mixed word orders are often observed, such as in (8)a. from Standard German in which the highest verb must precede the two verbs which in turn are ordered in ascending word order. Here, the strictly ascending word order from (7) would be ungrammatical (b.-example):

(8) a. *...dass Peter das Buch hat (V<sup>1</sup>) lesen (V<sup>3</sup>) wollen (V<sup>2</sup>)*  
 ...that Peter the book has read.INF. want.INF.

b. \* *...dass Peter das Buch lesen (V<sup>3</sup>) wollen (V<sup>2</sup>) hat (V<sup>1</sup>)*  
 ...that Peter the book read.INF. want.INF. has  
 Both: ‘...that Peter has wanted to read the book’

## 9.2 The historical development of IPP

The IPP-effect is observed in German and Dutch texts from as early as the middle of the 13<sup>th</sup> century (Hinterhölzl 2009: 192, Paul 1988 § 335c). Over both time and space there

has been great variation with respect to which verbs are considered IPP-verbs. Kurrelmeyer (1910) lists 15 German verbs which are or have been IPP verbs and when they were first attested as such. The oldest of these *tun* ‘do’, now enters periphrases in some dialects (mainly Southern German) and no longer triggers IPP. In Dutch, the corresponding verb *doen* is a causative verb with obligatory IPP (Schmid 2005: 30). Among other examples Kurrelmeyer illustrates the contrast between two examples, one from 1254 where the past participle is still used and one from 1268 with the substitute infinitive. Both examples are from official records (Kurrelmeyer 1910: 158):

- (9) a. *Zo hebben wi ze ghedaen beseghelen* (1254)  
 Thus have we them do.PAST.PART. seal.INF.  
 ‘Thus we have sealed them’
- b. *Soe hebbic desen brief doen besegelen* (1268)  
 Thus have.I this letter do.INF. seal.INF.  
 ‘Thus I have sealed this letter’

Over the next centuries, the phenomenon expanded to other verbs, covering modal verbs (including the no longer existing *türren* ‘dare’), the semantically more or less specified causative verbs *lassen* ‘let’, *helpen* ‘help (which now triggers IPP in some dialects only), and *heißen* ‘bid’ (now antiquated, but when used, with optional IPP), and the verbs of passive perception *hören* ‘hear’ and *sehen* ‘see’ (now these optionally trigger IPP in Standard German). According to Kurrelmeyer (1910: 157) the construction as we know it today was fully developed by the beginning of the 16<sup>th</sup> century, i.e. by the time the first steps towards a standardisation of the German language were taken (cf. Luther’s translation of the Bible in 1522; see e.g. Bekker-Nielsen 2001: 393).

Interestingly, in the many cases attested by Kurrelmeyer we also see a variety of word orders. In 3-verb clusters in root clauses where V<sup>1</sup> has moved to C°, we see both word orders 2-3 and 3-2, as illustrated here by the modal verb *müssen* ‘must’, (Kurrelmeyer 1910: 161). Judging by the examples provided by Kurrelmeyer, the (1)-2-3 order was however by far predominant.

- (10) a. *hat ... angeloben* (V<sup>3</sup>) *muessen* (V<sup>2</sup>)  
 has ... enlist.INF. must.INF.  
 ‘...has had to enlist (in the army)...’
- b. *hat miesen* (V<sup>2</sup>) *angeloben* (V<sup>3</sup>) *bis zu austrag seiner sachen*  
 has must.INF. enlist.INF. until settlement of.his affairs  
 ‘He has had to enlist (in the army) until the settlement of his affairs...’

In these two examples in (10), it should be noted that the *-ge-* infix of *angeloben* is not the participial prefix. More likely, it is an example of the older usage where *ge-* was used to create perfectivity. The verb also existed in the form *loben* ‘promise’ which, combined with *ge-* and the telicity inducing particle *an-*, has created a specific lexical meaning.

Grimm observed the IPP phenomenon and characterised it the following way (Grimm 1819: 195):

“Wenn nun nhd. nicht das allein stehende, sondern das mit einem inf. verbundene part. scheinbar selbst in den inf. verwandelt wird, so begreift sich eine so seltsame structur bloß aus der zufälligen ähnlichkeit starker participialformen mit dem inf.; der wirkliche inf. wäre widersinnig. wir sagen: ich *habe* es thun *können, sollen, wollen, mögen, müssen, dürfen* statt *gekonnt, gesollt, gewollt, gemocht, gemust, gedurft*.”<sup>28</sup>

With this statement, Grimm makes his own view on IPP quite clear; to him, the replacement infinitive is not an actual infinitive, but in reality a strong participle that just happened to be phonetically similar to the infinitive<sup>29</sup>.

Kurrelmeyer disputes this claim, by referring to the fact that the strong participles of the modal verbs did not start emerging until the 15<sup>th</sup> century. In contrast the verbs *hören* ‘hear’, *tun* ‘do’, *heissen* ‘order’, *helfen* ‘help’ and *müssen* ‘must’ were the first to appear with substitute infinitives, and of these, the verbs that were first affected (*hören, tun*) did not have strong participles. Kurrelmeyer furthermore rejects the claim made by Meyer

<sup>28</sup> When in Modern High German, the participle which is combined with an infinitive, apparently turns into an infinitive itself, this queer structure results from the arbitrary likeness between strong participial forms and the infinitive. The real infinitive would be preposterous. We say: ‘I have it do can [INF. AK]’, should [INF. AK]’, want [INF. AK]’, would like [INF. AK]’, must [INF. AK]’, may [INF. AK]’ instead of... [list of the past participles of these same verbs, AK]. (translation: AK)

<sup>29</sup> The verbs of Modern Standard German can be divided into two classes depending on the conjugation. The so-called strong verbs form the past participle via ablaut and the past participial prefix *ge-* and the suffix *-en*. The weak verbs in contrast have no ablaut, but also display the prefix *ge-* and the dental suffix *-t*. The *ge-* prefix of the past participle is a relatively recent development (Behaghel 1928: 470). The past participle of strong verbs then, was phonetically quite similar to the infinitive which consists of the stem + *-en* (Nübling 2006: 6/246).



(1909) that the substitute infinitive is in fact used as a kind of suffix of the main verb and therefore reduced. While it is quite likely that prosody plays a role for reduction, the fact that the originally predominant word order was 1-2-3, speaks strongly against such a suffixation analysis.

Kurrelmeyer sums up his findings that the substitute infinitive required that the dependent verb had to be a bare infinitive and that basically a copying mechanism is in play. He expresses it the following way (Kurrelmeyer 1910: 169):

Die Konstruktion ICH HABE SAGEN HÖREN, SCHREIBEN LERNEN, KOMMEN KÖNNEN usw. wird also durch die Form des Infinitivs bedingt, der eine (einfache) Infinitiv ruft den andern hervor. Es liegt also (...) eine Ausgleichung, Assimilation der Formen vor; der Sprechende hatte von dem einen Verbum den Infinitiv schon in Gedanken und bildete danach auch die Form des andern, ihm eng verbundenen<sup>30</sup>.

Kurrelmeyer is here referring to assimilation, i.e. the idea is that the IPP-verb assimilates itself to the shape of its infinitival complement. This corresponds to what I will refer to as copying. I am quite sympathetic to this attempt to explain the IPP-effect. As assimilation can be progressive or regressive, both word orders 3-2 and 2-3 would be possible triggers. However problems arise when variants where the substitute form is not identical to that of the verbal complement (see section 11.2) and ideally we would want a uniform analysis. Still, I agree with the basic insight that the substitute infinitive is not as such just an “alternative” past participle and it must be admitted that when the substitute form is an infinitive, we cannot determine whether we are dealing with assimilation/copying or “arbitrary” insertion of a non-finite form (a notion I will return to several times throughout the dissertation).

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<sup>30</sup> “The construction ‘I have ‘say hear [INF, AK]’, ‘write learn [INF, AK]’ ‘come can [INF, AK]’ etc. is dependent on the form of the infinitive; one infinitive (the bare one) triggers the other one. As Erdmann (§153) points out, there is a harmonisation, an assimilation of forms. Because of the first verb, the speaker already had an infinitive on his mind, and therefore produced a second, closely related one. (translation: AK)

### 9.3 IPP cross-linguistically

The different extents of IPP in the relevant languages depend on which verbs are IPP-verbs. Schmid (2000, 2005) investigated seven West Germanic languages<sup>31</sup> and in what follows I will give an account of her data.

One of the most interesting observations Schmid makes, is that cross-linguistically, a hierarchy can be established for the verbs that trigger IPP (Schmid 2005:32):

| Be    | Ge    | SG    | Zü    | Du | WF    | Af    | verbal class            | Examples                               |
|-------|-------|-------|-------|----|-------|-------|-------------------------|--|
| +     | +     | +     | +     | +  | +     | +     | <b>causatives</b>       | <i>let, make, do</i>                   |
| +     | +     | +     | +     | +  | +     | +     | <b>modals</b>           | <i>may, can, must, shall, need ...</i> |
| + / - | + / - | + / - | + / - | +  | +     | + / - | <b>perception verbs</b> | <i>hear, see, feel, ...</i>            |
| + / - | + / - | + / - | + / - | +  | +     | + / - | <b>benefactives</b>     | <i>help, learn, teach</i>              |
| + / - | -     | -     | -     | +  | +     | + / - | <b>duratives</b>        | <i>stay, remain, lie, sit, be, ...</i> |
| + / - | -     | + / - | -     | -  | + / - | + / - | <b>inchoatives</b>      | <i>begin, continue, stop, ...</i>      |
| + / - | -     | -     | -     | -  | + / - | + / - | <b>control verbs</b>    | <i>try, dare, promise, ...</i>         |
| *     | *     | *     | *     | *  | *     | -     | <b>raising verbs</b>    | <i>seem, appear, ...</i>               |

|                    |  |                         |               |
|--------------------|--|-------------------------|---------------|
| + = obligatory IPP | +/- = optional IPP                         |                         |               |
| - = no IPP         | * = not applicable for independent reasons |                         |               |
| Be: Bern German    | Ge: Standard German                        | SG: Sankt Gallen German |               |
| Zü: Zürich German  | Du: Standard Dutch                         | WF: West Flemish        | Af: Afrikaans |

Table 4

The cross-linguistic implicational hierarchy is an indication that the IPP-ability of specific verbs can be derived from more basic properties. Basically it leaves us with two possible explanations for this cross-linguistic variation: Either the IPP-verbs have different internal structures/differently sized complements or the languages show parametric variation as to what kind of internal structures/what size of verbal complements is required for IPP to be triggered.

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<sup>31</sup> The term 'language' is here used indiscriminately for national standard languages as well as for dialects.

IPP is probably a subphenomenon of a more general property, verb clustering, although it is very controversial exactly what the relationship between the two phenomena is. A further complication with respect to verb clusters is the question of basic word order in the West Germanic languages. For the time being ignoring Kayne's (1994) Antisymmetry Hypothesis, the languages show a mixed order on the surface. Clauses, prepositional, adjectival and determiner phrases are generally head-initial, and also subjects appear before objects and verbs. The problems arise when considering complements of verbs; nominal objects precede the verb, verbal complements may appear before or after the matrix verb depending on several factors, and finite clausal complements always follow the verb.

I will attempt not to commit myself to either the OV- or the VO-view, as this question would require a dissertation of its own. However, in the following I want to address the question of underlying word order and show how potential word orders can be derived from both an underlying OV and VO order. Following that section, for ease of exposition I will be assuming that German is in fact SOV, but the question is not crucial to my analysis, as I attempt to show that the reordering of the verbs in a verb cluster is a PF-phenomenon and that although it does arise from similar conditions as IPP, it is not directly caused by IPP or vice versa.

#### 9.4 Verbal Status and word order

Both the selectional properties and the internal ordering of German verbs were elegantly captured by Gunnar Bech (1955). Typical for his time, hierarchical relations and linearity are not considered two aspects of the same property, hence his description is strictly linear.

As for morphological selection, Bech introduced the notion of "status"; as a parallel to nominal case, status is the verbal "case". He distinguishes three kinds of status and two levels (*Stufen*). The 1<sup>st</sup> Status is the bare infinitive, the 2<sup>nd</sup> is the marked infinitive and the 3<sup>rd</sup> is the past participle. The two levels are participle/supine which denotes the difference between the forms that can be inflected (supine) or not (participle). These distinctions are given in the table below and exemplified by the verb *lieben* 'love' (Bech 1955: 19):

|                              | <b>1<sup>st</sup> level - participle</b> | <b>2<sup>nd</sup> level – supine</b> |
|------------------------------|--|--------------------------------------|
| <b>1<sup>st</sup> status</b> | lieben                                   | liebend(-er)                         |
| <b>2<sup>nd</sup> status</b> | zu lieben                                | zu liebend(-er)                      |
| <b>3<sup>rd</sup> status</b> | geliebt                                  | geliebt(-er)                         |

Table 5

The idea is that verbal status is assigned in a fashion parallel to case. A status is governed by an adjacent element, usually a verb and it is an inherent property of that verb whether it selects the 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> status. Modals for example select the 1<sup>st</sup> status, many control verbs select the 2<sup>nd</sup> status, and perfect tense auxiliary verbs select the 3<sup>rd</sup>. Thus, looking at Bech from a more modern point of view, it is reasonable to say that IPP is an instance of “quirky status”, as a parallel to “quirky case”.

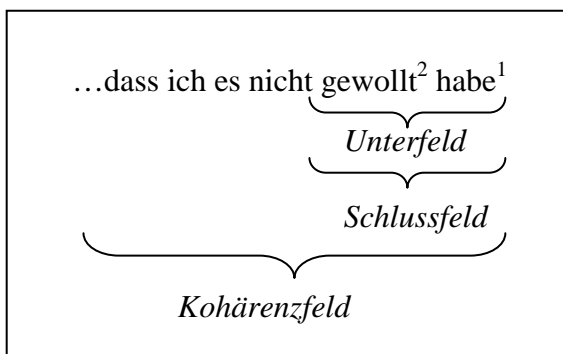
This concept of status government has dominated the literature on verbal periphrases, but in light of IPP and other instances of quirky verbal morphology, I think a revision is called for. Possibly, status government should rather be seen as a kind of surface reflex, such that a verb which selects a verbal complement may trigger specific morphemes (such as *ge-*, *zu* or *-t*) but such morphemes are not bound to appear on the immediately dominated verb. They may occur elsewhere and they may disappear if other factors, such as prosody interfere.

The internal ordering of words is captured by means of a division of the sentence into fields. Bech’s basic unit is the *Kohärenzfeld* (K) ‘coherence field’. He uses the term ‘(in)coherence’ such that an incoherent infinitive is one that is extraposed and a coherent one is one that remains to the left of its selecting verb. This *Kohärenzfeld* is divided into a *Schlussfeld* (S) ‘end field’ and *Restfeld* (R) ‘rest field’. Under Verb Second, the finite verb is in the *Restfeld*, i.e. R precedes S, but otherwise all verbs belong in the *Schlussfeld* (which in the German tradition is often referred to as *rechte Satzklammer* ‘right sentence bracket’ and this in turn is divided into the *Oberfeld*, ‘upper field’ and an *Unterfeld*, ‘lower field’ (Bech 1955: 62).

If an infinitive is *inkohärent* ‘incoherent’, the clause has more than one coherence field. Activation of the upper field, i.e. having a higher verb precede a lower verb, requires that a minimum of two verbs remain in the lower field, i.e. it is only activated when the clauses contains minimally three verbs (and even under these circumstances the

activation of the upper field (= verb raising) does not follow automatically). Hence for a two-verb clause like the following, only the lower field is present:

- (11)           ...*dass ich es nicht gewollt*           *habe*  
                   ...that I   it not   want.PAST.PART have

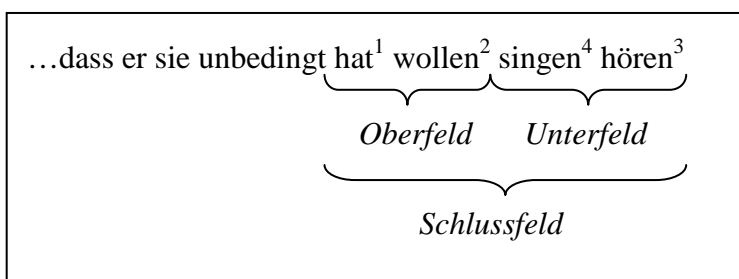


**Figure 14**

The internal ordering in the upper field is descending, i.e. a verb precedes its complement, while in the lower field the order is the reverse, ascending.

In a 4-verb-cluster like (12) the upper field is activated and occupied by  $V^1$  and  $V^2$  in descending order and the lower field is occupied by  $V^4$  and  $V^3$  in ascending order:

- (12)           ...*dass er sie unbedingt hat wollen*   *singen*   *hören*  
                   ...that he her really    has want.INF. sing.INF. hear.INF.  
                   ‘that he really wanted to hear her sing’



**Figure 15**

As 5-verb-clusters in practice appear to be the maximum in German, you get the verb orders in Table 6. The number in the top row is the number of verbs in the verbal complex while the number in the leftmost column gives the number of verbs in the upper field (Bech 1955: 63):

|          |          |          |            |               |                  |
|----------|----------|----------|------------|---------------|------------------|
|          | <b>1</b> | <b>2</b> | <b>3</b>   | <b>4</b>      | <b>5</b>         |
| <b>0</b> | V1       | V2 V1    | V3 V2 V1   | V4 V3 V2 V1   | V5 V4 V3 V2 V1   |
| <b>1</b> |          |          | V1   V3 V2 | V1   V4 V3 V2 | V1   V5 V4 V3 V2 |
| <b>2</b> |          |          |            | V1 V2   V4 V3 | V1 V2   V5 V4 V3 |
| <b>3</b> |          |          |            |               | V1 V2 V3   V5 V4 |

Table 6

According to the prescriptive grammar of Duden (1998: 816), the activation of the upper field, i.e. the deviation from the ascending order, is only obligatory under IPP and optional when the auxiliary *werden* ‘will’ or ‘become’ is used instead of *haben* ‘have’, as in (13). Here all the verbs match the selectional restrictions of the superordinate verb. It is however worth noticing that the optional verb raising is form-identical to the verb raising under IPP (V<sup>1</sup> finite, the rest infinitives)

- (13) a.           ...weil     *sie sich das Paket wird schicken lassen*  
                   ...because she REFL the parcel will send.INF. let.INF.
- b.           ...weil     *sie sich das Paket schicken lassen wird*  
                   ...because she REFL the parcel send let.INF. will.INF.  
                   ‘because she will have the parcel sent to her’

Duden (1998: 191) also makes simple and specific claims about which verbs are IPP-verbs and these are given in the table below:

| Verbs in German               | English gloss             | IPP-tendency      |
|-------------------------------|---------------------------|-------------------|
| modals, <i>brauchen</i>       | ‘need/to have to’         | obligatory IPP    |
| <i>heißen, lassen, sehen</i>  | here: ‘order’ ‘let’ ‘see’ | predominantly IPP |
| <i>fühlen, helfen, hören</i>  | ‘feel’ ‘help’ ‘hear’      | 50 / 50           |
| <i>lehren, lernen, machen</i> | ‘teach’ ‘learn’ ‘do’      | occasionally IPP  |

Table 7

Unfortunately, the situation is a lot more complex than this. First of all, as I shall show, this basic pattern only holds for Standard German. In other dialects there is much more variation both with respect to the number of IPP-verbs and to the word order possibilities.

I now want to turn to the topic of the internal ordering of the verbs under IPP in more recent generative literature. There are a few major trends with respect to verb clusters; those who assume the clusters to be base generated (such as Haider 2003, Wurmbrand 2001, 2004a, 2006) and those who assume that they are derived. The derived variant can in turn be caused by head-movement (e.g. Evers 1975) or phrasal movement (e.g. Hinterhölzl 1999, Koopman & Szabolcsi 2000, Haegeman & van Riemsdijk 1986). My own approach is one of base generation. Still, I will offer a very brief sketch of the derivational approaches.

## 10 Deriving (im)possible word orders

In this section I want to address the issue of underlying vs. surface word order and show how the potential word orders can be derived. My aim is to demonstrate how reordering of the verbs in verb clusters can be accounted for independently of IPP. In doing so, I am first briefly quoting some of the advocates of two of the most popular ways of dealing with surface variation in verb clusters; Head movement vs. phrasal movement. After this, I will turn to Wurmbrand (2006) who in turn is based on Williams (2003, 2004 but preliminary versions also in earlier work) and his idea of “flipping” of sister nodes. Wurmbrand (2006) applies the flipping mechanism to West Germanic verb clusters and I will attempt to show that – even if this may not be the eternal truth about verb clusters – this approach is superior to the head movement approach.

### 10.1 Head Movement

The first generative account of verb clusters (in Dutch and German) was given by Evers (1975). Although ground-breaking at its time, one may argue that it has outlived itself as generative theories have developed quite significantly since then. Still, it bridges the gap between the topological account of Bech (1955) and modern generative accounts.

At the core of Evers’ analysis is the view that between D-structure and S-structure, a multicausal structure gets reanalysed as one clause, i.e. cluster formation is a result of movement; it is not a base generated structure. The transformations consist of Verb-Raising followed by pruning of the S-node(s) such that regardless of the number of verbs in the cluster, after the pruning, what is left is one S-node with several verbs. This

movement supposedly takes place between D-structure and S-structure. Evers distinguishes different classes of matrix raising verbs, based on the following criteria:

- i) Whether the complement verb is bare or has an infinitive marker
- ii) Whether equi-NP-deletion applies (under the assumption that the subject of the embedded verb was deleted when identical to the matrix subject, i.e. in current terms whether the verb complement has an overt or a PRO subject)
- iii) Whether the matrix verb has a sentential object or subject in deep structure.

These criteria result in the following five classes of raising verbs, applicable to both Dutch and German, which show obligatory or optional verb raising.

- (I) Sentential object in deep structure, no infinitive marker, embedded PRO-distinction not applicable. E.g. perception verbs of the ECM-type which show obligatory verb raising if the complement is tenseless.
- (II) Sentential object in deep structure, no infinitive marker, obligatory PRO of embedded verb. Verb raising is obligatory when the complement is non-finite. In German, this group contains “benefactive” verbs but also the modals *wollen* ‘want’, *können* ‘could’, *sollen* ‘should’ and *dürfen* ‘may’.
- (III) Sentential object in deep structure, presence of infinitive marker, obligatory PRO of embedded verb, verb raising obligatory for subgroup a: *pflügen* ‘usually do’, *wissen* ‘know’, optional for subgroup b: subject control verbs.
- (IV) Sentential subject in deep structure, no infinitive marker present, no PRO subject, obligatory verb raising when the complement is non-finite. Contains the verbs *können/kunnen* ‘can’, *müssen/moeten* ‘must’, *werden* ‘will’ (FUT. AUX.) and *zullen* ‘shall/will’ (FUT.AUX.)
- (V) Sentential subject in deep structure, obligatory infinitive marker, no PRO subject, obligatory verb raising when complement is non-finite. Raising verbs.

The derivation proceeds such that Verb Raising happens first, bringing about the pruning of the S-node. Under Verb Second, movement of the finite verb to C happens subsequently. If “Equi-NP-deletion” applies (i.e. turning the embedded subject into a “PRO”), it takes place prior to the S-pruning.



The most important points of Evers' analysis are thus that the underlying structure is multi-clausal and that the restructuring is a result of movement.

Evers' analysis is for the most part compatible with Bech's account (1955). The Status of the verbal complement is translated into being different complementisers, Bech's has a notational system of control which corresponds somewhat to Evers' Equi-NP-Deletion, the 'verbal fields' which make up his 'end field', corresponds to each of Evers' underlying clauses, and the *Kohärenzfeld* is the verb cluster resulting from verb raising (Evers 1975: 50).

As for the possible verb orders (for German accounted for by Bech, cf. Table 6) Evers assumes that after verb raising and S-pruning, another, sometimes string-vacuous instance of verb raising may take place, such that not only the differences between the default Dutch verb order (e.g. 1-2-3) and its Standard German counterpart (3-2-1), but also other potential word orders can be derived.

Evers did not go into the morphology of IPP, but since he assumes verb raising to be the trigger for restructuring, the morphological quiriness of IPP would presumably also be considered an effect of the movement operation. As mentioned, I will argue against most of Evers' assumptions, i.e. I will assume an underlying monoclausal structure, and suggest a separation of the morphology of IPP and verb reordering. I will however maintain the intuition behind Evers' notion of (potentially string-vacuous) additional verb raising applications, which I will translate into more modern terms of PF-movement.

Head movement has been a very popular way to account for word order variation in verb clusters. Due to the flexibility, any possible word order can always be derived. In what follows I will not go into a theoretical discussion about the viability of head movement as such, instead I will simply show that for the relevant data, head movement is not the ideal way of capturing the possible, and in particular impossible word orders.

Head movement as a general movement operation has been suggested by e.g. Baker (1988) and Chomsky (1986) and within the literature on Germanic verb clusters it is advocated by many, for example it is at the core of Evers' (1975) Verb Raising account and the idea is maintained by Den Besten & Edmondson (1983), Haegemann (1998a, 1998b) and more recently by e.g. Haider (2003) and Hinterhölzl (2006), to mention just a few.

Verb Raising/Head movement is also assumed to occur in string-vacuous contexts; it is the process that creates the verb cluster. According to Den Besten & Edmondson (1983), the word order variation occurs when a rule of INVERSION applies following the verb raising (Standard German) or simultaneous with INVERSION (Dutch). In the standard case of a three-verb-cluster in Standard German, verb raising is assumed to apply twice, first left-adjoining  $V^{3\circ}$  to  $V^{2\circ}$  and consequently raising of  $[V^{3\circ} V^{2\circ}]$  to left-adjoin it to  $V^{1\circ}$ , giving the order 3-2-1. Obviously, this order is not allowed in Standard German, and so inversion applies, swapping the order to  $[V^{1\circ} [V^{3\circ} V^{2\circ}]]$ . This cluster formation is shown in Figure 16.

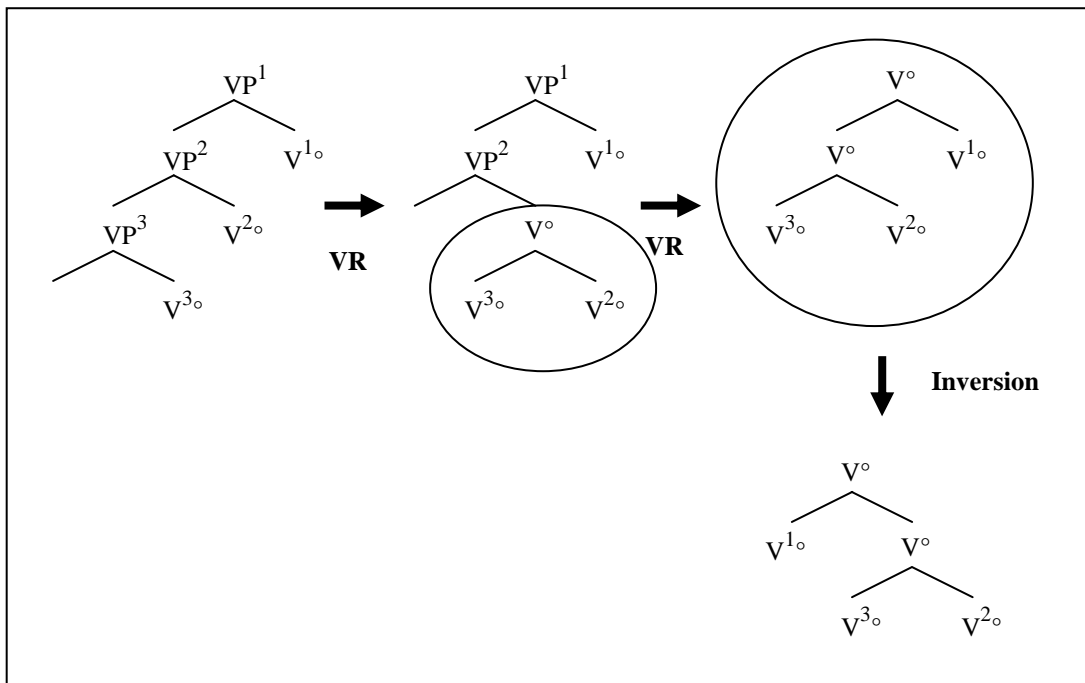


Figure 16

For Standard Dutch, on the other hand, verb raising and INVERSION are assumed to take place simultaneously ( $\rightarrow$  right-adjunction), i.e. when  $V^{3\circ}$  raises, it right-adjoins to  $V^{2\circ}$  and in turn,  $[V^{2\circ} V^{3\circ}]$  right-adjoins to  $V^{1\circ}$ , giving  $[V^{1\circ}[V^{2\circ} V^{3\circ}]]$  (Den Besten & Edmondson 1983: 194 ff.) as seen in Figure 17.

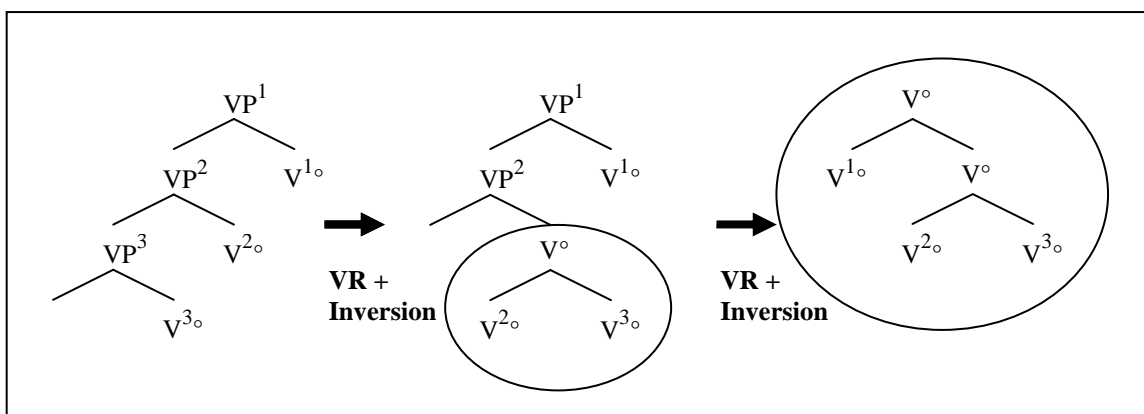


Figure 17

While verb raising and INVERSION are empirically adequate tools to account for most of the word order variation, there are conceptual problems. In the days of Move- $\alpha$  (e.g. Chomsky 1981, 1986), anything could move anywhere. Today however, movement must be motivated, and at least some of the word order variation in verb clusters does not appear motivated.

## 10.2 Phrasal Movement

A slightly less popular strategy to account for verbal reordering is by means of phrasal movement, or on some occasions it is considered a supplement to account for more specific phenomena. The explanation of Verb Projection Raising (VPR) has always been applied more often to Dutch due to the position of the object of the matrix verb. Specifically this relates to sentences such as the following one from West Flemish (Haegeman 1994: 509)

- (14) ...*da Valère Marie<sub>i</sub> an Jan<sub>j</sub> t<sub>v</sub> zag* [<sub>VP</sub> t<sub>i</sub> t<sub>j</sub> *dienen boek geven*]  
 ...that Valère Marie to Jan saw that book give.INF.  
 ‘... that Valere saw Marie give that book to Jan’

VPR is assumed to account for the fact that the matrix verb and its complement *Marie* both appear to the left of the lower verb. Here, the idea is that the lower verb, *geven*, generated to the left of the matrix verb has right-adjoined to a maximal projection after the subject and the indirect object PP *an Jan* have scrambled out of the VP. The VPR approach is followed by e.g. Koopman and Szabolcsi (2000), Hinterhölzl (1999), Haegeman and van Riemsdijk (1986).

I will now present a different approach, according to which only a small part of the variation is due to syntactic movement; the larger part being a surface phenomenon.

### 10.3 Flip and Reassociate

Williams (here quoted from 2003, 2004, but the idea was developed in 1998, 1999) introduced some mechanisms to account for alternations in the organisation of elements in a clause. The idea is that in many cases, it may look as if syntactically driven movement has taken place but that this does not need to be the case. In other words, we may think of such cases of reordering as non-syntactic, and as such there is no need for a functional/communicational motivation behind all reordering phenomena.

First Williams assumes that a composed unit can inherit not only the type of the head, but also the subcategorisation from the non-head. This he dubs the Rule of Combination (RoC) which may apply to a set of elements in a chain, in which an element  $F_i$  subcategorises for  $F_{i+1}$ . RoC is stated in the following way (Williams 2003: 205):

- (15) RoC:  $X\_Y + Y\_Z \rightarrow [X + Y]_{X\_Z}$   
 where ‘y’ is the complement of ‘X’ and Y in turn has the complement ‘z’, rendering in effect ‘z’ a complement of ‘X’.

The notion of “subcategorisation” is often said to contain i) Type (N/V etc.) ii) Order (left/right) and iii) Level ( $X^0/X^n$ ) but Williams weakens this by claiming that subcategorisation involves only type and not order or level (Williams 2003: 205). By doing so he opens up for the possibilities of word order alternations in principle regardless of the ‘size’ of the relevant element.

Williams assumes two operations FLIP and REASSOCIATE which work together with the Rule of Combination and which are responsible for those surface word orders which do not reflect underlying orders but which have not come about by syntactic movement either. These operations, he defines in the following way (where the angle brackets  $\langle / \rangle$  denote subcategorisation, such that in  $A > B$ , B is the complement of A) (Williams 2004: 176):

- (16) FLIP: If  $X = [A > B]$ , A and B terminal or nonterminal,  
 FLIP (X) =  $[B < A]$
- REASSOCIATE: If  $X = [A > [B > C]]$ ,  
 REASSOCIATE (X) =  $[[A > B] > C]$

Precedence works together with selection such that (16) states FLIP and REASSOCIATE for head-initial languages. For head-final languages, the mechanisms must be stated as the mirror image with reversed brackets, i.e.:

- (17) FLIP-2: If  $X = [B < A]$ , A and B terminal or nonterminal,  
 FLIP (X) =  $[A > B]$
- REASSOCIATE-2: If  $X = [[C < B] < A]$ ,  
 REASSOCIATE (X) =  $[C < [B < A]]$

These operations allow for surface variation but also restrict the potential reordering possibilities. FLIP is the most relevant operation in this context as it is the one used to derive most word order alternations in verb clusters and as such REASSOCIATE is in fact only relevant for restricting variation in a principled way. REASSOCIATE is based on the insight that if A subcategorises B, which in turn subcategorises C, then A+B also subcategorises C. Therefore REASSOCIATE does not violate any selectional restrictions.

Despite the apparent flexibility of these two operations, multiple movements are in fact very restricted due to the interaction of the two. In particular we get the following restrictions: (Williams 2004: 177):

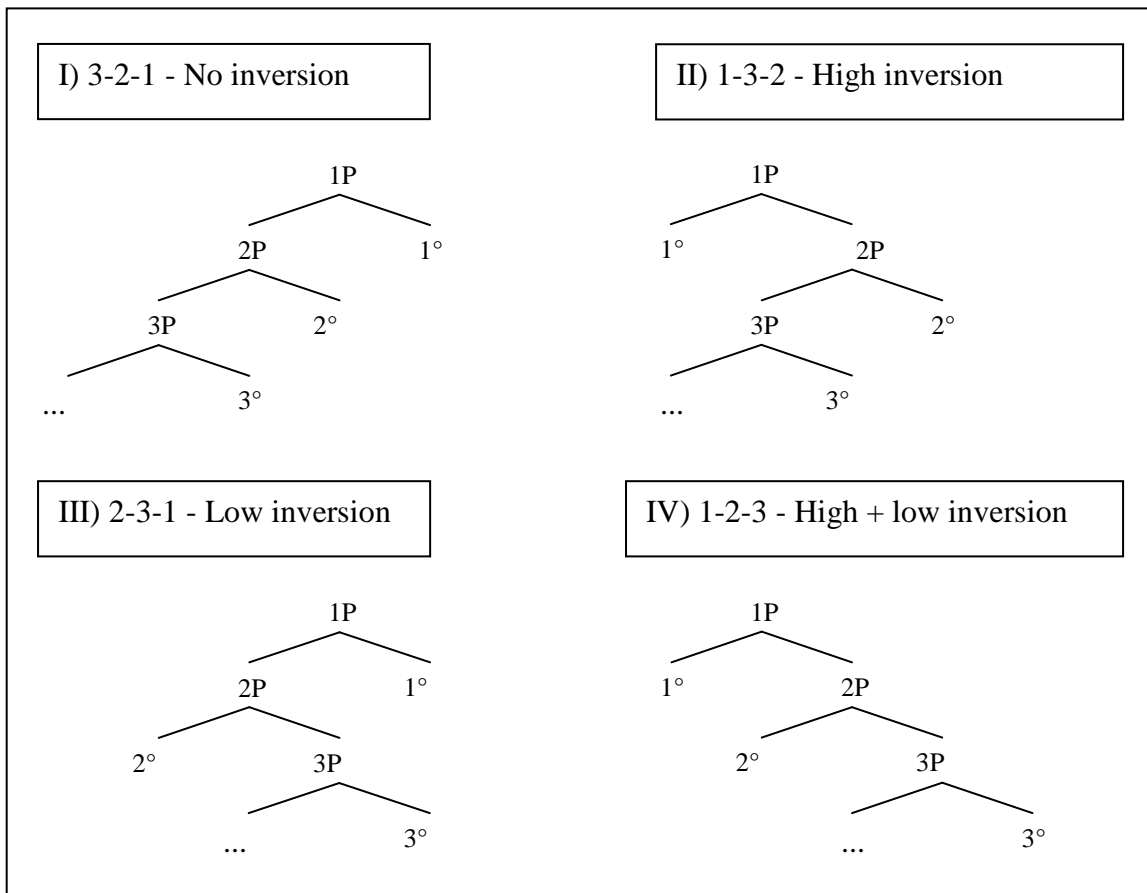
- (18) Restrictions on FLIPPING
- i) No movement of a moved constituent
  - ii) No movement out of a moved complex constituent
  - iii) No movement out of an extracted-from constituent

These restrictions are due to the fact that once FLIP has been applied, the angle bracket is reversed (i.e. the hierarchy remains but the linear order of the elements has changed) and hence application of REASSOCIATE is blocked.

### 10.3.1 Applying FLIP to 3-verb clusters

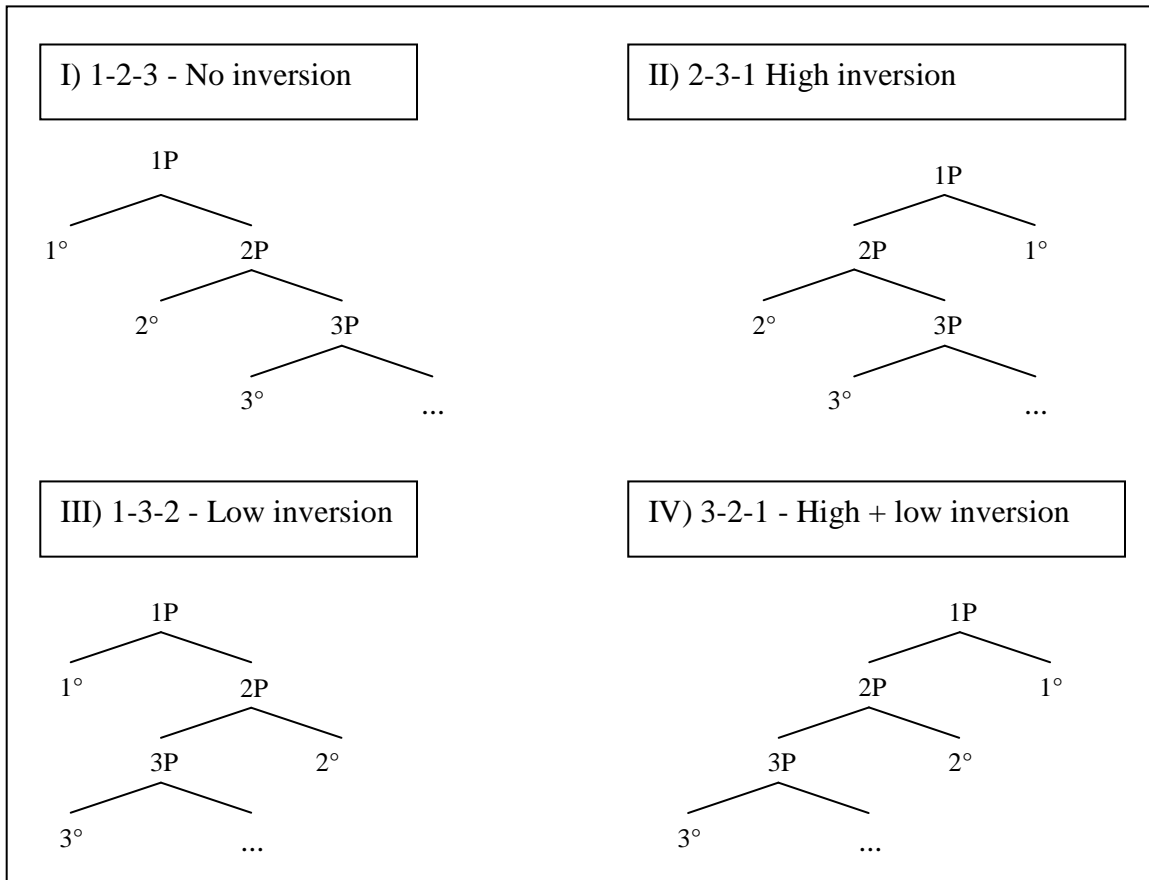
I will now proceed to the application of FLIP to West Germanic verb clusters as carried out by Wurmbrand (2004) and see how this mechanism fares with respect to deriving the possible word orders. I will provide the representations for both head-initial and head-final word orders. In section 10.4 I will discuss the actual word orders and I will show that the order 2-1-3 is unattested. Because of this I will not attempt to derive this missing word order. I adopt the terminology of Wurmbrand (2004) and will refer to FLIPPING of the highest verb with its sister as ‘high inversion’ and FLIPPING of the second verb with its sister as ‘low inversion’. The following figures are quoted from Wurmbrand (2006: 243-244).

The inversion patterns of an assumed underlyingly head-final word order can be seen in Figure 18; the order 3-2-1 (I) results if no inversion takes place at all. 1-3-2 (II) requires one instance of high inversion while 2-3-1 (III) results from one instance of low inversion. The mirror image pattern of the underlying word order requires two instances of inversion, one high and one low (IV). The order 3-1-2, I will return to after showing the patterns of the corresponding head-initial structures.

Underlying order head-final**Figure 18**

As can be seen by comparing Figure 18 and Figure 19, from both a head-initial and head-final starting point, four of the possible word orders can be derived from simple applications of FLIP, each deriving three by a single application, and one by double application. For both the head-final and the head-initial structure, the 3-1-2 has not yet been derived.

Underlying order head-initial



**Figure 19**

To derive the last possible word order, 3-1-2, Wurmbrand (2006) applies one more mechanism; left-ward movement of the lowest phrase, a relatively non-controversial claim. This gives the two representations in Figure 20:



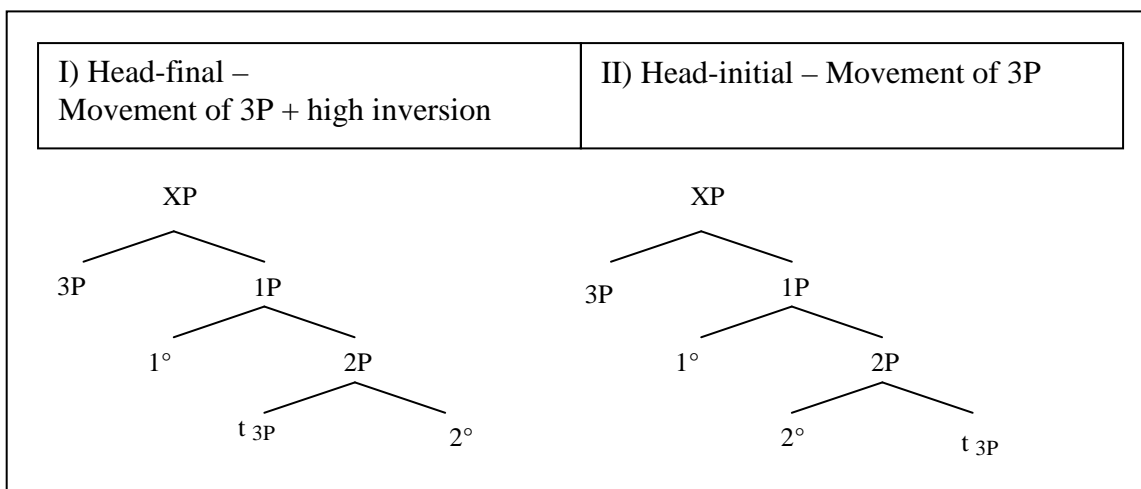
3-1-2 surface order - head-final/-initial

Figure 20

Here, the movement of the lowest phrase is of a different nature than FLIPPING. Arguably it is syntactic movement proper and it needs to apply prior to inversion of sister nodes. As stated in the restrictions on FLIPPING on page 146, movement out of a moved complex constituent is not possible. In other words, if the inversion of 1° and its sister (containing the lowest verb phrase) were to have taken place first, left-ward movement would no longer be available.

There are good reasons to assume that in some dialects, leftward movement of the lowest verb is a syntactic operation. I base the claim on the fact that for my informants, when the 3-1-2 order occurred, the scopal properties were altered and the moved constituent focussed. If we look at the following two examples, in the a-example the moved verb *lesen* ‘read’ is stressed and the b.-example confirms that it is in a position where the constituent can be negated:

- (19) a.           *...dass Peter das Buch **LESEN** hat wollen*  
           ...that Peter the book read.INF. has want.INF.
- b.           *...dass Peter das Buch nicht **LESEN** hat wollen,*  
           ...that Peter the book not read.INF. has want.INF.
- sondern nur anschauen*  
                   but only look.at.INF.

Furthermore, the acceptability is much degraded if any other constituent is focussed:

- (20) a. ?? ...*dass Peter das BUCH lesen hat wollen*  
 ...that Peter the BOOK read.INF. has want.INF.
- b. ?? ...*dass PETER das Buch lesen hat wollen*  
 ...that PETER the book read.INF. has want.INF.

It does however seem that in other dialects, the order 3-1-2 does not involve focus-driven movement, but is the unmarked option. Such dialects include Bavarian and Austrian ones (cf. Bader & Schmid 2009a). For these dialects, I maintain the view that syntactic movement is involved, but it is not to a focus position. Rather, it would appear that these dialects, due to information structural reasons, have a preference for spelling out the main verb first and therefore this verb is moved to the left. The order 1-2 seems to be prosodically motivated (Josef Bayer, p.c.) and the order 3-2-1 is also an option. If this is true, we can assume that in these dialects, under a head-initial (i.e. [1 [2 [3]]]) approach, the order 3-2-1 does not arise through high + low inversion. Rather, it involves the same kind of syntactic leftward movement of the lowest verb as in Figure 20, followed by inversion of V<sup>1</sup> and V<sup>2</sup>. Figure 21 shows the derivation of 3-2-1 in those dialects where 3-1-2 does not involve focus driven syntactic movement:

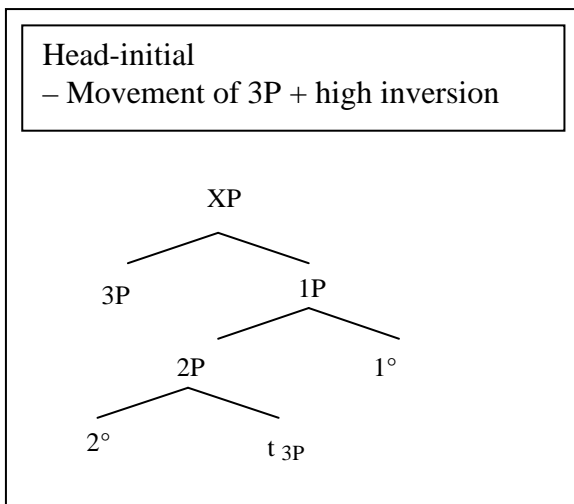


Figure 21

The big advantage of this approach is that the one unattested word order, 2-1-3, cannot be derived. This is due to the restrictions on multiple movements, mentioned in (18). Because of these it is not possible to derive 2-1-3 by assuming syntactic leftward movement of V<sup>3</sup> followed by two applications (high and low) of FLIP. Syntactic movement takes

place prior to FLIPPING, and so the syntactic movement would reverse the angle bracket, i.e. give the intermediate result  $V^3 < V^1 > V^2$ , which would block inversion of  $V^3/V^2$ .

In contrast to the FLIPPING-based account, approaches that attempt to account for re-ordering in verb clusters by means of head-movement have difficulties accounting for the absence of 2-1-3. Or more specifically, to account for the absence of 2-1-3 without simultaneously excluding 3-1-2 where the highest verb also intervenes between the two lower verbs.

Assuming that 2-1-3 is in fact ruled out in a principled way, I take this to be a crucial advantage of the FLIPPING approach compared to approaches involving head movement. This assumption can of course only be upheld as long as the order is not attested in any of the relevant languages.

The FLIPPING approach to word order variation in multiple verb clusters does not provide any empirical evidence as to the underlying word order; on both a head-final and a head-initial approach, the possible five out of six word orders can be derived with neither underlying word order requiring significantly more steps in the derivation than the other. I will therefore leave this question as unsettled, but in what follows, for ease of exposition, I will be assuming that the underlying word order is in fact head-final.

In this section I have shown that all the possible word orders of 3-verb-clusters can be derived in a principled way by assuming two operations, one being the post-syntactic reordering operation FLIP which reverses the order of a head and its sister, the other one being a syntactic leftward movement of the lowest constituent. The former operation is semantically vacuous and does not change any scopal properties of the verbs involved; the latter focuses the moved constituent (in some dialects).

The differences between languages as to what word orders are allowed and for which verb classes, must be captured in terms of the category of X and Y and for which categories, FLIPPING applies. This I will return to in subsection 10.4.1.

## 10.4 Actual verb cluster word orders

Having derived the five out of six potential word orders in verb clusters, I now want to turn my attention to the distribution of the word orders in the different dialects.

### 10.4.1 2-verb clusters

Wurmbrand (2004b, 2006) summarises her own findings and those of others on word orders in verb clusters and as such, the empirical basis is fairly solid. A problem with Wurmbrand's data is that because she is quoting her own as well as the findings of others, it is not quite clear which variants are referred to or whether dialects with potentially different word orders, may have been merged and appear as one language with different word order options.

I compare Wurmbrand's (2006: 237) data to those of Vikner (2001: 66, 84). Vikner refers to three Swiss dialects; Bernese German which corresponds to Wurmbrand's Swiss-2, and Zürich and Sankt Gallen-German which for the relevant cases behave alike and therefore can be merged as a comparison to Swiss-1.

Vikner (2001) does not test the orders for Aux-Lex where the auxiliary is finite, but unlike Wurmbrand (2006), he tests for non-finite patterns, i.e. what are essentially 3-verb clusters but where the finite verb has moved to C°, distinguishing between the Aux-Lex and the Mod-Lex configuration. For these non-finite cases, in order to ease comparison, I refer to the highest non-finite verb as 1. That Vikner (2001) and Wurmbrand (2006) do not test for the exact same things is the reason that there some gaps in Table 8.

| Language              |                  | Wurmbrand (2006) |            | Vikner (2001) |                |
|-----------------------|------------------|------------------|------------|---------------|----------------|
|                       |                  | Aux-Part         | Mod-Inf    | Aux-Part      | Mod-Inf        |
| Afrikaans             | (1 = finite)     | <u>2-1</u>       | <u>1-2</u> |               | <u>1-2</u>     |
|                       | (1 = non-finite) |                  |            | 2-1           | <u>1-2</u>     |
| Dutch                 | (1 = finite)     | 1-2              | 1-2        |               | 1-2            |
|                       |                  | 2-1              | 2-1        |               | 2-1            |
|                       | (1 = non-finite) | <u>1-2</u>       | <u>1-2</u> | 1-2           | 1-2            |
|                       |                  | <u>2-1</u>       | 2-1        |               |                |
| Frisian               | (1 = finite)     | 2-1              | 2-1        |               | 2-1            |
|                       | (1 = non-finite) |                  |            | 2-1           | 2-1            |
| Standard German       | (1 = finite)     | 2-1              | 2-1        |               | 2-1            |
|                       | (1 = non-finite) |                  |            | 2-1           | 2-1            |
| Swiss-1               | (1 = finite)     | 2-1              | 2-1        |               | 2-1            |
|                       |                  |                  | <u>1-2</u> |               | <u>1-2</u>     |
|                       | (1 = non-finite) |                  |            | 2-1           | 2-1            |
|                       |                  |                  |            |               | <u>1-2</u>     |
| Swiss-2 <sup>32</sup> | (1 = finite)     | 2-1              | 2-1        |               | <b>*2-1 NB</b> |
|                       |                  | 1-2              | 1-2        |               | 1-2            |
|                       | (1 = non-finite) |                  |            | 2-1           | 1-2            |
| West Flemish          | (1 = finite)     | <u>2-1</u>       | <u>1-2</u> |               | <u>1-2</u>     |
|                       |                  |                  |            |               | <b>2-1 NB</b>  |
|                       | (1 = non-finite) |                  |            | <u>2-1</u>    | <u>1-2</u>     |

Table 8

In Table 8 the data of Vikner (2001: 68) and Wurmbrand (2008) correspond fairly well, with two exceptions which are marked with a boldfaced NB.

Table 8 shows that both word orders are found, and even if 2-1 is more frequent, the reverse order 1-2 cannot be said simply to be an exception. We can see that the emerging patterns are verb class sensitive, i.e. it sometimes makes a difference whether the two verbs are an auxiliary + participle (Aux-Part) or a modal + infinitive (Mod-Inf) (or alternatively, the morphological form of the lower verb is responsible for the difference). Those cases are underlined in the table. What is interesting is that for all these cases, the

<sup>32</sup> Swiss-2 is Bernese German, known to differ from other Swiss variants.

2-1 is the order for Aux-Part and 1-2 for Mod-Inf, i.e. we do not see any cases where 1-2 is allowed for Aux-Part but not for Mod-Inf. The two points where Vikner (2001) and Wurmbrand (2006) diverge do not contradict this. Those cases where 1-2 is not allowed for Aux-Part but only for Mod-Inf could suggest (under a head-final approach) that clustering of a modal + lexical verb is more likely to occur than a cluster of an auxiliary and a lexical verb.

### 10.4.2 3-verb clusters

First I return to Schmid (2005) who did an extensive investigation of word order patterns in 3-verb-clusters in 7 languages. The data are very complex and it is by no means trivial how they are to be analysed<sup>33</sup>. For these reasons I will reproduce a rather big amount of the data here. It will become evident from Schmid's data that in order to give a satisfactory account of IPP, it is not sufficient to look at standard languages (German, Dutch) which are deceptively simple, unlike the dialects where the variation of form and verb order is extensive. For simple reasons of space, I will not give exhaustive accounts of all the languages, but the data can be found in Schmid (2005: 73-81).

Schmid examined three types of constructions all including three verbs; one where  $V^2$  is an IPP, one where  $V^2$  is a past participle, and one in which  $V^1$  is the future auxiliary *werden*, which selects an infinitive as complement.

First we will look at how Standard German behaves. As seen in Table 4, IPP is obligatory with modals and the causative verb *lassen* and optional with perception verbs and benefactive verbs. As for the internal ordering of the verbs, Standard German shows the following properties (Schmid 2005: 74):

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<sup>33</sup> An issue concerning Schmid's data is that she used a very limited number of native speaker informants, in some cases only one per language (Schmid: 2005: 9). I will assume the data to be credible but the issue should be kept in mind, particularly when her data diverge from other data in the literature.

| VERB TYPE    | PERFECT, V2 = PAST PRT. | PERFECT, V2 = IPP | FUTURE, V2 = BARE INFINITIVE |
|--------------|-------------------------|-------------------|------------------------------|
| CAUSATIVE    | *                       | 132               | 132                          |
| MODAL        | *                       | 132               | 132, 321                     |
| PERCEPTION   | 321                     | 132               | 132, 321                     |
| BENEFACTIVE  | 321                     | 132               | 132, 321                     |
| DURATIVE     | 321                     | *                 | 321                          |
| INCHOATIVE   | 321, <del>213</del>     | *                 | 321, <del>213</del>          |
| CONTROL VERB | 321, <del>213</del>     | *                 | 321, <del>213</del>          |

Table 9 – Standard German

Now, the first thing to notice concerns inchoative and control verbs which supposedly allow both the orders 3-2-1 and 2-1-3. While 3-2-1 is the canonical order and as such uncontroversial, the order 2-1-3 is allowed due to the fact that  $V^3$  is extraposed, i.e.  $V^3$  is not involved in cluster formation and for this reason I have chosen to cross these out. It concerns examples like the following (Schmid 2005: 63, 68):

- (21) a.           *...dass es aufgehört (V<sup>2</sup>) hat (V<sup>1</sup>) zu regnen (V<sup>3</sup>)*  
                   ...that it stop.PAST.PART. has           to rain.INF
- b.               *...dass er das nie versucht (V<sup>2</sup>) hat (V<sup>1</sup>) vorzugeben (V<sup>3</sup>)*  
                   ...that he it never try.PAST.PART. has           to.pretend.INF.

There are good reasons why such cases are to be considered extraposition, i.e. non-clustering configurations. The main reason is that in all the dialects investigated by Schmid, IPP and the 2-1-3 order never co-occur.

Secondly, there are restrictions on extraction from extraposed infinitives, e.g. long-distance scrambling of the embedded object is not possible, in contrast to the b.-example with a coherent infinitive where the object may be scrambled (examples from Hinterhölzl 2006: 16)

- (22) a.   \*   *dass uns [das Buch]<sub>i</sub> Hans gestern bat [der Maria t<sub>i</sub> zu geben]*  
           that us the book Hans yesterday asked to Mary to give  
           ‘that Hans asked us yesterday to give the book to Mary’
- b.   *dass der Maria<sub>i</sub> [das Buch]<sub>j</sub> Hans gestern [t<sub>i</sub> t<sub>j</sub> zu geben] versprach*  
           that the.DAT. Maria the book Hans yesterday to give promised  
           ‘that Hans promised yesterday to give the book to Mary’

Zwart (2007: 80) also gives examples of the 2-1-3 order from different dialects (Zürich, Frisian, Samatimeric<sup>34</sup>, Luxemburgish), but due to the lack of IPP, he argues that they are not verb clusters. Rather they are cases where the lowest verb is in fact clausal and therefore extraposed, such as in (23) from Luxemburgish.

- (23) *obs de hollänesch geléiert (V<sup>2</sup>) hues (V<sup>1</sup>) schwätzen (V<sup>3</sup>)*  
 if.2SG you Dutch learn.PAST.PART. has speak.INF.

I therefore conclude that the structure underlying 2-1-3 is different from the one underlying verb clusters. This means that in Table 9, other than the extraposed version and the canonical order, we are dealing with only one more possible word order, the 1-3-2 which is obligatory for IPP and possible for the future tense verbal complex. This relative simplicity has made many a linguist claim that IPP is dependent on the raising of the finite verb. As will be evident from the next set of data, this is by no means a given.

Zürich German is the most flexible of the dialects investigated by Schmid as concerns the ordering of the verbs in 3-verb clusters. The following table summarises Schmid’s findings (Schmid 2005: 76):

| VERB TYPE    | PERFECT, V2 = PAST PRT.            | PERFECT, V2 = IPP | FUTURE, V2 = BARE INFINITIVE  |
|--------------|------------------------------------|-------------------|-------------------------------|
| CAUSATIVE    | *                                  | 321,123, 132      | 321, 123, 132                 |
| MODAL        | *                                  | ?321,123, 132     | ?321, 123, 132                |
| PERCEPTION   | 321, ?123, <del>213</del>          | ?231, 123         | 321, 123, 132                 |
| BENEFACTIVE  | 321, 231, 123, 132, <del>213</del> | 231, 123          | 132, 321, 123, 231            |
| DURATIVE     | 321                                | *                 | 321, 132                      |
| INCHOATIVE   | 231, <del>213</del>                | *                 | 231, 123, <del>213</del>      |
| CONTROL VERB | 321, 123, <del>213</del>           | *                 | 321, 123, 132, <del>213</del> |

**Table 10 – Zürich German**

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<sup>34</sup> Samatimeric or Sankt Martin German is spoken by approximately 3000 speakers in the province Banat (Romania, Serbia).



Again, all instances of 2-1-3 can be assumed to be cases of extraposition, and while some could in principle be clusters, the fact that 2-1-3 is not allowed with IPP in any of the languages under investigation supports the assumption that 2-1-3 is not an option for verb clusters. Still, a large variety of word orders is available and the emerging picture is far from clear.

The first observation to be made is that the canonical word order 3-2-1 is available, for 3-verb-clusters, both with IPP (causative verbs), when the second verb is a participle, with future tense complexes. The immediate conclusion to draw from this is that the morphological part of IPP may take place regardless of whether the verbs reorder or not (unless one assumes further reordering to give an output with is superficially like the underlying word order – an option which is uneconomical and difficult to motivate).

Secondly, we observe that the word order 1-2-3 is a preferred one in Zürich German, being available in almost all configurations. In fact, this option is frequent in all the dialects, except for Standard German. This brings to mind the “Temporal Iconicity Condition” as formulated by Li (1993: 499). This condition, which I mentioned in the chapter on pseudo-coordination, states that in verb serialisations (in a technical sense), the actual order of events is observed even if the language is head-final. I have illustrated this in (24) with an example from Dutch (ANS § 18.5.7.2.i). While the temporal iconicity condition cannot always be justified (e.g. under simultaneity) the high frequency of this verb order, which is exactly opposite the canonical one, might suggest that something similar is at stake:

- (24) *Ze heeft onze hond de krant leren (V<sup>1</sup>) komen (V<sup>2</sup>) brengen (V<sup>3</sup>)*  
 She has our dog the paper teach.INF. come.INF. bring.INF.  
 ‘She has taught our dog to bring the paper’

As mentioned previously, I do not commit myself as to whether German(ic) is underlyingly SOV or SVO, as all occurring orders can be derived from either basic pattern. Another option is to say that the order is truly mixed; normative pressure may have gone counter to original orders etc., in the end resulting in Germanic grammars which are mixed and where underlying directionality is sensitive to verb class and which vary regionally and perhaps even among speakers within one area. The high frequency of the 1-2-3 order could be considered an argument for an underlying VO order. 3-2-1 is however

just as frequent (at least for German and the Swiss German dialects, but less so for “Dutch” variants (Dutch, Afrikaans, West Flemish).

Having disregarded the apparent occurrence of 2-1-3 and dealt with the canonical order 3-2-1 and its mirror image 1-2-3, we are left with three mixed orders; 2-3-1, 1-3-2 and 3-1-2. For these, no immediate pattern emerges when Schmid’s tables are compared. To get an idea of their distribution, I will now make a different comparison than Schmid’s own (though building on her data), in that I will try for each of these three word orders to compare where they appear in each language.

First, I looked at the word orders in verb clusters where  $V^2$  is a modal, i.e. where all the languages have obligatory IPP (hence comparing with word order possibilities for past participles was not an option). The first significant observation was that the word orders allowed for IPP are exactly the ones allowed for 3-verb clusters in the future tense. For the pattern 2-3-1 the results were quite clear; it is not allowed, with Afrikaans and West Flemish marginally accepting it. The word order 1-3-2 was accepted by Standard German, Zürich and Sankt-Gallen German, the latter as the only one also accepting 3-1-2.

I did a simple frequency test on the possible word orders; building on Schmid’s summaries, containing for each language the possible word orders for each verbal group (7 in all) for each construction (perfect tense with a past participle, perfect tense with IPP and future tense) and counted how often each of these three word orders was judged acceptable. The numbers say nothing of actual frequency of the word orders of course, but using Schmid’s criteria, the numbers give an idea of the relative frequency of these three patterns. The first result was that 3-1-2 occurred once! A closer investigation of the actual examples showed that in Sankt Gallen German, one example was considered grammatical and one was judged as very degraded. In other words, as far as Schmid’s (2005) data are concerned, there would appear not to be any need to debate this possibility any further. This result is however most surprising and counter to the findings of others, including later work by Bader & Schmid (2009a: 187) and Wurmbrand (2006) which I will return to below.

As for the two other orders, 1-3-2 occurred 20 times (represented by Standard German, Sankt-Gallen and Zürich German), and 2-3-1 42 times (represented by West Flemish, Afrikaans, and Zürich German).

The conclusion to be drawn is that IPP and word order alternations in verb clusters are not immediately related, or at least not co-dependent. IPP is observed with and without verb raising and vice versa. That is of course not to say that there is no connection at all between the two phenomena; in fact it is quite likely that both are licensed under very similar conditions. It is obvious that as regards word orders, it is not the case that anything goes, some languages have strong preferences (such as Bern German) others are much more flexible (e.g. Zürich German). It has furthermore been argued that when it comes to word orders in verb clusters, standard languages do not provide the best testing ground, probably because “arbitrary” normative pressure may cause certain otherwise natural output to be considered ungrammatical.

With 3-verb clusters with different kinds of verbs in different dialects, there are many variables, in part because now 6 potential word orders are available instead of 2, but also the class of each verb and the forms in which the verbs appear result in more variables.

In the first place dealing only with auxiliaries and modals as the higher verbs, we already get the following 5 hierarchical patterns (Wurmbrand 2006: 238):

- (25) a. Mod-Mod-V  
 b.<sup>35</sup> Aux-Mod-V: i) Aux = Periphrastic perfect tense auxiliary ‘have’  
 ii) Aux = Periphrastic future tense ‘will’  
 c. Mod-Aux-V  
 d. Aux-Aux-V

In the following tables, the observed word orders for these five patterns can be seen. The languages are not exactly the same as in Table 8 and in part quote different works, and as such a direct comparison between the two tables should be done with care (Wurmbrand 2006: 240)<sup>36</sup>.

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<sup>35</sup> The subdivision between the future and perfect tense auxiliary is included, because this is the case that involves IPP. Possibly, the specific auxiliary can cause effects for the configurations in c. and d. too, but in order to not complicate the data any further, I leave out this distinction.

<sup>36</sup> A large amount of notes are made by Wurmbrand for Table 11, commenting for example on specific cases where (non-) finiteness or a specific verb influences the possible word orders. In an attempt to give a somewhat clear exposition, I will however only include those of direct importance.

| Language                     | Mod-Mod-V                        | Aux-Mod-V<br>No IPP     | Aux-Mod-V - IPP                    | Mod-Aux-V                          | Aux-Aux-V      |
|------------------------------|----------------------------------|-------------------------|------------------------------------|------------------------------------|----------------|
| Afrikaans                    | 1-2-3                            | 1-2-3                   | 2-3-1                              | 1-3-2<br>3-1-2                     | N/A            |
| Dutch                        | 1-2-3                            | 1-2-3                   | 1-2-3                              | 1-2-3<br>3-1-2<br>1-3-2<br>[3-2-1] | 3-1-2<br>1-3-2 |
| Frisian                      | 3-2-1                            | 3-2-1                   | 3-2-1<br>[1-2-3]                   | 3-2-1                              | 3-2-1          |
| Standard German              | 3-2-1                            | 3-2-1<br>1-3-2          | 1-3-2                              | 3-2-1                              | 3-2-1          |
| German/Austrian<br>dialects  | 3-2-1<br>1-3-2                   | 3-2-1<br>1-3-2<br>3-1-2 | 1-3-2<br>3-1-2<br>3-2-1<br>[1-2-3] | 1-3-2                              |                |
| Swiss dialects <sup>37</sup> | 1-2-3<br>3-2-1<br>1-3-2<br>3-1-2 | N/A                     | 1-2-3<br>1-3-2<br>3-1-2            | 1-3-2<br>3-2-1<br>3-1-2            |                |
| West Flemish                 | 1-2-3                            |                         | 1-2-3<br>2-3-1                     | 1-3-2<br>3-1-2                     | 3-2-1<br>1-3-2 |

**Table 11**

Where multiple word orders are allowed, they appear in order of preference, such that a preferred option is listed above a less preferred one. The first thing to be noticed about Table 11 is the confirmation of the absence of the 2-1-3, mentioned earlier.

Furthermore, the order 2-3-1 happens only on a few occasions. This however does not mean that it is only marginally available; in fact for West Flemish, this order is obligatory when the auxiliary is non-finite. According to Wurmbrand’s summary (i.e. Table 11) it only occurs under IPP; this was however not the case according to Schmid’s (2005: 231) data. The first major observation is then - if we include Schmid’s data – that roughly speaking, cross-linguistically, reordering (whether it be syntactic movement or not) is not exclusive to or dependent on a specific construction, in particular not to IPP.

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<sup>37</sup> Swiss dialects can be assumed to cover a large variety of dialects, i.e. it does not follow that any one dialect allows for all the possible word orders.

We do however see that language-internally the word orders are in some cases sensitive to the verb class of the two higher verbs, and that the verb orders for Aux-Mod-V depend on whether the modal is an IPP or an infinitive selected by the future auxiliary. But generally this seems to be a weak generalisation; if a language shows a basic surface word order, this word order is generally allowed regardless of verb class, but for some verb classes, other orders are available too. In fact, only Afrikaans and Standard German do not allow their canonical word orders in IPP-contexts.

Looking at column three, with word orders in connection with IPP, we see that all potential word orders occur except 2-1-3. Assuming that the underlying word order is the same for all the languages, be it head-initial or head-final, if IPP were a result of could result from reordering, we would minimally have to assume that string-vacuous movement were to take place prior to the morphological assignment. Otherwise we could not account for IPP in those cases where the surface order corresponds to the underlying order (whether this is head-final or head-initial). Assuming movement for which there is no empirical evidence is uneconomical and I will therefore draw the conclusion that while the morphological and the word order may arise from similar condition, there is no causal relationship between the two surface phenomena.

## 11 The morphology of IPP

The title of this section is in fact pleonastic because the label “IPP” inherently suggests a morphological phenomenon. But as has been pointed out, IPP has more often than not, been assumed to be the result (or cause) of reordering of verbs. As I have argued against this view, I will now turn my attention solely towards the morphological aspect of IPP.

One of the major points of dispute in the literature on IPP is whether the substitute infinitive is in fact a proper infinitive inserted instead of a participle or rather an irregular, “strong” participle used in certain configurations. Both points of view have been defended, although the latter suggestion has been the preferred one. My suggestion is that it is not meaningful to ask the question this way – because the verbal morphology in verb clusters is semantically and syntactically irrelevant, it is simply an arbitrary surface form. This puts my analysis too, more in line with the second fundamental option than with the first, although I do not actually consider the substitute infinitive a participle. As I will

show shortly, based on Höhle (2006), the non-standard West Germanic variants show a diversity of substitute forms.

Predominant in the discussion of IPP in more recent times has been Bech's (1955) concept of verbal status, as discussed in section 9.4. In a typical IPP context, consisting of auxiliary + modal + lexical verb, the assumption generally is that the infinitive of the lexical verb is selected by the modal and that the modal "ought to be" a past participle as selected by the auxiliary. I want to argue against this assumption; rather than modals selecting a bare infinitive, I will argue that when a modal (or another semi-lexical verb) and a lexical verb appear together, the two verbs are in fact "squeezed" into one clausal domain where only one of them can have its form properly assigned by interaction with a functional head (assuming this is how morphological selection takes place). The other verb, lacking a form which is allowed to surface, is rescued either by copying the form of the lower verb or by taking on a default form – in Standard German: The infinitive.

### 11.1 What is *ge-*?

Historically, *ge-* has served different purposes and appeared in different contexts. It started out as an aspectual marker used to express perfectivity or resultativity and then expanded to the past participle and became temporal rather than aspectual (see for example Abraham 2002: 21 or Nübling 2006: 247). The original aspectual use can still be seen with those verbs where *ge-* incorporated and now exists as part of the verbal stem (such as *geschehen* 'happen' or *gebären* 'give birth').

Before turning to the quirky morphology of perfect tense 3-verb clusters, I want to look at the simpler cases where just one lexical verb is put into the perfect tense. Perfect tense formation in German consists of an auxiliary verb ('have' or 'be') + (in most cases) the prefix *ge-* and the suffix *-t* (on weakly inflecting verbs) or *-en* (on strongly inflecting verbs). There are however quite a few cases where even simple perfect tense formation looks different; if the first syllable is unstressed, the past participle does not involve the prefix *ge-*. This particularly affects prefixed verbs, but also certain simplex verbs, as can be seen in the following (Duden 4 1998: §330):

| (26) |  | Infinitive       | Perfect tense |                  | Gloss         |
|------|--|------------------|---------------|------------------|---------------|
|      |  |                  | Aux           | Past participle  |               |
| a.   |  | <i>studieren</i> | – <i>hat</i>  | <i>studiert</i>  | ‘study’       |
| b.   |  | <i>kasteien</i>  | – <i>hat</i>  | <i>kasteit</i>   | ‘mortify’     |
| c.   |  | <i>verletzen</i> | – <i>hat</i>  | <i>verletzt</i>  | ‘hurt/injure’ |
| d.   |  | <i>zerreißen</i> | – <i>hat</i>  | <i>zerrissen</i> | ‘tear up’     |

Obviously, in such cases, despite the lack of the prefix *ge-*, when combined with a perfect tense auxiliary, these verbs are not infinitives as they have either the weak or the strong suffix *-t/-en*. Still, it can be observed that *ge-* is not a requirement for a perfect tense interpretation.

Furthermore, when at the beginning of this chapter, I claimed that IPP only occurs when a cluster of minimum two verbs are put into the perfect tense, I was not being completely exact. There are cases where a simple verb in the perfect tense is a bare infinitive, one such famous example is the following from “*Emilia Galotti*” (Lessing 1772 act 2, scene 6):

- A: *Dem Himmel ist beten wollen, auch beten.*  
 the.DAT heaven ist pray.INF. want.INF. also pray.INF.  
 ‘For the Heaven, to want to pray, is to pray.’
- B: *Und sündigen wollen, auch sündigen*  
 And sin.INF. want.INF. also sin.INF.  
 ‘And to want to sin is to sin’

- (27) A: *Das hat meine Emilia nicht wollen*  
 that has my Emilia not want.INF.  
 ‘My Emilia hasn’t wanted that’

In (27), the modal is a bare infinitive, despite not having an overt verbal complement. The context shows us that the complement ‘sin’ has been replaced by the pronominal *das*, but even so, in most cases the modal would be a past participle as shown in (2)a.. The example shows that the correct temporal/aspectual interpretation does not rely on a specific morphological form of the verb. It should however be noted that in some German dialects, modal verbs have no past participle and as such dialectal interference may play a part, despite Lessing generally writing in Standard German.

Together, these two cases illustrate how perfect tense interpretations can be achieved simply by combining a non-finite form of the main verb with a perfect tense auxiliary. As a I will show below, dialects differ with respect to which non-finite forms are pre-

ferred, but the specific form is syntactically and semantically irrelevant. As such, it is not surprising that the perfect tense interpretation of IPP is unproblematic despite the lack of the prefix *ge-*.

Zwart (2007) offers a brief investigation of the origin and distribution of IPP from the view of Standard Dutch and some non-standard West Germanic dialects. Zwart argues that the infinitive is in fact an alternative past participle and suggests the following generalisation (Zwart 2007: 84):

- (28) The IPP-effect occurs whenever a participle takes an infinitive in its complement domain

This statement excludes that there be a causal relationship between the word order alternations in IPP contexts and the actual morphological substitution. Rather, the frequent co-occurrence of unexpected word orders with IPP stems from the fact that both require a certain underlying structure.

Zwart (2007: 79) also mentions an interesting generalisation which has previously been established (Hoeksema 1980, Lange 1981, IJbema 1997); only in variants where the past participle is formed with a variant of *ge-* do we find the IPP-effect. This is a one-way generalisation; the existence of a *ge-* based past participle does not necessarily trigger IPP, but it seems to be a necessary condition. Yiddish, for example, displays the participial *ge-* prefix but never shows IPP (Lockwood 1995:82). This may in fact be a clue about the functional motivation for IPP. If we assume that *ge-* may be aspectual or temporal, IPP might be considered a disambiguation strategy; by having the verb show up as an infinitive instead of a participle would be a clear signal, that no aspectual perfectivity is intended. Those dialects (such as Frisian and Stellingwerfs) which do not use *ge-* do not have this ambiguity, and hence no motivation for IPP.

## 11.2 Dialectal variation in the morphology of 3-verb clusters

In his (2006) paper on 3-verb-phenomena in German and Dutch, Tilman Höhle presents data from West Germanic dialects which require that earlier accounts of the morphology of verb clusters in general and IPP-constructions in particular be revised. While Höhle does not provide much analysis of his data, his intuition is that IPP is just one instance of what he refers to as 3-verb phenomena; an umbrella term for different cases of quirky



morphology. This is completely in line with my approach and his data will play a crucial role for my analysis. Because of this I will refer rather extensively to his paper in this section.

### 11.2.1 Unexpected Morphology

The first crucial piece of evidence comes from Middle German dialects in which, in IPP-contexts, the substitute form is not an infinitive, but an alternative non-finite form. One such dialect is Oberschwöditz (which is part of Treibnitz in Sachsen-Anhalt), as illustrated in (8) from Höhle (2006: 57)

- (29) *Ij hãwe musd gi:e*  
I have must.SUP. go.INF.

Here the modal verb ‘must’ appears in what Höhle refers to as the supine; a form which is neither the bare infinitive, nor a past participle, but consists of the stem + *d*. This way of constructing IPP is consistent, i.e. not exclusive to a few verbs, as can be seen in the examples in (30)-(32).

Furthermore, Höhle observes that Oberschwöditz is more liberal with respect to which verbs allow IPP. Like Standard German, IPP occurs with modals and the causative *lassen* ‘let’, but furthermore the following verbs allow IPP too (from Höhle’s paper, it is unclear whether this list is exhaustive) (Höhle 2006: 58):

- (30) a. *E hãd larnd få:re*  
He has learn.SUP. drive.INF. ‘He has learned to drive’
- b. *Mør hunn halfd drã:e*  
we have.him help.SUP. carry.INF.  
‘We have helped him carry (sthg)’
- c. *Se hunn waisd danze*  
they have.him show.SUP. dance.INF. ‘They have taught him to dance’
- (31) a. *Hã:dãrsche nij he:sd size*  
have.you.them not bid.SUP. sit.INF. ‘Haven’t you bid them sit’
- b. *E hãdn mãchd gefri:re*  
He has.him make.SUP. be.cold.INF. ‘He caused him to be cold’

- (32) *Se hun du:d schi:wundscharje*  
 they have do.SUP. push.INF.and.shove.INF.  
 ‘They helped in every way’

The three examples in (30) involve ‘help’ ‘learn’ and ‘teach’, i.e. verbs of the class of “benefactive” verbs (see Schmid 2006: 32). According to the IPP-hierarchy in Table 4, it is the class of verbs immediately below perception verbs, and as such not at all surprising that they are IPP-verbs in some variants of German. In (31) we have two ECM-verbs, ‘bid’, ‘make (someone do something)’, of which only the verb *heissen* exists as an ECM- and non-IPP-verb in Standard German. It should be noted that the *ge*-prefix on the lowest verb in (31) is not a participial *ge*-. This is a case where the original perfectivity marker has been incorporated into the verb and is now a part of the verb stem itself.

The last example is interesting in that it is an instance of ‘do’-insertion. While I will not get into the properties of do-insertion in German dialects, it should be noted that it differs from English ‘do’-support in several ways. First of all ‘do’-insertion cannot be said to be a last resort operation when the lexical verb does not want to move to T, as this is restricted to a very few specific verbs in German and ‘do’-support is found as often as not with verbs that can easily be finite themselves. From the example in (32) we furthermore see that it may even be non-finite (even though most dialects that use ‘do’-insertion actively, only do so when the dummy verb is finite). It should be noted that this is also not a case of emphatic ‘do’-insertion (a usage which to my knowledge does not exist in German). All in all, this suggests that analyses according to which ‘do’ is merged directly in T are not feasible here and the dummy verb must be assumed to be merged in a lower position (presumably it is an overt spell-out of little  $v_{do}$ ). In this particular case, the fact that the verb is internally very complex and actually consists of two coordinated verbs, it may well be the case that it does not have a past participle and hence do-insertion is used as a last resort strategy.

There is one more intriguing property of the IPP-effect in this dialect, namely something that could look like subjunctive-copying. In contexts parallel to those in (8)-(32), when the auxiliary is in the subjunctive, the quality of the stem vowel of the second highest verb is altered (Höhle 2006: 58) (the indicative of *misd* = *musd* and of *kend* = *kund*):

- (33) a. *Ij hedəs                      misd    wise*  
 I have.PRET.SUBJ.it must.? know.INF ‘I should have known it’
- b. *Ij hedn                      kend    drafe*  
 I have.PRET.SUBJ.him can.? meet.INF ‘I could have met him’

It is very difficult to establish what kind of form the modals have taken on in (33) and much more data is required in order to find out. At first glance it looks like a non-finite (supine) subjunctive form, but such a thing is never found in Germanic languages. Rather, it would be plausible to suggest that we are dealing with a kind of phonological assimilation with no syntactic impact.

Such assimilations are sensitive to surface word order, and Höhle (2006: 62) observes a case where the surface order of  $V^2$  and  $V^3$  influences the form of  $V^2$ . In the dialect Altenburg (Eastern Thüringen), if in a 3-verb cluster, where  $V^2$  is the verb *lassen* ‘let’,  $V^2$  appears to the left of  $V^3$  as in (34)a.  $V^2$  surfaces as a bare stem. If, however, the relative order of the two verbs is reversed (34)b.,  $V^2$  is a regular infinitive:

- (34) a. *Ich hob mer en Zwarnsfonn loß    gabe*  
 I had me a thread let.ST. give.INF.  
 ‘I had them give me a thread’
- b. *Mer mußte’n              gieh    loße*  
 One must.PRET.him go.INF. let.INF. ‘One had to let him go’

Höhle further presents a large variety of substitute forms in different German dialects; some are specific to certain verbs, some are more general, and a few are sensitive to surface word order. The extension of this phenomenon with respect to the amount of surface forms supports the idea that we are dealing with “arbitrary selection”, by which I mean that it is semantically and syntactically irrelevant which form appears at the surface. This is of course not to say that there are no patterns at all. In many cases, a certain verb form applies only to a specific verb, to a specific verb class (such a modals), or to a subset of a specific verb class. Since these patterns are unsystematic across the dialects, my claim is that they instantiate a kind of phonological reflex, i.e. a kind of selection involving only phonological features and not proper status government.

There is, however, one thing that is systematic throughout the examples that Höhle gives, namely the nature of  $V^2$ . Höhle’s examples all involve 3 verbs where the highest verb is an auxiliary verb or a modal; hence by the nature of things,  $V^2$  must be a verb that

licenses a non-finite verbal complement. Not all verbs that license verbal complements trigger quirky verbal morphology, across the dialects, quirky morphology affects only the core restructuring verbs such as modal verbs, perception verbs, causatives, benefactives and inchoatives. In other words, these are the verbs which together with their verbal complement constitute configurations which may trigger quirky verbal morphology. This also holds for the other phenomenon that Höhle, like me in this dissertation, investigates beside substitute forms, namely morphological displacement.

### 11.2.2 Displaced Morphology

Morphological displacement is when an expected morphological marker, such as the infinitive marker *zu* or the past participial prefix *ge-*, occurs in an unexpected position, i.e. in the current case, not on the verb for which a specific form was selected. I consider morphological displacement to be a subtype of quirky morphology as it occurs under similar conditions as other quirky morphological phenomena. The difference is that the morphemes in question are in fact selected or triggered by a verb in the cluster, but it surfaces in an unexpected position.

In Standard German, “proper” IPP is restricted to finite environments. If we take an IPP-candidate and put it into a non-finite context by embedding it under a verb like *behaupten* ‘claim’, we find even more unexpected forms (example from Vogel 2009: 318).

- (35) ? *Er behauptete, das Buch schon letzte Woche ...*  
 He claimed the book already last week
- ... *gekauft* (V<sup>3</sup>)    *haben* (V<sup>1</sup>) *zu wollen* (V<sup>2</sup>)  
 ...buy.PAST.PART. have.INF. to want.INF.  
 ‘He claimed to have wanted to buy the book last week’

What we see here is that the morphological inventory is not what we would expect and the substitute infinitive appears to have disappeared. What we have are an infinitive marker, selected by the verb in the main clause, past participle morphology and a bare infinitive (i.e. a  $\emptyset$ -morpheme according to Zwart, 2007) but each item appears on the “wrong” verb, i.e. all verbs appear with quirky morphology; The “expected” forms and the structure is the following: [[[*kaufen*] *gewollt*] *zu haben*], in other words, the infinitive marker has been displaced from V<sup>1</sup> to V<sup>2</sup>, the participial morphology appears on V<sup>3</sup> instead of V<sup>2</sup>, and V<sup>1</sup> turns up as a bare infinitive which we would have expected of V<sup>3</sup>.

The “expected” variant, i.e. the one with a substitute infinitive but without displacement is ungrammatical. Changing the word order would not help either, e.g. a strict ascending  $V^3 - V^2 - V^1$  order is ungrammatical too.

- (36) \* *Er behauptete, das Buch schon letzte Woche ...*  
 He claimed the book already last week  
 ... *zu haben (V<sup>1</sup>) kaufen (V<sup>3</sup>) wollen (V<sup>2</sup>)*  
 ... to have.INF. buy.INF. want.INF.

I will refer to cases such as (35) as Displaced Morphology. Interestingly, Dutch IPP is not restricted to finite environments, a non-finite 3-verb clusters with the order 1-2-3 is perfectly grammatical<sup>38</sup>:

- (37) *Blij mijn verhaal te hebben (V<sup>1</sup>) kunnen (V<sup>2</sup>) doen (V<sup>3</sup>)...*  
 Happy my story to have.INF. can.INF. do.INF.  
 ‘Happy to have been able to tell my story...’

It is tempting to suggest that the fact that Dutch allows IPP in non-finite contexts is due to the strictly ascending word order. One might assume that in Standard German, because the word order in multi-verb constructions is mixed, it is difficult for speakers to interpret the underlying structure and as a result, when none of the verbs undergo syntactic movement, it becomes completely opaque. This problem, one might suggest, does not exist for Dutch speakers, as the surface order reflects the underlying structure and hence the grammaticality of sentences like (37) could be explained.

However, as pointed out by Höhle (2006: 67), certain German dialects display the same word order as Dutch, but simultaneously have displaced morphology. I will leave this matter for now, and return to some of these cases in section 11.2.2.

If we add one more auxiliary which is in a higher position than the perfect tense auxiliary, and this auxiliary is finite, i.e. a situation where it is a matter of definition whether it is a finite or non-finite environment, native speakers become increasingly uncertain about the verb morphology. Below I insert the epistemic modal verb *werden* above a 3-

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<sup>38</sup> This example is from <http://www.rhea.nl/RheaPolyesterverwerking/Home.html> - a randomly chosen example of the string “te hebben kunne doen” which on Google provided 2390 hits.

verb cluster with obligatory IPP, and the result is most surprising. Speakers disagree on the judgements, hence the bracketed question marks, but the disagreement mainly concerns the stylistic level. All of my informants accept both solutions, even if to varying extents<sup>39, 40</sup>.

Context: *Peter hat vor dem Raumschiff der Aliens die Binde von den Augen abgenommen, obwohl er wusste, dass er dann hypnotisiert wird. Warum?*  
 ‘In front of the aliens’ space ship, Peter removed the cloth from his eyes, despite knowing he would then be hypnotised. Why?’

- (38) a. (?) *Er wird (V<sup>1</sup>) es wohl haben (V<sup>1</sup>) sehen (V<sup>3</sup>) wollen (V<sup>2</sup>)*  
 He will it MOD.PRT. have.INF. see.INF. want.INF.
- b. (?) *Er wird (V<sup>1</sup>) es wohl sehen (V<sup>3</sup>) gewollt (V<sup>1</sup>) haben (V<sup>1</sup>)*  
 He will it MOD.PRT. see.INF. want.PAST.PART. have.INF.  
 Both: ‘He will have wanted to see it’

Just as the non-standard languages show greater variation with respect to substitute forms in multi-verb constructions, they are also more liberal when it comes to morphological displacement. For instance, unlike Standard German, morphological displacement is not restricted to non-finite surroundings. One such example is the following from Kleinschmalkalden in the South-Western part of the Thuringian Forest (Höhle 2006: 68):

- (39) *ə kon ən iu lās gəkom*  
 He could him MOD.PRT. let.INF. GE-come.INF.  
 ‘He could let him come’

What we see here, is that the inflectional morphology of V<sup>2</sup> is displaced to V<sup>3</sup>. *Lās* ‘let’ surfaces as a bare infinitive, even though in this dialect, the modal ‘can’ usually selects a so-called *ge*-infinitive, an infinitive to which the past participial prefix *ge*- has been attached. Instead this prefix has attached to the lowest verb. It cannot be determined if *lās* is a substitute form or an “impoverished” *ge*-infinitive, but as I treat substitution and displacement as two different expressions of one underlying structure, this makes no differ-

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<sup>39</sup> Bech (1955/57: 67) gives an example from Willmanns *Deutsche Grammatik* from around 1900. Unfortunately he does not mention year, edition nor page number but the example is parallel to (38): “*Die meisten Verba, die (...) den bloßen Inf. regieren konnten, oder würden(V1) haben (V2) regieren (V4) können (V3)...* ‘would.FIN. have.INF. govern.INF. can.INF.’ ‘could have governed’

<sup>40</sup> Thanks to Volker Struckmeier for providing a plausible context for the example sentences.

ence. The important point is that *ge-* appears on the “wrong” verb. In section 11.4 I will provide similar examples from Danish.

As Höhle points out (2006: 69), displacement need not be obligatory, as an example, in the dialects spoken in Wasungen and Ruhla (near Schmalkalden), gerund displacement is optional:

- (40) a.            *Sü*    *wæ:rns* *ü:r*        *mütt*        *gânn*  
                     They will.it   her.DAT must.INF. give.GER.
- b.            *Sü*    *wæ:rns* *ü:r*        *mütt*        *gâ:*  
                     They will.it   her.DAT must.INF. INF.  
                     ‘They will have to give it to her’

Despite optionality generally being considered a problem for syntactic theory, in cases such as (40), I do not think it is problematic. Obviously, it is not the case that in 3-verb clusters “anything goes” with respect to morphology and word order; the different variants do show some patterns and preferred form in specific constellations. This variation, however, appears not to be relevant for interpretation. Rather, I assume that they are to be considered surface reflexes. By this I mean that an auxiliary may elicit a particular morpheme (such as *zu* or participial morphology), but it is semantically and syntactically irrelevant where this morpheme surfaces. Under this assumption, it follows quite naturally, that variation is considerably larger in verb clusters with three or more verbs than in 2-verb clusters. When only two verbs are present, only one morphological reflex is in play and there is only one dependent verb where the selected morpheme can occur. As soon as three verbs are present, two such reflexes are triggered, the internal hierarchy of the verbs is much more opaque, and there are two potential landing sites for the selected morphemes, leading to surface variation involving word order and displaced and quirky morphology.

One might argue that the cases I refer to as morphological displacement are really just instances of “arbitrary morphological insertion” (such as I claim IPP to be), and theoretically this option cannot be excluded. It does however appear likely when exactly those elements are present which have been selected, only they show up in unexpected places.

Across the dialects, no specific verbal forms appear to be excluded; gerunds, *ge-*prefixes, infinitive markers etc. are all found in odd places. Particularly as concerns the infinitive

marker *zu*, this is important as it suggests that the categorical status of *zu* is no different from that of a prefix. This goes against the analysis of quirky verbal morphology provided by Hinterhölzl (2009) which I will discuss in the next section.

Höhle (2006) does not offer much in terms of an analysis, but provides a considerable amount of data which must be taken into account when dealing with IPP and other instances of quirky verbal morphology. If one considers Standard German only, the picture that emerges is too simple, and even misleading.

### 11.3 Hinterhölzl (2009)

Like me, Hinterhölzl (2009: 191) argues that morphological displacement and “dropping”, i.e. when an expected morphological marking does not surface, are two sides of one phenomenon but the specifics of our analyses differ. For IPP, he makes the following claims which are very much in line with my own analysis (Hinterhölzl 2009: 199):

- I) IPP-infinitives involve a  $\emptyset$ -morpheme with the formal feature [participle]
- II) Infinitival morphology appears per default
- III) Verb cluster formation blocks participial morphology

These are exactly my claims, too, although our views on verb clusters differ, in that I assume them to be base generated as such, while to Hinterhölzl they are derived. It does not mean that I reject the idea that movement is involved in verb clusters; I simply try to establish the structural conditions of verb clusters and hence of the quirky morphology that may follow from it.

More specifically, Hinterhölzl believes that cluster formation involves XP-movement. He argues that in the West Germanic languages, the infinitive marker *zu* in the *zu*-infinitives is phrasal and that also participial morphology involves a phrasal affix. In essence the claim is that the left edge of the verbal domain is an Aspectual projection (corresponding, as far as I can tell, to little *v*) and that phrasal affixes may move through the specifiers of the Asp-projections (cf. the Phase Impenetrability Conditions, Chomsky 2001), thus moving from one verb to another.



The claim that participial morphology and the infinitive marker are phrasal, is based on the following data from West Flemish and Afrikaans (Hinterhölzl 2009: 193):

- (41) a. *Mee Valere te [willen [dienen boek kuope]] een*  
 with Valere to want.INF. that book buy have.INF.  
 ‘With Valere having wanted to buy that book’
- b. *Die banke moes oop gewees het,*  
 the bank should open been.PAST.PART. have.INF.
- om dit gister te [kan betaal] het*  
 to it yesterday to can buy have  
 ‘The bank should have been open to have been able to buy it yesterday’

What these data show is that in certain non-finite contexts in Afrikaans and West Flemish, material may intervene between *zu/te* and the infinitive, suggesting that *zu/te* cannot be an affix, but has to be a functional head. Due to the internal argument of the verb *kuope* in the a.-example, Hinterhölzl argues that the moved constituent has to be phrasal; an assumption which carries the entire analysis of IPP and of morphological displacement more generally. The phrasal *zu/te* he assumes to occupy the functional head-initial Aspectual Phrase as demonstrated in (42):

- (42) [AspP *zu/te* [vP verb]]

It should, however, be kept in mind that this argumentation is not water-proof, mainly because it need not be the case that *zu/te* is always the same element, even if it superficially looks like it. This is in fact exactly what Brandner (2006) argues based on Alemannic data, i.e. that the Standard German *zu* corresponds to different categories which in some dialects are spelled out by non-homophonous elements. It was shown in the section on Höhle’s data that the non-standard dialects have a much larger morphological inventory than Standard German, making it highly probable that elements such as *zu* in fact cover a number of different functional categories.

The view that *zu/te* need not always be the same element is supported by examples such as the following (a. example from ANS: 18.5.4.2) and b. example from Zwart (2007: 78)).

- (43) a. *Ton heeft de hele middag aan zijn bureau zitten (te) werken*  
 Ton has the whole afternoon at his desk sit.INF to work.INF.  
 ‘Ton has been working at his desk all afternoon’

- b. *Ik heb staan werken*  
 I have stand.INF. work.INF.  
 ‘I have been working’

In this construction where a positional verb combined with another verb adds a progressive reading to the main verb, the two verbs are optionally linked by *te*. As can be seen in (43)a., Dutch has no general ban against *te*-infinitives under IPP, and as such this indicates that the *te* is syntactically and semantically irrelevant.

Furthermore, in the example (41) from Afrikaans, it is in fact most likely a different *te* because of the presence of *om*. This corresponds to the German *um zu...* ‘for to’, i.e. the embedded infinitive is a non-finite purpose clause.

The West-Flemish example is a different story. As attested by Haegeman (2001: 210), *te* appearing disjoined from its verb is only allowed in 3-verb clusters:

- (44) a. *Mee Valère en us te kuopen*  
 With Valère a house to buy.INF. ‘with Valère buying a house...’
- b. \* *Mee Valère te en us kuopen*  
 With Valère to a house buy.INF.

This, combined with the fact that the *te* seems to always (at least in the cases attested by Haegeman 2001 and Hinterhölzl 2009) appear adjacent to a verb, means that it may instead be a case of morphological displacement, such that in (41) *te* has incorporated into the modal *willen*.

Also, the fact that the West-Flemish examples are most naturally translated into English gerunds, suggests that these are special instances of the *te*.

In addition to the AspP mentioned in (42), Hinterhölzl (2009) assumes the existence of a second Aspectual Phrase. In the specifier of the higher one (Asp1) the subcategorisation of the non-finite complement is checked, and in the specifier of Asp2 it is temporally anchored. For a simple perfect tense, the assumption is that the suffix (*-t* for weakly inflected and *-en* for strongly inflected) of the main verb is generated in Asp1 while the prefix *ge-* is in the specifier of Asp2. As a consequence, when there is a dependent infinitive which has moved through Spec-Asp2P to Spec-Asp1P, realisation of the participial prefix is blocked. The representation looks like this (Hinterhölzl 2009: 201)

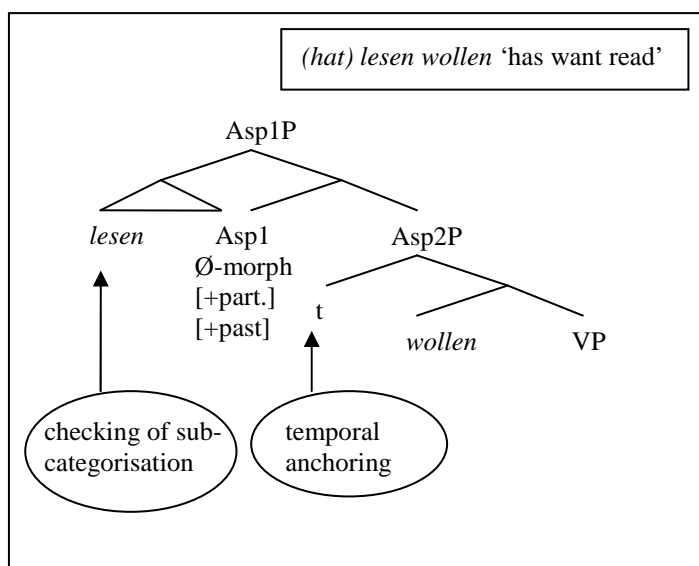


Figure 22

While I am sympathetic to Hinterhölzl's attempt at analysing IPP and agree with many of his views, I believe that he, along with many others, possibly makes the mistake of wanting to do too much. We have seen that the variation with respect to word order, substitute and displaced forms is huge and attributing such an amount of variation to syntax does not seem feasible. If I am correct in assuming that quirky verbal morphology is a much broader phenomenon, Hinterhölzl's analysis would no longer suffice and distinct analyses would have to be set up for the superficially quite different kinds of quirky verbal morphology, entirely missing the generalisation with respect to the underlying structure that I am proposing. In the following section, I want to present a few other cases of quirky verbal morphology which resemble IPP.

## 11.4 Other substitutes

### FINITE SUBSTITUTION

Finitum Pro Infinitivo (FPI) is a non-standardised name for a phenomenon very similar to IPP, which can be observed in Afrikaans and Danish. In some Danish dialects, FPI optionally takes place when two modals and a main verb are present. Pedersen (2008) gives the following examples - unfortunately without indicating which dialect(s) they are taken from; they are however consistent with my own variant of Danish (spoken in and around Aarhus):

- (45) a. *Hvis vi mister de penge, så vil det ka' mærkes*  
 If we lose that money, then will.FIN it can.FIN feel.PASS.  
 'If we lose that money, it will have an impact'
- b. *Vi må ska' dreje her*  
 We must.FIN shall.FIN turn.INF. here  
 'We probably have to turn here'

And further variants (Pedersen 2009 (c. example), forthcoming (d. example)):

- c. *Alle de ting, man ska' ka'*  
 all those things one must.FIN. can.FIN  
 'All the things one must be able to do...'
- d. *Når I er to, så må I nok kan tæske ham*  
 When you are two then must.FIN you prt. can.FIN. beat him  
 'When there are two of you, you must be able to beat him up'

Not only double-modal constructions, but also IPP-like contexts, i.e. Aux-Mod-Lex configurations can trigger FPI. In the following examples, I test the difference between such a proper 3-verb cluster and one without the lexical verb. The modal *kunne* 'can', like the other modals, is reduced in normal speech and hence it can sometimes be difficult to determine its exact morphological shape. There is however a clear difference between the present tense *ka'* and bare stem or (reduced) infinitive/past participle *ku'*. Here we get an interesting contrast between the Aux-Mod-Lex and the Aux-Mod-Ø configurations:

- (46) a. *Peter har ku' gå i skole i 10 år*  
 Peter has.FIN. can.RED. go in school in 10 years
- b. *Peter har ka' gå i skole i 10 år*  
 Peter has.FIN. can.FIN. go in school in 10 years  
 'Peter has been able to go to school for 10 years'
- (47) a. *Det har Peter aldrig ku'*  
 That has.FIN. Peter never can.RED.
- b. \* *Det har Peter aldrig ka'*  
 That has.FIN. Peter never can.FIN.  
 'Peter has never been able to do that'

The fact that the finite form of the verb is not allowed in all contexts (as in (47)b.) suggests that this form is not simply a phonological variant, but a proper finite verb. When only the modal and an auxiliary are spelled out, a surface copying of the lower verb is

not licensed, thus backing up my hypothesis that quirky verbal morphology (here the optionality between a finite modal and a non-finite reduced form) takes place when the clausal domain is too “crowded”.

Similar observations have been made for Afrikaans. Afrikaans displays even less verbal inflection than Danish (including the lack of inflection for person and number), and this probably plays a role for the possibility of having more than one finite verb in a cluster. In Afrikaans, FPI is possible under the configuration Aux-Mod-Lex (48), where the perfect tense is created with the auxiliary *hê* + the present or preterite of the modal. It should be noted that perfect tenses of modals are relatively rare and that the modals have no specific infinitives. Also the Aux-Aux-Lex (49) shows FPI. (Both examples from Donaldson 1993: 239+242):

(48)            *Ek het*            *dit altyd*            *kan/kon*            *doen*  
 I    have.PRES.    this    always    can.PRES/PRET.    do.INF.

(49)            *Ek sal*<sup>41</sup>            *dit voor*            *dié tyd*            *gedoen*            *het*  
 I    will.PRES.    this    before    the    time    done.PAST.PART.    have.PRES.  
 ‘I will have done it before then’

The interesting thing is that both auxiliaries are finite, despite the highest one, which has moved to C°, usually selecting the bare stem form (which is used as an infinitive and for the present tense). As can be seen, there is no requirement of immediate adjacency between the two verbs.

As in Danish, this finiteness agreement appears to be optional. However, as the infinitive and the present tense of almost all verbs are homophonous, it is difficult to determine what form we are dealing with. The fact that the non-inflected form *kan* can be used with a preterite modal like in (50) would however suggest that here is in fact an infinitive and that in this respect Afrikaans and Danish are completely parallel:

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<sup>41</sup> The exact status of ‘sal’ is not quite clear. Etymologically it is a modal verb, but in this usage it is close to a regular future tense auxiliary. Its categorical status is however not important and I will not pursue the question any further.

- (50) *Ek sou dit kan doen*  
 I should.PRET. this can.INF./PRES. do.INF

It should be kept in mind that Danish and Afrikaans also have another construction in common, pseudo-coordination, the highly frequent construction which also involves two finite verbs.

Bærentzen (2004) claims that Danish also displays optional IPP, but this is very hard (if not impossible) to determine. The following is one such example (Bærentzen 2004: 130):

- (51) *Vi har altid skulle betale dyre portobeløb*  
 We have always must.? pay.INF expensive postal.rates

Admittedly, this may be a case of IPP, but the problem is that in Danish, phonetic reduction is extensive. The written past participle of this modal is *skullet*, however, the normal pronunciation is reduced to *sku'*. The same pronunciation is valid for the infinitive and the preterite (both *skulle*). The less reduced form *skul'* is also available for these different forms. In other words, the modal in (51) may well be an infinitive, but it may also be a phonetically reduced past participle, or even a preterite. The same holds for the other Danish modal verbs.

Even so, this homophony is quite instructive. The fact that such different forms are reduced to functionally un(der)specified item indicates that the temporal/aspectual specification is not necessary for interpretation. The only necessary difference is the one between present tense (with vowel shift) on the one hand and all other forms on the other.

#### **MORPHOLOGICAL DISPLACEMENT**

Furthermore, as pointed out by Bærentzen (2004), Danish to some extent also shows morphological displacement. Like the double finite constructions, morphological displacement is substandard and restricted to certain dialects, including, to a small extent, my own.

Unlike with the modals which in Danish are ambiguous with respect to which form they actually display, with the strongly inflecting verbs with vowel alternations it is possible to tell if they are infinitives or past participles. We can see this in the following example from Bærentzen (2006: 131):

- (52) *Det har jeg hele tiden villet spurgt om*  
 That have I all the.time want.PAST.PART. ask.PAST.PART. about  
 ‘I’ve wanted to ask that all along’

Bærentzen claims that the modal here is a past participle, a claim that I will dispute. In spoken language, the modal will always be pronounced in its reduced form *vi* and hence, it cannot be determined if it is an infinitive or a participle. The main verb ‘ask’ is however unambiguously a past participle. The infinitive is *spørge* and hence phonetically distinct. Parallel is the next example, where the main verb *sove* ‘sleep’ is a past participle and the modal is reduced (Bærentzen 2004: 131):

- (53) *Han har aldrig ku’ sovet om dagen*  
 He has never can.RED. sleep.PAST.PART. at day

As an aside it is worth mentioning here that these structures are reminiscent of the Swedish participle copying referred to in Part I. Here we see that the configuration Aux<sub>perfect</sub>-Mod-Lex where both the modal and the main verb appear as participles (Wiklund 2007: 6)

- (54) *Han hade kunnat läst*  
 He had can.PAST.PART. read.PAST.PART.  
 ‘He had been able to read’

In my own dialect, I have finite modal doubling, while displacement of the past participle is only marginally available. In as far as can accept participle copying or morphological displacement as in (53), I can also combine it with finiteness copying:

- (55) *Han har aldrig ka sovet om dagen*  
 He has never can.FIN. sleep.PAST.PART. at day

Most importantly, when there is only a modal and a lexical verb, the past participle is never an option, in other words this looks similar to IPP and other cases of quirky or misplaced morphology in that the frequency is much higher with three or more verbs than with only two. In a combination of a modal and a main verb, the past participle of the main verb is never an option (an embedded clause is used to avoid any interference from V2):

- (56) a. \* ...*at han ville spurgt om det*  
 ...that he want.PRET. ask.PAST.PART about it
- b. \* ...*at han aldrig ka'/ku' sovet om dagen*  
 ...that he never can.PRES./PRET. sleep.PAST.PART at day

What I will conclude from these data from Danish and Afrikaans is that quirky verbal morphology is not specific to German, or to SOV or mixed word order languages. Also, based on the double-finite-modals, I will conclude that the peculiarities of IPP need not have to do with perfect tense formation. Furthermore I will speculate that whether finite forms of non-clausal verbal complements is allowed or not, depends on the extent to which the language displays verbal inflection; Afrikaans and Danish have no subject-verb agreement, and hardly any temporal inflection either, and as such little distinguishes finite and non-finite verb forms.

## 12 Dissecting IPP-verbs

Stating that IPP-verbs belong to the cross-linguistically established class of core restructuring verbs gives no insight as to why that is so. The real question is what properties are shared by these verbs causing them to enter such close connections with their complements. I will now try and establish the internal structure of these verbs, in terms of what VP-internal phrases they project and which (relevant) semantic features they contain. When doing this, I will maintain well-established classes of verbs, such as modals, verbs of perception, phase verbs etc.

### 12.1 Modal verbs

Ramchand's (2008) semantic-syntactic decomposition approach does not provide any insights to the nature of modal verbs as they do not denote events but rather modulate events expressed by a main verb. They are neither proper states nor processes, but may be described as something like potentialities. They do however have some state-like properties because no change is implied in their semantics.

When discussing modals, it is crucial to keep in mind that the cross-linguistic variation even among closely related languages is quite significant, cf. that e.g. English modals can only be finite, while this is not true of modals in the Germanic and Romance languages. The specific behaviour (deficiency) of English modals has caused them to often be assumed to be auxiliaries merged directly in T°. This however cannot hold for



German, and since modal verbs differ from purely temporal or aspectual auxiliaries, both with respect to their semantics and selectional properties, it is not adequate to propose a completely uniform analysis.

Wurmbrand (2001) assumes that modals are merged in a position (simply referred to as a Modal head, Mod<sup>o</sup>) between the main VP and the position where pure auxiliaries are inserted (AuxP). In other words, the structure looks like this [TP [AuxP [ModP [VP]]]] (Wurmbrand 2001: 144).

Wurmbrand does not distinguish between temporal and aspectual auxiliaries, a distinction which is necessary when dealing with IPP. I will do that and assume the (simplified) structure [TP [ModP [AspP [VP]]]] as per Cinque (1999: 12) and assume that temporal auxiliaries are merged in T<sup>o</sup>, aspectual auxiliaries in Asp<sup>o</sup> and modal verbs in a projection in between the two. In 12.1.3 I will elaborate this view considerably.

### 12.1.1 The Epistemic/Root distinction

A classic distinction for modal verbs is between epistemic and root usage; a distinction which is both semantically and syntactically justified (see for example Jespersen 1925/1963: 820, 1931: § 13.4.1 and Palmer 1986/1995: 18). Unlike in Modern English, both usages are still systematically available in German. Furthermore, it is possible to argue that (at least some) modals may also appear as lexical verbs. While I support the first distinction, I do not believe that modals ever predicate alone (possibly *können* and *mögen* are exceptions); such structures where a modal verbs appear to stand alone as transitive verbs, I will argue are always elliptic

This view is connected to an important question about modal verbs, namely whether they are thematic control verbs or whether they are in fact a subclass of raising verbs. In the literature both points of view have been defended, and I will argue for the latter view, i.e. that they are in fact raising verbs which get their grammatical subject from their verbal complement.

But let us first distinguish between the different usages of modal verbs. The first classic distinction is the one between epistemic and root modal usage<sup>42</sup>. If we think of these two kinds in terms of semantic decomposition, we can describe the difference as being due to reduction, or addition, of semantic features.

With respect to the epistemic usage, the semantics of the modals is very similar, no matter which verb is selected, they all share the same basic meaning (which could be dubbed [potentiality]), each with a tone of the root meaning of the individual verb. They may be characterised as evidentiality markers and are semantically very similar to the future tense auxiliary *werden* which in turn also has two usages, the “strict” future tense usage and the usage as a potentiality marker<sup>43, 44</sup>.

- (57) a. **AUX:** *Er wird morgen nach Spanien fahren*  
 He will tomorrow to Spain go  
 ‘He’s going to Spain tomorrow’
- b. **EPIST.** *Er wird zu Hause gewesen sein*  
 He will at home be.PAST.PART. be  
 ‘(I think) he’s been at home’

This semantic feature [potentiality] is also present in all root modals, but additionally they contain their individual semantic features, making them semantically heavier and more distinct. The following examples illustrate the difference between the epistemic and the root usage (examples adapted from Abraham 2002: 28):

- (58) *Er muss viel Geld verdienen*  
 He must.FIN. much money earn.INF.  
**Root:** ‘He must make a lot of money (in order to pay his house)’  
**Epist:** ‘He must make a lot of money (otherwise he could not have that car)’

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<sup>42</sup> Often the opposition epistemic/deontic is used, but as the term ‘deontic’ does not really apply to all verbs, I find it more appropriately to use the term ‘Root modal’, which is to be understood as negatively defined, i.e. Root modals are non-epistemic modals.

<sup>43</sup> Creating truly unambiguous examples with *werden* is difficult. The b.-example is unambiguously an epistemic usage, but the a.-example could have an epistemic reading too. The future tense reading is however the preferred one.

<sup>44</sup> Classic Raising-verbs such as *scheinen* ‘seem’ and *pflügen* ‘usually do’ also show strong restructuring properties (see e.g. Wurmbrand, 2001: 205), but as they are non-IPP-verbs I will not discuss them any further. In German, these verbs are entirely unable to appear in the Perfect tense, and I will assume that they are merged in the same head as epistemic modals (i.e. the epistemic modal positions above T°) and that this is the reason for the finiteness-restriction. Semantically, this view is justifiable in that they can both be said to contain the same semantic feature [potentiality] as the epistemic modals.

- (59) *Er soll viel Geld verdienen*  
 He shall.FIN. much money earn.INF.  
**Root:** ‘He ought to make a lot of money (because it is a virtue)’  
**Epist:** ‘He is said to make a lot of money’
- (60) *Er will viel Geld verdienen*  
 He wants.FIN. much money earn.INF.  
**Root:** ‘He wants to make a lot of money’  
**Epist:** ‘He pretends to/is said to make a lot of money’

Only finite modals are ambiguous between the root and the epistemic usage; if the modal is non-finite, only the root interpretation is available:

- (61) a. *Er hat viel Geld verdienen wollen*  
 He has much money earn.INF. want.INF.  
**Root:** ‘He has wanted to make a lot of money’  
**Epist:** Not available
- b. *Er hat viel Geld verdienen müssen*  
 He has much money earn.INF. must.INF.  
**Root:** ‘He has had to make a lot of money’  
**Epist:** Not available
- c. *Er hat viel Geld verdienen können*  
 He has much money earn.INF. can.INF.  
**Root:** ‘He has been able to make a lot of money’  
**Epist:** Not available

Vikner (1988: 7) mentions the lacking ability of epistemic modals to occur in non-finite forms and discusses apparent counterexamples, such as the following ones:

- (62) *Han har skullet bo i Århus siden 1983*  
 He has.FIN. shall.PAST.PART live.INF. in Aarhus since 1983  
 ‘Supposedly, he’s been living in Aarhus since 1983’

Here, the modal is epistemic even though it appears in the perfect tense. Vikner argues that this is in fact a case of displaced morphology (although he does not use this term); really the lexical verb is the perfect one, i.e. the underlying structure is [Mod [Aux [Lex ]]]. The main argument is that the temporal adverbial must modify a perfect tense verb and since it denotes the starting point of ‘living’ and not of ‘shall’, it follows that the main verb is underlyingly perfect. The counterpart without morphological displacement

is in fact also a perfectly grammatical sentence in Danish and it has the same scopal properties as (62):

- (63) *Han skal have boet i Århus siden 1983*  
 He shall.FIN. have.INF. lived.PAST.PART. in Aarhus since 1983

The differences between root and epistemic usage have been captured by different analyses. Wurmbrand (2001) argues that epistemic modals are merged in the same position as proper auxiliaries and therefore epistemic modals cannot co-occur with temporal auxiliaries, while Cinque (1999: 81) argues that the functional heads hosting epistemic modality (and evaluative and evidential modality, which I subsume under the label epistemic modality) are above T. This could also explain the lack of non-finite epistemic modals. Whether these analyses are true or not, the interpretation of co-occurring modals clearly support the notion that epistemic modals are merged higher than root modals, cf. the following examples from Danish (Vikner 1988: 9)

- (64) a. *De skal ville bygge hus*  
 De shall want.INF. build house  
 ‘They are said to want to build a house’
- b. # *De vil gerne skulle have tjent en million*  
 They want PRT shall.INF. have earned one million  
 \* ‘They would like to be said to have made a million’

Vikner (1988) argues that epistemic modals are raising verbs while root modals are control verbs that assign an “additional theta-role” (Vikner 1988: 14) to the subject. This idea which goes back to Ross (1969) is also defended by others, e.g. Abraham (2002), and Drubig (2001). In contrast, among others, Wurmbrand (1999: 600, 2001), Barbiers (2002) and Cinque (2006) defend the view that all modal verbs are raising verbs; a view that I will also advocate here.

### 12.1.2 Root modals as raising verbs

An apparent obstacle for an analysis of all modals as raising verbs (Abraham 2002: 38), is the fact that the modals *wollen* ‘want’ and *mögen* ‘like’ appear to only be compatible with agentive subjects, i.e. in the following examples, epistemic readings are forced, but as *wollen* is no longer actively used as an epistemic modal, the result is ungrammatical:

- (65) \*/# *Es will regnen*  
 It wants rain.INF. 'It wants to rain'
- \*/# *Das Glas will vom Tisch herunterfallen*  
 The glass wants from.the table down.fall.INF.  
 'The glass wants to fall from the table'

Supposedly this means that the modal imposes restrictions on the subject. It is however possible to explain this by different means; i.e. in terms of the modal's requirements of its complement. In fact I want to claim that all root modals require a verbal complement whose subject is a potential agent. Generalising that the presence of an external argument of the verbal complement is a requirement for root readings would be too strong. This would predict that passives and unaccusatives were ruled out under Root modals. Passives are possible and unaccusatives are available, though pragmatically odd:

- (66) a. *Peter will verhaftet werden*  
 Peter wants arrested.PART. PASS.AUX.
- b. ? *Peter will vom Tisch herunterfallen*  
 Peter want from.the table down.fall.INF.

Danish provides an interesting point which cannot be seen from German or English data. Danish has two passives; a periphrastic one which is comparable to the English/German passive and the morphological, so-called *s*-passive. This passive is obtained simply by adding an 's' to the verb stem. As was observed by Vikner (1988: 16), the *s*-passive is compatible with root modals, but the periphrastic one is not:

- (67) a. *Maria vil ses*  
 Maria wants see.PASS  
 'Maria wants to be seen' / \* 'Maria will be seen'
- b. *Maria vil blive set*  
 Maria wants be seen.PART.  
 'Maria will be seen' / \* 'Maria wants to be seen'

I will not venture to explain the structural difference between the two Danish passives, however this difference combined with the fact that the *s*-passive has developed from a reduction of the reflexive pronoun *sig*, suggests that underlying the *s*-passive is in fact an active structure in which the external and the internal argument refer to the same entity.

If this assumption is correct, it would be a further indication that root modals require a verbal complement whose subject is a potential agent.

In fact, it is not just the two modals *wollen* and *mögen* which supposedly impose subject restrictions; it actually holds for all root modals that the subject of the complement must have some animate/human/cognitive qualities. The difference between the modals is that *wollen* and *mögen* are rarely used as epistemic modals and therefore often judged as ungrammatical. If we use any other modal, the result is not ungrammatical but the reading is always epistemic (or anthropomorphising), as in these examples:

- (68) *Das Glas kann /muss /soll jetzt vom Tisch herunterfallen*  
 The glass can /must /shall now from.the table down.fall.INF.

The only way to get root modal readings of the verbs in (68) is to assign properties to the glass which it usually does not have (such as the ability to act intentionally or be subject to moral obligation). In other words, all root modals require that the subject of the complement be a potential agent.

Giving weight to my claim that apparent subject restrictions on the root modal is in fact due to restrictions on the verbal complement are cases like the following:

- (69) a. *Peter muss das Buch gelesen haben*  
 Peter must the book read.PAST.PART. have.INF.  
 Epist: ok  
 Root: ??
- b. *Peter muss das Buch lesen*  
 Peter must the book read.INF.  
 Epist: ok  
 Root: ok

In this case, the different complements of *müssen* influence the interpretation of the modal, such that the a.-example is almost unambiguous and the strongly preferred reading of the modal is the epistemic one, while b. is ambiguous. In a parallel fashion, the English counterparts of these two examples show a similar effect; the aspect of the complement verb influences the (preferred) interpretation of the modal verb.

- (70) a. **Root:** *Peter must read the book*  
 b. **Epist./root:** *Peter must be reading the book* (epistemic reading preferred)  
 c. **Epist./root:** *Peter must have read the book* (epistemic reading preferred)

#### MAIN VERB USAGE OF PASSIVES

Cross-linguistically, modal verbs also differ in the extent to which they are allowed to stand alone, i.e. without a verb complement. German root modals are relatively independent, i.e. they will quite often surface without a verbal complement. It is however always possible to reconstruct a lexical verb below the modal, suggesting that this verb is present in the structure but has been elided at or before PF. This lack of lexical independence favours an analysis according to which modal verbs are assumed to be merged in a functional position, rather than projecting VPs with a full clausal structure.

The following examples show how modals sometimes appear to be transitive main verbs, but fail tests such as passivisation.

- (71) a. *Die Schüler können Englisch (sprechen)*  
 The students can English speak
- b. ?? *An der Schule wird Englisch gekonnt*  
 At the school PASS.AUX. English can.PAST.PART.  
 ‘At that school they (know how to) speak English’
- c. *...und an dieser Schule... ‘...and at that school...’*
- wird sogar noch Integralrechnung aus dem FF gekonnt*  
 PASS.AUX. MOD.PRT. integral.calculus IDIOM can.PAST.PART.  
 ‘...and at that school they are even good at integral calculus’
- (72) a. *Ich will ein Eis (haben)*  
 I want an ice cream have.INF. ‘I want an ice cream’
- b. ?? *Das Eis wird gewollt*  
 The ice cream PASS.AUX. want.PAST.PART.  
 ‘The ice cream is (being) wanted’
- c. *...und an dem Tisch dadrüben... ‘...and at that table over there...’*
- wird wohl noch ein Bier gewollt*  
 PASS.AUX MOD.PRT. MOD.PRT. a beer want.PAST.PART  
 ‘...and at that table over there, they appear to want another beer’

- (73) a. *Ich muss unbedingt ein Eis \*(haben)*  
 I must absolutely an ice cream have  
 ‘I need an icecream’
- b. ?/\* *Das Eis wird gemusst*  
 The ice cream PASS.AUX must.PAST.PART  
 ‘The ice cream is (being) needed’
- c. ?/\* *Während dieser Diät wird viel Eis gemusst*  
 During this diet PASS.AUX. much ice cream must.PAST.PART  
 Intended: ‘This diet demands that a lot of ice cream be eaten’
- (74) a. *Ich darf schon ein Eis (haben)*  
 I may MOD.PRT. a icecream have
- b. ?/\* *Das Eis wird gedurft*  
 The ice cream PASS.AUX. may.PAST.PART.
- c. ?/\* *Während dieser Diät wird kein Eis gedurft*  
 During this diet PASS.AUX. no ice cream may.PAST.PART.
- (75) a. *Ich mag einen Kaffee (haben /trinken)*  
 I would.like a coffee have /drink
- b. # *Der Kaffee wird gemocht*  
 The coffee PASS.AUX. like.PAST.PART  
 Intended: ‘The coffee is being wanted’  
 Actual: ‘The coffee is being liked’
- c. # *Während dieser Diät wird kein Eis gemocht*  
 During this diet PASS.AUX. no icecream like.PAST.PART.  
 Intended: ‘During this diet, ice cream is not being wanted’  
 Actual: ‘During this diet, ice cream is not being liked’
- (76) a. *Du solltest jetzt lieber einen Apfel \*(haben /essen)*  
 You should now rather an apple have /eat
- b. \* *Der Apfel wird gesollt*  
 The apple PASS.AUX. should.PAST.PART
- c. \* *Während dieser Diät werden viele Äpfel gesollt*  
 During this diet PASS.AUX. many apples should.PAST.PART.
- d. *Du solltest jetzt nach Hause (gehen)*  
 You should now towards home go

The data in (71) - (76) show that the modal verbs can be arranged on a scale of transitivity/lexical independence. At one extreme of this scale we have *können* and *wollen* ‘can’



and ‘want’ which display a large degree of lexical independence. They are unproblematic with DP-complements in “active” constructions and even passives are available if circumstances are right. What we see from the relative ungrammaticality of the b.- versus the c.-examples is that simple passivisations are difficult and that specific contexts are called for, for passivisations to be acceptable.

In the middle of the scale are *müssen* and *dürfen* ‘must’ and ‘may’. If the verb is “active”, DP-complements are allowed, although it should be noted that here, some kind of modal particle is required for them to be natural. The interesting thing is that passives are quite impossible, not just the simple passivisations like in (71)b. and (72)b., but even in a plausible context, the passives are ungrammatical. At the other extreme of the scale is *sollen* ‘should’ which disallows a simple DP-complement entirely. Obviously, the ungrammaticality of (76)b. and c. follow automatically from this fact. The only possibility for *sollen* to appear without a verbal complement is if it has a directional expression as in the d.-example, an option which is available to all modal verbs. Where *mögen* is on the scale is not clear. This is due to the fact that two variants of the verb with intertwined paradigms are in play. In the first example (75)a., the modal verb means that the subject would like to have something (i.e. coffee) but in certain contexts, it simply means to like (coffee). I have no explanation why this is so.

If we compare the German modals to their Danish counterparts, we see that the Danish ones are a lot less independent. They are generally only allowed to surface without a verbal complement in what is clearly elliptic contexts and the only nominal complement they allow is the proform *det* ‘it’ standing in the elided verb’s place.

- (77) *Jeg kan /vil /skal /må ikke spise svampe...*  
 I can /want /must /may not eat mushrooms...  
 ...og *det* har jeg aldrig kunnet /villet /skullet /måttet  
 ...and that have I never can /want /must /may.PAST.PART(all)

*Kunne* ‘can’ marginally works with a nominal complement but a passivisation is completely ungrammatical.

- (78) a. *Peter kan stadig sit fadervor /kinesisk*  
 Peter can still his Paternoster /Chinese

- b. \* *Fadervor/kinesisk bliver stadig kunnet*  
 Paternoster/Chinese PASS.AUX. still can.PART.

Danish modals are able to combine with certain elements that look like nominal objects, however, intuitively, under these light nouns there are “hidden activities”, and passivisation is ruled out:

- (79) a. *Jeg vil /skal /kan /må ingenting*  
 I want /must /can /may nothing  
 ‘I don’t //want to/have to/cannot/may not// do anything’
- b. *Jeg vil /skal /kan /må ikke noget*  
 I want /must /can /may not anything  
 ‘I don’t //want to/have to/cannot/may not// do anything’
- c. *Jeg vil /skal /kan /må en hel masse*  
 I want /must /can /may a whole lot  
 ‘I //want to/have to/cannot/may not// do a lot of things’
- (80) a. \* *Intet bliver villet /skullet /kunnet /måttet*  
 Nothing PASS.AUX want /must /can /may
- b. \* *Ikke noget bliver villet /skullet /kunnet /måttet*  
 Not anything PASS.AUX want /must /can /may
- c. \* *En hel masse bliver villet /skullet /kunnet /måttet*  
 A whole lot PASS.AUX want /must /can /may

Furthermore, the modals generally do not have an available s-passive form, i.e. \**skulles/måttes/villes*, although the s-passive of *kunne* and *ville*, i.e. *kunnes* and *villes* is available in specific contexts with light objects.

- (81) a. ? *Der er så meget, der skal kunnes*  
 There is so much that must.FIN. can.PASS.  
 ‘One must be able to do so much’
- b. ? *Det skal virkelig viles, for at det kan lykkes*  
 It must really want.PASS. for to it can.FIN. succeed.FIN.  
 ‘One must really want it for it to be successful’

What the data (71)-(80) show is that despite the apparent ability of (German) modal verbs to appear with nominal complements, they are not really transitive verbs. German *können* and *wollen* are the most lexical ones and appear to have a kind of intermediate

status between modal verbs and lexical verbs. The Danish modals do however not show this tendency, and whenever they appear without a verbal complement, it can be shown that the structure is elliptic.

The modal verbs have another quality concerning passivisation, namely the ‘long passive’ (Wurmbrand 2001). When a passive of a [modal + lexical verb] is to be made, the embedded object becomes the subject of the modal which in turn embeds the passive auxiliary and the lexical verb:

- (82) a. *Er kann gesehen werden* cf. *sie kann ihn sehen*  
 He can see.PAST.PART. PASS.AUX. she can him see.INF.  
 ‘He can be seen’ cf. ‘she can see him’
- b. *Er muss /soll /will /darf gesehen werden*  
 He must /should /wants.to /may see.PAST.PART. PASS.AUX.  
 ‘He must/ought to/wants to/may be seen’

This fact is a strong argument for the raising analysis of root modals as the surface subject receives its patient theta-role from the embedded verb. In German, transitive verbs and intransitive, unergative verbs allow passivisation, but unaccusatives do not (Wurmbrand 2001: 197), i.e. an external argument is required. Raising verbs obviously do not have this and hence do not allow passivisation, and as we saw in the (71) - (76)c.-examples, modals pattern with raising verbs in this respect (*wollen* and *können* being trickier). What raising verbs allow is the same construction as in (82), i.e. where the embedded object becomes the subject of the raising verb:

- (83) *Der Kuchen scheint gegessen worden zu sein*  
 The.NOM cake seems eaten PASS.AUX. to be  
 ‘The cake appears to have been eaten’

Furthermore, Wurmbrand (1999: 605) argues that, were root modals to be analysed as control verbs, they would impose thematic restrictions on their subject. She gives the following example with a passive with a root modal where the subject cannot be seen as having a thematic relation with ‘*may*’ as a notion like permission is incompatible with an entity like ‘biscuit’, i.e. the subject originates in the lower VP.

- (84) *The biscuits<sub>i</sub> may be finished t<sub>i</sub>*

As pointed out by Wurmbrand (1999: 601, 2001: 189), Icelandic modals provide even further evidence.

### ICELANDIC QUIRKY CASE SUBJECTS

In Icelandic, most subjects are nominative but some verbs have quirky case subjects, i.e. subjects that are marked with a different case (85). When such verbs are embedded under a raising verb the case of the subject remains quirky (86). If however, it is embedded under a control verb, the subject must be nominative (87). As can be seen in (88), in this respect the modals pattern with raising verbs. The following examples were first given by Thrainsson & Vikner (1995: 60) who gave them quite a different interpretation.

- (85) a. *Harald* /\**Haraldur* *vantar peninga*  
 Harold.ACC /\*NOM lacks money.ACC
- b. *Haraldi* /\**Haraldur* *líkar vel í Stuttgart*  
 Harold.DAT /\*NOM likes well in Stuttgart
- (86) *Harald* *virðist vanta ekki peninga*  
 Harold.ACC seems lack not money.ACC  
 ‘Harold seems not to lack money’
- (87) a. *Haraldur* /\**Harald* *vonast til að vanta ekki peninga*  
 Harald.NOM /\*ACC hopes for to lack not money.ACC  
 ‘Harold hopes not to lack money’
- b. *Haraldur* /\**Haraldi* *vonast til að líka vel í Stuttgart*  
 Harold.NOM /\*DAT hopes for to like well in Stuttgart  
 ‘Harold hopes to like it in Stuttgart’
- (88) a. *Harald* *vill oft vanta peninga*  
 Harold.ACC will often lack money.ACC  
 ‘Harold frequently tends to lack money’
- b. *Haraldi* *ætla að líka vel í Stuttgart*  
 Harold.DAT intends to likes well in Stuttgart  
 ‘It looks like Harold will like it in Stuttgart’  
 Not: ‘Harold intends to like it in Stuttgart’

Thrainsson & Vikner argue that in cases such as (88) only an epistemic reading of the modal is available, and this matches their analysis that only epistemic modals are raising verbs. Wurmbrand on the other hand, argues that this is only due to a semantic improbability, i.e. that under the right circumstances a root modal may embed a quirky subject,

in which case the form of the quirky case subject is unchanged. This is demonstrated in the following examples (Wurmbrand 1999: 602):

- (89) a. *Haraldi* /\**Haraldur verður að líka hamborgarar*  
 Harold.DAT /\*NOM must to like hamburgers  
 ‘Harold must like hamburgers’ (in order to be accepted by his new American in-laws)
- b. *Umsækjandann verður að vanta peninga*  
 The.applicant.ACC must to lack money  
 ‘The applicant must lack money’ (in order to apply for this grant)

In these two examples, the quirky case of the subject is maintained despite the favoured root reading of the modal, and they provide a very strong argument for the raising analysis.

#### RAISING VERBS AND EXPLETIVE SUBJECTS

Further evidence comes from English expletive subjects combined with root modals. This involves cases such as the following where the associate of the expletive is inside the verbal complement (Wurmbrand 2001: 189)

- (90) a. *There may be singing but no dancing on my premises*
- b. *There can be a party as long as it’s not too loud*

In fact, Danish data can make this argument more convincing. English modals are deficient and possibly fundamentally different from the German ones. Danish also has the adverbially based expletive *der* ‘there’ and this is compatible with root modals, as in the following examples:

- (91) a. *Der skal bare være en løsning på problemet i morgen*  
 Der must PRT be a solution to the.problem in morning  
 ‘Tomorrow there must be a solution to the problem’
- b. *Der må gerne komme mange med til festen*  
 There may PRT come many with to the.party  
 ‘It’s ok (permitted) if a lot of people come to the party’

Well-established raising verbs such as *se ud til* ‘seem’ and *pleje* ‘usually do’ pattern with the root modals in this respect, while control verbs do not have this option:

- (92) a. *Der så ud til at komme mange med til festen*  
 There seemed to to come many with to the.party
- b. *Der plejer at komme mange til festen*  
 There usually.do.VB. to come many to the.party
- c. \* *Der lovede at komme mange til festen*  
 There promised to come many to the.party

The examples in (91) are unambiguously root modals, and the subjects remain *in situ* due to the presence of the expletive. Therefore, I will now draw the conclusion that modal verbs, root and epistemic ones alike, are non-thematic raising verbs and as such always dependent on a verbal complement containing a subject. My classification of modal verbs as functional, non-thematic verbs is backed up by Cinque’s (1999, 2001, 2006) functional hierarchy. According to Cinquean machinery, modality is encoded high up in functional structure of the clause; epistemic modals are merged above T, and Root Modals are merged just below T. These positions are clearly non-thematic, and the subject of a modal verb must have been generated within the lexical/semi-functional domain – corresponding to the vP/VP of the main verb.

### 12.1.3 Modal verbs in the Cinquean functional structure

I assume that modal verbs (as well as temporal auxiliaries) are merged directly in the functional structure above the vP/VP according to Cinque’s (1999: 106) hierarchy and in the following I back up this claim by showing that the predictions that follow from this assumption concerning material that may intervene between the modal verb and its verbal complement are borne out. For ease of exposition, when I am not concerned with the details of the internal ordering, I abbreviate the elaborate functional structure into the domains of Tense, Mood and Aspect.

According to Cinque, epistemic modal are merged above T, an assumption which, combined with my assumption that a distinction between aspectual and temporal perfectivity is necessary, explains why epistemic modals are never non-finite; temporal auxiliaries can simply not be merged in a position where they have scope over epistemic modals. Root modals, on the other hand, are merged directly under T, with the following internal ordering:

- (93) [Mod<sub>epist</sub> [T [Mod<sub>irrealis</sub> [Mod<sub>necessity</sub> [Mod<sub>possibility</sub> [... [... [... [Mod<sub>volitional</sub> ]]]]]]]].

Below the Modal Phrases are a number of Aspectual Phrases; we can determine their existence by showing how they can be embedded under Root Modals. In the following I will give only examples of a representative selection of the phrase types, and the reasons for this are that: i) Testing all phrase types for all the relevant verb types and detailing them here would be unreasonably extensive compared to what might be achieved by it. ii) Adequate adverbs are not always available in all languages, iii) Sometimes semantic restriction may block the occurrence of particular adverbs. It does not follow that the relevant projection does not exist, e.g. a non-restructuring verb like word *bereuen* 'regret' needs a propositional complement which took place in the past<sup>45</sup> and is therefore incompatible with a verbal complement which is modified by a future adverb. In the following examples, I test for different modal verbs simultaneously although some modals are semantically more plausible with certain adverbs than others. It does however not influence the grammaticality significantly.

#### ASP<sub>repetitive/I/II</sub>

One of the highest aspectual phrases is the [ASP<sub>repetitive(I)</sub>] while one of the lowest is [ASP<sub>repetitive(II)</sub>] (Cinque 1999: 44) – the former being truly repetitive and the latter being restitutive. The following example shows that both readings are available under modals:

- (94) *Er musste /wollte /konnte die Tür wieder aufmachen*  
 He must.PRET. /want.PRET. /can.PRET. the door again open

[ASP<sub>repetitive(I)</sub>]: He had opened the door at least once before

[ASP<sub>repetitive(II)</sub>]: The door used to be open, someone closed it and he reopened it

#### ASP<sub>continuative</sub>

Continuative adverbs can also be embedded under modal verbs:

- (95) *Er muss /will /kann sie immer noch sehen*  
 He must /wants to /can her.ACC still see.INF.

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<sup>45</sup> The English verb 'regret' covers at least two verbs in Danish and German. One *fortryde/bereuen* exclusively refers to a past event and the other one *beklage/bedauern* is ambiguous between referring to past, present and future events.

**ASP**<sub>frequentative(i)</sub>

Also the [Asp<sub>frequentative(i)</sub>] (Cinque 1999: 104) can be shown to be embedded under modals:

- (96) *Er muss /kann /will sie ganz oft sehen*  
 He must /can /wants her.ACC very often see.INF.  
 ‘He must/can/wants to see her very often’

**ASP**<sub>completive</sub>

Another of the functional projections is the [Asp<sub>completive</sub>] (Cinque 1999: 100) which is the generation site of perfect tense; hence we expect modals to be able to embed perfect tenses – an expectation which is met:

- (97) *Er muss /will das Buch bis morgen gelesen haben*  
 He must /wants the book until tomorrow read.PAST.PART. have.INF.  
 ‘He must /wants to have read the book before tomorrow’

In other words, German Root modals follow Cinque’s generalisations and appear to comply with the supposedly universal hierarchy of functional projections.

Returning now to IPP, we see that the hierarchical organisation of the verbs which trigger IPP apparently contradicts Cinque’s hierarchy; the occurrence of Mod + perfect tense auxiliary + lexical verb as in (97) does not trigger quirky verbal morphology, reversal of the two higher ones, Aux + Mod + Lex does cause the IPP-effect. As the interpretation of Aux + Mod + Lex is not the same as Mod + Aux + Lex, it is unlikely that we are simply dealing with movement of the auxiliary to a higher position.

Instead, I want to make use of the distinction between perfect tense and perfect aspect. The German perfect tense auxiliary has undergone a grammaticalisation process from possessive main verb *haben* over aspectually perfective to temporally perfective auxiliary (Zwart 2010). Specifically, this applies to perfect tenses of state verbs. As pointed out by Smith (2004: 599), states, being unbounded, are inherently unable to be perfective, since perfectivity focuses events as bounded. Even if this assumption is not correct, the distinction between aspectual and temporal perfectivity is enough. If we assume that the auxiliary of perfect aspect is merged in Asp<sub>completive</sub> while perfect tense auxiliaries are merged in T, we can straight-forwardly account for root modal verbs in the perfect tense since in Cinque’s hierarchy T is situated above the root modal projections. This means



that a modal verb in the perfect tense is not in the head of the  $\text{Asp}_{\text{completive}}\text{P}$  and the theoretical consequence of this is that there must be another verb present to form the VP (otherwise the functional structure could not have been projected), cf. my arguments that cases where modal verbs appear to be main verbs are always elliptic.

For German, in particular, this is a very reasonable assumption. In section 11.1 I referred to the fact that *ge-* originated as a perfectivity marker and then at a later stage it spread to the past participle. In the southern parts of Germany, the simple preterite is not used at all (the so-called *Präteritumsschwund*), and the perfect tense is the regular past tense. Also, in the northern parts where a simple preterite is in principle available, the perfect tense is used increasingly and often interchangeably with the simple past tense. As such the claim, that the perfect tense is not really perfective is empirically motivated.

There is also a very good functional motivation for the German speakers to use their modals in the perfect tense instead of the preterite. As we have seen above, finite modal verbs are ambiguous between an epistemic and a root reading; making the modal verb non-finite, disambiguates the sentence as only root modals are ever non-finite. The same thing holds for modals in Danish which have the same restriction against non-finite epistemic modals.

Furthermore, for some of the German modals, the past subjunctive is indistinguishable from the past indicative. This holds for the modals *sollen*, *wollen* and possibly *mögen/möchten* (whose paradigm(s) are intertwined). Using the perfect tense auxiliary which has distinct indicative/subjunctive forms in both present and simple past tense again disambiguates the utterance. As Danish does not display any subjunctive marking, we cannot draw any direct parallels with respect to the indicative/subjunctive distinction. We do however see a very interesting contrast between Danish and German, concerning IPP in combination with the subjunctive. In order to express *He shouldn't have done it*, Danish and German use different strategies:

- (98) a. *Er hätte es nicht machen sollen* **German**  
 He has.PAST.SUBJ. it not do.INF. shall.INF.
- b. *Han skulle ikke have gjort det* **Danish**  
 He shall.PRET. not have.INF. do.PAST.PART. it  
 Both: 'He shouldn't have done it'

What we see here, is that in German, the temporal auxiliary selects the modal which selects the main verb. In Danish, the modal selects the aspectual auxiliary which selects the main verb. Despite this difference, they mean the exact same thing; in both cases, the main verb is understood as being perfective. English patterns with Danish, but as English modals cannot be non-finite, this could be a last-resort strategy. According to my hypothesis, German here uses the perfect tense auxiliary to disambiguate the subjunctive.

So much for the functional motivation; in what follows, I will back up my claim by showing that German verb clusters with modals respond negatively to all tests of perfectivity. This makes them pattern with states, while they fail other tests of stativity.

The tests for (im)perfectivity I will apply are ability to appear in the progressive (German: *X ist dabei etwas zu tun*. ‘X is doing something’), adverbials of temporal duration (for x time) and of “time of occurrence” (in x time).

**PROGRESSIVE FORMS:**

Modal verbs are unable to appear in the “paraphrased progressive form”, irrespectively of whether they have an overt verbal complement which in itself may be progressive:

- a. \* *Peter ist gerade dabei (kochen) zu wollen*  
Peter is right.now there.at (to.cook.INF.) to want.INF.
- b. \* *Peter ist gerade dabei (kochen) zu können*  
Peter is right.now there.at (to.cook.INF.) to can.INF.
- c. \* *Peter ist gerade dabei (kochen) zu müssen*  
Peter is right.now there.at (to.cook.INF.) to must.INF.
- d. \* *Peter ist gerade dabei (kochen) zu dürfen*  
Peter is right.now there.at (to.cook.INF.) to may.INF.
- e. \* *Peter ist gerade dabei (kochen) zu sollen*  
Peter is right.now there.at (to.cook.INF.) to should.INF.

This works nicely with Cinque’s hierarchy where the progressive aspect is situated rather low beneath the Modal Projections (Cinque 1999: 99). It also has modals pattern with states which cannot appear in the progressive (Vendler 1975: 146).

**AUXILIARY + MODAL VERB:**

Modal verbs only occur without a lexical verb in elliptic contexts (although possibly, there are a few exceptions, cf. subsection 12.1.1). Perfect tenses of modal verbs are unproblematic with the durative adverb *stundenlang* ‘for hours’, regardless of the fact that we do not know which kind of verb is the underlying lexical verb. In Cinque’s hierarchy, the durative aspect projection is situated just below the progressive one

- (99) a. *Das habe ich jetzt stundenlang gewollt*  
That have I now for.hours want.PAST.PART.
- b. *Das habe ich jetzt stundenlang gekonnt*  
That have I now for.hours can.PAST.PART.
- c. *Das habe ich jetzt stundenlang gemusst*  
That have I now for.hours must.PAST.PART.
- d. *Das habe ich jetzt stundenlang gedurft*  
That have I now for.hours may.PAST.PART.
- e. *Das habe ich jetzt stundenlang gesollt*  
That have I now for.hours should.PAST.PART.

In contrast, adverbials signifying that something will be achieved within a specific amount of time are generally incompatible with modal verbs:

- (100) a. \* *Das habe ich innerhalb von drei Monaten gewollt*  
That have I within of three months want.PAST.PART.
- b. ? *Das habe ich innerhalb von drei Monaten gekonnt*  
That have I in only three minutes can.PAST.PART.
- c. \* *Das habe ich innerhalb von drei Monaten gemusst*  
That have I within of three months must.PAST.PART.
- d. ?? *Das habe ich innerhalb von drei Monaten gedurft*  
That have I within of three months may.PAST.PART.
- e. \* *Das habe ich innerhalb von drei Monaten gesollt*  
That have I wirtin of three months should.PAST.PART.  
All: ‘I have wanted/been allowed to. etc. it in three months’

These data back up my claim that perfect tenses of modal verbs are not aspectually perfective. Of course, assuming that modal verbs are merged in the functional modal projec-

tions, we would not expect them to be able to, but their apparent perfectivity requires additional evidence.

So how come they are compatible with durative adverbials when the functional projection associated with durativity is below the Modal phrases? As for the semantic compatibility, my answer to that question is that modal verbs generally form state-like predicates with their complement, so the zero-verb (represented by the pronoun) is assumed to be stative. Modals involve no change of state or position, nor are they the result of any conscious effort and the state-like properties are often transferred to the main verb. Hence, it is not the case that the durative adverbs have scope over the modal, but rather over the lower main verb.

As for those examples where “in x time” was possible, the explanation must be that the adverbial has scope over the elided lower verb and for some modals this is more likely than with others. Example (102) backs this up.

If we now turn to 3-verb clusters with modals, we see that the pattern holds. It is a well-known fact that perfective verbs are incompatible with durative adverbs, as illustrated by the a-example below. If a modal is inserted, the sentence is grammatical, again suggesting that it is not truly perfective.

- (101) a. \* *Er hat seine Diss jahrelang eingereicht*  
 He has his thesis for.years handed.in  
 ‘He has handed in his thesis for years’
- b. *Er hat seine Diss jahrelang einreichen müssen*  
 He has his thesis for.years hand.in.INF. must.INF.  
 ‘He has had to hand in his thesis for years’

It does not constitute counter-evidence that an embedded perfect tense (of a non-stative verb) is compatible with adverbials that “express the start of the target state” (Rothmayr 2009: 63). As can be seen, this is licensed independently of the perfect tense of the modal:

- (102) a *Er hat seine Diss innerhalb von drei Tagen einreichen müssen*  
 He has his thesis within of three days hand.in.INF must.INF

- b. *Er musste seine Diss innerhalb von drei Tagen einreichen*  
 He must.PRET. his thesis within of three days hand.in.INF.  
 Both: 'He had to hand in his thesis within three days'

### IN SHORT:

If my analysis is correct, we can now provide another structural condition for quirky verbal morphology; if more than one verb resides in the functional domain of a clause, this is an environment which may trigger odd morphological phenomena. The structure would look as follows where I give a simplified version of both Cinque's hierarchy and of the (semi-)lexical domain of the main verb. I distinguish now only the levels TP, Mod<sub>root</sub>P, AspP, and VP. I assume that in German the clausal functional domain is left-branching while the VP is right-branching, but nothing hinges on this:

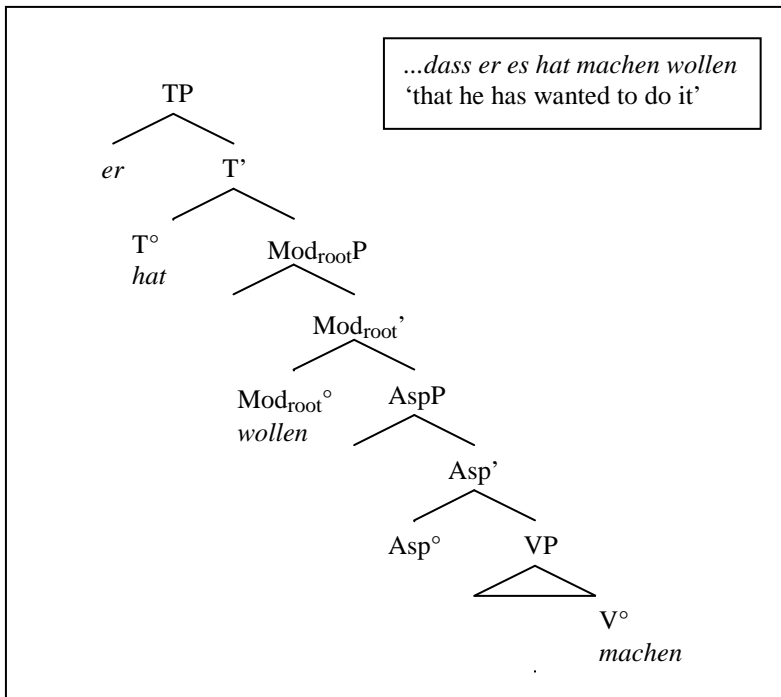


Figure 23

In contrast to the IPP-configuration, we have seen that the configuration Mod - Aux - Lex does not trigger quirky morphology. This is not a problem *per se* for my analysis, as the structural condition is just that; a condition and not a trigger. It is however striking that none of the languages that I have examined, show quirky verbal morphology here. I would like to speculate that an embedded perfect tense is in many cases too heavy semantically to not surface. If the sequence were e.g. a {finite modal + infinitival perfect

tense auxiliary + infinitival or participial lexical verb}, the correct interpretation would not be secured. In such a configuration I would assume that the modal were generated in Mod° and the embedded temporal auxiliary in Asp°, with the modal and the embedded subject moving to T°/TP.

For the sake of completeness, I also want to propose a structure for some of the Danish cases of quirky verbal morphology, referred to in section 11.4. We saw essentially two different configurations; one with two finite modals + main verb and one similar to IPP, involving Aux + Mod + Lex triggering either finite copying from the auxiliary to the modal or morphological displacement (or copying) of the participial morphology from the modal to the main verb:

I have repeated examples (45) of finite-doubling and (52) of participial displacement here as (103) and (104):

- (103) a. *Hvis vi mister de penge, så vil det ka' mærkes*  
 If we lose that money, then will.FIN it can.FIN feel.PASS.  
 'If we lose that money, it will have an impact'
- b. *Alle de ting, man ska' ka'*  
 all those things one must.FIN. can.FIN  
 'All the things one must be able to do...'
- (104) *Det har jeg hele tiden vi-(llet) spurg om*  
 That have I all the.time want. PAST.PART. ask.PAST.PART. about  
 'I've wanted to ask that all along'

The structures I want to assign to such cases, are essentially parallel to the ones I assigned to the German ones. The auxiliaries and modals simply find their expected place in the hierarchy; obviously for the double modal cases, we cannot have quite so simplified a structure as in Figure 23 but need to distinguish different modal projections. Also it must not be ignored, that in (103)a. we combine an epistemic and a root modal, while in the b. – example, we have two root modals. For these reasons, the following structure is more elaborate:

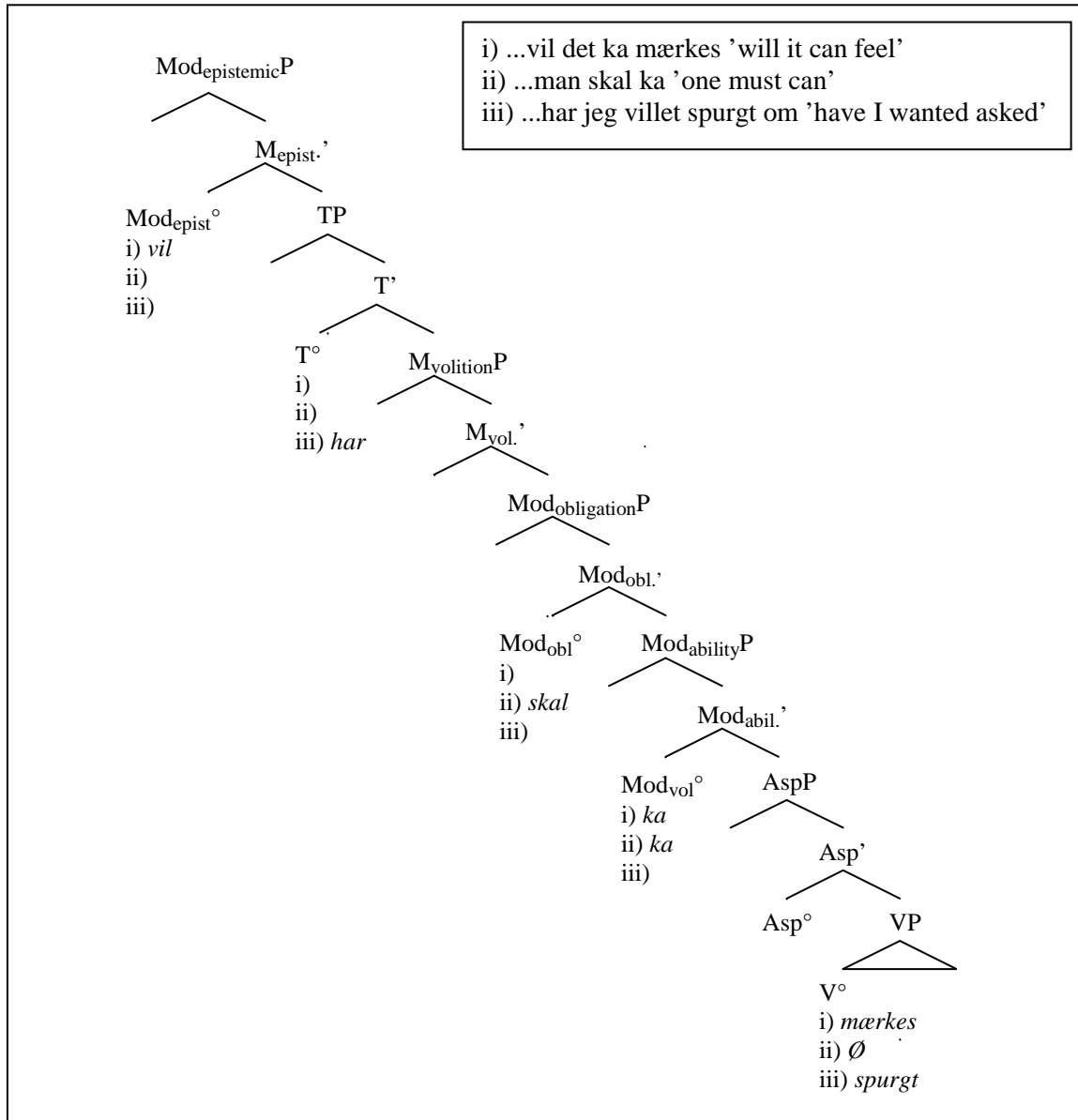


Figure 24

A few comments on Figure 24 are necessary; the morphological passive of the i)-example I leave unexplained and have simply put under V. In the following sections I will be dealing with the Voice/v/V-domain, including passives, but for now it is not crucial for my point. Example ii) has no overt main verb, but in the complete sentence in (103), this main verb was referred to pronominally. For clarity I have not shown subjects, nor verb movements. I assume the subject to be generated in Spec-v/V and that it moves to Spec-T (or higher, to Spec-Fin, at least in the case of epistemic modals). I do assume some verb movement, of course; the finite verb clearly moves, possibly the main verb moves from V° to v°. I will however not commit myself to saying whether or not

the modal verbs move in any way; I do not assume that they do, but nothing hinges on this, and I will leave that question for other investigations. Now I will turn to IPP with non-modal verbs.

## 12.2 Non-modal IPP verbs

According to Schmid's (2005) IPP-hierarchy, the causative *lassen* 'let' triggers IPP in all the relevant languages, and I will now try to establish whether it shares the properties of modal verbs and whether this might help explain the IPP-phenomenon. Unfortunately, there is a major complication with this very verb, namely that it exists in at least three, phonetically identical and semantically very closely related variants. This makes testing the behaviour difficult, as a specific construction need not be ungrammatical as such, but nevertheless changes the meaning of *lassen* in a subtle way. One particular usage of this verb does not exhibit IPP, and as such one could say that *lassen* displays optional IPP; because of this and because *lassen* shows transitive traits (it is an ECM-verb), it is tempting to treat it on a par with verbs of perception which display optional IPP; I do however intend to show that the IPP-optionality of *lassen* is only apparent and that IPP-*lassen* and perception verbs are structurally quite distinct.

One thing that should be kept in mind throughout the treatment of these verbs is that there are West Germanic variants which have IPP with many more verbs than Standard German (cf. Table 4). While I will not make explicit analyses of such cases, any analysis of IPP ought to be flexible enough as to be able to include a larger group of verbs. The analysis that I will offer, I believe could be expanded to include these other verbs too.

In the following I will first deal with verbs of perception and then the various usages of *lassen*.

### 12.2.1 Verbs of perception

Wurmbrand (2001) distinguishes different classes of restructuring predicates; functional, semi-functional and lexical restructuring verbs. While modal verbs are purely functional, she considers *lassen*, *hören*, and *sehen* to be semi-functional. By this she means that they appear in a functional head position but despite this, they have a thematic relation with the argument in their specifier (Wurmbrand 2001: 215). The position she considers them to hold is  $v^{\circ}/\text{Asp}^{\circ}$  - the only position which is functional and at the same time thematic. The verbal complement of these verbs are bare VPs, i.e. purely lexical categories. As far



as *lassen* is concerned, this is consistent with my analysis, but for the verbs of perception I have a different proposal. Wurmbrand also considers *gehen* ‘go’ and *kommen* ‘come’ to belong to this category. As they are not IPP-verbs in Standard German, I will postpone the treatment of these verbs to chapter four of the dissertation.

The verbs *hören* and *sehen* ‘hear’ and ‘see’ exhibit optional IPP, and for some speakers this also holds for *spüren* ‘feel’ (although this verb tends not to trigger IPP). As I have been unable to establish any effects from the presence or absence of IPP with respect to aspect, tense or verb types occurring below the IPP-verb, I am forced to draw the conclusion that 3-verb clusters with perception verbs display proper optionality with respect to IPP, i.e. one underlying structure simply results in two different outputs. This conclusion is supported by the fact that other languages which have the IPP-effect, also have optional IPP with a number of verbs (see Table 4). Were this optionality to derive from different underlying structures, such structural differences would have to be claimed and justified for all the verbs in questions; this would hardly be a feasible approach.

The verbs of perception are instructive because they are transitive verbs and that the subject of the lower verb is obligatorily different from the subject of the matrix verb. In other words: quirky verbal morphology does not rely on some kind of Same-Subject requirement.

- (105) a.           ...*dass Maria ihren Nachbarn hat nach Hause kommen hören*  
                   ...that Maria her.ACC neighbour has to home come.INF. hear.INF.  
                   ...*dass sie ihn nach Hause kommen gehört hat*  
                   ...that she him.ACC to home come.INF. hear.PAST.PART. has

In traditional G&B theory (e.g. Haegeman 1991/1994: 170) it was assumed that the complement verb was an IP (Chomsky’s 1981: 295 S’-deletion), and hence there was no barrier, a fact which enabled the subject of the embedded verb to raise to the object position of the matrix verb where it would receive accusative case. This explanation, known as Raising to Object, (Chomsky 1981: 108, Postal 1974: 255), was abandoned on theoretical grounds; it would require for the matrix verb to have an empty object position, something which contradicts the Projection Principle (Chomsky 1981: 29).

The Raising analysis was replaced by the analysis of Exceptional Case Marking (ECM) (106). According to this, the subject of the embedded verb is exceptionally marked with accusative case by the matrix verb; allegedly, this operation is licensed because the embedded clause is an IP (as opposed to a CP, i.e. a barrier). The difference between the two analyses is that in the former, the embedded subject really raises to be the object of the matrix verb while in the latter, the embedded proposition in its entirety is the object of the matrix verb and although accusative case is assigned, the embedded object does not raise to be the object of the higher verb. The latter analysis is the one that I apply here.

The ECM-structure is the one in (106)a. In theory, we could also be dealing with some version of (106)b., i.e. a structure where the accusative argument is base-generated as an object of the matrix verb.

- (106) a. *Peter hört* [<sub>IP</sub> *seinen Nachbarn nach Hause kommen*]  
 Peter hears his.ACC neighbour to home come.INF.
- b. *Peter hört seinen Nachbarn<sub>i</sub>* [<sub>XP</sub> ?(EC<sub>i</sub>) *nach Hause kommen*]  
 Peter hears his.ACC neighbour to home come.INF.

The difference between the structures in (106) is parallel to what we find with English perception verbs. In English, a perception verb may be followed by a bare infinitive or a gerund (but not by a to-infinitive). In (107)b. the DP is arguably the object of the higher verb and the lower verb a small clause secondary predication of the object. We can see this from the contrast between (108)a. and b. In the a.-example the secondary predication is extraposed; an option which is not available to the VP in the b.-example.

- (107) a. *We heard* [*you leave*].  
 b. *We* [*heard you*] [*leaving*].  
 c. \* *We heard you to leave*.
- (108) a. *We saw him yesterday leaving the house*.  
 b. \* *We saw him yesterday leave the house*.

It does however not seem to be the case that German has the option of the b.-examples, i.e. of a structure where the object is indeed generated as the object of the matrix verb with the second verb constituting a kind of secondary predication. First of all, German makes no morphological distinction; the complement of the perception verb is always a bare infinitive. Further, unlike English where the gerund is frequently used for secondary predication, there are, to my knowledge, no other cases in German where the infinitive is used for this purpose, compare the following examples:

(109) *I took a picture of John dancing*

(110) \* *Ich habe Peter tanzen fotografiert*  
I have Peter dance.INF. photographed.PAST.PART.

(111) *I stabbed the vampire attacking my brother*

(112) \* *Ich habe den Vampir meinen Bruder angreifen erstochen*  
I have the vampire my.ACC. brother attack stab.PAST.PART.

Non-finite secondary predication is generally not preferred in German and when used, the present participle is the relevant form of the verb:

(113) *Er kam kriechend um die Ecke*  
He came crawl.PRES.PART. around the corner

Furthermore, in a few particular cases this form alternates with the past participle but this is a different construction, one which I will treat in chapter four.

(114) *Er kam um die Ecke gekrochen*  
He came around the corner crawl.PAST.PART.

The above data suggest that non-IPP occurrences of perception verbs cannot be analysed as involving secondary predication and I will draw the conclusion that verb clusters involving perception verbs always have the same structure. As the goal of this thesis is to establish the structural condition for quirky verbal morphology, this is not problematic. I am trying to state the conditions that must be met for quirky verbal morphology to appear; it does not follow that regular morphology is excluded under these circumstances.

So what happens when perception verbs are combined with another verb? My claim is that perception verbs select a very small complement, specifically a vP.

The reason that the verbal complement must minimally be a vP is that transitive verbs with agentive subjects (crucially a different subject than the one of the matrix verb) may be selected by the perception verb. Were the complement a bare VP, there would not be a position for the subject, nor would we expect accusative assignment by the embedded verb to take place. In light of this, it is surprising that perception verbs in German cannot take passives as their complement, as shown in the following data from Wurmbrand (2001: 221). The passive is generally considered to be licensed by vP (in accordance with Burzio's Generalisation and we would not expect it to be ruled out then:

- (115) b. \* *Hans sah den Kuchen gegessen werden*  
 John saw the.ACC cake eaten PASS.AUX.
- c. \* *Hans hörte den Marsch geblasen werden*  
 John heard the.ACC march played PASS.AUX.

It should be noted that there is some variation among speaker with respect to passives under perception verbs. Some speakers accept passives if the object of the active counterpart is an affected and not an effected one:

- (116) \*/ok *Sie sah einen Mann erschossen werden*  
 She saw a.acc. man shoot.PAST.PART. PASS.AUX.

Stative verbs too, cannot be embedded under verbs of perception. This is probably due to semantic restrictions; real states usually cannot be perceived.

- (117) a. \* *Ich sah ihn seinen Hund hassen*  
 I saw him his.ACC dog hate.INF.
- b. \* *Ich sah ihn alles wissen*  
 I saw him everything know.INF.

Although both statives and passives are ruled out, the selectional requirements cannot be of an agentive subject. Vendlerian Achievement verbs with non-agentive subject are perfectly acceptable as complements of perception verbs, unaccusatives as well as transitives:

- (118) a. *Ich sah ihn den Schlüssel finden*  
 I saw him the.ACC key find.INF.

- b. *Ich sah ihn vom Dach fallen*  
 I saw him from.the roof fall.INF.

It should be noted that in Danish, passives can be embedded under perception verbs as in (119), which shows us that it is not a semantic restriction on perception verbs that they cannot embed passives. This would also be counter-intuitive; semantically, it should be possible to perceive something being done to someone. In other words, I assume that the restriction must be language-specific. I will now attempt to show that the restriction is against a specific kind of little *v*.

- (119) *Peter så manden blive skudt på gaden*  
 Peter saw the.man be.PASS.AUX. shoot.PAST.PART. on the.street

In more recent literature, the claim that little *v* is responsible for the external argument, accusative case and hence for passivisation has been disputed. Ramchand (2008: 89) merely notes that there is a potential problem with passivisation of non-agentive verbs but does not attempt to solve it, but elsewhere notions such as *flavours* of little *v* are becoming more frequent. Such flavours are for instance the DO and the CAUSE little *v* of Folli and Harley (2007: 229) that I have applied throughout. These are essentially semantic differences which have been shown to influence syntactic possibilities. Agentive subjects are specifiers of  $v_{do}$  while the little *v* of passive verbs and of verbs involving external non-agentive causation, is a  $v_{cause}$ . The understood causer of a passive may or may not be expressed, but it is connected to Spec- $v_{cause}$ . For now I will make the claim that most speakers of German disallow bare  $v_{cause}$ -complements, although it would seem that there is some variation here. I will provide further evidence for this claim later.

- (120) a. *Ich sehe Peter das Buch lesen* [ $v_{doP}$  Peter [ $v_P$  read]]  
 I see Peter the.ACC book read.INF.
- b. \*/ok *Ich sehe Peter erschossen werden* [ $v_{causeP}$  to be [ $v_P$  Peter shot]]  
 I see Peter shoot.PAST.PART PASS.AUX.

Obviously, this does not suffice as an explanation for the lack of passive complements under perception verbs, but for now it demonstrates that there is independent evidence that  $v_P$ s do not behave in a completely uniform way, and that possibly, for some reason, perception verbs allow only  $v_{doS}$  in their complement position. As Folli & Harley (2007)

is based on causative constructions, I will return to their paper shortly when dealing with the IPP-verb *lassen*.

As mentioned above, I suggest that perception verbs – due to their being thematic verbs – select a complement of a particular size, i.e. they are not merged in a functional projection above the lower lexical verb. What remains to be established is the exact size of this complement. We have just seen that passive complements are ruled out; this may be due to a deficiency just between vP and IP, but it could be for other reasons and therefore the absence of functional, non-thematic projections must be ascertained.

### THE T-DOMAIN

As we have established that epistemic modals must be finite, it would be superfluous to test them under perception verbs, in other words the highest relevant projection is TP and we must determine whether the verb complement is temporally independent. Unsurprisingly, we find that it is not; irrespectively of the tense of the verb, there is a strict simultaneity requirement between the perception and the perceived.

- (121) a. \* *Ich sehe ihn morgen gehen* (narrow scope)  
 I see him.ACC tomorrow go.INF.
- b. \* *Ich sah ihn damals gehen* (narrow scope)  
 I saw him.ACC then<sub>posterior</sub> go.INF.

### THE MOD-DOMAIN

Below T is the domain of the Root Modals. They too cannot be embedded under perception verbs, thus confirming the lack of functional projections (Wurmbrand 2001: 218):

- (122) a. \* *Hans hörte den Peter musizieren müssen*  
 Hans heard the Peter make.music.INF. must.INF.
- b. \* *Hans sah den Peter musizieren wollen*  
 Hans saw the Peter make.music.INF. want.INF.

### THE ASP-DOMAIN

The aspectual projections are apparently absent too; terminative, continuative, proximal adverbs and embedded perfect tenses are not possible:

- (123) a. \* *Ich sehe/höre ihn nicht mehr singen* (narrow scope)  
 I see/hear him.ACC no longer sing.INF.

- b. \* *Ich sehe/höre ihn immer noch singen* (narrow scope)  
 I see/hear him.ACC still sing.INF.
- c. \* *Ich sehe/höre ihn bald singen* (narrow scope)  
 I see/hear him.ACC soon sing.INF.
- d. \* *Ich sehe/höre ihn gesungen haben*  
 I see/hear him.ACC having sung.PAST.PART.

### THE VOICE-DOMAIN

One of the lowest phrases is the Voice-phrase followed by a few functional projections. As this projection is the one connected to passive, I take it to roughly correspond to little *v*, i.e. this is the place where we enter the lexical domain of the verb, although Cinque (1999) himself does not say so explicitly. It follows that the aspectual projections below Voice are verb-internal. Below Voice we have the phrases [Asp<sub>celerative(II)</sub> [Asp<sub>repetitive(II)</sub> [Asp<sub>frequentative(II)</sub> [Asp<sub>completive(II)</sub>]]]] It is not clear to me exactly what the low celerative and frequentative phrases correspond to as only very little is said about them (Cinque 1999: 103-104). The repetitive(II) phrase, as far as I can tell, is restitutive, while completive(II) I take to be a functional projection associated with Ramchand's (2008) Result Phrase. That the restitutive function should be verb-internal is backed up by the fact that in English and Danish, it is often expressed with an affix ('*re-*' and *gen-* respectively). When the prefix is used, the restitutive reading is unambiguous, while the "proper" adverbs (*again* and *igen*) are often ambiguous between a repetitive and a restitutive reading. With the hypothesis that the complement of perception verbs is a *vP*, it is therefore not surprising that a restitutive reading of the verbal complement is possible, as illustrated here:

- (124) *Jeg så krigerne generobre deres by*  
 I saw the warriors reconquer their town

Also, in German, we have a similar scenario. Vikner (2001: 102) shows that restitutive *wieder* 'again' is a particle which may not be separated from its verb. It is however not allowed to undergo V2 and the verb must therefore either be non-finite or in an embedded clause. In such cases, stress patterns determine whether a restitutive or repetitive reading is intended; under the restitutive reading, *wieder* and the verb form a prosodic unit where the antepenultimate syllable is stressed. To trigger the repetitive reading, *wieder* must be stressed: (Vikner 2001: 103)

- (125)           ...weil     *die Römer die Stadt wieder eroberten*  
                   ...because the Romans the town again conquered  
                   ‘because the Romans reconquered the town’  
                   ‘because the Romans conquered the town once more’

Embedded under a perception verb, we find that again that both a repetitive and a restitutive adverb are allowed to co-occur:

- (126)           *Ich sah die Römer wieder die Stadt wieder erobern*  
                   I saw the Romans again the town re- conquer  
                   ‘I saw the Romans reconquer the town again’

We can confirm this by testing a verb, which cannot have a restitutive reading. *Singen* ‘sing’ is one such verb, and we can see that despite this, the sentence is grammatical with a repetitive adverb:

- (127)           *Ich hörte ihn das Lied wieder singen*  
                   I heard him.ACC the.ACC song again sing.INF.

While we expect the restitutive reading of *wieder* in (126) to be available, it is surprising that the repetitive reading is grammatical too. The functional projection hosting repetition is fairly high, in fact even higher than some of the modal projections and we would not expect it to be available under a perception verb. This is the same problem we saw with modal verbs. I cannot give an explanation for this, but Cinque (1999: 136) admits that there may be some parametric variation with respect to some functional projections. Essentially, he takes the relative ordering of Tense, Mood, Aspect and Voice to be universal but within these categories there may be some variation. Assuming repetitive *wieder* to be a circumstantial adverb, does not seem feasible as it does not share the properties Cinque (1999:28) mentions as typical of circumstantial adverbs; that they are often PPs or bare NPs and show less rigid ordering and scopal properties. I have to leave the question open at this point.



### VERBS OF ACTIVE PERCEPTION

Before proposing a structure for IPP-verbs of perception, I will consider some verbs that are very closely related to them, namely verbs of active perception such as *(an)schauen/ (an)gucken* and ‘watch’ *zuhören* ‘listen’ which share the property of not being IPP verbs, nor triggering word order alternations in the verb cluster.

Morphologically, unlike in English, these verbs are characterised by usually having a separable particle, and this in itself could exclude cluster formation. When *schauen* or *gucken* ‘watch’ appear without a particle, they are intransitive or combine with certain indefinite objects only, e.g. *Fern gucken* ‘watch TV’. Semantically, there are two differences between verbs of passive and active perception; one *watches* something actively, while one cannot avoid *seeing* anything that enters into one’s visual field, whether this is desired or not. In terms of Ramchand (2008) this difference corresponds to the absence/presence of an Initiation Phrase (InitP) and the semantic role of *Causer* or *Initiator* and in terms of flavours of little *v*, this corresponds to  $v_{do}$  and  $v_{cause}$ . The second difference is that watching/listening is an unbounded process while seeing/hearing is an achievement, corresponding to the absence/presence of a ResP. Ramchand herself considers stative predicates to be bare InitPs (Ramchand 2008: 55), while I will consider them bare Result Phrases (ResP) or Process Phrases (ProcP) + ResP (cf. my discussion of the reasons for classifying stative verbs as ResP’s in the chapter on pseudo-coordination). Verbs of perception can be considered change-of-state verbs in the sense that initially nothing is perceived and then all of a sudden, it is (compare Vendler’s 1957: 155 discussion of perception verbs). This would suggest that a Process Phrase is present, whose specifier at first holds the role of Undergoer and then (in real time when something is perceived) becomes Holder of State (Ramchand 2008: 45), i.e. the specifier of the ResP. Assuming that verbs of passive perception do not have an InitP ( $v_P$ ) raises some questions about accusative assignment to the subject of the embedded verb; questions I will return to shortly. The view I take is that they project a  $v_{cause}$ , i.e. despite passive perception not being brought about intentionally, it must be caused by something (e.g. the appearance of someone/something).

Determining the internal structure of perception verbs is not trivial; Vendler (1957: 155) discusses the various usages and concludes that there are several versions of e.g. *see*, with State being the prominent one since it involves no intentionality or action on behalf

of the “seer”, in fact, if the necessary conditions for seeing are met, one cannot help but see. *See* may also be an achievement when used in the sense of ‘spotting’ something. Marginally, it may be used as an Accomplishment, e.g. when someone is *seeing a film*. Rothmayr (2009: 100) also distinguishes three usages of perception verbs. To her, perception verbs are ambiguous between being stative and eventive and she argues that there is one stative version, and two eventive ones. Of the two eventive ones, one includes a DO-operator, and one has both a DO- and a BECOME-operator (Rothmayr 2009: 105) in the sense of Dowty (1979: 114). The simple perception verb has no operators; the verb with the DO-operator has an intentionally acting subject (these are the verbs of active perception, i.e. *watch, listen* etc. Perception verbs with both a DO- and a BECOME operator are those that express intentional action and achievement of a resultant state, i.e. someone intentionally trying to ‘spot something’ and succeeding at it.

My claim is that, with the exception of usages of ‘see’ in the sense of to watch, such as ‘see a film’, verbs of passive perception never have an active subject, rather they may be either Achievements or States (in the Vendlerian sense, both corresponding to Rothmayr’s Stative perception verb). In the terms of Ramchand (2008) (or more precisely, according to my take on Ramchand (2008)), this would mean that if they are to be considered bare States, the verb is a bare ResP, while under an Achievement verb interpretation, it contains a ProcP and a ResP. Where I differ from Ramchand, is that I furthermore assume that both versions project a  $V_{\text{cause}}$ .

The verbs of active perception, in contrast, are Vendlerian Activities. They are performed actively, i.e. in terms of Ramchand they contain an InitP and a ProcP, but importantly no ResP. Whatever the reason may be; it seems that restructuring and quirky verbal morphology with thematic verbs requires that the matrix verb has a ResP as its lowest projection.

#### **AGENTS AND EXTERNAL CAUSATION**

I now want to readdress the question of different flavours of little *v* and why we need them. Perception verbs are exemplary for the difference between agentivity and external causation and they furthermore display exactly that property which has caused linguists to revise Burzio’s generalisation; they appear not to have an external argument (i.e. the agent), yet they are able to assign accusative case.

There are different proposals to this question in the literature, as violations of Burzio's generalisation are found in several languages. Among the proposals are Lavine & Franks (2008), Markman (2008), Woolford (2003), Bennis (2004) and Pylkkänen (2002). Though the proposals differ, a basic idea is that even when no external agent is present, external causation can be present even if it is not expressed overtly.

Lavine and Franks (2008: 234) propose, based on Russian unaccusatives, that accusative case may be assigned verb-internally as a result of a competition between two arguments. Accusative case will be assigned to the thematically least prominent argument (according to Jackendoff's 1972 thematic hierarchy).

Bennis (2004) has a relatively straight-forward approach. Based on psychological verbs, he argues that they do project a vP, but that no phrase is generated in its specifier, hence there is no agent. While this account is very appealing, it is however incompatible with the First Phase Syntax of Ramchand (2008) where a lower specifier (an undergoer or state holder) would have to raise to Spec-Init which would give it an agentive interpretation.

Markman (2008: 14), based on Pylkkänen (2002) proposes that two distinct heads, Cause<sup>o</sup> and Voice<sup>o</sup>, are responsible for causation and introduction of the agent. In some languages these features are bundled together in one head, while in others they are not. Her claim is that if the features are not bundled, violations of Burzio's generalisation are licensed.

Finally, Folli & Harley (2005, 2007) solve the problem by assuming two flavours of little v, both of which have the ability to assign accusative case. The justification of the non-agentive little v, v<sub>cause</sub>, is that non-states are always caused, intentionally or otherwise, and whether or not the external causer is identifiable.

I follow Folli & Harley (2007) and have adopted their terminology and expanded it with my notion of v<sub>be</sub> (though this head is not related to accusative case assignment). Basically, since there are many cases of non-agentive verbs assigning accusative case, the agentive subject and accusative case must be separated. Whether this separation should be explained in terms of two distinct heads or one head with different "flavours", is less crucial for the present purposes. In my implementation of this basic idea, I have substituted Ramchand's InitP with v<sub>do</sub>P for a phrase which hosts an agent, and v<sub>cause</sub>P for a

phrase which contains a silent external causer. Considering psych verbs and verbs of perception, it would seem a reasonable assumption that external causation is involved; it is just not made explicit.

**THE STRUCTURE:**

The above data and considerations lead me to conclude that the structure underlying passive perception verbs with a verbal complement looks like this:

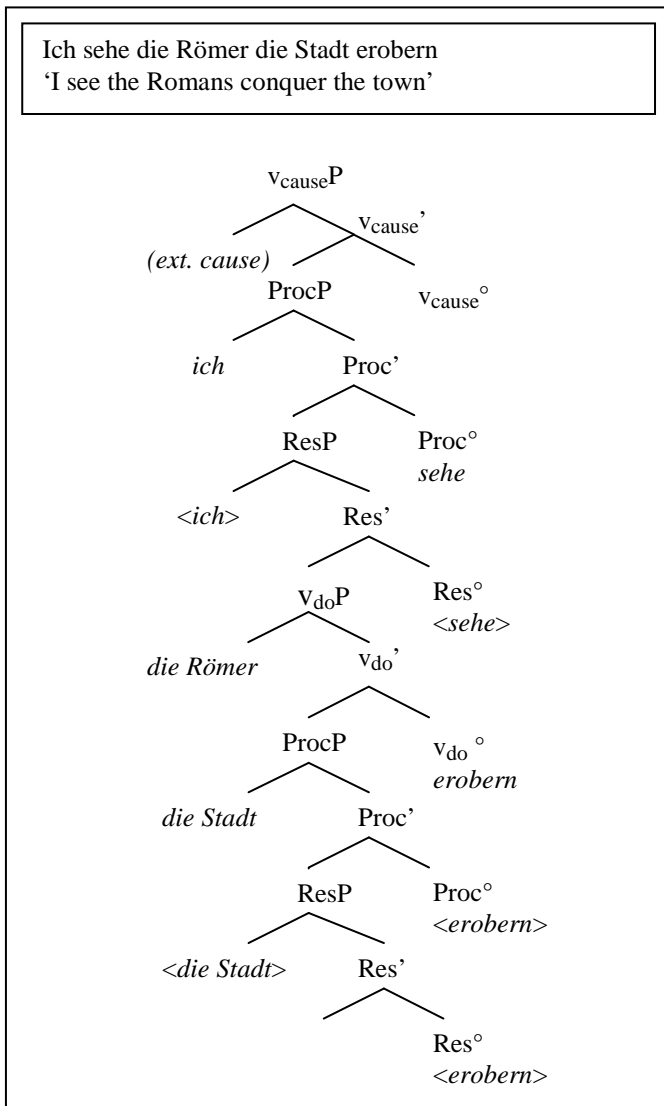


Figure 25

**12.2.2 Lassen**

Like the verbs of perception, *lassen* may display optional IPP although the optionality is of a different kind than the one observed with perception verbs. *Lassen* has different us-

ages and one particular usage has no IPP while the other usages show IPP obligatorily. Compare the following examples:

- (128) a. *Maria hat ihren Mann im Bett liegen lassen*  
 Maria has her.ACC husband in.the bed lie.INF. let.INF  
 ‘Maria let/allowed her husband to remain in bed’
- b. (#) *Maria hat ihren Mann auf dem Boden liegen gelassen*  
 Maria has her.ACC husband on the floor lie.INF. let.PAST.PART.  
 ‘Maria left her husband lying on the floor’
- (129) a. *Maria hat das Buch auf dem Boden liegen lassen*  
 Maria has the.ACC book on the floor lie.INF. let.INF  
 ‘Maria let the book lie on the floor’
- b. *Maria hat das Buch auf dem Boden liegen gelassen*  
 Maria has the.ACC book on the floor lie.INF. let.INF  
 ‘Maria left the book lying on the floor’

The oddity of (128)b. vs. (129)b. is in fact quite illuminating, because it tells us that the (or a) difference between IPP and no IPP is related to the role of the accusative argument, an inanimate object is less likely to be ‘given permission’ and more likely to be ‘left lying’ than an animate one. (128)b. is not ungrammatical but it is odd, and it is implied that the husband has no will of his own, while in the case of the book, it makes little semantic difference whether Maria simply leaves it lying on the floor or permits that it stays lying on the floor. I take it that the relevant distinction between IPP and no IPP is that modality/causation is involved with IPP, but no such light verbness is involved in the non-IPP case.

The accusative argument may be understood as the subject or the object of the embedded verb, as in the following examples:

- (130) *Die Königin hat ihren Diener holen lassen /\*gelassen*  
 The queen has her.ACC servant fetch.INF. let.INF. /PAST.PART.  
 ‘The queen had her servant fetched’
- (131) *Die Königin hat das Buch lesen lassen /\*gelassen*  
 The queen has the.ACC book read.INF. let.INF. /PAST.PART.  
 ‘The queen had the book read’

- (132) *Die Königin hat ihren Diener gehen lassen /??gelassen*  
 The queen has her.ACC servant go.INF. let.INF. /PAST.PART.  
 ‘The queen let her servant go’  
 Marginally: ‘The queen left her servant’

In these examples we are dealing with different variants of the verb *lassen*, but common to all the examples is that IPP is obligatory. In (130) *lassen* is a causative verb, i.e. the queen causes (probably by command) the servant to be fetched, and the servant is the direct object of *holen* ‘fetch’. Similarly in (131), where ‘the book’ is the direct object of *lesen* ‘read’, *lassen* means ‘cause’. Marginally the ‘leave’-reading of *lassen* is available, hence the marginal possibility of a past participle. Finally, in (132) where the servant is the understood subject of the embedded verb *gehen*, *lassen* means ‘allow’, or semantically decomposed ‘cause-to-be-permitted-to’, i.e. it is a modal usage of *lassen*. Marginally the reading where *lassen* means ‘leave something/someone’ is available. In other words, the causative verb *lassen* and the modal-like verb *lassen* have obligatory IPP. So what is special about (129) where IPP appears to be optional?

My explanation is that (129) contains two different verbs; one which is the causative/missive *lassen* and one which simply looks and sounds like it. This other *lassen* is also an ECM-verb but it means ‘to leave something’. This usage has some other properties to distinguish it from the IPP-versions of *lassen*.

#### ATTRIBUTIVE PARTICIPLES

With non-IPP *lassen*, the participle + infinitive can be used attributively of the accusative argument:

- (133) a. *Sie hat den Roman da liegen gelassen*  
 She has the.ACC novel there lie.INF. let.PAST.PART.
- b. *Der liegen gelassene Roman*  
 The.NOM lie.INF. let.PAST.PART. novel

An actual example (<http://www.stern.de/kultur/tv/frageboegen-liegen-gelassen-rtl-muss-wer-wird-millionaer-wiederholen-701915.html>):

- (134) *Wegen versehentlich liegen gelassener Fragebögen...*  
 Due.to unintentionally lie.INF. let.PAST.PART.PL. questionnaires...  
 ‘Because questionnaires were unintentionally left lying around...’

(...) *muss RTL eine Prominentenausgabe von "Wer wird Millionär?" wiederholen*  
 ... 'the RTL must repeat a celebrity episode of "Who wants to be a millionaire"'

This is not possible for the IPP-verb versions of *lassen*:

- (135) a. *Die Königin hat ihren Diener holen lassen*  
 The queen has her.ACC servant fetch.INF. let.INF.
- b. \* *Der holen lassene Diener*  
 the.NOM fetch.INF. let.PAST.PART. servant
- c. \* *Der kommen lassene Diener*  
 the.NOM come.INF. let.IPP. servant
- (136) a. *Die Königin hat ihren Diener gehen lassen*  
 The queen has her.ACC servant go.INF. let.INF.
- b. \* *Der gehen lassene Diener*  
 the.NOM go.INF. let.IPP. servant

#### OMISSION OF THE LOWEST VERB

If the lowest verb is omitted, non-IPP *lassen* remains grammatical and does not change its meaning:

- (137) *Die Königin hat ihren Roman da (liegen) gelassen*  
 The.NOM queen has her.ACC novel there lie.INF. let.PAST.PART  
 'The queen left her novel lying there'

If we apply the same test to IPP-*lassen* (where we are forced to cancel IPP, because now only two verbs surface), we see that the sentence is only grammatical if we force the reading of non-IPP *lassen*:

- Baseline:  
 (138) a. *Die Königin hat ihren Diener liegen lassen*  
 The queen has her.ACC. servant lie.INF. let.INF.  
 'The queen caused/allowed her servant to remain lying'
- ↓
- b. *Die Königin hat ihren Diener da gelassen*  
 The.NOM queen has her.ACC servant there let.PAST.PART  
 'The queen left her servant lying there'

- Baseline:  
 (139) a. *Die Königin hat ihren Diener gehen lassen*  
 The queen has the.ACC servant go.INF. let.INF.  
 'The queen caused/allowed her servant to leave'

- b.           ↓  
*Die Königin hat ihren Diener da gelassen*  
 The queen has the.ACC servant there let.PAST.PART.  
 ‘The queen left the servant’

It thus seems safe to say that non-IPP *lassen* is essentially a different verb, one which does not trigger IPP, i.e. the apparent IPP-optionalness in connection with *lassen* is really only apparent. As the purpose of this thesis is to determine the structural conditions for quirky verbal morphology, and not to account for regular verbal morphology, I will leave a more thorough examination of non-IPP *lassen* for future research and instead concentrate on those usages where we see obligatory IPP.

We can distinguish at least two different kinds of IPP-*lassen*; one which is causative and one which is permissive or indicates obligation. My hypothesis is that causative *lassen* is in fact merged in the head of the  $v_{do}$ , and not of a  $v_{cause}$  and its verbal complement is a VP (ProcP/ResP in Ramchand’s terms). Permissive/deontic *lassen*, on the other hand, I take to be  $v_{cause}$  with a silent modal taking a vP-complement. That causative *lassen* should be agentive unlike the permissive usage may appear counterintuitive. Semantically we can however justify in that if an animate subject causes something to happen, it is understood that something must be done by this subject in order for the something to happen. Permissive *lassen* in contrast really involves no doing on behalf of the subject; rather the implication is that the subject does nothing to prevent something from happening. This assumption is completely in line with Folli & Harley’s (2007) analysis of the Romance causative *faire/fare*. In the following I will present the empirical evidence for this hypothesis.

#### CAUSATIVE LASSEN

My suggestion is that causative *lassen* is in fact a bare  $v_{do}$  taking a VP as its complement, and there are several reasons for this assumption. If we look at an example like the following we see that the subject of *lassen* is an active agent. Even if Peter does not repair his car himself, he must have actively done something to bring about the repair:

- (140)           *Peter lässt seinen Wagen reparieren*  
 Peter lets his.ACC car repair.INF.



The agent role is associated with the  $\text{InitP}/v_{\text{do}}$ , in accordance with both Ramchand's (2008: 39) view on verb-internal structure and Folli & Harley's (2005) flavours of little *v*. Further, we cannot embed a passive under this version of *lassen*. This even holds for those speakers who accept passives under perception verbs.

- (141) \* *Peter lässt seinen Wagen repariert werden*  
 Peter lets his.ACC car repair.PAST.PART. PASS.AUX.

In terms of Folli & Harley's (2007) paper, it is clear that we are dealing with a  $v_{\text{do}}$ , which is generally allowed to passivise. The ungrammaticality of (141) can however be explained when we assume that the verbal complement itself does not contain a  $v\text{P}$  at all, or we would have expected an embedded passive to be possible.

If we compare (140) to a parallel example with a perception verb as the matrix verb, we see that this construction is very specific, perception verbs which also have very small complements, disallow a complement with only an internal argument:

- (142) \* *Peter sieht den Wagen reparieren*  
 Peter sees the.ACC car repair.INF.

As noted by Wurmbrand (2001: 220), long passive across *lassen* is not allowed. Assuming that *lassen* occupies the  $v$ -head explains the ungrammaticality of (143); there is no position available for the passive auxiliary.

- (143) \* *Der Wagen wurde reparieren gelassen*  
 The.NOM car PASS.AUX. repair.INF. let.PAST.PART.

The Danish cognate of *lassen* is *lade*, and in Danish we also find that causative *lade* does not allow embedded passives:

- (144) a. \* *Bilen blev ladet repareret*  
 The.car PASS.AUX. let.PAST.PART. repair.PAST.PART.
- b. \* *Bilen blev lade repareret*  
 The.car PASS.AUX. let.INF. repair.PAST.PART.

Having *lassen* in  $v^{\circ}$  furthermore straight-forwardly accounts for the alternative to (143); the German Middle Construction involving *lassen* as in (145). Crucially, this usage is only possible with causative and not with permissive *lassen*:

- (145) *Der Wagen lässt sich reparieren*  
 The.NOM car lets REFL repair.INF.  
 ‘The car can be repaired’

This is not an option with permissive/deontic *lassen*:

- (146) a. *Ich lasse die Kinder spielen*  
 I let the children play.INF.
- b. \* *Die Kinder lassen sich spielen*  
 The children let REFL play.INF.

In (145) the internal argument is realised as the subject of the clause with its coreferent anaphor in the position of the internal argument. The non-agentive nature of the subject produces a generic reading; it is stated that the car is repairable, not that it repairs itself in any way.

Another characteristic of causative *lassen* is that only verbs with one internal argument are allowed as complement. If we embed a verb with both an external and an internal argument, we force a different reading of the verb where it is not implied whether or not the repairing actually takes place:

- (147) a. \* *Peter<sub>i</sub> lässt einen Freund seinen<sub>i</sub> Wagen reparieren*  
 Peter lets a.ACC friend his.ACC. car repair.INF.  
 ‘Peter causes a friend to repair his car’
- b. *Peter<sub>i</sub> lässt einen Freund seinen<sub>i</sub> Wagen reparieren*  
 Peter lets a.ACC friend his.ACC. car repair.INF.  
 ‘Peter allows a friend to repair his car’

The structure I want to assign to causative *lassen* + lexical verb is consequently as follows:

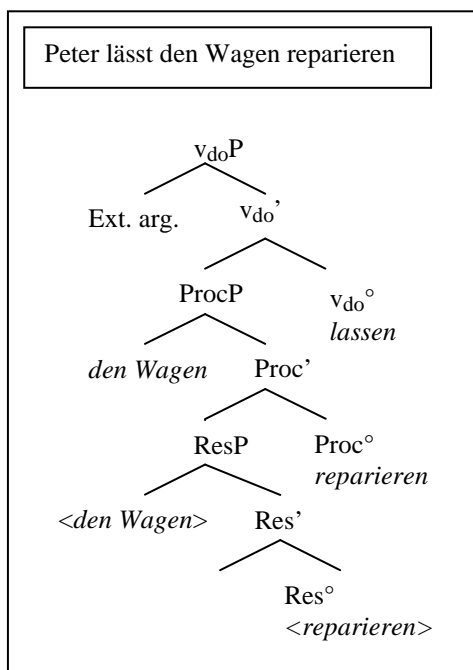


Figure 26

In this structure, the external argument is generated as the specifier of *lassen* while the accusative object is the object of the lower verb. It is however *lassen*, as the  $v^\circ$ -head which assigns accusative case to the object. In a sense, this can be considered as a particular kind of ECM.

#### PERMISSIVE/DEONTIC LASSEN

Before my own treatment of permissive/deontic *lassen*, I will once again return to Folli & Harley (2007). Their paper deals with the Romance causatives with *faire* ‘make’, a construction which shows many similarities to permissive *lassen*. The *faire*-construction exists in two variants; *Faire infinitif* (FI) and *faire par* (FP) (following Kayne 1975: 234). Folli & Harley (2007) argue that Italian *fare* is parallel to the French *faire* and that FIs embed a vP while FPs embed a nominalised VP. The FI is the one which resembles the Germanic *lassen*-permissive construction where the lower verb may have its own external argument. The FP-construction is not parallel to causative *lassen*, but it is nevertheless interesting that the *faire/fare* construction also shows up in two similar but not identical constructions. The FI construction differs semantically from its Germanic counterpart in that it has a flavour of obligation, while the Germanic one may either be of permission/ability or obligation. These are all modal notions and I assume that parallel analyses are possible. I argue that permissive *lassen* is a  $v_{\text{cause}}\text{P}$  with a silent modal tak-

ing a vP as its complement. The same can be said for Romance FI, only here the silent modal would always be a modal of obligation.

The permissive version of *lassen* I take to be essentially a causative modal verb. Mainly, I base this on the semantics. The meaning of *lassen* in the following example can be decomposed into Cause + Permission, i.e. in the following examples we can paraphrase *lassen* as ‘cause to be permitted to’ and ‘cause to be able to’ respectively:

(148) *Ich lasse meine Kinder lange spielen*  
 I let my.ACC children long.time play.INF.  
 Paraphrase: ‘I cause my children to be permitted to play’

*Ich lasse meine Kinder schwimmen lernen*  
 I let my.ACC children swim.INF. learn.INF.  
 Paraphrase: ‘I cause my children to be able to learn to swim’

This subtle semantic difference is very well in line with Cinque (1999: 81) who considers “ability” and “permission” two values of one functional head. Cinque expresses some uncertainty with respect to the exact number and location of Root modals and leaves the issue open. He suggests (1999: 90) that the internal ordering is ...> Mod<sub>volition</sub> > Mod<sub>obligation</sub> > Mod<sub>ability/permission</sub> ... and that these phrases may be located below some of the Aspectual projections, specifically below Asp<sub>habitual</sub>, Asp<sub>repetitive</sub> and Asp<sub>frequentative(I)</sub>. It should be kept in mind, though, that the relative position has not been established with certainty.

It would seem that *lassen* behaves like a lexical verb taking a reduced verb complement, despite it supposedly being modal in nature. We cannot embed functional adverbs nor perfect tenses under it, even if semantically there are no immediately discernible reasons for this. This can be explained by the causative component, i.e. the little v which must be placed below T, Mod, Asp:

**ASP<sub>continuative</sub>**

(149) \* *Ich lasse meine Kinder immer noch spielen* (narrow scope)  
 I let my.ACC children still play.INF.

**ASP<sub>perfect</sub>**

(150) \* *Ich lasse meine Kinder immer spielen* (narrow scope)  
 I let my.ACC children always play.INF.

**ASP**<sub>completive</sub>

- (151) \* *Ich lasse meine Kinder gespielt haben ...*  
 I let my.ACC childer play.PAST.PART. have.INF. ...  
 ...*bevor sie ins Bett müssen*  
 ‘...before they have to go to bed’

Further, a passive verbal complement is also disallowed which I for now take to mean the absence of a  $v_{\text{cause}}$  but not necessarily of  $v_{\text{do}}$  (absence of  $v_{\text{cause}}$  in the verbal complement, not for *lassen*): (example from Wurmbrand 2001: 221)

**V**<sub>cause</sub>

- (152) \* *Hans lässt den Peter unterstützt werden*  
 John lets the.ACC Peter supported PASS.AUX.

As we can see in (153), nothing prevents the lowest verb from being transitive and having an agentive subject. I therefore take a sentence like the following as evidence that a  $v_{\text{do}}$  is in fact projected by the lowest verb:

- (153) *Ich lasse meine Kinder das Buch lesen*  
 I let my.ACC children the.ACC book read.INF.

I want to suggest a structure which is very similar to the one for causative *lassen*, the differences being that permissive *lassen* projects a  $v_{\text{cause}}$  and contains a silent verb meaning ‘permission/ability’ and that the lowest verb is a complement of this silent modal and not of the little *v* which contains *lassen*.

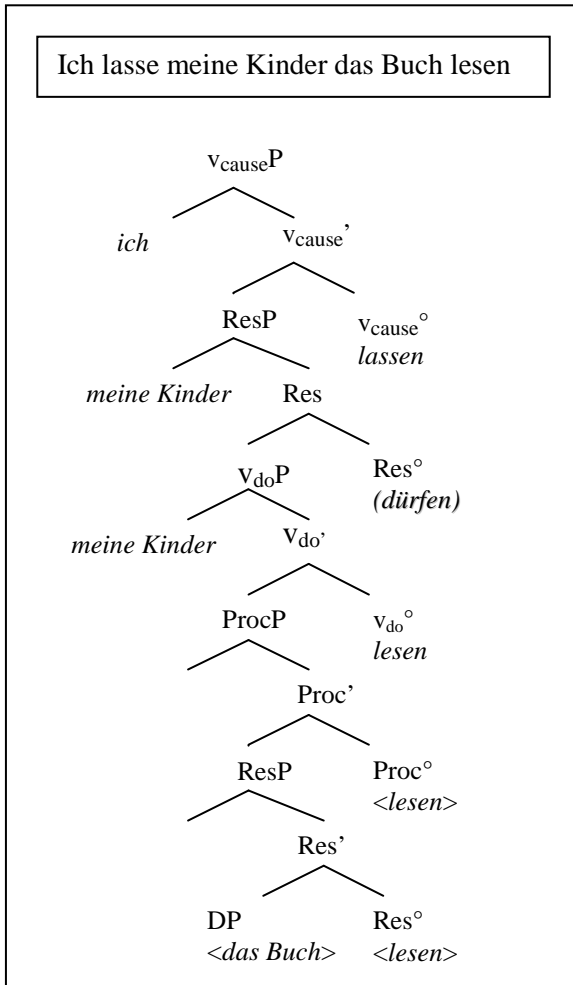


Figure 27

In Figure 27, I have chosen to describe the silent modal verb *dürfen* as a ResP, perhaps a somewhat unfounded claim, not least because modal verbs are not at all treated in Ramchand (2008). The reason I do this, is that if at all classifiable by standard criteria for verb classification, modal verbs must be considered states (in the Vendlerian sense) as they involve neither change of any kind, nor involve any conscious agentivity. Stative verbs is a topic which is largely neglected by Ramchand (also by her own admission, 2008: 204), although she classifies them as bare InitPs. This is a claim that I must dispute; states are incompatible with the semantic role of Causer/Initiator, and were they really Init°s, in accordance with standard assumptions, we would not expect them to ever be able to stand alone. The semantic role Ramchand associates with the specifier of the Result Phrase is that of “Holder of State” which translates straightforwardly to the role of the specifier of stative verbs – including root Modals. Furthermore, throughout this thesis, I have demonstrated that semi-functional verbs always contain a Result

Phrase, and while this argumentation is somewhat circular, taking states (whether resultant states or simple states) to be ResP's accounts nicely for a number of things, e.g. the difference between verbs of active and passive perception, as accounted for in 12.2.1<sup>46</sup>.

A last question must be addressed; since I assume that modal verbs are merged into the functional structure of the clause, how come a silent modal apparently does not? I have to answer this question negatively; the silent modal simply cannot be merged in the functional structure of the embedded main verb. Were it so, we would have major difficulties explaining firstly the ban on perfective or passive complements of *lassen* but also the ban on narrow scope adverbs. These facts follow straight-forwardly if we assume that the main verb is a full vP (whether this vP is an InitP or not). Quite possibly it is the vP containing *lassen* which makes the silent modal a VP; this would be compatible with the views of Distributed Morphology according to which the vP is what defines the categoriless root as a verb (see for example Halle & Marantz 1993).

### 12.2.3 ECM

Both *lassen* and perception verbs are potential accusative assigners and as such the fact that accusative assignment is possible, is not problematic, once we have established that accusative case assignment is possible for non-agentive verbs too. Why, however, is it obligatory? Simply because, in German, an infinitive can never license a nominative subject, and since these verbs obligatorily involve a different subject than the matrix one, PRO cannot handle it. So the real question is in fact why, when the embedded subject is structurally case marked by the matrix verb we do not get passives like the following kind:

- (154) a. \* *Er wurde gehen gesehen*  
 He PASS.AUX. go.INF. seen.PAST.PART.
- b. \* *Die Kinder wurden essen gelassen*  
 The children PASS.AUX.PL. eat.INF. let.PAST.PART.  
 Intended: 'The children were allowed to eat'

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<sup>46</sup> It should be noticed that Ramchand's system does allow for recursion (2008: 152) and as such augmentation below the ResP should not be ruled out in a principled way

My answer will have to be that this long passive is not possible, because the accusative object of the active counterparts does not receive a thematic role from the matrix verb (but see Hornstein 2006: 107 for a more detailed explanation). So, even if logically, the person that was observed doing something was observed too, syntactically the entire proposition is the theme/patient of the matrix verb.

The subject of the lower verb cannot be syntactically licensed (i.e. cannot get rid of its uninterpretable case-feature) due to the non-finite structure (and the language-specific restriction against overt subjects of non-finite verbs) and is therefore licensed by and receives accusative case from IPP-verb (this being possible because these verbs are transitive and hence have an interpretable case feature for the embedded subject to be checked against).

### **13 Intermediate conclusion**

The data and theories presented in this chapter allow us to draw some intermediate conclusions concerning the nature of IPP and the structures which trigger it. For some of these conclusions, I will present further evidence and argumentation in the following chapters.

(I) The quirky morphology of IPP and the word order alternations often accompanying it are to be considered related; however, the relationship between them is not a causal one. Rather these two aspects are to be seen as two effects of very similar causes; the underlying syntactic structure.

(II) The word order variations are taken to be semantically and syntactically vacuous alternations taking place at PF. Prescriptivism, the inherently problematic mixed word order properties of German and its variants, and parameters determining prosody and intonation are possible factors in explaining how speakers can accept the varying word order patterns in the different variants (including Standard German). Furthermore, dialectal interference is likely to influence the speakers too, especially as regards marginally acceptable word orders, sometimes causing them to accept word orders that may actually be unnatural.



(III) The “infinitive” is an arbitrary morphological manifestation which has not arisen through copying of another infinitive in the verb cluster. Dialectal data show that alternative non-finite forms appear in IPP-context, resulting in “substitute supines, gerunds etc.”<sup>47</sup>. In Standard German, the choice of the infinitive can be taken to be the result of a default option or of a copying mechanism in which the infinitival complement causes the IPP-verb to be infinitival too.

(IV) Data from other dialects than Standard German furthermore showed that the temporal interpretation does not rely on the IPP being a past participle. For temporal perfectivity to arise, it suffices that a perfect tense auxiliary verb combines with a non-finite form. I take this as an indication that IPP is syntactically irrelevant, i.e. a PF-operation.

(V) IPP and other cases of quirky verbal morphology arise under particular syntactic conditions. Specifically we have until now, established the following syntactic environments:

- a. Modal verbs: Modal verbs are assumed to be merged directly into functional projections of the clause. Only non-thematic verbs may do this and it follows that modal verbs must be raising verbs. This means that the subject is generated in the verbal complement, then raises to Specifier of the relevant ModP, the phrase which hosts the modal verb.
- b. *Lassen* and perception verbs:

I distinguish three kinds of *lassen*. One is a main verb which for unknown reasons does not trigger IPP. The two other kinds are IPP-verbs but with different underlying structures. Causative *lassen* is a bare  $v_{do}$  taking a main verb VP as its complement. It follows that the embedded verb cannot have an independent external agent. Permissive/deontic *lassen* I analyse as a  $v_{cause}$  containing a silent modal ResP which in turn takes a vP as its complement. Unlike causative

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<sup>47</sup> For convenience, I will still refer to these as IPP-contexts and not distinguish IPP from “Supinum/Gerundium etc. Pro Participio”

*lassen* the embedded verb of permissive/deontic *lassen* may have an external argument.

- c. Verbs of passive perception are lexical verbs which take a reduced verbal complement, a vP. Being transitive they satisfy their case assignment properties by assigning accusative to the subject of the lower verb. This subject, which is obligatorily different from that of the main verb, could not have survived without it, because its verb is non-finite, thus ECM essentially saves an otherwise hopeless construction.
- d. The lexical verbs connected with IPP show the property that while they license vP-complements, these may not be  $v_{\text{cause}}$ 's. I take this restriction to be language-specific, as apparently it does not apply to Danish. For German, it does however appear a solid generalisation which can also be observed with quirky verbal morphology with verbs of motion (this will be elaborated in chapter 4).

In Part III I will continue the argumentation I have instigated here and expand my analysis to involve other cases of quirky verbal morphology. I will continue to argue that quirky verbal morphology is a much more widespread phenomenon that may come in very different shapes in different languages. While surface appearances may be heterogeneous, the structural conditions are strikingly similar; when more than one verb is inserted in the functional or lexical domain or when the verbal complement contains no functional projections other than vP, quirky verbal morphology may occur.



## Part III – Verbs of movement and position

### 14 Introducing verbs of movement and position

In part I of this dissertation, I dealt with a very particular construction, pseudo-coordination. In this construction, verbs of movement and position are used to add aspectual information to a main verb. Building on constructionist views of internal verb structure along the lines of Ramchand (2008), I argued that verbs of movement and position exist in at least two shapes: In one shape they are ordinary main verbs, in others they are deficient or light and require predicational augmentation. The difference between the light and the heavy version is whether or not they are specified for manner.

In this chapter I will extend this idea to a more general account of verbs of movement and position by comparing other constructions involving quirky verbal morphology in connection with these verbs. I mainly deal with Danish and German but make a few excursions into other languages as well. Cross-linguistically, verbs of movement and position show semi-lexical behaviour in a number of ways, such as frequently being part of idioms and complex predicational structures. By scrutinising these constructions, I will try to establish the internal structure of these verbs and how they relate to their diverse complements.

First, I will give an account for the behaviour of these verbs in Danish, and then I will turn my attention to German and include and discuss some interesting differences between German, Dutch and Alemannic.

### 15 Danish *blive/komme*-imperfective

The first construction I will take a look at involves *blive* ‘become’ or ‘stay’ or *komme* ‘come’ + present participle of a verb of position or movement.

- (1) a. *Peter blev siddende i sofaen*  
Peter stayed sit.PRES.PART. in the.couch  
‘Peter stayed on the couch’
- b. *Peter blev pludselig stående, da han hørte noget*  
Peter became suddenly stand.PRES.PART. when he heard something  
‘Peter suddenly stopped when he heard something’

- c. *Peter kom gående ude på gaden*  
 Peter came walk.PRES.PART. out on the.street  
 ‘Peter was walking in the street’

Although the a. and b.-examples on the one hand and the c.-example on the other, show many similarities, there are also certain differences. In the first instance I will treat them separately, but eventually I will bring them together by showing that they are to be analysed in a uniform fashion. The c. example with *komme* as the supporting verb is the more complex one as it is always ambiguous between a main verb and a support verb, an ambiguity that is rarely seen with *blive*. Before giving a detailed account of the syntactic behaviour, I will first present how Danish grammarians have traditionally treated the constructions.

### 15.1 The traditional view

The Danish grammar of Diderichsen (1946) also cited in the chapter on pseudo-coordination, considers the *blive* + participle a parallel to *komme* + participle, but little is said about the construction, other than it is a “fixed verbal phrase” and the examples *blive siddende / liggende* ‘remain sitting / lying’ are the only ones mentioned. It is also mentioned that only when a present participle is an adjoined secondary predication is it allowed to have any complements (Diderichsen 1946: 68):

- (18) *Hæren drog ind i landet, spredende død og ødelæggelse*  
 The.army went into the.country spread.PRES.PART. death and destruction

Mikkelsen (1911: 412) also mentions that the durative *blive* is only allowed with a small group of verbs, mainly positional verbs (but interestingly also *gå* ‘walk’ which in contemporary Danish is no longer allowed in this construction). Although Mikkelsen too only says little about it, he analyses the participle as a predicative adjective, i.e. *blive* is considered to show uniform behaviour, irrespectively of the nature of the complement. The only distinction he makes is between the state and the change of state reading; a difference which for him is purely semantic and not a result of different structures. In the following I intend to show that there are in fact major syntactic differences.

Aage Hansen (1967 vol. III: 99) distinguishes *blive/komme* + present participle from cases of secondary predicational usage of the present participle, but says very little about it. He only remarks that the “unitary” usage is distinct in that the participle may not be

coordinated with another participle, an option available to participles of secondary predication:

- (2) a. *De kongelige kørte hilsende og vinkende gennem gaderne*  
The royals drove greeting and waving through the streets
- b. \* *Han kom syngende og løbende*  
He came sing.PRES.PART. and run.PRES.PART.

## 15.2 On *blive* + participle

Etymologically, *blive* can be traced back to at least the Indo-European word *\*leip* which translates into something like ‘stick’ or ‘adhere’ (Kluge 1999), a word which in several European languages has two usages; i) as a transitive process verb ‘the action of sticking something somewhere’ and ii) as an unaccusative state verb ‘something sticks (to something)’. This double meaning seems to have been partially retained in Danish (and possibly, although very limited) also in German, more on this in subsection 17.1). *Be-* as a prefix is used to transitive intransitive verbs and often adds an inchoative aspect to the verb. While the etymology is complex and perhaps not immediately relevant to a study of the contemporary usage, the interesting observation is that the duality of this verb dates far back, possibly giving rise to some of the complications of the modern verb.

In its simplex form *blive* has two basic meanings; i) ‘remain’ (a. example) and ii) ‘become’ (b. example) depending on the nature of the following element, cf. the following two examples:

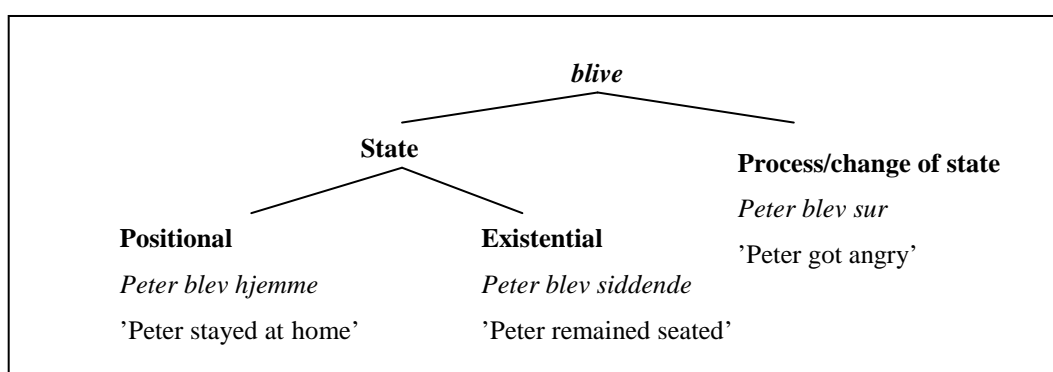
- (3) a. *Peter blev i haven*  
Peter BLEV in the.garden ‘Peter stayed in the garden’
- b. *Peter blev sur*  
Peter BLEV angry ‘Peter got angry’

It also combines with a number of prepositions, triggering meanings that are related but not identical to the two main meanings. In the following two examples, two sub-

meanings of i) and ii) are exemplified (the a. example is a variant of ‘remain’; the b. example a variant of ‘become’<sup>48</sup>:

- (4) a. *Hun blev ved med at drømme om rigdom*  
 She BLEV at with to dream about wealth  
 ‘She kept dreaming about wealth’ (iterative or uninterrupted sense)
- b. *Hun blev endelig af med ham*  
 She BLEV finally off with him  
 ‘She finally got rid of him’

The different main readings are summarised in Figure 28<sup>49</sup>:



**Figure 28**

Another trait which distinguishes the state reading from the process reading is the behaviour of *blive* when it is embedded under modals. The modal *ville* has two main readings; the root meaning is volitional ‘want’ and the epistemic one is the futuristic ‘will’. When the state-triggering configurations of *blive* are embedded under *vil*, in a null-context both readings are available; the volitional being the preferred one. However, if a context triggering the change-of-state reading of *blive* is subordinated to *vil*, only the future reading is available; in order to achieve the volitional reading, *blive* has to be substituted with *være* ‘be’ (Vikner 1988: 19-20)

<sup>48</sup> While I will not discuss the English word *become* here, it is worth noticing that this verb is formed by the particle *be-* + *come* and as such it constitutes an interesting parallel, in that the meaning of a basic motion verb has shifted and turned into a (semi)-functional verb.

<sup>49</sup> *Blive* is also the auxiliary that is used to form passives in Danish. In this use it is arguably completely grammaticalised and as such does not fall into the group of semi-lexical verbs. This fact however also supports the hypothesis that very basic verbs with simple internal structure are easily susceptible to shifts in meaning and syntactic behaviour.

- (5) *Peter vil blive hjemme*  
 a. Peter will stay at.home  
 b. Peter wants.to stay at.home
- (6) *Peter vil blive siddende*  
 a. Peter will remain sitting  
 b. Peter wants.to remain sitting
- (7) *Peter vil blive rig*  
 a. Peter will become rich  
 b. \* Peter wants.to become rich
- (8) *Peter vil være rig*  
 a. \* Peter will be rich  
 b. Peter wants.to be rich

Considering these data in terms of Cinque's cartographic approach (Cinque 1999, 2006:12), we cannot explain the fact that the volitional reading of *vil* is blocked in connection with the change-of-state reading and the epistemic one is blocked with a stative predicate. Rather I think the explanation lies in their semantics; the meaning of polysemous items is determined by the interaction of semantic features in their environment, such that the presence of two stative (non-change-of-state) features, optional or default (*vil* = +/- change of state, *være* = - change of state), will trigger a stative reading and in a parallel fashion, two occurrences of change-features (*vil* +/- change and *blive* +/- change) will trigger a change-of-state reading. This is a line of thought that I will develop throughout this chapter.

The different meanings of *blive* correspond to different English glosses and in the following I will use the English gloss that suits the contexts, such that generally the main verb reading will be glossed as 'stay', the "existential durative" will be 'keep' or 'remain' and the process verb version will be 'get' or 'become'.

While the two different main meanings may be perceived as being very different, they are actually two different aspects of the copula *være* 'be' and the context always makes the intended reading unambiguous. In other words the fact that they appear in complementary distribution is an argument that they are not to be considered two different lexical items.

Semantically, an important notion is that of a "reference to a counterstate" (Schlücker 2004 on the German cognate of *blive*, *bleiben*). Whenever *blive* + participle is used, a



possible counterstate is always presupposed, i.e. the *blive* signifies not the continuation of a state, but more specifically an “un-change of state”, i.e. that the state was *not* changed, in contrast to what might have been expected. While this may seem to be hair-splitting, it is actually crucial because it suggests that stative *blive* is internally complex too. I will refer to this usage as anti-inchoative.

It poses an interesting theoretical question when a verb systematically appears with different meanings under specific configurations. Due to the reference to a counterstate in the “durative” reading, the two meanings of *blive* plausibly correspond to a feature which we could describe as [+ change of state] and [- change of state]. If we were to describe the “durative” *blive* as the complete absence of the feature [change of state] we could not capture its internal complexity. “change-of-state” is directly composable into Ramchand’s (2008) ProcP + ResP, and we then see that the difference concerns ProcP, i.e. the differences between the two readings are reducible to a ProcP which is positively (+) or negatively (-) valued, not to absence/presence of the ProcP.

An important difference between the two usages of *blive* concerns agentivity. Whenever the no-change-of-state/position reading is relevant, we can assume that this is something the subject actively does (even if it’s an active not doing anything). The change-of-state reading on the other hand, is externally caused. This is crucial when determining what flavour of little *v* we are dealing with. Due to this difference with respect to active/passive causation, I take it that the change-of-state *blive* is a  $v_{\text{cause}}$  while the no-change-of-state is a  $v_{\text{do}}$ . The externally caused verb *blive* is exemplified here in (9):

- (9)                    *Peter bliver*        *sur*    /*gammel*  
                          Peter becomes    angry /old

Following the lines laid out earlier in this thesis, I assume that *blive* exists as a non-predicational main verb version (in the sense that it is the only verb present). Depending on whether there is a change or not, we get the structures [ $v_{\text{do}}$  [Proc [Res ]]] and [ $v_{\text{cause}}$  Proc [Res]]. I will get back to these structures later on when analysing *blive* + participle.

Whether the state or the process reading is the default one is hard to determine, although for example the German and Dutch counterparts *bleiben/blijven* are unambiguously anti-

inchoative. In Danish, *blive* requires an augmentation regardless of the intended reading. This augmentation then determines (or is a result of) the relevant version of the verb.

There is however one indication that the default reading is actually the one signifying change-of-state. When we have the state-reading there is a common denominator; a locative expression. Change-of-state on the other hand may appear with expressions that are in principle ambiguous between being directional and locative as in (10)a., while in the b.-example, the definite article suffix within the PP ensures that the PP is locative and that *blive* is interpreted as anti-inchoative.

- (10) a.            *Peter bliver i dårligt humør*  
                   Peter gets in bad mood
- b.            *Peter bliver i skolen*  
                   Peter stays in the.school

There are at least two contexts where the stative light verb reading is triggered, one was mentioned in (1) and is repeated here as (11) the other one is exemplified in (12).

- (11)            *Peter blev siddende i sofaen*  
                   Peter remained sitting.PRES.PART. in the.couch  
                   ‘Peter stayed on the couch’
- (12)            *Peter blev ved (med) at læse*  
                   Peter kept at (with) to read ‘Peter kept reading’

In the former example, the stativity is achieved by combining the support verb with a stative verb. By a mechanism we could describe as a kind of semantic feature agreement, the stativity (the feature [- change of state]) of V<sup>2</sup> triggers the stative reading of V<sup>1</sup>.

In (12) the mechanism is basically the same one that was applied for the stative main verb, i.e. a locative expression, but as a nice parallel to the light verb usage of the verb, one may speak of a “light” stative expression. The PP *ved med at læse* does not denote a physical location, rather a kind of mental space where Peter remains while reading. The syntactic behaviour of these two constructions, in particular the one in (11) will be the topic of the next sections.

### 15.3 Formalising polysemy

Polysemy of a lexical item, I account for by assuming that the meaning of a word is made up by a limited set of semantic features which may or may not be active, i.e. be

valued as [+/-F]. These semantic features decide (or follow from) the internal structure of a word and in turn this structure is responsible for the syntactic-combinatory possibilities of this word.

In the following I will not offer a full, coherent account of all these semantic features and their combinatorial possibilities and restrictions, but I will try to uncover what features are relevant in the realm of the support verbs in question, and how they interact with each other.

My hypothesis can be captured as an equation:

$$(13) \quad \text{If } O^{LI^1} \cap (D^{LI^2} \cup O^{LI^2}) \neq \emptyset,$$

Where  $D^{LI^2}$  is the set of default feature settings:  $D=[d_1, d_2, \dots, d_n]$  of lexical item 2, and  $O$  the set of optional feature settings:  $O=[o_1, o_2, \dots, o_n]$  then, a non-default reading of  $LI^1$  is triggered.

(13) is to be understood in the following way: Lexical Item<sup>1</sup> ( $LI^1$ ) is a potential support verb with a set of default semantic feature settings ( $D$ ). Under “neutral” circumstances this feature set is automatically relevant and hence part of the semantic interpretation.  $LI^1$  also has a set of one or more optional feature settings ( $O=o_1, o_2, \dots, o_n$ ). If then, further down in the tree, an identical feature value is present (be it a default or an optional feature setting of  $LI^2$ ), the optional feature value of  $LI^1$  is activated instead, hence triggering the non-default reading of  $LI^1$ .  $LI^2$  must be c-commanded by  $LI^1$  and presumably certain locality conditions apply too.

It seems to be the case that the default version of the verb is the more complex one and the alternative version is a light verb. Usually, the element which triggers the alternative reading will be overtly present, but it may also be triggered by the context, for example a “how-question” will trigger a manner component in a verb of movement, or if all interlocutors of a conversation are in the same place, the location may be implied, i.e. there is a covert locative expression

To illustrate, I take it that *blive* has a default feature [+ change of state] and optionally this feature may have the opposite setting [- change of state]. In order for the optional setting to overrule the default one, another element must contain a feature which triggers it. In the case of *blive* an element in its immediate surroundings which contains a semantic feature like [Stative] (i.e. = no change of state) will provoke the non-change alternative of *blive*, i.e. ‘remain’ instead of ‘become’.

I by no means claim that this system of semantic features can explain all kinds of polysemy, it is simply a way to formalise what actually appears to happen in the examples that I investigate.

The advantage of a system such as the one I have just sketched is that it gives some insights into the interaction between support verbs and their complements. It is also a way to circumvent some of the overgeneration problems of Ramchand (2008), who has no other explanation than real-world-knowledge blocking certain configurations. Instead, the combinatorial possibilities within the lexical verbal domain are restricted by two factors: i) the specific default and optional feature settings of a specific word and ii) the combinatorial possibilities between certain types of phrases (e.g. it would seem that ProcPs are not allowed to have vPs as their complements). These restrictions on phrase type combinatorial possibilities may be language-specific, general principles or a mixture of the two.

In my system, I will only assume the presence of features for which there is empirical evidence, i.e. if i) it follows logically from the semantics of the lexical or functional category (for examples that motion verbs have a ‘dynamic’ feature) or ii) if a lexical or functional category triggers feature activation in different kinds of constructions.

#### 15.4 Syntactic distribution of *blive* + present participle

As was seen in the chapter on pseudo-coordination, verbs of position and movement cannot be pseudo-coordinated themselves. However, another strategy is available to them to give them a progressive/durative reading, namely the one illustrated by (11), the combination of *blive/komme* + present participle of the positional/motion verb. One major difference is that this option is generally only available for positional verbs and atelic verbs of movement. Telic verbs with their inherent punctual endpoint are turned imperfective when entering such a construction. The primary distinction is then, between stative and dynamic verbs; they enter similar constructions but use different support verbs (*blive* vs. *komme*)

The default positional verbs *stå*, *ligge*, *sidde* ‘stand’ ‘lie’ ‘sit’ form their durative with *blive* in the following way:

- (14) *Peter bliver siddende /liggende /stående på værelset*  
 Peter remains sitting /lying /standing.PRES.PART. on the.room

At least one more verb may be used in this construction, namely *hænge* ‘hang’. This verb, like the root of *blive* has two variants, one as a transitive verb ‘the action of sticking something to something (e.g. a poster to the wall)’ or ‘the action of hanging someone’ and one as an unaccusative verb ‘the state of hanging (whether referring to a poster hanging on the wall or a man hanging from the gallows)’. Then there is one further usage, even if it may be slightly sub-standard, which simply denotes that someone or something remains in a certain place. In this usage the semantics of the verbs have been bleached and the verb only means ‘remain in a certain place’. Two examples are given below, (15) denoting the light verb version and (16) the unaccusative one, showing that both may appear with *blive*. The transitive verb, however, is excluded from the construction.

- (15) *Han kan håbe, at regeringen... ‘He may hope the government...’*  
*...kan blive hængende...*  
 ...can remain hanging...  
*...til næste finanslovs vedtagelse.*  
 ’until the adoption of next year’s budget’

- (16) *...og for at legemeerne ikke skulle... ‘...so that the bodies shouldn’t...’*  
*blive hængende på korset sabbatten over*  
 remain hanging on the.cross the.Sabbath over

Interestingly, the substandard *hænge ud* ‘hang out’ (meaning either to socialise or to do nothing), despite being inherently stative, unagentive, and semantically underspecified, does not combine with *blive*. While Mikkelsen (1911) claimed that agentive verbs are banned from the construction, rather it seems to be the case that there is a ban on elements obligatorily pertaining to the second verb, in this case the particle *ud*.

The usage of the present participle is very restricted in Danish and mainly used for manner adverbs or adjectives. This means that (14) potentially has two readings; either *blive* is a main verb and the present participle is an adjunct specifying manner (secondary predication), or *blive* + participle form a complex verb. Although I will not concern myself much with the adverbial reading, it is crucial to be able to distinguish the two syntac-

tically. In the construction where the present participle is an adjunct, all intransitive verbs may appear, while in the progressive construction, only positional verbs may be used, as can be seen in (17). (17) demonstrates that ‘position’ is the relevant trigger for the stative reading of *blive*, not stativity, as the stative verb ‘know’ is also ungrammatical in this construction<sup>50</sup>.

- (17) a. \* *Peter blev grinende*  
Peter kept laughing
- b. \* *Peter blev vidende*  
Peter kept knowing
- c. \* *Peter blev knælende*  
Peter kept kneeling

(17) shows that not all positional verbs may be used, only those that denote default positions, a verb such as ‘kneel’ (which is ambiguous between a stative and process verb) is ruled out. The reason *blive* cannot be interpreted as a main verb and the present participle as a manner adverb is that this interpretation requires the presence of a locative expression, as was shown in (10). This means that omitting the locative expression is one way to make sure that a sentence is tested in the intended reading. However, the anti-inchoative constructions often have locative expressions too, and some even appear unnatural without them, so further means to ensure the intended reading are desirable.

### 15.4.1 Topicalisation

In the anti-inchoative reading of *blive*, the positional verb is a complement and it cannot be topicalised alone. If on the other hand, the positional verb is an adjunct, this is possible. However, semantically *stand* is not very salient and therefore it is not a good topicalisation candidate, hence the relative ungrammaticality of (18)b.

- (18) a. *Peter blev stående ude på vejen*  
Peter remained standing out on the street  
Peter stayed in the street

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<sup>50</sup> (17) may actually be found in certain contexts, but the only available interpretation is the change-of-state-one, i.e. ‘Peter became knowing’

- b. ?? *stående blev Peter ude på vejen*  
standing remained Peter out on the.street

This contrasts with an example where the participle is clearly an adjunct:

- (19) a. *Peter blev grinende ude på vejen*  
Peter stayed laughing out on the.street
- b. *Grinende blev Peter ude på vejen*  
Laughing stayed Peter out on the.street

So far, it is only stipulation that the present participle in *blive stående* is not an adjunct. In order to exclude the secondary predication analysis of *stående* completely, we can let two participles co-occur. Without coordinating these, the sentence can only be grammatical if these participles are of different kinds. When we do this, we get proper ungrammaticality when we topicalise the participle of *stå* 'stand', i.e. it is not a constituent.

- (20) a. \* *Stående blev han grinende ude på vejen*  
Stand.PRES.PART. stayed he laugh.PRES.PART. out.LOC. on the.road
- b. *Grinende blev han stående ude på vejen*  
Laugh.PRES.PART. remained he stand.PRES.PART. out.LOC. on the.road

Conversely, only in the durative reading are both verbs allowed to be topicalised simultaneously (requires dummy verb insertion). This indicates that we are dealing with a complex predicate. It should be noted that the a.-example is still odd, but most likely this is because of pragmatic factors; an adequate context would be required in order to justify a topicalisation. Even though it is somewhat odd, it contrasts sharply with the proper ungrammaticality of the b.-example.

- (21) a. ? *Blive stående ville Peter ikke ude på vejen*  
remain standing wanted Peter not out on the.street
- b. \* *Blive grinende ville Peter ikke ude på vejen*  
stay laughing wanted Peter not out on the.street

The ungrammaticality of (21)b. is in fact unexpected. Usually, a main verb may topicalise with an adjunct as in (22):

- (22) *Blive uden at få noget for det ville han ikke*  
Stay without to get something for it wanted he not  
'He wouldn't stay without being paid'

It would appear that the ungrammaticality of (21)b. is due to the fact that the non-adjoined present participle is by far the most unmarked one and the one which the hearer intends to parse from (21)b. However, *blive* can only select for positional verbs and hence the derivation crashes. If we have two present participles; one selected and one adjoined, the three verbs may all topicalise together (even if intonationally, it is now a very heavy topic and therefore not very plausible).

- (23)            *Blive stående*            *grinende*            *ville han ikke*  
                  Stay stand.PRES.PART. laugh.PRES.PART. wanted he not

The only instance where the two verbs are separated (if the second verb is not an adjunct) is under Verb Second. Importantly this does not pose a major problem for a complex verb analysis as excorporation under V2 happens systematically. cf. German particle verbs, which are excorporated under V2 as in (25):

- (24)            *Derfor blev Peter ikke siddende i sofaen*  
                  Therefore remained Peter not sitting in the.couch

- (25) a.            *Peter mag nicht früh aufstehen*  
                  Peter likes not early up.stand.INF.  
                  ‘Peter doesn’t like to get up early’
- b.            *Peter steht früh auf*  
                  Peter stands early up ‘Peter gets up early’

In the following subsections, I will demonstrate the monoclausal behaviour of this verbal complex. As will become evident, in embedded clauses absolutely nothing may intervene between the verbs indicating that the second verb lacks all Cinquean functional projections.

#### 15.4.2 The lack of functional structure of V<sup>2</sup>

A strong argument for the complex predicate analysis is that the two verbs must be adjacent. As such the construction patterns with periphrastic tenses, modal + infinitive, but differs from non-restructuring infinitives. In the following I will demonstrate how interveners cause the derivation to crash. All sentences are subordinate clauses to avoid interference from Verb Second effects, the one case where the adjacency requirement can be violated.



**THE T-DOMAIN**

If  $V^2$  had its own TP, we would expect it to be able to be temporally independent of  $V^1$ .

This is not the case, regardless of the position of the second temporal adverb:

- (26) *Jeg ved ikke...*  
 I know not...  
 ...om Peter i dag bliver (\*i morgen) siddende (\*i morgen).  
 ...if Peter today remains (tomorrow) sit.PRES.PART. (tomorrow)

**THE MOD-DOMAIN**

Below T is the domain of the root modals. However, modal verbs have no present participle at all and therefore it does not really say anything about the presence/absence of the Mod-Domain.

- (27) \* ...om ...at Peter blev villende /kunnende sidde /siddende  
 ...if ...that Peter remained want. /can.PRES.PART. sit. INF. /PRES.PART.

If we insert modal adverbs instead of modal verbs, the sentence is still ungrammatical.

- (28) a. \* ...om Peter bliver gerne siddende  
 ...if Peter remains pleased.ADV sit.PRES.PART.  
 b. \* ...om Peter bliver måske siddende  
 ...if Peter remains maybe sit.PRES.PART.  
 c. \* ...om Peter bliver nødvendigvis siddende  
 ...if Peter remains necessarily sit.PRES.PART.

**THE ASP-DOMAIN**

The aspectual projections appear to be absent too; terminative, continuative, proximative adverbs and embedded perfect tenses are not possible, although the last one may be excluded for independent reasons; while the main verb *have* 'have' does have a present participle, it would seem it does not when it is an auxiliary.

- (29) a. \* ...om Peter blev havende siddet  
 ...if Peter remained have.PRES.PART. sit.PAST.PART.  
 b. \* ...om Peter blev ikke længere siddende  
 ...if Peter remained not longer sit.PRES.PART.

- c. \*     ...*om* *Peter bliver*   *stadig siddende*  
           ...if   Peter remains   still   sit.PRES.PART.
- d. \*     ...*om* *Peter bliver*   *snart siddende*  
           ...if   Peter remains   soon   sit.PRES.PART.

### THE VOICE-DOMAIN

With Cinque's VoiceP, we enter the semi-lexical domain. When testing this domain, we face a major obstacle; that only default positional verbs are allowed as the complement of *blive*. These verbs are un-passivisable, non-agentive intransitive verbs and I cannot test for the principled presence/absence of Voice/Init/vP. One might say that the unavailability of passive, agentivity and accusative case assignment is an argument that the phrases are not present. I suspect that semantic features are responsible for this selectional requirement and that the structural configuration is not as such responsible for it. Mainly I base this on the properties of *komme* + motion verb, which I will cover in the sections 15.5-15.7.

#### 15.4.3 Light verbs only

Previously it was established that only default positional verbs were allowed to form a periphrastic durative with *blive*. In fact, it is more specific, only the *light* versions of the verbs are allowed in this configuration.

In the chapter on pseudo-coordination, I argued that the main verb reading of positional verbs require that their *manner* component is activated explicitly, either by stressing the positional verb, by the context (e.g. a wh-question asking specifically for manner) or by an adverbial such as *godt* 'well' or 'comfortably'. This also holds for the periphrastic durative; when positional verbs specified for manner are embedded under *blive*, the result is ungrammatical as in (30) and *how*-questions are highly marked:

- (30) a. \*     *Peter bliver*   *siddende godt*  
           Peter remains sitting   well  
           'Peter is sitting well'
- b. ??    *Hvordan bliver*   *Peter siddende?*  
           How       remains Peter sit.PRES.PART.

In English the progressive is compatible with the manner component but in Danish it is not. As stated earlier on, my hypothesis is that progressivity is complex, consisting of at

least two different aspects: i) imperfectivity and ii) “here-and-now”. Positional pseudo-coordinations carry both aspectual features, i.e. they may instantiate both or either one aspect, while directional PC only instantiates the here-and-now aspect. The *blive*-progressive on the other hand, seems to instantiate only imperfectivity.

#### 15.4.4 Pseudo-coordinating *blive* + participle

In the chapter on pseudo-coordination, it was established that the crucial property of pseudo-coordinating verbs is the lowest verb phrase. Any verb which has ResP denoting position as its lowest projection, is understood as a slightly enhanced existential verb, and is allowed to pseudo-coordinate. Further, above I have intended to show that the verbs that are allowed to enter into constituency with *blive* are exactly that; the light verb versions of positional verbs. Consequently we expect them to be able to pseudo-coordinate even when they are already complex. This is in fact the case as is shown in (31):

- (31) *Hvad bliver Peter siddende og læser for en bog?*  
 What remains Peter sitting and reads for a book

This example gives interesting hints about the structure of both pseudo-coordinations as well as about the *blive* + participle-construction. Importantly the V<sup>2</sup> copies the form not of the nearest verbal element, the present participle, but of the higher verb, *blive*. This is a strong indication that *blive* + participle in fact behave like a complex verb marked as finite and as such they are opaque and *læser* copies the finiteness features and not the participial ones.

### 15.5 On *komme* + participle

*Komme* ‘come’ is a very diverse verb in Danish and has a wide array of usages. The default meaning is directed motion from one place towards a specified endpoint, either in the shape of an absolute location or towards the person from whose perspective the situation is observed (32). It is frequently used to express change of state (b.) and can even be used as a proper transitive verb in which case the object undergoes a change of position (c.) or with a reflexive pronoun, triggering the meaning ‘recover from something’ (d.). Further, it may combine with just about any preposition or particle and thereby create new, but usually related meanings, i.e. change of state/position (e. f. g.).

- (32) a. *Peter kom for sent i skole*  
Peter came too late in school  
'Peter was late for school'
- b. *Peter kom i godt humør*  
Peter came in good mood  
'Peter cheered up'
- c. *Peter kom mælk i kaffen*  
Peter came milk in the.coffee  
'Peter put milk in his coffee'
- d. *Peter kom sig efter sin sygdom*  
Peter came REFL after his illness  
'Peter recoverd after his illness'
- e. *Peter kom i tanke om noget*  
Peter came in thought about something  
'Peter (suddenly) remembered something'
- f. *Peter kom af dage*  
Peter came off days 'Peter died'
- g. *Peter og Hans kom op at slås*  
Peter and Hans came up to fight 'Peter and Hans got into a fight'

Finally, as mentioned in the beginning of Part III, it appears in a construction parallel to the *blive* + participle of a positional verb, i.e. with a present participle complement of a verb of movement. This construction will be treated in more detail in the following:

- (33) *Peter kom gående /kørende /cyklende hen ad gaden*  
Peter came walking /driving /cycling by along the.street

As mentioned in 15.1, Diderichsen (1946: 68) does not consider this a particular construction but merely a "fixed phrase" and Mikkelsen (1911: 412) considers it a predicative adjective. Again I will argue that this cannot be the case, rather we are dealing with a complex predicate in which *komme* adds aspectual information to the verb it combines with.

In principle, the syntactic tests for *komme* are the same ones as those I applied to *blive* but there are certain differences and the behaviour of *komme* is more complex than that

of *blive* because it combines with a larger group of verbs and in many different constructions.

## 15.6 On the semantics of *komme* + participle

When *komme* + participle appears as a complex verb, often the function is to communicate background information, i.e. it expresses that an action was taking place when something else happened. First, the simplex usage of *komme* is exemplified in (34)<sup>51</sup>

- (34) *Ulven kommer!*  
The.wolf comes  
'There's a wolf'

When *komme* appears in the present tense, it is ambiguous whether the *telos* is reached or not, hence it is possible that the wolf's course was interrupted. This however, needs not mean that the verb is not inherently telic. Danish, as many other languages, often uses the underspecified present tense instead of a future tense. As a consequence, it is conceivable, even if hard to prove, that the present tense usage of *komme* really refers to the expected future telic event. Since this has not yet occurred, logically, it may still be averted.

When the simple or the periphrastic past tense is used, it is however contradictory to add that the endpoint was not reached. It should be noted that Danish does not have a specific imperfect tense. Even if the simple past tense is referred to as the Imperfect rather than Preterite, it is as a matter of fact perfective and as such, there are no simple means available to express that "the wolf was coming" but that its course was somehow obstructed.

- (35) # *Ulven kom, men de skød den før den nåede frem*  
The.wolf came but they shot it before it 'got there'

That an otherwise perfective verb turns imperfective in the progressive tense is known as the imperfective paradox (Dowty 1977, Landman 1992), and is a more general problem, one which is also observed in an example such as the following where a strictly punctual,

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<sup>51</sup> This famous line is from Aesop's fable about the boy who cried "Wolf!".



If we now turn the attention to *komme gående* ‘come walking’, we notice a very interesting contrast, namely that the motion is no longer directed and this is why *komme* in this usage only combines with locative expressions and not directionals (as I will show in 15.7.1). The event is unbounded and imperfective; there is neither starting nor ending point.

*Komme* + present participle is often used as scene-setting for a different action. It is therefore very badly compatible with other imperfect predicates:

- (38) a. ?? *Peter kom gående, da solen skinnede*  
Peter came walking when the.sun shone
- b. *Peter kom gående, da en meteor pludselig ramte ham*  
Peter came walking when a meteor suddenly hit.PRET. him

A last point concerns *komme* relates to agentivity. While in many cases, ‘coming’ is a result of an intentional effort, this is not a property of the verb itself. We can see this from the fact that the subject be inanimate without the semantics of the verb changing at all:

- (39) *Pakken kom senere end forventet*  
The.parcel came later than expected

This suggests that the v-flavour of main verb *komme* is a  $v_{\text{cause}}$ .

## 15.7 Syntactic distribution of *komme* + participle

It appears to be a tendency that a present participle of a motion verb which is adjoined as an adverb, is more specific, while the verbs that form a complex predicate with *komme* are highly frequent manners of motion such as ‘walk’, ‘drive’, ‘cycle’. This, however, is a tendency, not a strong principle, i.e. the sequence *komme gående* ‘come walking’ is in principle always ambiguous, even if the default interpretation is the one where the second verb is a complement of the higher verb. This ambiguity is exemplified by the following two authentic examples<sup>52</sup>:

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<sup>52</sup> The first example is from <http://www.bovkirke.dk> and the second example is the description of a witness from [http://www.beretninger.net/?ER\\_DU\\_VIDNE%3F:Vidneberetninger\\_fra\\_uvildige\\_vidner](http://www.beretninger.net/?ER_DU_VIDNE%3F:Vidneberetninger_fra_uvildige_vidner)

- (40) *En del kom gående over grænsen ved Rønsdam(...)*  
 Many came walk.PRES.PART. across the.border at Rønsdam  
 ‘Quite many people walked across the border at Rønsdam...’

(...) men der var naturligvis mange, som kom i busser.  
 ...but of course many came by bus.’

- (41) *Da jeg kom gående på højre side af vejen (...)*  
 When I came walking on right side of the.road

... lagde jeg mærke til (...) 2 civilbetjente på den side...  
 ...‘I noticed two plain-clothes.officers on the side...’

*jeg kom gående på*  
 I came walking on

While *blive* is unlikely to appear as a main verb with a present participle adjoined to specify the manner, this is not the case with *komme* and thus it is crucial to be able to distinguish when it is adjoined and when it is a complement. There are fortunately rather strong syntactic tests that reveal differences between the different usages, topicalisation, locative vs. directional adverbials, and non-finite purpose clauses being the main ones:

### 15.7.1 *Komme* + adverbials

One way to distinguish the two different usage of *komme* + present participle is to add locative and directional expressions. When *komme* appears as a main verb, it is always inherently telic and generally requires a directional expression in the shape of a particle or a PP. The exception is when the *coming* refers to an implied location, i.e. typically the location of the speaker (as is the case in (34)). It cannot combine with a locative expression only<sup>53</sup>. In contrast, when *komme* has a motion verb as its complement, locative expressions as in (41) are unmarked while directionals are more problematic. A problem with this distinction is that phonetically the difference is minimal; there is only a slight intonational difference between (43)c. and d. In writing this cannot be distinguished.

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<sup>53</sup> If *komme*'s requirement of a directional expression is met, then a locative circumstantial adverb may modify the predication in its entirety.



- (42) *En elefant [kom marcherende] hen ad edderkoppens fine spind*<sup>54</sup>  
 One elephant came marching along the.spider.GEN fine web
- (43) a. *Peter kom ned i byen*  
 Peter came down.DIR in the.town
- b. \*<sup>55</sup> *Peter kom nede i byen*  
 Peter came down.LOC in the.town
- c. ? *Peter kom gående ned i byen*  
 Peter came walking down.DIR in the.town
- d. *Peter kom gående nede i byen*  
 Peter came walking down.LOC in the.town

The fact that (43)d. is grammatical and even better than c. is strong argument for the light verb hypothesis. The fact that in this usage *komme* combines with locative expressions and only to some extent with directionals as opposed to the main verb usage, shows that the inherent telicity has been lost, i.e. the verb used here is definitely lighter than the main verb. When combined with other syntactic tests we get strong syntactic effects, instead of just small intonational differences.

### 15.7.2 Topicalisation

Topicalisation tests show that *komme* + participle form a constituent when the participle is not adjoined. They must be topicalised together unlike seemingly identical sentences where the participle is a secondary predication of the subject. Here I combine topicalisation with locative/directional expressions in order to ensure the intended reading:

- (44) a. \* *Gående kom Marie nede i byen*  
 Walking came Marie down.LOC in the.town
- b. *Gående kom Marie ned i byen*  
 Walking came Marie down.DIR in the.town

The entire constituent on the other hand, may be topicalised when a dummy verb is inserted to fulfil the Verb Second requirement, that a finite verb be present in C°.

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<sup>54</sup> The example is the first line in a childrens' song

<sup>55</sup> This example is technically grammatical, however only in a sexual sense. This usage differs radically from the constructions I am discussing and I will not be considering this other main verb usage any further. Hence, examples judged as ungrammatical, are to be considered so in the intended reading.

- (45) a. *Komme gående ville Marie ikke nede i byen*  
 came walking wanted Marie not down.LOC in the.town
- b. \* *Komme gående ville Marie ikke ned i byen*  
 came walking wanted Marie not down.DIR in the.town

We can also combine topicalisation with a PP with the preposition *langs* ‘along’ which is incompatible with *komme* as a main verb, and hence also with an adjoined present participle of a motion verb:

- (46) a. \* *Peter kom langs floden*  
 Peter came along the.river
- b. *Peter kom gående langs floden*  
 Peter came walk.PRES.PART. along the.river
- c. *Komme gående langs floden vil han ikke foreløbig*  
 come.inf. walk.PRES.PART along the.river will he not any.time.soon

Parallel to what we did with *blive* in (20), we can combine *komme* with two present participles, one of which is clearly an adjunct. Here, we can observe that only the adjunct present participle may be extraposed.

- (47) a. \* *Marie kom grinende hen ad gaden gående*  
 Marie came laugh.PRES.PART. along the.street walk.PRES.PART.
- b. *Marie kom gående hen ad gaden grinende*  
 Marie came walk.PRES.PART. along the.street laugh.PRES.PART.

Again as a parallel to *blive*, we can topicalise the entire verbal complex including the adjunct, and here we can see the strong adjacency requirement:

- (48) ? *Komme gående grinende ville hun ikke*  
 Come.INF. walk.PRES.PART. laugh.PRES.PART. wanted he not
- (49) \* *Komme grinende gående ville hun ikke*  
 Come.INF. laugh.PRES.PART. walk.PRES.PART. wanted he not

What we see here is evidence for my claim that telic *komme* may combine with two different kinds of present participles. One is adjoined to the telic *komme* and one is the complement of atelic *komme*, which prefers to combine with locative expressions. It fol-

lows that in the latter case, the present participle cannot be a secondary predication specifying the manner of motion.

### 15.7.3 Light verbs only

When *komme gående* acts as a complex predicate, both verbs involved are light. In the section on *blive* + present participle, I argued for this view by showing that whenever the manner component of *gå* was activated, it was unable to function as a complex predicate. The story is essentially the same for *komme* + present participle, i.e. when the motion verb is specified for manner, it cannot be the complement of *komme*, but only an adjunct. A complication is, however, to find modifiers which unambiguously modify the motion verb and not *komme*. On the other hand, we have another test at our disposal; non-finite purpose clauses.

#### KOMME + INFINITIVAL PURPOSE CLAUSES

Infinitival purpose clauses are instructive because they cannot attach to all present participles, but only to those semantically salient ones which specify the manner of motion. This may be derived from semantic-pragmatic factors; when *komme gående* is a non-adjoined structure, it is not clear what the infinitival clause refers to. Even if the mechanisms involved are not quite clear, inserting infinitival purpose clauses nevertheless establishes a difference between the constructions and as such it is worth mentioning.

(50) a. *Peter kom cyklende for ikke at slide sine sko*  
 Peter came cycling for not to wear.out his shoes  
 ‘Peter arrived on bike, in order to spare his shoes’

b. \* *Peter kom gående for at købe ind*  
 Peter came walking for to buy in  
 ‘Peter was walking in order to do his shopping’

While I will not go into the properties of final clauses, it is worth adding a few observations about these, as they support my light verb hypothesis.

(51) a. \* *Jeg gik for at købe ind*  
 I walked for to buy in  
 ‘I went out (in order) to do my grocery shopping’

b. *Jeg gik for ikke at slide på min cykel*  
 I walked for not to wear.out on my bike  
 ‘I walked to spare my bike’

In (51), the a.-example is ungrammatical (or at least non-sensical) in contrast to b. In both cases, a final non-finite clause modifies the simplex verb *gå* ‘walk’. The difference between the two is that b. offers a plausible context for the manner component of *gå* to be activated. This is compatible with the fact that in a. we are dealing with a light verb version of *gå* which lacks a manner component.

- (52) *Jeg løb for at nå bussen*  
I ran for to catch the.bus

Similarly, in (52) the “for-to”-clause gives a plausible manner-context. Hence in this case, *løbe*, does not really express undirected motion, rather the manner-component is in focus.

- (53) *Jeg kom for at se hvordan du har det*  
I came for to see how you have it  
‘I came to see how you are’

In (53) we can see that *komme* as a main verb is also compatible with a final clause, meaning that manner is not the only criterion, telicity must be taken into account as well. Consequently we expect telic variants of *gå* to be able to combine with final clauses too and this is indeed the case as shown in (54):

- (54) *Jeg går ud for at købe ind*  
I walk out for to buy in

Reconsidering (50)b. we now know why it is incompatible with purpose clauses; it lacks both telicity and manner. These few observations say nothing about why final clauses require manner or telicity, but this is a completely different question and what they do provide is arguments for my claim that *komme* and *gå* have light verb versions and that when they form a complex predicate, they both appear as light verbs.

#### 15.7.4 Functional structure above V<sup>2</sup>?

Parallel to what I did in subsection 15.4.2 on *blive* + present participle, I want to argue for a complete lack of functional structure above V<sup>2</sup>.

**THE T-DOMAIN**

In the complex predicate usage, *komme* + participle, the verbs are temporally interdependent, suggesting that  $V^2$  has no separate TP:

- (55) *Jeg ved ikke...*  
 I know not...  
 ...om Peter i dag kommer (\*i morgen) gående (\*i morgen)  
 ...if Peter today comes (tomorrow) walk.PRES.PART. (tomorrow)

**THE MOD-DOMAIN**

As for modals, we encounter the same problem as in 15.4.2; that modals have no present participle. However, we can see that modal adverbs are also excluded from having scope over the lower verb only.

- (56) \* ...om Peter kom villende /kunnende gå /gående  
 ...if Peter came want. /can.PRES.PART. walk.INF. PRES.PART.
- (57) a. \* ...om kom gerne gående  
 ...if came pleased.ADV walk.PRES.PART.
- b. \* ...om Peter kom måske gående  
 ...if Peter came maybe walk.PRES.PART.
- c. \* ...om Peter kom nødvendigvis gående  
 ...if Peter came necessarily walk.PRES.PART.

**THE ASP-DOMAIN**

Material connected to the aspectual projections results in ungrammaticality too. Embedded perfect tenses as well as terminative, continuative and proximative adverbs are also excluded.

- (58) a. \* ...om Peter kom havende gået  
 ...if Peter came have.PRES.PART. walk.PAST.PART.
- b. \* ...om Peter kom ikke længere gående  
 ...if Peter came not longer walk.PRES.PART.
- c. \* ...om Peter kom stadig gående  
 ...if Peter came still walk.PRES.PART.

- d. \*     ...om *Peter kommer snart gående*  
           ...if Peter comes soon walk.PRES.PART.

### THE VOICE-DOMAIN

In contrast to *blive* + present participle, with *komme* we actually can say something about the Voice domain. The verbs embedded under *komme* are all motion verbs, i.e. they are agentive and hence must have a vP. They are however not passivisable, suggesting that they have  $v_{do}$ 's and not  $v_{cause}$ 's, which corresponds to the intuition that an intransitive motion verb cannot involve causation. I will therefore conclude that the complement of *komme* has a  $v_{do}$  as its highest projection.

### VERB-INTERNAL MODIFICATION

Triggering the manner component of *gå* in *komme gående* is difficult, as it is almost impossible to avoid that the modifier modifies the whole complex or *komme* only. Particularly in writing it is hard to distinguish, hence I am forced to take phonetics into consideration.

In spoken language, the following sentence which has the two interpretations that I just tried to distinguish syntactically would actually hardly ever be ambiguous:

- (59)           *Peter kom gående*  
           Peter came walking

I will not get into the intonational system of Danish, but in an example like this, a default intonation would give the complex predicate reading of *komme gående*. To express that the present participle is really adjoined, *komme* has to receive extra stress.

If we make the sentence longer to get a natural intonational pattern, it becomes clear that *komme gående* forms an intonational unit. This is the case in (60):

- (60)           *Peter kom gående hen ad vejen*  
           Peter came walking along the.street

In contrast, when *gående* is adjoined to *komme*, after *komme* there is a partial resetting to a new prosodic phrase, i.e. there are two tone groups (Grønnum: 349).

- (61)           *Peter kom gående i skole i dag, og ikke på cykel*  
           Peter came walk.PRES.PART. i school today and not on bike

A similar pattern is found for the sequence *gå hurtigt* ‘walk fast’ which here I will simply claim has two readings; one where *hurtigt* is simply an adjoined adverb which modifies the verb and one where it has been incorporated into the verb. This claim is mainly based on the fact that the two words display unity stress and it is not something I will go deeper into as it is not absolutely vital for my analysis. A more feasible difference is that only the incorporated version can be used for non-literal motion. Often a difference can be seen when translating into English; the literal motion is often most naturally translated with ‘walk’, the non-literal one with ‘go’. In Danish, this distinction is not lexical, the difference is that when incorporated, the two elements form an intonational unit; when ‘fast’ is adjoined, they do not.

- (62)
- |    |   |              |            |                |
|----|---|--------------|------------|----------------|
| a. | * | <i>Tiden</i> | <i>gik</i> | <i>hurtigt</i> |
|    |   | The.time     | walked     | fast           |
| b. |   | The.time     | went       | fast           |

When *hurtigt* has been incorporated into *gå* the manner component is obligatorily specified, i.e. *gå* can no longer be a light verb. The prediction is then that it cannot form a constituent with *komme* as shown here:

- (63)
- |   |   |               |              |
|---|---|---------------|--------------|
| * | [ <i>Kom</i> [ <i>gående hurtigt</i> ]] | <i>gjorde</i> | <i>Peter</i> |
|   | Came walking fast                       | did           | Peter        |

Now, while this looks like good evidence for my claim that not only *komme* but also *gå* appear as light verbs, unfortunately, independent reasons may be at play here. Possibly the sequence *kom gående hurtigt* which would have to form an intonation unit if it were one complex predicate, is simply too long. Hence, I will have to content myself with saying that it does not speak against my analysis, but if it were the sole evidence, I would not have a very strong case.

### 15.7.5 Pseudo-coordinating *komme* + participle

When *komme* + participle pseudo-coordinates, you get the same result as in the case of *blive* + participle, namely that the verb copies the form of *blive*, again indicating that *komme gående* is a complex predicate which as a whole is finite. It furthermore confirms (even if in a slightly circular way) that the lowest verb is light.

- (64) *Hvad kom Peter gående og sang?*  
 What came Peter walking and sang

An adjoined present participle can marginally be coordinated with another present participle, but in that case extraction is completely ungrammatical.

- (65) a. ? *Peter kom gående og syngende ind på kontoret*  
 Peter came walk.PRES.PART. and sing.PRES.PART. into the.office
- b. \* *Hvad kom Peter gående og syngende ind på kontoret?*  
 What came Peter walk.PRES.PART. and sing.PRES.PART. into the.office

## 16 Analysis of Danish *blive/komme*

The following table gives an overview of (some of) the semantic features related to *blive* and *komme*, and the elements that are able to trigger their alternative usages:

| LI           | Default-structure  | Alternative structure   | Alternative structure triggers   |
|--------------|--|---|--|
| <i>Blive</i> | + Change (of state/position)<br>[cause [change [State]]]<br>'become'       | - Change (of state/position)<br>[do [no change [State <sub>[stat]]]]<br/>'remain'</sub> | verb [State <sub>[stat]]]<br/>AdvP [Loc]<br/>PP [Loc]<br/>Context<br/>etc.</sub> |
| <i>Komme</i> | + Change (of state/position)<br>[cause [change [location/state]]]<br>telic | - Change (of state/position)<br>[do [no change [[location/state]<br>[dyn]]]]            | verb [State <sub>[dyn]]</sub>  |

Table 12

First I will give my suggestion as to what the internal structures of *blive* and *komme* as main verbs look like and afterwards what kind of structures are built when they combine with other verbs:

*Blive* as a stative verb can never be completely independent; because of the reference to a non-occurring counter-state, I suggest it projects the structure [<sub>v<sub>do</sub></sub> [Proc [Res]]]. The ProcP is negatively specified with respect to change of state, i.e. [-change of state]. The



lowest phrase is filled by a locational/stative element, either in the shape of a locative expression or a stative positional verb.

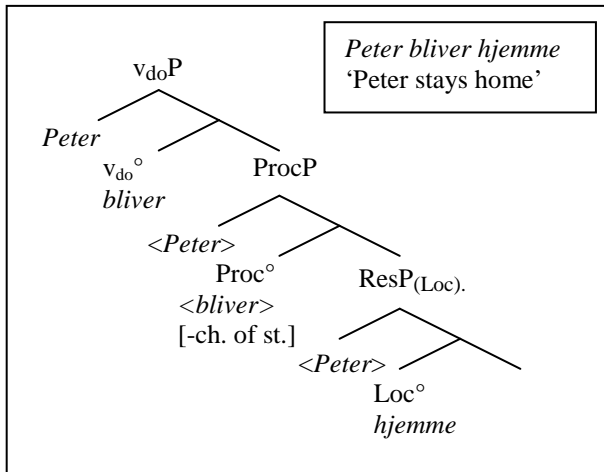


Figure 29

When on the other hand, *blive* is a change-of-state verb, it essentially has the same structure, the only difference is that the Process Phrase is specified as being positively valued [+ change of state] ensuring the change-element. As the verb is neutral with respect to what kind of state is achieved, this must be specified by another lexical element, be it an adjective or a PP. As part of the lexical specification, a  $v_{do}$  can never be projected, and therefore the change is not incurred actively by the subject:

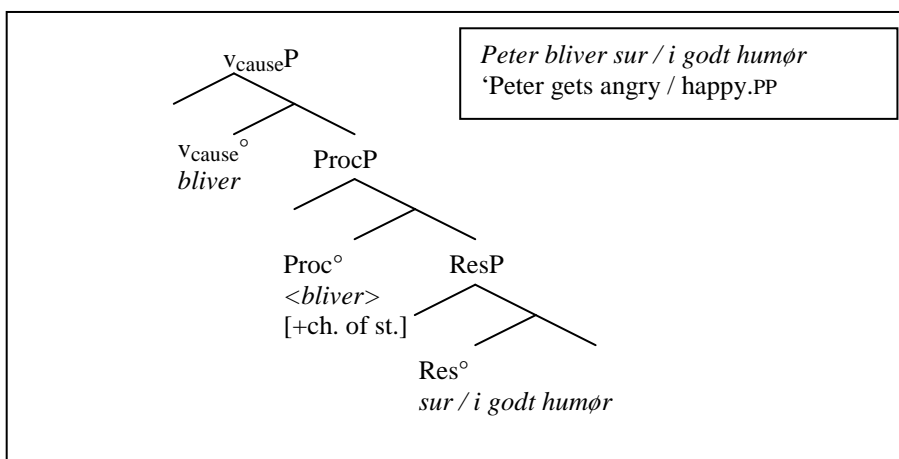
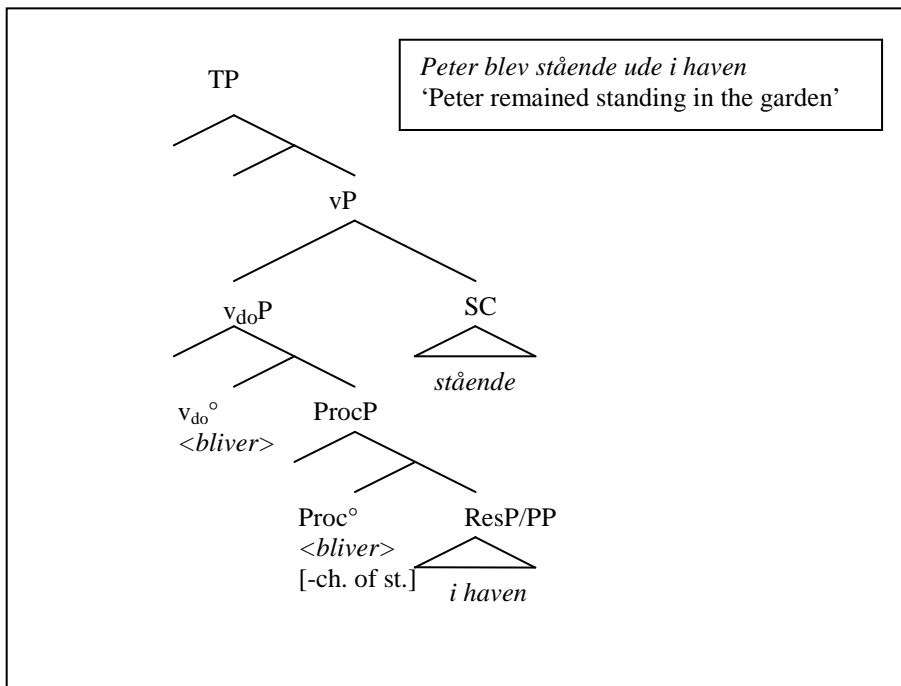


Figure 30

When we have the sequence *Peter blev stående ude i haven* 'Peter remained standing in the garden' there are two possible underlying structures. The structure of the version

where the present participle is adjoined is represented in Figure 31 where *stående* has been adjoined as a Small Clause (SC) creating a secondary predication. The exact point of adjunction is not quite clear, I have chosen to right-adjoin to vP because it is subject-oriented but it is quite possible that it really is adjoined to a lower projection. For the present purpose, this is not crucial.



**Figure 31**

If on the other hand we have the same sequence, i.e. *Peter blev stående ude i haven* 'Peter remained standing in the garden' where the two verbs form a complex predicate, we get a different picture. *Stående* 'standing' denotes the state and is as such to be considered the main verb, with *blev* making up its verb-internal semi-functional structure. By this I mean that the *stå* 'stand' projects a ResP, while the ProcP containing the feature [-change of state] and the v<sub>do</sub>P are filled by the verb *blive*. As the ResP is now lexically specified, a locative expression is no longer required but it still possible.

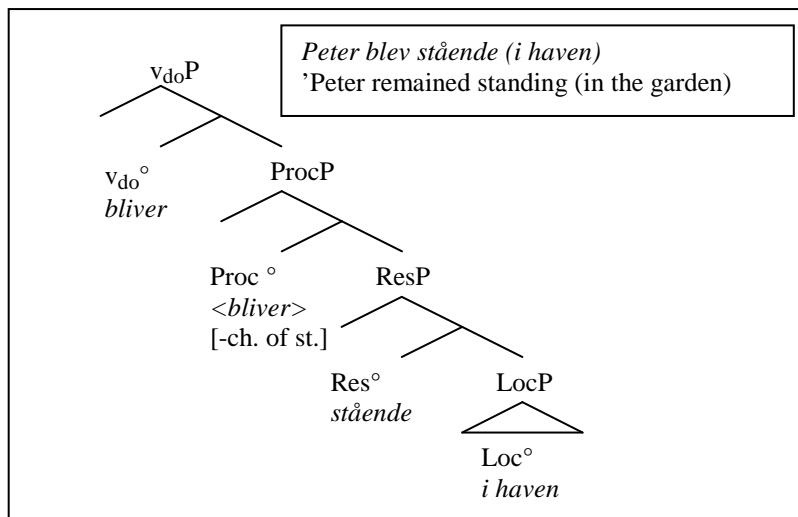
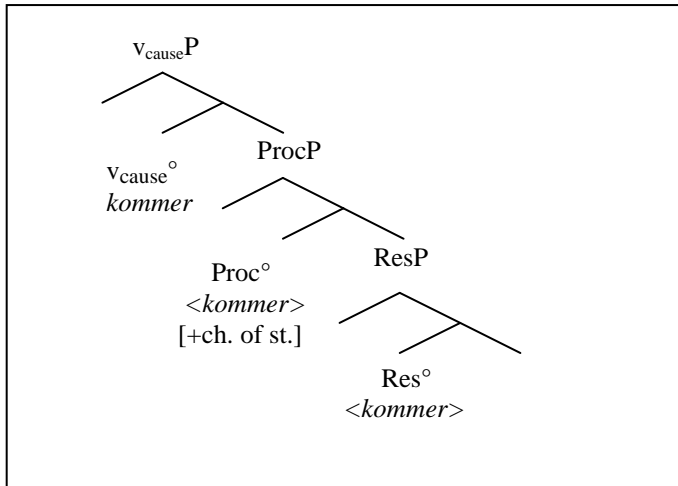


Figure 32

As for *blive stående* in the meaning ‘stop (walking)’, there are essentially two possibilities. One option is that we are dealing with a kind of elliptic structure, where the actual stopping is not expressed and *blive stående* simply denotes that after the stopping, the subject remained standing. Alternatively we are dealing with an agentive change-of-state reading looking something like this [X v<sub>do</sub> [X change [X state ]]]. This resembles the structure I proposed for IPP with causative *lassen* where one verbal domain hosts two verbs.

Returning now to *komme* we will see that the underlying structure of this verb is quite similar to that of *blive*, both when used as a main verb and when it combines with other verbs.

First I will look at *komme* as a main verb. In this usage it has a rather complex structure; it projects a ResP (due to its inherent telicity), a ProcP (due to the [+ change of state]) and a v<sub>cause</sub>P (because it is unaccusative, i.e. the subject is not intentional).



**Figure 33**

When *komme* appears as a light verb in connection with other verbs, as mentioned earlier, it has been stripped of a number of features such as telicity ( $\approx$  ResP) and directionality ( $\approx$  [+ change of state]  $\rightarrow$  [- change of state]). The highest projection in contrast appears to have changed from  $v_{\text{cause}}$  to a  $v_{\text{do}}$ . In other words, we are left with a verb whose structure is very similar to that of the support verb *blive*, the differences being that the two verbs have different semantic features of dynamicity/stativity respectively which are responsible for the lexical combinatorial possibilities (that *komme* combines with motion verbs, *blive* with positional verbs) and structurally that in *komme* + present participle the Proc value is negative.

In a parallel to *blive stående*, *komme gående* has the following two potential structures, depending on whether *gående* is an adjoined secondary predication (in which case a locative/directionality expression is required) or a Res<sub>(dyn)</sub>. Of course, a locative expression may be added but as it is not required, for reasons of simplicity, I have chosen not to.

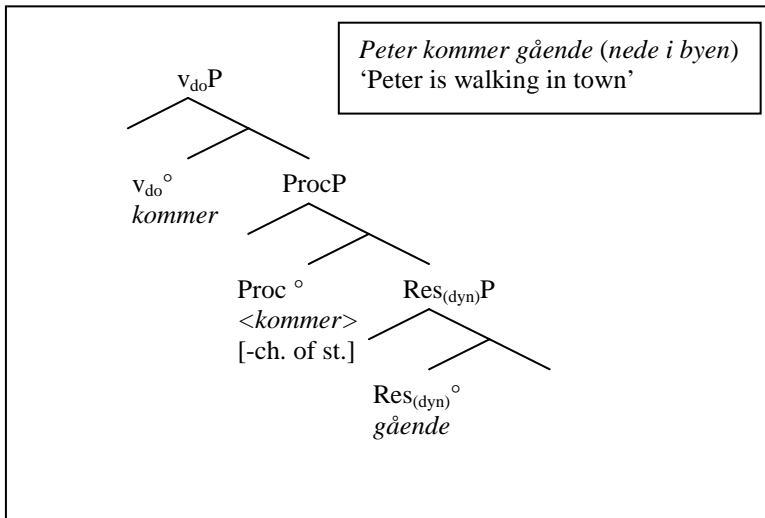


Figure 34

Having reduced *kommer gående* to this structure might explain how this construction gives an imperfective reading. The main verb (the ResP) is *gå* which does not involve change. Its internal functional structure (i.e. the part which is inside the lexical vP-VP domain) is modified by another element which, projecting a Proc [- change of state] and a v<sub>do</sub> and not a v<sub>cause</sub>, does not involve change. It would seem that two instances of one such feature (= no change) emphasises the unboundedness, creating the imperfectivity effect.

Correspondingly if we have *Peter kommer ned i byen gående* 'Peter comes into town walking' where the present participle is adjoined, *kommer* shows up with its full structure. In the absence of a verbal complement, like all other motion and positional verbs, it prefers a locative or directional specification.

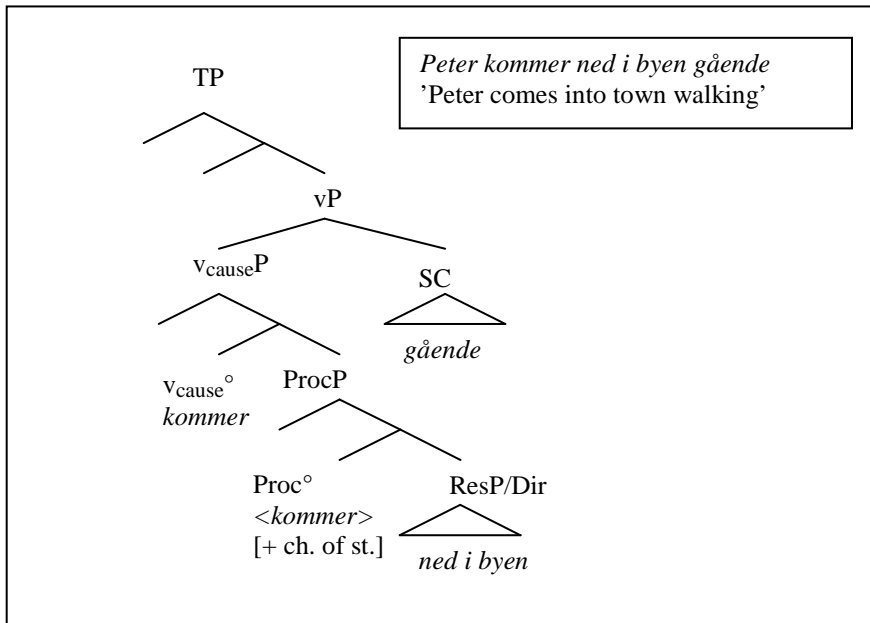


Figure 35

Note that in this case, various constituent orders are possible. For example *gående* and *ned i byen* may emerge in the opposite order, i.e. ...*om han kom gående ned i byen* '...if he came walking into town'. This may suggest that *gående* is in fact adjoined to the ProcP, but other explanations are possible, in part depending on which movement operations are assumed.<sup>56</sup>

It would seem that the ordinary usage of the present participle creates a small clause and other than that, it is rarely used in Danish. I therefore want to suggest that the present participle occurring with *blive* and *komme* is actually another case of quirky verbal morphology. The underlying structural condition is similar to the one for IPP with causative *lassen*, i.e. we have more than one verb occupying one verbal domain.

<sup>56</sup> Crucial for this discussion would be whether Danish has movement of the finite verb to T<sup>°</sup> in subordinate clauses (cf. Vikner: 1995, 1997). I do not take a stand with respect to this question and merely wish to illustrate that different explanations are possible for the available surface orders.

### 16.1 Motivating light verbs

An obvious question is what motivates Danish to use the verbs *komme* and *blive* instead of say *være* ‘be’, which is *the* auxiliary par excellence and used in many other languages to add aspectual information. In fact, in some cases it is used:

- (66) a.            *Peter er gående*  
                      Peter is walking
- b.            *Peter er kørende*  
                      Peter is driving

However, these two sentences differ from our *komme* + present participle; they are not progressive, but are typically used to express how someone got to a certain place. A typical context would be a social gathering where someone asks how *Peter* got to the venue. Constructions such as (66) usually do not express general properties associated with the person; rather they are transitory properties of that person. In other words, the participle in this context is a predicative adjective.

In fact, all occurrences of *være* + present participle appear syntactically to be predicative adjectives, in other words. In Danish the strategy of inserting a different support verb (*blive/komme*) disambiguates verbal usage of the present participle.

In section (18), I will briefly discuss what the particular properties of motion verbs and positional verbs are since they so frequently appear as light verbs compared to other verb types.

## 17 German *bleiben/kommen/gehen*

Turning to German, we see that the counterparts of *blive/komme*, i.e. *bleiben* and *kommen* show a similar, but far from identical behaviour. Roughly speaking, what we find is that in German, while these verbs are also used in a multitude of constructions, they are less grammaticalised and hence not quite as light as in Danish. In addition to complex predicates with *bleiben/kommen*, German also has the possibility of combining motion verbs with bare infinitives. Again, I will uncover the behaviour of the constructions separately and after that attempt a uniform analysis.

### 17.1 Bleiben

While Danish uses the same verb, *blive*, to express both ‘remain’ and ‘become’, German has two separate verbs for these meanings; roughly speaking, *bleiben* means ‘remain’ and *werden* corresponds to ‘become’. I have argued that in Danish, the default meaning of *blive* was ‘become’. In contrast, the default meaning of *bleiben* seems to be ‘remain’ or ‘stay’ as in the following examples, this is the only possible interpretation:

- (67) a.        *Peter blieb jung*  
               Peter remained young
- b.        *Peter blieb ein Lügner*  
               Peter remained a liar.NOM
- c.        *Peter blieb der beste Mann auf der Welt*  
               Peter remained the best man.NOM on the world
- d.        *Peter blieb im Garten*  
               Peter stayed in.the garden.DAT

As in Danish, the German *bleiben* expresses continuation of state or position, but includes a reference to a change to a counterstate which does not happen. In the above cases, *bleiben* combines with nominals (including predicative adjectives) and locative expressions. As can be seen from (67)b. and c. it makes no difference whether the nominal is definite or not. Further, there is no independent evidence that nominals by themselves should be triggers of durativity/stativity.

Similarly, but not identically to Danish, *bleiben* may combine with certain positional verbs in the infinitive, such as *sitzen*, *liegen*, *stehen*, *stecken*, *hängen* ‘sit’, ‘lie’, ‘stand’, ‘be stuck’ ‘hang’. This usage is restricted to positional verbs as can be seen from the ungrammaticality of (68):

- (68) a.        \* *Hans blieb lesen*  
               Hans remained read.INF
- (69) a.        *Maria blieb stehen*  
               Maria stayed stand.INF. ‘Maria stopped’
- b.        *Maria blieb stehen*  
               Maria stayed stand.INF. ‘Maria remained standing’



The examples in (69) are identical, but have two different interpretations, either *bleiben* + infinitive denotes that the subject was standing already and keeps doing so, or that the subject was moving and then stops. While adverbials are often inserted to disambiguate it, this is not a strict requirement and there are no obvious syntactic or intonational differences.

According to Schlücker (2004), this usage is more widespread and may include examples such as the following (Schlücker 2004: 264)

- (70) *Er trommelt eine Weile von innen gegen die Tür, ...*  
 He hammers a while from inside against the door, ...
- ...dann bleibt es still*  
 ...then BLEIBEN.PRES. it quiet

According to my informants, while the example can be parsed, the *bleiben* here does not denote a change of state. Rather, the only possible interpretation is that a change of state takes place (namely that the hammering comes to an end) and *then* it remains still. In other words, while an example like this may be uttered and understood, it is difficult to parse and in reality it is an elliptic structure and not a case of *bleiben* acting as “to become”.

This does not hold for the examples with *bleiben* + positional verb. A way to test this is to apply adverbials used for punctual and durative predicates respectively. As can be seen, both are unproblematic.

- (71) a. *Peter blieb auf einmal stehen*  
 Peter BLEIBEN.PRET. at once stand.INF. ‘Peter suddenly stopped’
- b. *Peter blieb den ganzen Tag stehen*  
 Peter BLEIBEN.PRET. the whole day stand.INF.  
 ‘Peter remained standing all day’

This suggests that German indeed also has the become-usage of *bleiben*, even if is restricted to the cases where it combines with a bare infinitive of a positional verb. As (72) shows, *bleiben* cannot be exchanged with *werden*.

- (72) \* *Peter wurde stehen*  
 Peter became stand.INF.

The ungrammaticality of (72) may be connected to *werden*'s usage as the passive auxiliary; when *werden* is used in the 'become'-sense, the semantic role of the subject is that of an undergoer, not of an agent. In contrast, the subject of (71) is initiator as well as undergoer and holder of the result state. Consider (73):

- (73) a. *Peter wurde sehr alt*  
Peter became very old
- b. *Peter wurde sauer*  
Peter became angry
- c. *Peter wurde gesehen*  
Peter PASS.AUX. see.PAST.PART.

In the passive example, the subject is obviously not an agent, but also in the a. and b. examples, *Peter* is not an active agent; his aging happens independently of anything he does, and in b. we have a psychological predicate, supporting the claim that *werden* has no agentive external argument (Bennis 2004). In the view on flavours of little *v* that I take, the difference between *werden* and become-*bleiben* is that the former projects a  $v_{\text{cause}}$ , and the latter a  $v_{\text{do}}$ , as represented in Figure 36.

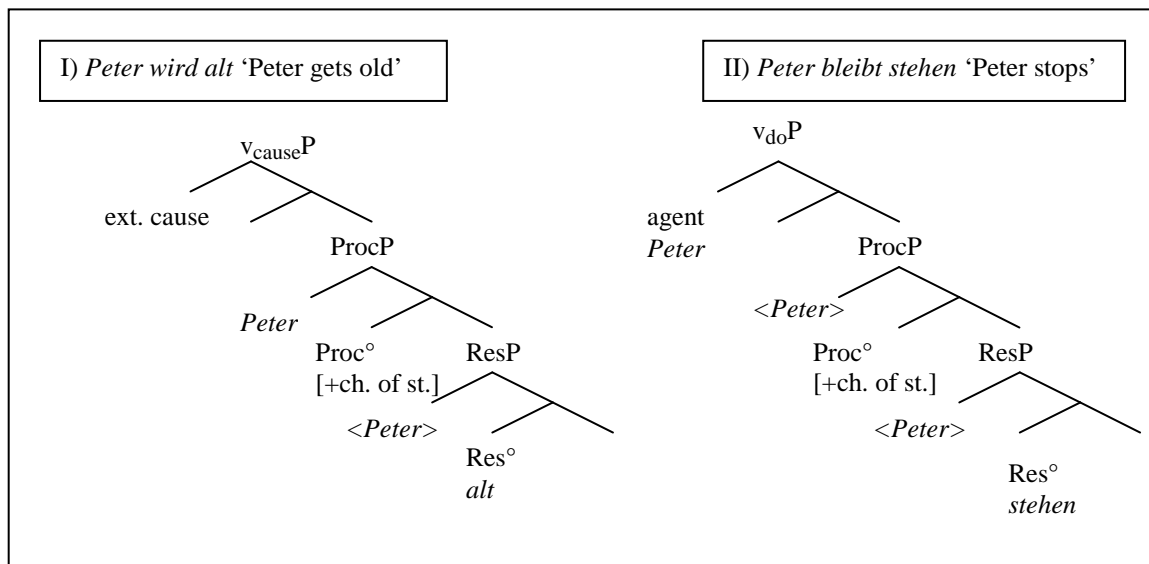


Figure 36

In other words, German usually employs two distinct lexical items to distinguish 'become' and 'remain'. If the structure in II) is correct, German has a residual 'become'-

usage of *bleiben* which in Danish is much more common. In German, the choice between *werden* and *bleiben* (become) depends on whether the subject is agentive or not.

As for the anti-inchoative *bleiben* + infinitive, I have argued (parallel to Danish *blive*) that the difference concerns the value of the feature connected to the Proc-head. Two values are possible, [+ change of state] as in Figure 36, or [- change of state] for the anti-inchoative usage. Apart from this, the two structures are identical.

## 17.2 *Kommen* + past participle

Like Danish, German is able to combine *kommen* ‘come’ with a present participle, although in this the present participle is adjoined as a secondary predication of the subject. There is however another option which to some extent corresponds to the Danish complex verb construction; when *kommen* is combined with a past participle (75).

(74) *Peter kam kriechend um die Ecke*  
 Peter came crawling.PRES.PART. around the corner  
 ‘Peter came crawling around the corner’

(75) *Peter kam um die Ecke gekrochen*  
 Peter came around the corner crawling.PAST.PART.  
 ‘Peter came crawling around the corner’

The construction that interests me is the latter one whose usage resembles the Danish *komme* + present participle but which also differs slightly, presumably because German *kommen* is slightly less grammaticalised than its Danish counterpart.

### 17.2.1 Restricting V<sup>2</sup>

The first thing I tested was which verbs are allowed to appear in the past participle as the complement of *kommen*. Here, the result were as follows:

- (76) a. *Er kommt gelaufen*  
 He comes walking.PAST.PART.
- b. ?? *Er kommt gegangen*  
 He comes going/walking.PAST.PART.
- c. *Er kommt gehüpft*  
 He comes jumping.PAST.PART.

- d. ? *Er kommt geschlurft*  
He comes slouching.PAST.PART.
- e. *Er kommt geschlichen*  
He comes sneaking.PAST.PART.

What these data show is that, roughly speaking, any motion verb may cooccur with *kommen*, even such verbs which are low-frequent and highly specific, in fact, the relative oddness of (76)b. suggest that the semantics must be rather salient.

There are a few oddities about the semantics of the German verbs *gehen* and *laufen*, namely that their meaning is not quite fixed and to some extent they may overlap each other semantically. Roughly speaking, *gehen*, lies somewhere between the English ‘walk’ and ‘go’ while *laufen* can mean either ‘walk’ or ‘run’. The different usages are dialectally and stylistically determined. For my informants, *gehen* is closer to the English ‘go’ and *laufen* is ‘walk’. This means that for them, (76)b. is odd because it does not denote the manner of motion, in turn suggesting, that this is in fact the function of the past participle complement of *kommen*, a reasonable assumption as *kommen* is unspecified for manner. In paragraph 17.3 I will look more closely at the properties of *gehen*.

For this reason, I have used the unambiguous verb *rennen* when testing the syntactic behaviour of the construction. Immediately, an interesting fact surfaced; that the telic, prefixed version of the verb, *anrennen* ‘run to/towards something’, was preferred and also that the two variants showed some small behavioural differences which I will point out in the following.

*Kommen* as a main verb basically shows the same properties as the Danish *komme*. This means that it is a telic verb of directed motion, where the direction is towards the speaker or an absolute location<sup>57</sup>.

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<sup>57</sup> The German *kommen*, parallel to the Danish counterpart, may also be used in a sexual sense. As this usage differs radically, it will not be considered here. For this reason, I do not annotate examples which are otherwise ungrammatical, but technically possible under the sexual reading, with a # but simply with the standard ungrammaticality annotation, \*.

### 17.2.2 Telicity

In the paragraph on Danish *komme* + present participle, I argued that in this complex predicate, *komme* was a light verb in that it had lost both telicity and directionality. This could be seen by the reluctance to combine with directional adverbials.

In German the picture is not quite as clear although directionals score better than locative expressions. Such is the picture that both *gerannt kommen* and *angerannt kommen* were judged as fully grammatical with directional PPs, but with locatives the results were inconclusive:

- (77)            ...*dass er in die*        *Schule (an)gerannt*        *kommt*  
                   ...that he in the.ACC school (to).run.PAST.PART. comes

The corresponding sentences with locative expressions look like this:

- (78) a.    ??    ...*dass er in der*        *Stadt gerannt*        *kommt*  
                   ...that he in the.DAT town run.PAST.PART. comes
- b.    ?     ...*dass er in der*        *Stadt angerannt*        *kommt*  
                   ...that he in the.DAT town to.run.PAST.PART. came

The judgements ??? assigned here denote the mean value given by informants, but both sentences received judgements from “perfectly grammatical” to “completely ungrammatical” and as such the emerging picture is very unclear. Still, it is safe to say that adding a locative expression is more problematic than a directional one, suggesting that *kommen* remains telic.

When, instead of adding a goal-PP, a starting point for the movement is added, both *gerannt kommen* and *angerannt kommen* are unproblematic:

- (79)            ...*dass er vom*                *Metzger (an)gerannt*        *kommt*  
                   ...that he from.the.DAT butcher (to).run.PAST.PART. comes

### 17.2.3 Intraposition/extraposition

An important property of complex predicates in German is the ability to intrapose or extrapose the verbal complement, and the size of the functional structure of the lower verb is crucial for this distinction. Roughly speaking, one can say that the more functional structure a verb has, the more likely it is to extrapose. Some verbal complements are

obligatorily extraposed, some must be intraposed and some may be in either position (cf. Schmid, Bader & Bayer 2005: 436).

For an intransitive verbal complex like *gelaufen kommen* a potential extraposition cannot be immediately distinguished from verb raising (see for example den Besten & Rutten 1989). Be it one or the other, the fact is that reversing the order of the verbs is not licensed in Standard German. Still, Verb Raising (i.e. reordering of the verbs) in Standard German usually only applies to clusters of minimum three verbs which suggests that it is not involved here.

- (80) \*     ...*dass er kommt gerannt*  
           ...that he comes run.PAST.PART.

First of all, this unsurprisingly confirms that we are not dealing with a clausal complement but this fact combined with the basic German word order also has the unfortunate consequence that tests to determine the functional structure of the lower verb are harder to carry out.

#### 17.2.4 Constituency

To examine the constituency of *gerannt kommen* I used topicalisation tests and the results were quite clear. The lower verb may be topicalised, or both verbs may be topicalised together; a strong indication that they form a constituent. Joint topicalisation is the preferred option, but both are grammatical:

- (81) a.   ?     (*an*)gerannt        ist er in die     Schule gekommen  
           (to)run.PAST.PART. is he in the.ACC school come.PAST.PRT
- b.     (*an*)gerannt        gekommen ist er in die     Schule  
           (to)run.PAST.PART. come.PAST.PRT is he in the.ACC school

#### 17.2.5 Functional structure above V<sup>2</sup>?

The problem with testing for any functional structure, is that if we assume that German has head-initial functional projections but head-final VPs, for any element inserted to the left of the verbs, it cannot immediately be determined where this element is attached; in the functional structure of the higher or the lower verb. Only scopal properties of inserted functional elements can determine the merging site.

**NEGP**

Adding fuel to the fire just mentioned is the fact that negation is not a uniform phenomenon, the basic difference being between sentential and constituent negation. With the right stress pattern, just about anything may be negated and as such it is crucial that informants be instructed with respect to the intended intonation and then interviewed about the scopal properties of the negation.

For a sequence like the following, informants all agreed that, given the neutral intonation, both verbs would have to be negated:

- (82)                   ...*dass er nicht gerannt kommt*  
                           ...that he not running comes

As soon as the main verb is stressed, it is however possible (and in fact almost required) that a specification of the alternative manner of *coming* be added.

- (83)                   ...*dass er nicht geRANNT kommt, (sondern gefahren)*  
                           ...that he not running comes (but driving)

This, however, poses a methodological complication only, not a principled one. In the latter example it can be assumed that the negation is adjoined to the lower verb and as such says nothing about whether this verb has a NegP or not. The fact that in (82) both verbs must be under the scope of negation on the other hand, suggest that there is no NegP available for the embedded verb.

**THE T-DOMAIN**

As we expect, the two verbs are temporally dependent on each other; one cannot occur independently of the other:

- (84)                   \*    ...*dass Peter gestern heute (an)gerannt kam*  
                           ...that Peter yesterday today run.PAST.PART. came

**THE MOD-DOMAIN**

Modals are not allowed to be embedded under *kommen*, irrespectively of whether the participial morphology appears on the modal or the motion verb. To avoid complications of word order, here I use main clauses:

- (85) a. \* *Peter kommt rennen gewollt* /*wollen*  
 Peter comes run.INF. want.PAST.PART. /want.INF.
- b. \* *Peter kommt gerannt wollen /gewollt*  
 Peter comes run.PAST.PART. want.INF. /want.PAST.PART.

Modal adverbs with a narrow scope reading are also not allowed between the two verbs:

- (86) a. \* *...dass Peter vielleicht gerannt kommt* **Narrow scope**  
 ...that Peter maybe run.PAST.PART. comes
- b. \* *...dass Peter notwendigerweise gerannt kommt* **Narrow scope**  
 ...that Peter necessarily run.PAST.PART. comes

### THE ASP-DOMAIN

Perfect tenses cannot be embedded under *kommen* either, irrespectively of whether the lowest verb is a past participle or an infinitive. The same thing holds for aspectual adverbs with narrow scope. In (87), I use main clauses to simplify the potential word order complications.

- (87) a. \* *Peter kommt gerannt gehabt*  
 Peter comes run.PAST.PART. have.PAST.PART.
- b. \* *Peter kommt rennen gehabt*  
 Peter comes run.INF. have.PAST.PART.
- c. \* *Peter kommt gerannt haben*  
 Peter comes run.PAST.PART. have.INF.
- (88) a. \* *...dass Peter immer noch gerannt kommt* **Narrow scope**  
 ...that Peter still run.PAST.PART. comes
- b. \* *...dass Peter bald gerannt kommt* **Narrow scope**  
 ...that Peter soon run.PAST.PART. comes

### THE VOICE-DOMAIN

As mentioned, the participial complement of *kommen* is a motion verb, i.e. we are arguably dealing with a  $v_{do}$ . As for passivisation, the verbal complex in its entirety may be passivised (impersonal passive). There appears to be some variations with respect to this passive; to some speakers it is completely unproblematic while to others it is very odd.



- (89) *Gestern wurde gerannt gekommen*  
 Yesterday PASS.AUX. run.PAST.PART. come.PAST.PART.

Separately, impersonal passive is allowed with *rennen* ‘run’ but not with *kommen*. An imbedded impersonal passive of *rennen* is however not licensed:

- (90) \* *Gestern kam (er) gerannt (ge)worden*  
 Yesterday came (he) run.PAST.PART. PASS.AUX.PAST.PART.

This suggests that even though *rennen* as a full verb has a  $v_{do}$ , when it is embedded under *kommen*, this  $v_{do}$  is not present. On the other hand, the fact that (89) is grammatical, despite the fact that *kommen* alone cannot be passivised, suggests that *kommen* is also different in this verbal complex. Since *gerannt kommen* is agentive, I want to suggest that *kommen* in this instance has a  $v_{do}$ . Presumably those features of *rennen* which dictate that it is agentive percolate and turn *kommen* agentive.

### 17.2.6 Subject-related material

As for the possibility of inserting subject-related material such as floating quantifiers and depictives, we find unsurprisingly that it is not a problem to insert it above the matrix verb, as seen in (91).

- (91) a. *...dass die Männer beide gerannt kommen*  
 ...that the men both run come
- b. ? *...dass die Männer betrunken gerannt kommen*  
 ...that the men drunk run come

That the b. example is slightly worse than the a. example is unexpected and I do not have an explanation for it. It should be noted that my speakers varied greatly in their judgments of this example.

German being SOV it cannot be tested immediately whether subject-related material may be inserted between the two verbs, as this material would appear in the same sequential position regardless of which verb it would be connected to. However, all speakers agree that in the examples in (91), the depictive and the floating quantifier must necessarily relate to the higher verb.

### 17.2.7 *The quirky bit of quirky morphology?*

When I claim that the morphology of the construction *angerannt kommen* is quirky, I have two things in mind: i) why does the lower verb show up as a past participle? and ii) where does the prefix *an-* come from?

Past participles are generally used to make actions perfective, but it is not at all clear what should be perfective about *angerannt* since there is a strict simultaneity requirement of the two verbs; the assignment of this exact form appears to be semantically arbitrary. Remember from (74) (repeated here as (92)) that the construction competes with the syntactically different *kommen* + present participle in which the two verbs do not form a constituent.

- (92)            *Peter kam kriechend                      um        die Ecke*  
                  Peter came crawling.PRES.PART. around the corner  
                  ‘Peter came crawling around the corner’

Semantically, the two constructions are non-distinct but they show different syntactic effects (topicalisation, placement of adverbials etc.). Arguably, (74)/(92) correspond to the Danish version of *komme gående* ‘come walk.PRES.PART.’ where the participle is an adjoined secondary predication.

While Danish disambiguates the complement vs. adjunct version by means of small phonetic differences, in German the strategy appears to be to morphologically mark whether the motion verb following *kommen* is adjoined or subordinated. I will return to this discussion shortly.

The other morphological riddle is that of the particle *an-*. In German, creation of particle verbs is highly productive; a large number of particles such as *an-*, *ver-*, *zer-*, *vor-* and others may combine with verbs of all types, apparently only real-world knowledge and fixed prefix-verb combinations dictate any restrictions in this area. As such, finding arguments for the following claim is not trivial. My claim is that the particle *an-* in *angerannt kommen* has in fact been misplaced; *angerannt* is not the past participle of *anrennen*, but of *rennen* and the particle originates either from *(an)kommen* ‘come/arrive’ or is productively attached to the verbal complex, giving a representation along the lines of this: [[[*an* [*gerannt* ] *kommen*]

The first observation I build this claim on is the fact that the verb *anrennen*, even if it does exist, is not very frequent at all and as such already somewhat marked in its usage. In contrast *angerannt kommen* is completely unmarked. When the simplex<sup>58</sup> verb *anrennen* does occur, it often requires the presence of a PP introduced by *gegen* ‘against/towards’ and tends to get a metaphorical reading (without further context, (93) is ambiguous between a metaphorical and a literal reading):<sup>59</sup>

- (93)            *Der Clown führt einen ständigen Kampf* ‘the clown is struggling’  
                   *er rennt gegen Hindernisse an*  
                   he runs against obstacles to ‘he faces a lot of challenges’

The example cannot be paraphrased with a *kommen* + participle:

- (94)            \*    *Der Clown kommt gegen Hindernisse angerannt*  
                   The clown comes against obstacles run.to.PAST.PART.

If we look at some of the other verbs that are allowed to appear with *kommen* the picture becomes clearer

- (95) a.            *Der Hase kommt angehoppelt*  
                   The hare comes lollop.to.PAST.PART.

vs.

- b.            \*    *Der Hase hoppelt an*  
                   The hare lollops to

- (96) a.            *Er kommt angefliegen*  
                   He comes fly.to.PAST.PART.

vs.

- b.            \*    *Er fliegt an*  
                   He fliegt to

- (97) a.            *Er kommt angelatscht*  
                   He comes shuffle.to.PAST.PART.

vs.

- b.            \*    *Er latscht an*  
                   He shuffles to

The gist of these examples is that the b.-examples where the particle *an* can only be con-

<sup>58</sup> Here I use the term simplex in the sense that there is only one verb present and am well aware that a prefixed verb by some might already be considered complex.

<sup>59</sup> Example taken from <http://www.pio-nock.ch/derclown.htm>

nected to the one verb present, are all very bad. Were *an-* really a particle of the manner-of-motion verb, we would not expect this. However, there is nothing wrong with each of these verbs appearing with the particle, in the past participle as a complement of *kommen*. This suggests that in the verbal complex, the particle does not originate from the verb it is attached to; rather it belongs to *kommen* or to the verb complex as a whole.

Data from Dutch provide further insights into the construction and arguments in favour of my claim about the origin of *an-*. The following data from Dutch are all taken from the E-ANS<sup>60</sup> and as such they are to be considered uncontroversial.

First I want to return to the first morphological riddle, namely that of the appearance of the past participle of motion verbs when they are complements of *kommen*.

The *angerannt kommen* construction also exists in Dutch, but most noteworthy is that it exists in two variants, with the complement verb appearing in either the past participle or in the infinitive (E-ANS 1997: §18.5.3):

- (98) a.           *Er kwam een politieauto aangereden*  
                   There came a police.car drive.to.PAST.PART.
- b.           *Er kwam een politieauto aanrijden*  
                   There came a police.car drive.to.INF.

According to the E-ANS there are regional preferences for one or the other form such that the past participle is the more preferred one in Belgium and southern parts of the Netherlands while in the northern parts of the Netherlands the infinitive is preferred. This does not play a big role as the important point here is that the infinitive appears *at all* and also that in some areas there is real optionality between the two forms. This is a strong argument for the claim that the past participle is semantically vacuous; there are no independent reasons to choose this form rather than another non-finite form.

As for the origin of the particle *an-*, Dutch can also enlighten us further. It is a general requirement that a directionality marker be present in the construction. This marker may

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<sup>60</sup> The E-ANS is the electronic version of the *Algemene Nederlandse Spraakkunst* (1997) available online at <http://www.let.ru.nl/ans/e-ans/>

be incorporated into the verb or it may be external to the verbal complex, cf. the following examples:

**External directionality marker:**

(99) *Als de baby maar even huilde*, ‘When the baby started crying...’

*kwam vader naar boven gesneld/snellen*  
 came father to upstairs hurry.PAST.PART./INF.  
 ‘...the father hurried upstairs’

**Incorporated directionality marker:**

(100) *Iedere morgen komt ze hier voorbijgefietst/voorbijfietsen*  
 Every morning comes she here past.cycle.PAST.PART/INF.  
 ‘Every morning she cycles past here’

The particle/prefix *aan-* constitutes a special case. Unsurprisingly it is allowed to attach to a motion verb when this is a complement of *komen* ‘come’, but it is also allowed to attach to non-motion verbs if these denote the “state” of the subject while coming:

(101) *Hij kwam aanfluiten*  
 He came to.PRT.whistle.INF  
 ‘He came whistling’

*Hij kwam aanmopperen*  
 He came to.PRT.growl.INF  
 ‘He came growling’

(102) a. \* *Hij mopperde aan*  
 He growled to

b. \* *Hij floot aan*  
 He whistled to

As simplex verbs these verbs cannot combine with the particle *aan-* and as such the only possibility remains, that the prefix originates in *komen*, i.e. the original verb is *aankomen* ‘arrive’ or that the prefix has been attached to the verbal complex in its entirety.

Now, for both Dutch and German, the question remains how the verbs are interpretable when a particle is misplaced to a different verb. My answer is that the particle, when attached to *kommen/komen* is in fact semantically vacuous because these verbs are telic to begin with. As such nothing is lost when it is taken away from that verb.

To illustrate this claim, we can use any manner-of-motion verb. In German manner-of-motion verbs, such as *rennen* ‘run’, *laufen* ‘run/walk’ are always atelic. By prefixation a starting point to these verbs can be given, *abrennen* ‘run off’, *weglaufen* ‘go away’. When prefixed with *an-* the verbs turn telic – *anrennen* ‘run to (something)’ or *anlaufen* ‘e.g. arrive (at a harbour)’. Looking at *kommen*, we have already established that it is inherently telic and as such prefixation with *an-* does not add to the semantics of the verb. There are differences in usage; *ankommen* corresponds to ‘arrive’ and is used for specific kinds of arrival (for example at the airport). However, these differences are not morpho-syntactic; rather they are results of convention and stylistic matters.

Under Verb Second, the particle verb *ankommen* disintegrates, stranding the particle while the finite verb itself moves to C°. As such there is no prohibition against stranding the particle.

- (103)            *Er kommt jeden Tag mit Verspätung am Flughafen an*  
                   He comes every day with delay            at.the airport     PRT.

However, if a verbal complement is added, the result is ungrammatical

- (104)        \*     *Er kommt jeden Tag geflogen an*  
                   He comes every day fly.PAST.PART. PRT

A possible solution is to consider disintegration of the particle non-optimal, i.e. an operation which should not take place unless it is unavoidable. If however, there is another verb present, a repair strategy can take place and the particle which prefers to be attached to a verb, simply attaches to the one available. Presumably there are relatively strict locality conditions on this, such that this other verb has to be within the borders of the local domain (probably the phase, vP).

However, also in subordinate clauses, when V2 does not apply, the particle attaches to the manner-of-motion verb, not to *kommen*. This can be accounted for if we assume that *an-* is a Result Phrase of the entire verbal complex. Immediately above this ResP would be the ProcP that hosts *rennen* and the prefix attaches to the verb that is closest to it.

In conclusion, I want to propose the following structure for *gerannt kommen*:

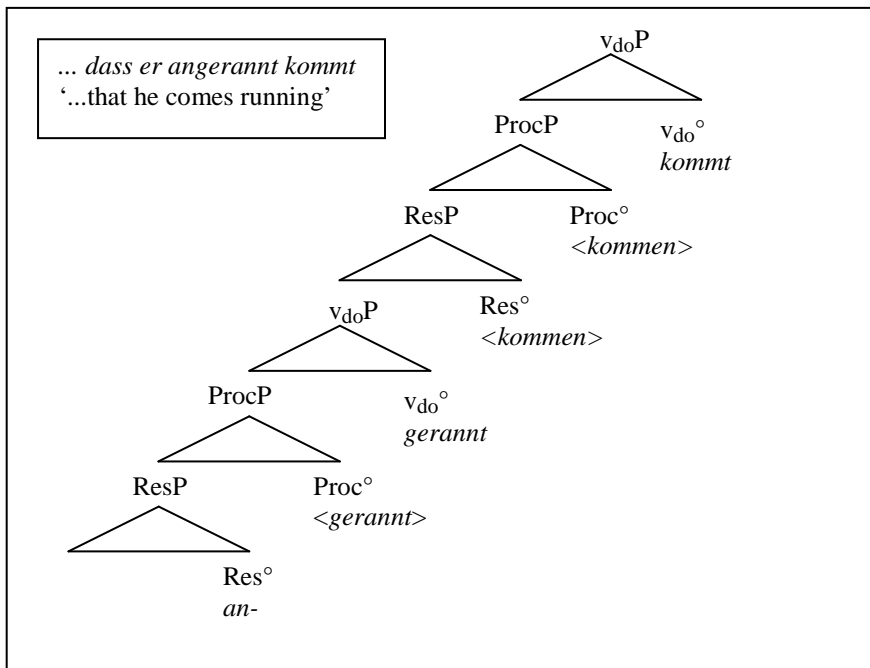


Figure 37

Finally, I want to draw the attention to the fact that there is a construction which seems to be a parallel to *gerannt kommen*, namely of the type *gehockt sitzen* ‘squat sit’. Here, *sitzen* ‘sit’ combines with a manner-of-positional verb in the past participle, in this case *hocken* ‘squat’. For reasons of space, I cannot go any further into the properties of this construction, but will tentatively suggest that its underlying structure is something like  $[[[[\text{ResP } \textit{gehockt}] \text{ ResP } \langle \textit{sitzen} \rangle] \text{ v}_{\text{do}} \textit{sitzen}]$

### 17.3 *Gehen/Kommen* + bare infinitive

In German, infinitival complements are almost always preceded by the infinitive marker *zu*. Exceptions to this generalisation are the complements of auxiliaries and modals and a few other verbs. Arguably, in the case of modals and auxiliaries, the required bare infinitive is a matter of selectional properties of the higher ranking verb, but for (105), it is not obvious that this should be the case.

- (105) a. *Peter geht einkaufen*  
Peter goes shop.INF. ‘Peter goes shopping’
- b. *Peter kommt uns besuchen*  
Peter comes us.ACC visit.INF.

In this construction, the two verbs are very intimately connected and form a complex predicate. Functionally, it corresponds to the Danish directional pseudo-coordination, i.e. it expresses that someone goes somewhere (else) or arrives from somewhere to carry out an action. Still, it is not a purpose construction *per se* and it competes with two other constructions, namely the proper non-finite purpose clause (106) and the nominalised infinitive (107):

- (106) *Peter geht in die Stadt um einzukaufen*  
 Peter goes in the.ACC town for PRT.INF.MRK.shop.INF.  
 ‘Peter goes to town in order to do his shopping’
- (107) *Peter geht zum Einkaufen*  
 Peter goes to.the shopping.NOM.INF  
 ‘Peter goes shopping’

In the following, I will try to uncover the syntactic behaviour of *gehen* + infinitive and when relevant contrast it with the two competing constructions<sup>61</sup>. The main finding is that while *gehen* + non-finite purpose clause really shows clausal behaviour, this is not true of *gehen* + infinitive. I want to demonstrate that *gehen* selects a verbal complement with no functional structure above vP.

As for the construction in (106) it should be noted that while purpose clauses are generally assumed to be adjuncts, this is probably not the case when they refer to motion verbs. This can be seen from the fact that extraction out of the purpose clause is possible if it is the complement of a motion verb, but not if it refers to another kind of verb (examples adapted from Brandner & Salzmann (2009):

- (108) a. *Was<sub>i</sub> bist du in die Stadt gegangen um t<sub>i</sub> zu kaufen?*  
 What are you in the town gone in.order to buy  
 ‘What did you go to town to buy?’

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<sup>61</sup> To test the behaviour of the constructions *einkaufen gehen*, *um einzukaufen gehen* and *zum Einkaufen gehen*, I made a written questionnaire and had five native speakers of German evaluate the sentences on a scale from 1 to 4, 1 being grammatical and unmarked, 4 being completely ungrammatical. The speakers were aged from 28-36 with different dialectal backgrounds.



- b. \* *Wen<sub>i</sub> hast du 'Faust' gelesen [um t<sub>i</sub> zu beeindrucken]?*  
 Who have you 'Faust' read.past.prt in.order to impress  
 litt: 'Who did you read 'Faust' in order to impress'  
 → 'Who did you want to impress by reading Faust'

### 17.3.1 Restricting V<sup>1</sup>

In order to see if any verb of movement may create a complex predicate with a bare infinitive, I had my informants give judgements of sentences with the verbs *fahren* 'drive', *laufen* 'walk' and *fliegen* 'fly'. The results were that *fahren*, on a par with *gehen*, received an average score of 1.0 while *laufen* and *fliegen* both scored 2.2<sup>62</sup>. What this seems to indicate is that, like the verbs used in Mainland Scandinavian Pseudo-coordination, the semantics of V<sup>1</sup> are to be respected. When *einkaufen fliegen* 'fly shopping' is judged to be worse than *einkaufen gehen/fahren* this may very well be a matter of real world-knowledge, it is simply much less likely to be the case and so frequency effects may occur. As for *laufen* I was informed that the verb would have to be stressed, i.e. contrasted to other manners of motion. Furthermore, *kommen* is also quite common in this construction with an infinitive, although its inherent directionality towards a goal makes it less likely to appear as V<sup>1</sup> than *gehen*.

Another point was made clear concerning the semantics of V<sup>1</sup>, namely that *gehen* could always be used, regardless of the actual manner of motion, i.e. if someone was to drive into town to shop, that person could still say *ich gehe einkaufen* 'I go shopping'. For two reasons this is not counter-evidence to my claim that the semantics of V<sup>1</sup> must be respected. First of all, regardless of the mode of transportation, almost always some extent of walking is implied, meaning that if you are to drive into town, you still need to walk to the car. Secondly, and that is probably the relevant reason here, *gehen* is underspecified in some varieties of German and can be used simply to express unspecified manner of motion, cf. the following two examples:

- (109) *Wir gehen nächste Woche nach Dänemark.*  
*Wir fliegen von Zürich nach Kopenhagen.*  
 'We go to Denmark next week. We fly from Zurich to Copenhagen'

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<sup>62</sup> One speaker rejected *fliegen* and *laufen* completely, but the four other speakers all assigned a 1 or a 2 to the sentences.

- (110) *Ich gehe gleich zur Schule, aber da es regnet,  
werde ich heute mit dem Bus fahren*  
'I am going to school in a bit, but because it rains  
I am taking the bus today'

In both these cases, the actual manner of transportation is made explicit and does not contradict the *gehen*. Still, the German *gehen* is not as grammaticalised as the English 'go'. This can be seen from the following example which turns ungrammatical if the context does not allow for a physical change of position:

Scenario 1: Peter is sitting on the couch, talking to his wife. He says:

- (111) *Ich gehe jetzt schlafen*  
I go now sleep.INF.

Scenario 2: Peter is lying in bed, talking to his wife. He says:

- (112) # *Ich gehe jetzt schlafen*  
I go now sleep.INF. 'I am going to sleep now'

Also, *gehen* is incompatible with weather-verbs:

- (113) *Es geht regnen*  
It goes rain.INF.

In other words, *gehen* may denote unspecified movement but an element of physical movement must be present, an abstract, temporal movement is not sufficient. According to my informants, (112) might be marginally acceptable, but in that case it would be implied that Peter would have to roll over or at least change position in some way.

### 17.3.2 Constituency

When testing for constituency, I used topicalisation of both the lower verb only and of the two verbs together. As the lower verb, I used *einkaufen*, both in its intransitive usage and with a mass noun object and the verb *kaufen* with a proper DP object. The basic sentences were the following:

- (114) a. *Er wird morgen einkaufen gehen*  
He will tomorrow shop go
- b. *Er wird morgen Gemüse einkaufen gehen*  
He will tomorrow vegetables shop go

- c. *Er wird morgen den neuen Harry Potter kaufen gehen*  
 He will tomorrow the new Harry Potter buy go

I tested the following topicalisation options of both the a., b. and c.-type, but the results were almost identical for all kinds. Therefore I only give examples of the a.-type:

#### TOPICALISATION OF V<sup>1</sup>

- (115) *Einkaufen wird er morgen gehen*  
 Shop will he tomorrow go

#### TOPICALISATION OF V<sup>1</sup> + V<sup>2</sup>

- (116) *Einkaufen gehen wird er morgen*  
 Shop go will he tomorrow

#### TOPICALISATION OF V<sup>2</sup>, V<sup>1</sup> MOVES TO C<sup>o</sup>

- (117) *Einkaufen geht er morgen*  
 Shop goes he tomorrow

The findings were that all sentences were accepted with the variations of (114)c. being slightly worse than the others (but none scoring any worse than a 2.0 = ? at any time). This fact needs not worry, as intonational effects may be interfering here. What the results tell us is that not only V<sup>2</sup> alone but also V<sup>1</sup> and V<sup>2</sup> together may act as constituents.

A similar pattern was found for the construction with *gehen* + nominalised infinitive which allows topicalisation of the nominalised verb alone and of *gehen* + nominalisation:

- (118) a. *Zum Einkaufen geht er in die Stadt*  
 to.the shopping goes he in the town
- b. *Zum Einkaufen gehen wird er morgen*  
 to.the shopping go.inf. will he tomorrow

In this construction, speakers differ as to whether they allow the nominalised infinitive to have objects or not. Generally, mass noun objects are allowed to co-nominalise, but proper count nouns are much more problematic. From five speakers, the following sentence received the judgements 1, 1, 2, 3, 4, i.e. the result was inconclusive.

- (119) *?/?? ...dass er zum ein Buch kaufen in die Stadt geht*  
 ...that he to.the a book buy in the.ACC town goes

For this reason, and because the possibility of incorporating nouns into nominalised infinitives is not directly relevant to my study, I only apply results from this construction involving the intransitive verb *einkaufen* and when necessary, a mass noun.

### 17.3.3 Intraposition/extraposition

As for the possibility of intraposing/extraposing the complements of *gehen*, we get a rather clear-cut difference. Basically, *einkaufen gehen* and *zum Einkaufen gehen* must be intraposed, while for *um einzukaufen gehen* extraposition is the preferred option.

#### Intraposition

- (120) a.           ...*dass er einkaufen geht*  
                  ...that he shop       goes
- b.           ...*dass er zum Einkaufen geht*  
                  ...that he to.the shopping goes
- c.    ??     ...*dass er um einzukaufen in die Stadt geht*  
                  ...that he in.order to.shop       to the town goes

#### Extraposition

- (121) a.    \*       ...*dass er geht einkaufen*  
                  ...that he goes shop
- b.    \*       ...*dass er geht zum Einkaufen*  
                  ...that he goes to.the shopping
- c.       ...*dass er in die Stadt geht um einzukaufen*  
                  ...that he to the town goes in.order to.shop

The possibility or necessity of extraposing clauses is a strong indication of the status of the verbal complement. While it is generally assumed that in German, complements are base generated to the left of the higher verb, finite clausal complements must be extraposed and clausal infinitives are usually extraposed.

### 17.3.4 (Long) passive

As pointed out by Wurmbrand (for example 2001), long passives pose a very strong argument for a restructuring configuration. In a long passive, an object of the embedded verb raises to subject of the entire verbal complex, agreeing with the matrix verb as ex-

emplified here by the restructuring verb *versuchen* ‘try’ (examples from Wurmbrand 2001: 19).

- (122) a.           ...*dass der Traktor zu reparieren versucht wurde*  
                   ...that the.NOM truck.SG. to repair       tried       was.3SG.
- b.           ...*dass die Traktoren zu reparieren versucht wurden*  
                   ...that the tractors.PL. to repair       tried       were.3PL

Here, the a. example shows that the subject must be nominative and agree with the finite verb. To show that this is not an impersonal passive, I have also given the b. example where the plural subject causes the verb to agree in person and number.

The long passive is restricted to restructuring contexts as shown in (123) where a non-restructuring matrix verb is used (Wurmbrand 2001: 265).

- (123) a.       \*       ...*dass der Traktor zu reparieren geplant wurde*  
                   ...that the.NOM truck   to repair       planned was.SG.
- b.           ...*dass den Traktor zu reparieren geplant wurde*  
                   ...that the.ACC truck   to repair       planned was.SG.
- c.       \*       ...*dass die Traktoren zu reparieren geplant wurden*  
                   ...that the.NOM truck.PL. to repair       planned were.3PL.

In the a. and c. examples we can see that the embedded object of a non-restructuring matrix verb is not allowed raise and be the subject of the higher clause. In order to passivise the construction, the only option is to use an impersonal passive in which the embedded object remains accusative (b. example). Consequently, the finite verb will always be 3<sup>rd</sup> person, singular, regardless of whether the embedded object is singular or plural.

Restructuring predicates are also allowed to have impersonal passives, but in this case the embedded object must remain within its VP; raising it to the matrix clause causes ungrammaticality.

- (124) a.           ...*dass versucht wurde den Traktor zu reparieren*  
                   ...that tried       was   the.ACC truck   to repair.INF
- b.       \*       ...*dass den Traktor versucht wurde zu reparieren*  
                   ...that the.ACC truck   tried       was.SG. to repair

When I tested *gehen* + bare infinitive for long passive, the results were not quite clear, and the judgements of the examples in (125) ranged from completely grammatical to al-

most ungrammatical (= ??). As has been noticed several times in the literature, the ability to make long passives varies greatly from speaker to speaker. All speakers did however agree that there were significant differences between the *gehen* + infinitive, the *um...zu* – clause and the *zum* + nominalised infinitive such that the first three sentences, i.e. the passives of *einkaufen gehen* vs. those of *zum einkaufen gehen* and *um einkaufen zu gehen*, were always judged as more grammatical than the other passives:

(context: Someone went to buy fish/books and a number of other things, and afterwards this person tells extensively about all the purchases that were made, listing all of them)

- (125) a. ? *Der Fisch wurde danach kaufen gegangen*  
The.NOM fish.SG. was.SG. then buy.INF. went.PAST.PART.
- b. ? *...und danach wurde der Fisch kaufen gegangen*  
...and then was the.NOM fish.SG. buy.INF. went.PAST.PART.
- c. ? *...und danach wurden die Bücher kaufen gegangen*  
...and then were.PL. the books.PL. buy.INF. went.PAST.PART.
- (126) \* *...und danach wurden die Bücher...*  
...and then were. PL. the books.PL.
- ...um zu kaufen in die Stadt gegangen*  
for to buy.INF. in the.ACC town went.PAST.PART.
- (127) a. \* *...und danach wurden die Bücher...*  
...and then were.PL. the books.PL.
- ...zum Kaufen in die Stadt gegangen*  
to.the buy.NOM. INF. in the.ACC. town went.PAST.PART.
- b. \* *Die Bücher wurden danach...*  
the books.PL. were.PL. then
- ...zum Kaufen in die Stadt gegangen*  
to.the buy.NOM.INF. in the.ACC town went.PAST.PART.

What these data tell us is that, despite (125) not being completely unproblematic, for the *gehen* + bare infinitive, long passive is more grammatical than in the clausal purpose construction. The fact that (126) is completely out confirms that the *um...zu* – infinitive is a full clause and as such long passivisation cannot take place. That passivisation of the nominalised infinitive is ungrammatical is not at all surprising under the assumption that the embedded object has been incorporated in the nominalisation.

### 17.3.5 Functional structure above V<sup>2</sup>?

In what follows, I want to focus on *gehen* + infinitive and demonstrate that the infinitive does not have any functional structure above vP. Only when relevant will I contrast the behaviour of *gehen* + bare infinitive with the non-finite purpose clause.

#### NEGP?

As was the case with *gerannt kommen*, testing for the presence or absence of a NegP in the functional domain of the lower verb is a bit tricky. Particularly when objects are added, the situation gets complicated as German has neg-shift (see for example Christensen 2008). Still, after instructing informants about the intended intonation, the same pattern emerged as with *gerannt kommen*, namely that both verbs must necessarily be under the scope of negation. Again, it is possible to have constituent negation by stressing the embedded verb.

- (128) a.           ...*dass er nicht einkaufen geht*  
                   ...that he not shop goes
- b.           ...*dass er nicht EINKaufen geht (sondern Bier trinken)*  
                   ...that he not shop goes (but beer drink

This indicates that the second verb does not have a NegP of its own.

#### THE T-DOMAIN:

In order to test if the two verbs denote one or two events I forced them to take place at different times by inserting two time adverbials, one relating to the first verb, one to the second. For *gehen* + bare infinitive this was never possible, despite the fact that I tried different positions for the time adverbials, and also used a main clause where the two verbs are non-adjacent, in order to see if it was at all possible for the informants to get an interpretation. This was not the case.

- (129) a.       \*       ...*dass ich um 10 heute Nachmittag einkaufen gehe*  
                   ...that I at 10 today afternoon shop.INF. go.FIN.
- b.       \*       ...*dass ich heute Nachmittag einkaufen um 10 gehe*  
                   ...that I today afternoon shop.INF. at 10 go.FIN.
- c.       \*       *Ich gehe um 10 heute Nachmittag einkaufen*  
                   I go at 10 today afternoon shop.INF.

The same holds for the *zum* + nominalised infinitive that also must share temporal reference:

- (130) a. \* ...*dass er heute Nachmittag zum Einkaufen um 10 geht*  
 ...that he today afternoon to.the shop.NOM.INF. at 10 goes
- b. \* ...*dass er um 10 geht heute Nachmittag zum Einkaufen*  
 ...that he at 10 goes today afternoon to.the shop.NOM.INF.

In contrast, the final *um...zu* – clause may have two different time references, regardless whether the complement clause is intraposed or extraposed as can be seen from the following two examples (the intraposed clause scored slightly lower, 1.4 on average, but this is probably due to an unwillingness to intrapose clauses when extraposition is an option)

- (131) a. ...*dass er um 10 in die Stadt geht...*  
 ...that he at 10 in the.ACC town goes...
- ...*um heute Nachmittag einzukaufen*  
 ...to today afternoon PRT.INF.MRK.shop.INF.
- b. ...*dass er um heute Nachmittag einzukaufen...*  
 ...that he to today afternoon PRT.INF.MRK.shop.INF.
- ...*um 10 in die Stadt geht*  
 ...at 10 in the.ACC town goes  
 ‘...that he goes to town at 10 in order to do his shopping this afternoon’

Temporal dependence between two actions is a classic diagnostics for a restructuring context and more specifically it suggests that the lower verb does not have an independent TP:

#### THE MOD-DOMAIN:

Modal verbs cannot be embedded under *gehen*, irrespectively of whether they have an overt verbal complement themselves:

- (132) a. \* *Er geht jetzt ein Eis wollen*  
 he goes now an icecream want.INF.
- b. \* *Er geht jetzt einkaufen wollen /müssen /können*  
 He goes now shop.INF. want.INF. /must.INF. /can.INF.

Also, modal adverbs cannot occur with narrow scope:



- (133) a. \* *Er geht vielleicht einkaufen* **Narrow scope**  
 He goes maybe shop.INF.
- b. \* *Er geht notwendigerweise einkaufen* **Narrow scope**  
 He goes necessarily shop.INF.

### THE ASP-DOMAIN

Perfect tenses cannot be embedded under *gehen*, indicating that the aspectual domain is absent too (past tense of the matrix verb is used to give a more plausible context).

- (134) \* *Er ging eingekauft haben*  
 He went shop.PAST.PART. have.INF.

Also, aspectual adverbs are ungrammatical with narrow scope:

- (135) \* *Er geht bald einkaufen* **Narrow scope**  
 He goes soon shop.INF.

### THE VOICE-DOMAIN

As we have seen, agentive verbs are allowed to be embedded under *gehen*, suggesting that  $v_{do}$ 's are possible complements. Passives, which I take to project a  $v_{cause}$ , on the other hand, are not allowed (Wurmbrand 2001: 220)<sup>63</sup>:

- (136) \* *Hans geht bestraft werden*  
 Hans goes punish.PAST.PART. PASS.AUX.

In fact, it seems to be a selectional requirement that the embedded verb is agentive, the causative *lassen*, which in my analysis is a  $v_{do}$ , can be embedded under *gehen*:

- (137) *Er geht seinen Wagen reparieren lassen*  
 He goes his.ACC. car repair.INF. let.INF.

Permissive *lassen* which I analyse as a  $v_{cause}$  is not allowed.

- (138) \* *Ich gehe jetzt meine Kinder spielen lassen*  
 I go now my.ACC. children play.INF. let.INF.

In other words, my previous claim, that for some reason German disallows  $v_{cause}$ 's as the complement of restructuring verbs is supported.

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<sup>63</sup> It should be noted that some of my speakers do not completely reject passives under *gehen*.

Stative verbs are also banned from being the complement of *gehen*. If we use a verbs such as *verpassen* ‘miss something (be late for something)’ or *kennen* ‘know’ we see that this is not possible:

- (139) a. \* *Ich gehe heute Abend das Spiel nicht verpassen*  
 I go today evening the match not miss
- b. \* *Er geht jetzt die Wahrheit kennen*  
 He goes now the.ACC. truth know.INF.

Such a restriction does not hold as rigidly for the final *um...zu* – clause as can be seen from the examples in (140):

- (140) a. *Ich gehe heute weg...*  
 I go today away
- ...um im Krankenhaus untersucht zu werden*  
 in.order in.the.DAT hospital examine.PAST.PART. to PASS.AUX.  
 ‘Today I go to the hospital to be examined’
- b. *Ich gehe jetzt heim um das Spiel nicht zu verpassen*  
 I go now home in.order.to the match not to miss.INF.  
 ‘I go home now so as not to miss the match’

A verb like *kennen* is however also not possible in a final non-finite clause. Here, semantic restrictions are likely to play a part:

- (141) \* *Ich gehe jetzt heim um die Wahrheit zu kennen*  
 I go now home in.order the truth to know.INF.

I have argued that *gehen* + bare infinitive is another example of a structural condition which enables quirky verbal morphology. The two verbs have only one shared functional domain and  $V^2$  is restricted to be a verb which projects a  $v_{do}$ . This gives us the following representation:

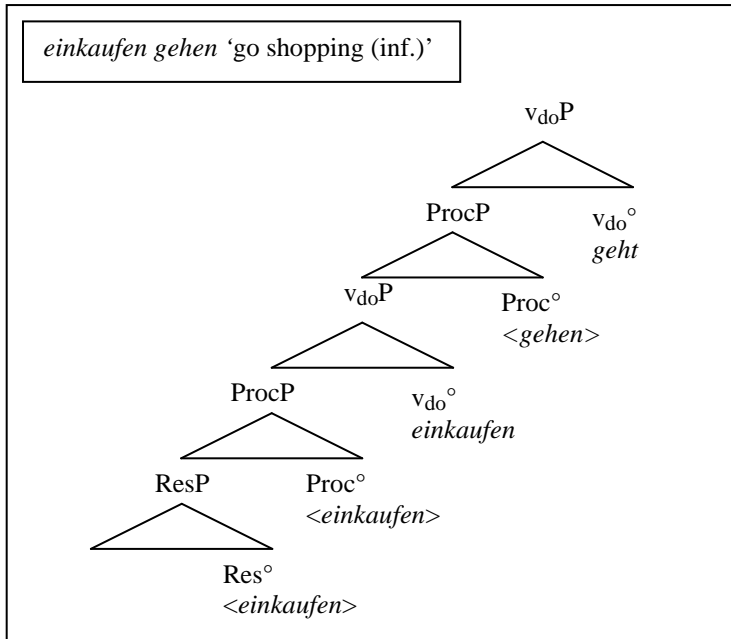


Figure 38

The infinitive following *gehen* I also claim to be a case of quirky verbal morphology due to the absence of the infinitival marker.

#### 17.4 Alemannic quiriness

The last construction I want to discuss in my dissertation is another case where motion verbs and their verbal complements show peculiar effects. I do this by referring to a study carried out by Brandner and Salzmann (2009). They investigate a construction found in Alemannic dialects in the area around the lake Bodensee (ALM) and in Switzerland (CH). In this construction, a basic motion verb combines with a non-finite verbal complement but the connection is mediated by the particle *gi/go*<sup>64</sup> which is not found in Standard German. The phenomenon is relevant to the present context for three (probably related) reasons: i) the matrix verb is a motion verb which exhibits semi-lexical behaviour, ii) the morphology of the verbal complement is “quirky” (in that the particle only occurs in this construction), and iii) together, the two verbs involved show mono-clausal properties (restructuring effects).

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<sup>64</sup> The particle exhibits different vowel qualities in different areas. Here, following Brandner & Salzmann I will use *gi* to refer to the variant found in the German area, and *go* to the Swiss German variant which throughout their paper is investigated on the basis of Zurich German.

The two particles are arguably of the same origin and they display very similar behaviour. There are however certain differences which Brandner and Salzmann analyse as being derived from a different categorical status of the particle in the two variants, such that in the Swiss German variants *go* has turned into a verbal element, while in the German Alemannic it still has some prepositional properties. The examples I give are from the Swiss German variant. In its basic configuration, the construction looks as follows:

- (142) *Ich gang go de Unggle bsueche*  
 I go PRT the uncle visit.INF. 'I'll go visit my uncle'

The particle is obligatory after motion verbs and it is most frequent with 'come' and 'go' and it only appears after motion verbs.

As stated various times in this dissertation, motion verbs (like positional verbs) are usually not allowed to stand alone, i.e. without complementation. In particular they tend to cooccur with locative expressions, directional or locational. In light of this fact and because the particle *gi/go* is probably of prepositional origin (according to Brandner & Salzmann it is derived from *gen* – the short version of *gegen* 'towards'), an obvious assumption would be that the particle is a directionality marker for the verb. This assumption is however not viable and can be refuted immediately by explicitly inserting a proper directional PP; an insertion which does not affect the presence of *gi/go* + infinitive:

- (143) *Si fahrt uf Gottene go ne abhole*  
 She drives to Gottenheim PRT him pick.up  
 'She drives to Gottenheim to pick him up'

That we are dealing with a subordination construction and not adjunction is clear from the fact that extraction is possible from both verbs:

- (144) *Woane<sub>i</sub> t<sub>i</sub> gaasch go poschte?*  
 Where.to go.2SG PRT buy.INF.  
 'Where do you go to do you shopping'
- Was<sub>i</sub> gaasch go t<sub>i</sub> poschte?*  
 What go.2SG PRT buy.INF.  
 'What do you go buy?'

The subject must be animate and capable of volitional action (hence the ungrammaticality of (145)a.) and this is a result of the particular configuration, not of selectional properties of motion verbs (cf. the grammaticality of (145)b.)

- (145) a. \* *De Gstank vom Restorant chunnt mich immer go ärgere*  
 The smell of.the restaurant comes me always PRT annoy
- b. *Dëë Brief gaat uf/ chunnt us Amerika*  
 This letter goes to/ comes from America

The two verbs express one, complex event as demonstrated by the fact that realisation of the first action entails realisation of the second, i.e. the latter may not be negated:

- (146) *Ich gang jede Taag go Gmües poschte,...*  
 I go every day PRT vegetables buy
- \* *...aber es hät nie*  
 but there has none  
 'I go and buy vegetables every day but there never are any'

On a par with several of the constructions dealt with in this thesis, the verbal complement containing the *gi/go*-phrase has a much reduced structure; Brandner & Salzmann (2009) argue that it is a bare VP. This claim is supported by the fact that elements which belong to positions outside the verb phrase are not licensed between *gi/go* and its verb.

Specifically, sentential modifiers, including negation, and temporal adverbs are not possible within the *gi/go*-phrase. Note that the following sentences are main clauses and as such subject to Verb Second but this does not interfere. The crucial point is the position of the adverb relative to *go*.

- (147) a. \* *Ich gang go nöd hälffe*  
 I go PRT not help
- b. *Ich gang nöd go hälffe*  
 I go not PRT help
- (148) a. \* *Ich gang go wahrschiinlich en film luege*  
 I go PRT probably a film watch
- b. *Ich gang wahrschiinlich go en Film luege*  
 I go probably PRT a film watch

- (149) a. \* Er gaat go morn d mueter bsueche  
*He goes PRT tomorrow the mother visit*
- b. Er gaat morn go d mueter bsueche  
*He goes tomorrow PRT the mother visit*

In the two dialects considered, there are significant similarities with respect to the *gi/go* + infinitive, however, according to Brandner & Salzmänn, *gi* and *go* respectively, has undergone different degrees of grammaticalisation, such that in ALM it has retained some of its prepositional properties, while in CH it has been reanalysed as a verbal element. This analysis is due to the fact that, despite shared etymology and similar usage, there are certain syntactic differences between the behaviour of the particle in the two dialects.

### 17.5 What is so special about motion verbs?

Finally, I will address a general question about verbs of movement and position. In this chapter I have showed that cross-linguistically these verbs appear in a variety of somewhat peculiar configurations. The big question is what is so special about these verbs? What is it about them that makes them high-frequency candidates for light verbs? I believe there are different reasons in play here; some of these are quite intuitive, bordering on the obvious, yet the role they play should not be underestimated.

First of all, motion verbs are subject to frequency effects at different levels. Basic motion verbs are universal, all human beings move with *walk* being the default manner of motion. The underspecified *come* is equally universal. Furthermore, a few other verbs are so high-frequency that they are subject to the same mechanisms as the most basic motion verbs. Here, we can include verbs such as *drive*, *run*, *fly* etc. The same thing of course goes for positional verbs, *standing*, *sitting* and *lying* are the basic, universal positions we as human beings can be in.

This simple fact makes it statistically more likely that these verbs will appear in “odd” configurations across languages.

Another instance of frequency effects is that human beings are always in a position or moving. This makes positional and motion verbs high-frequency within each language.

Secondly, and this is related to the first reason, such basic notions as motion from or to some place are easily transferred to e.g. the temporal dimension. The passing of time can easily be perceived as a line equivalent to one of a distance crossed. This fact makes motion verbs obvious candidates for temporal auxiliary verbs.

Thirdly, it should be remembered that a prerequisite for creating complex events is simultaneity or strict consecutivity/causality between the participating subevents. What is particular about positional verbs and motion verbs is that they usually do not interfere with other events. In fact any action carried out requires that the subject be in a position or motion.

In this chapter I have described and analysed a number of different Danish and German cases of quirky verbal morphology involving verbs of motion and position. I have argued that structurally they are quite similar to IPP and PC as they all involve very intimate verb connections. Specifically, we have been dealing with cases where two verbs must share one lexical domain, just as I argued for the cases of IPP with the causative *lassen* and cases where a thematic verb takes a vP-complement. The main point has been to provide evidence that quirky verbal morphology is a much broader phenomenon than appearances may lead one to believe. Furthermore, I have attempted to show that the homogeneity of the verbs involved in quirky verbal morphology is essentially semantic in nature. In other words, we have seen examples of systematic interaction between syntax and semantics.

## 18 Conclusion

In this dissertation I have described a number of superficially different multi-verb constructions and have attempted to demonstrate that the underlying structures are quite similar. My main hypothesis was that a number of cases of unexpected verbal morphology might be reduced to a few structural configurations and I have argued that monoclausality or clause union is the common denominator. Furthermore, I hypothesised that the actual morphological output is semantically and syntactically irrelevant and the result of phonological operations due to a language-specific surface filter which prohibits bare stems from surfacing unless they are independently licensed. I also intended to investigate whether any common properties could be found in the verbs that are allowed as matrix verbs in those multi-verb constructions where quirky morphology is observed. With respect to this, I have established that the matrix verbs are all states; either simple states or derived ones.

Theoretically, I have founded my investigations on mainly two approaches; Cinque's (1999, 2001, 2006) cartographic approach to the functional structure of the clause and Ramchand's (2008) approach to verb-internal structure. Both share the view of finely grained phrasal structures where each phrase serves a very specific function, and while I did not commit myself to the theoretical implications, I have assumed that cross-linguistically there are fixed orderings of both clausal modifying elements and semantic roles. As for the verb-internal structure, I found it necessary to elaborate and revise some of Ramchand's (2008) views; specifically I replaced Ramchand's Initiation Phrase with Folli & Harley's (2005, 2007) two different flavours of little *v*;  $v_{do}$  and  $v_{cause}$ . Further, against Ramchand (2008: 55) who claims that stative verbs are bare InitPs, I have argued that stative verbs are Result Phrases, possibly with a little *v* of the flavour  $v_{be}$ . With these refinements, for all the constructions I have investigated, I have attempted to determine the position and/or internal structure of each verb with the main focus on the status of the matrix verb.

After providing a general introduction, I turned my attention to a specific kind of quirky verbal morphology in the Mainland Scandinavian languages; pseudo-coordination or finiteness copying with verbs of movement or position as matrix verbs. This was the main



topic of Part I. Here I distinguished two types of pseudo-coordination; positional and directional PC. The first is characterised by having a default positional verb (or the atelic *gå* ‘walk’) as its matrix verb and triggering a progressive reading of the main verb. The second kind has a telic motion verb as its matrix verb and is not really aspectual in nature. Still, it forms a very close connection with the main verb triggering a temporal and causal dependence of the main verb on the matrix verb. The two verbs are joined by what looks like a coordinating conjunction and they obligatorily agree with respect to finiteness. Despite this, there is ample evidence that they are not coordination structures.

I argued that despite the differences between the two types of matrix verbs, they are in fact quite similar in the sense that telic motion verbs result in states which position the subject in space and time, while this is all the positional verbs do in the first place, i.e. both types have a Result Phrase positioning the subject as their lowest projection.

As for both the inflectional morphology of  $V^2$  and the joining element, I argued that they are semantically and syntactically irrelevant, i.e. that we are in fact dealing with a simple subordination structure. I tested for any functional structure above the lower verb and found no evidence for any functional projections above vP.

The general aim of Part I was to provide the structures underlying pseudo-coordinations in order to show that they are parallel to those underlying some cases of IPP. Two verbs are forced to share a clausal domain and the result is quirky morphology. Due to the fact that the inflection of the lower verb is semantically vacuous, I take it that this copying happens at PF.

The topic of Part II was the West Germanic Infinitivus Pro Participio, or substitute infinitive. In this construction, in many variants of German and Dutch when a two-verb cluster whose matrix verb is an “IPP-verb” is in the perfect tense, the matrix verb appears as an infinitive and not as a past participle. As for the underlying structures, I established three different ones, with monoclausality being a common denominator.

One of these structures is the one underlying IPP in connection with the causative verb *lassen*. Here I argued that *lassen* occupies the head of  $v_{do}$  and the verbal complement is a bare lexical category; i.e. a Result Phrase with or without a Process Phrase. The closest connection possible between two verbs is when they form one lexical domain and this analysis accounts for the fact that across languages, causatives are the most likely to trigger IPP at all (in the languages where the effect is observed in the first place). *Lassen*,

I argued, also exists as a permissive causative; in which case I argued that it is in the head of  $v_{\text{cause}}$  taking a silent modal verb as its complement which in turn takes a vP-complement. The silent modal I assume to have a ResP as its lowest projection. For German, I established the restriction that this lower complement may only be a  $v_{\text{do}}$  or a  $v_{\text{be}}$ , i.e. not a  $v_{\text{cause}}$ . While I cannot explain this restriction, which does not hold cross-linguistically, it accounts for the impossibility of embedding passives under *lassen*.

Secondly, I argued that for IPP with modal verbs, the modal is merged directly into the Cinquean functional structure. IPP only occurs in the perfect tense, and this would conflict with the Cinquean assumption that perfective aspect is situated between the modal projections and the main verb. This led me to argue that a distinction between aspectual and temporal perfectivity is necessary, and that with stative predicates only a temporal perfectivity is possible. Hence, the temporal auxiliary would be merged in  $T^{\circ}$ , above the modal projections and the correct scopal properties can be derived. In other words, while with *lassen* two verbs are contained in the lexical domain, with modal verbs, there are two verbs in the functional domain of the clause.

In Part II I also drew parallels to quirky verbal morphology in Danish under IPP-like circumstances. Essentially, two different kinds of quirky morphology were observed: the first being finiteness agreement when two modals cooccur with an overt verbal complement and the second being displacement of the participial morphology from the modal verb to the main verb when a modal + lexical verb occurs in the perfect tense. Structurally, these cases correspond to IPP with modal verbs; the functional domain of the clause becomes crowded when more than one verb is merged into it.

Finally, I investigated verbs of perception which in Standard German display optional IPP, keeping in mind that other West Germanic variants also have IPP with a larger number of control verbs and that an analysis should be expandable to cover such cases too. I tested for the presence of a functional structure above the lower verb and came to the result that the highest projection of the lower verb is a  $v_{\text{do}}\text{P}$ . Specifically, it was shown that negation, sentential adverbs, perfect tenses and passives cannot be embedded under perception verbs. I therefore came to the conclusion that perception verbs are proper lexical verbs taking vP-complements, again excluding  $v_{\text{cause}}$ 's. The generalisation then seems to be that two lexical verbs share one clausal structure. The optionality of IPP with specific verbs is extensive across the IPP-languages and I were not able to find any differences between the cases with and without IPP, which led me to conclude that they

are cases of true optionality. As for the verb-internal structure, I argued that verbs of perception have a Result Phrase as their lowest projection.

As for the substitute infinitive itself, I argued that in Standard German and Dutch, this specific form is either simply selected by default or by a surface copying of the inflectional features of the verb complement of the IPP-verb. The specific form selection does not interfere with the interpretation. Empirically I backed this claim up with data from non-standard varieties of German. In the dialects, a much greater variety can be seen, and to cover these, we would have to talk about substitute gerunds, supines, etc. which in part are verb-specific within a given dialect. If the specific form were relevant for interpretation, we would not expect such a variety of forms to give a uniform reading. In theoretical terms, this provides an argument for late-insertion strategies as advocated by e.g. the framework of Distributed Morphology.

The main difference between the West Germanic IPP and Scandinavian PC concerns the actual form selection. While with IPP we appear to be dealing with “random” selection of a non-finite form, pseudo-coordination involves a copying of the inflectional features of the matrix verb to the dependent verb. I speculated, without elaborating the point, that the choice between these two strategies is connected to richness of verbal inflection, such that a low degree of inflectional morphology is more likely to result in featural copying.

Also backed up by non-standard language data, I argued that the verb order alternations observed in connection with IPP are in fact superficial too and not causally connected to the quirky morphology. I showed that all 5 actual verb-orders of 6 potential ones (for three-verb clusters) could be derived applying mainly post-syntactic movement and left the matter of internal verb ordering at that.

In Part III I dealt with verbs of motion and position more generally, and showed that analyses parallel to those of IPP and PC were applicable. Specifically, I dealt with German and Danish two-verb clusters involving motion verbs or positional verbs. For German, this was *bleiben* ‘remain’ + infinitive (of a positional verb), *gehen* ‘go’ + infinitive and *kommen* ‘come’ + past participle. For *bleiben* + infinitive, I argued that a  $v_{do}$  + Proc hosting *bleiben* takes a Res-complement made up by the positional verb. The difference

between the inchoative and anti-inchoative usage I take to correspond to different semantic values of the Proc-head, specified as [+ change of position] and [- change of position] respectively. *Gehen* and *kommen*, I argue to be full lexical verbs (i.e. they have more verb-internal structure below vP), both taking  $v_{do}$ -complements.

The Danish constructions I investigated were similar though not identical. *Komme* ‘come’ and *blive* ‘become/to remain’ + present participle, I argued to involve complex predicate formation with *komme* appearing as a light verb, i.e. a  $v_{do}$  selecting a ResP as its complement. *Blive* when combined with a present participle I analysed as a  $v_{do}$  + ProcP [+/- change of position], also taking a ResP-complement.

Finally, I speculated about which properties of verbs of position and movement that make them such frequent candidates in connection with complex predicates and quirky morphology and concluded that their universal nature and non-interference with other actions is what make them especially suited for this purpose.

Throughout my dissertation, I have argued that quirky verbal morphology is a surface reflex which may arise when specific structural conditions are met, i.e. when two or more verbs have to share a domain which is too small for them, whether this domain is lexical or functional. I have however not attempted to derive the specific quirky forms; in some cases it may be possible to do so, but for most I believe that if they are to be derived, it must be done in terms of post-syntactic, i.e. phonological operations. It is clear, that despite the fact that a multitude of finite and non-finite forms appear as quirky forms, different languages prefer specific forms, in part in specific contexts. My point is that the specific form assignment is arbitrary in the sense that these preferences are syntactically and semantically irrelevant and approaches that try to account for them in syntactic terms, run the risk of overgeneration. A more detailed investigation of the actual output and how it connects to the individual languages is something I leave for future research.

In giving less detailed analyses, I have attempted to demonstrate that underlying a large amount of superficially non-related constructions; more general, cross-linguistic patterns can be discerned. Despite the fact that I have shifted some of the explanatory load from syntax to PF, I have not trivialised the role of syntax. On the contrary I have shown that the underlying syntactic structures are of far greater importance than appearances may lead one to believe.

I have made extensive use of Ramchand's (2008) and Folli & Harley's (2005, 2007) view on verb-internal structure and suggested improvements and elaborations. The question of how verbs are internally structured has proved to be crucial in the understanding of verbal syntax and though many insights have been achieved in this area, refinements are still necessary.

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## Dansk Resumé:

### Syntaksen i forbindelse med afvigende verbalmorfologi

Emnet for min ph.d.-afhandling er såkaldt afvigende verbalmorfologi og dens syntaktiske forudsætninger. Jeg definerer afvigende verbalmorfologi som uventet morfologi i verber, dvs. når verbet udviser en morfologi, der afviger fra den normale morfologiske selektion. Min tese er, at en række tilsyneladende ret heterogene fænomener tværsprogligt og internt i sprog kan henføres til denne afvigende morfologi og at det således tværsprogligt er et udbredt fænomen. Jeg foreslår, at afvigende morfologi optræder under bestemte syntaktiske betingelser, men at det faktiske *output* varierer alt efter, hvilket sprog og hvilke konstruktioner, der er tale om.

I min afhandling identificerer jeg tre forskellige strukturelle betingelser, der kan udløse afvigende morfologi. Fællesnævneren for disse tre er, at minimum to verber i alle tilfælde skal dele ét sætningsdomæne.

Del I indeholder afhandlingens indledning. Her definerer jeg, hvad afvigende morfologi er, og gør rede for mine teoretiske antagelser. Min teoretiske ramme er en kombination af Cinques kartografiske tilgang til sætningsstruktur og Ramchands semantisk-syntaktiske dekompositionstilgang.

I den kartografiske tilgang udgøres sætningsdomænet af en kaskade af funktionelle projektioner. Den relative rækkefølge af disse funktionelle projektioner er angiveligt universel, i hvert fald hvad angår hovedkategorierne, der altid er ordnet som [tempus [modalitet [aspekt [aktionsart ]]]].

Ramchands tilgang kan sammenlignes med Cinques, men forskellen er, at Ramchand beskæftiger sig med den verbum-interne struktur. Hun skelner mellem tre verb-interne fraser, der har en fast rækkefølge: En *Initiation Phrase* (InitP), der indeholder det argument, der forårsager eller initierer en handling, en *Process Phrase* (ProcP), der har med en proces eller ændring at gøre, samt en *Result Phrase* (ResP), der angiver en afledt tilstand. InitP svarer til lille *v*, og jeg følger Folli & Harley, der skelner mellem to varianter af lille *v*; et agentivisk  $v_{do}$  og et kausativt  $v_{cause}$ . Til disse føjer jeg et såkaldt  $v_{be}$ , som er det semi-leksikalske hoved for stative verber. Ydermere argumenterer jeg for, at Ram-

chands ResP ikke kun bør dække over afledte tilstande, men at det er den leksikalske frase, der projiceres af stative verber.

Del I behandler desuden den såkaldte pseudo-koordinationsstruktur, der findes i de fastlandsskandinaviske sprog. I denne konstruktion ser det ud, som om et bevægelses- eller positionsverbum er koordineret med et andet verbum, men det faktum, at man kan ekstrahere et indlejret objekt indicerer, at der er tale om en subordinationsstruktur, jf. eksempel (1):

(1) *Hvad sidder Peter og læser?*

Jeg skelner mellem positionel og direktionel pseudo-koordination, afhængigt af om det øvre verbum er et positions- eller et bevægelsesverbum. De to slags verber udløser forskellig semantik, men syntaktisk opfører de sig næsten identisk. Igennem Del I argumenterer jeg for, at det verbale komplement, som semantisk er det tungeste af de to verber, er defekt og ikke har nogen funktionel struktur over vP. Jeg demonstrerer dette ved at vise, at materiale, der er knyttet til Cinques funktionelle projektioner, ikke kan optræde med snæver skopus mellem de to verber.

Derudover plæderer jeg for, at den identiske fleksion, de to verber udviser, er semantisk og syntaktisk tom. Jeg argumenterer for, at et rent vP-komplement ikke kan få tilskrevet en form og derfor principielt ville være nødt til at optræde som en ren stamme. I de germanske sprog (delvist med undtagelse af engelsk) er rene stammer normalt ikke tilladt, og derfor er en reparationsstrategi påkrævet. I tilfældet med pseudo-koordination kopierer det laveste verbum det øvre verbs fleksionsmorfologi og kan derved komme til at se finit ud. Jeg antager, at denne kopiering foregår på PF.

Til sidst i kapitlet giver jeg et overblik over konstruktioner med serielle verber og diskuterer, hvorvidt man kan klassificere pseudo-koordinationer som serielle verber. Jeg konkluderer, at det afhænger af definitionen af serielle verber, men at der er påfaldende strukturelle ligheder mellem disse på overfladen så forskellige konstruktioner. En af lighederne er, hvilke verber der er involveret i verbaserier og afvigende verbalmorfologi. Tværsprogligt udgør disse verber en relativt homogen gruppe, der primært inkluderer bevægelses- og positionsverber i videste betydning. En åbenlys forskel mellem serielle verber og mine konstruktioner med afvigende morfologi er, at i mange sprog med serielle verber optræder de afhængige verber som rene stammer. Denne mu-

lighed findes ikke i de fastlandsskandinaviske sprog, og ved hjælp af en kopieringsmekanisme kommer pseudo-koordinationer til at se anderledes ud end verbalserier.

I Del II beskæftiger jeg mig med Infinitivus-Pro-Participio (IPP) eller *erstatningsinfinitiv*, der er et udbredt fænomen i de vestgermanske sprog (eksklusive engelsk). Denne effekt optræder, når bestemte verber, der tager et verbalt komplement, optræder i perfektum. I stedet for et perfektum participium, optræder det verbum, der er direkte domineret af perfektums-hjælpeverbet, som en infinitiv som i det følgende eksempel:

- (2) *Peter hat das Buch nicht lesen wollen*  
 Peter har DET.ACC. bog ikke læse.INF. vil.INF.  
 ‘Peter har ikke villet læse bogen’

IPP optræder i varierende udstrækning i de forskellige IPP-sprog. Jeg argumenterer for, at der i højtysk kan identificeres tre forskellige underliggende strukturer, der kan udløse IPP, og at de samme strukturelle betingelser formentligt er gældende for de sprog, der udviser IPP med en større mængde verber.

Den første strukturelle forudsætning angår det kausative verbum *lassen* ‘lade’, der udløser obligatorisk IPP i alle de relevante sprog. Eftersom ingen af de funktionelle projektioner kan udfyldes, konkluderer jeg, at det verbale komplement til *lassen* er funktionelt defekt, lige som det også var tilfældet med pseudo-koordination. *Lassen* kan anvendes på forskellige måder med små semantiske forskelle. Én anvendelse er som simpelt kausativt verbum. I denne brug argumenterer jeg for, at *lassen* så befinder sig i  $v_{do}^{\circ}$  og har en ren VP som sit komplement. Der er med andre ord to verber i ét verbaldomæne (der udgør henh. vP og VP).

Ud over den simple kausative brug har *lassen* også nogle modale anvendelser, der kan dekomponeres semantisk til [forårsage [tilladelse/evne/pligt ]]]. Disse anvendelser analyserer jeg parallelt til det simple kausativum med den forskel, at der i de modale anvendelser er indlejret et stumt modalverbum under det lille v, der i dette tilfælde er en  $v_{cause}$ . I de modale anvendelser kan der indlejres agentiviske verber, men ikke passiver, og jeg konkluderer derfor, at *lassen* indlejrer et  $v_{do}$ . Dette betyder, at den struktur, der ligger til grund for IPP med modalt *lassen* indeholder to fuldverber (hver bestående af vP + VP), der må deles om ét sætningsdomæne.

Modalverber udløser også IPP i alle IPP-sprogene. I overensstemmelse med Cinque (1999) argumenterer jeg for, at modalverber er indsat direkte i de modale projektioner, der befinder sig mellem TP og de aspektuelle projektioner. I perfektum, hvor vi kan antage, at hjælpeverbet befinder sig i T°, har vi altså to verber i sætningens funktionelle struktur.

Slutteligt udløser perceptionsverber fakultativt IPP i højtysk. Her argumenterer jeg for, at perceptionsverber er leksikalske verber, der projicerer en normal VP, og som selekterer et reduceret verbalt komplement, specifikt et  $v_{do}$ . De empiriske argumenter for denne analyse er, at modale og aspektuelle adverbier ikke kan indsættes mellem perceptionsverbet og dets komplement. Igen er den strukturelle forudsætning altså, at to fuldbyrdige leksikalske verber skal deles om ét sætningsdomæne.

I alle disse tilfælde af IPP kan man give to forklaringer på, hvordan IPP-verbet ender med at blive en infinitiv i stedet for et participium. Enten kopierer IPP-verbet sit komplements fleksionsmorfologi, eller også bliver infinitiven som den mindst markerede form, indsat per *default*. I højtysk kan vi ikke afgøre, hvilken mekanisme, der er på spil, men data fra andre tyske dialekter viser, at i hvert i de varianter, kan det ikke være kopiering, der finder sted, da IPP-verbet optræder i en anden nonfinit form end sit komplement.

I Del III beskæftiger jeg mig med andre tilfælde af afvigende verbalmorfologi i forbindelse med positions- og bevægelsesverber. Her behandles primært data fra tysk og dansk. De strukturelle betingelser ser ud til at være de samme som ved IPP og pseudo-koordination, således at de enten består af to verber i ét leksikalsk domæne (hvor de udfylder  $vP$  henh. VP), eller hvor to fuldbyrdige verber (dvs. 2 x  $vP$  + VP) må deles om ét sætningsdomæne.

Del III indeholder desuden den samlede konklusion for afhandlingen. Her opsummerer jeg mine resultater og diskuterer nogle af de spørgsmål, der endnu ikke er besvaret.

## Summary – The syntax of quirky verbal morphology

The topic of my dissertation is quirky verbal morphology and its structural conditions. I define quirky verbal morphology as unexpected morphology on verbs, i.e. when verbs display a morphology which is different from the usual morphological selection. My proposal is that quirky verbal morphology is a cross-linguistically relatively frequent phenomenon despite its surface manifestations being heterogeneous both language-internally and across languages. I propose that specific syntactic conditions underlie quirky morphology, but that the surface output is tied to the language and/or to specific constructions.

I identify three different structural conditions which may trigger quirky verbal morphology, and the common denominator is that in all cases, there is only one clausal domain for more than one verb.

Part I contains the general introduction to the dissertation. Here, I define quirky verbal morphology and account for my theoretical assumptions. The framework I am working in is a combination of Cinque's Cartographic approach to clausal structure and Ramchand's semantic-syntactic decomposition approach.

In the cartographic approach a cascade of functional projections make up the clausal domain. The relative ordering of these functional projections is supposedly universal, at least with respect to the principal categories which must be organised as [tense [modality [aspect [voice ]]]] (Cinque: 1999: 106).

The two approaches are compatible but the difference is that Ramchand is concerned with the verb-internal structure. She distinguishes three verb-internal phrase types with a fixed ordering: the Initiation Phrase (InitP) connected to causation, the Process Phrase (ProcP) which relates to process or change and finally the Result Phrase (ResP) connected to a derived state. The InitP corresponds to little *v*, and I follow Folli & Harley who distinguish between the agentive  $v_{do}$  and the causative  $v_{cause}$ . In addition to Folli & Harley's  $v_{do}$  and  $v_{cause}$  I propose a  $v_{be}$  which is the semi-functional head of stative verbs. Furthermore, I argue that Ramchand's ResP should not only cover derived states, but that this is also the lexical phrase type connected to stative verbs. This view can account for the similarities between e.g. simple positional verbs and verbs denoting change-of-position, cf. these two examples:



- (1) a. *Peter sidder i stolen*  
 Peter sits in the.chair ‘Peter is sitting in the chair’
- b. *Peter sætter sig i stolen* → *Peter sidder i stolen*  
 Peter sits REFL in the.chair Peter sits in the.chair  
 ‘Peter sits down’ → ‘Peter is sitting in the chair’

Part I furthermore covers the so-called pseudo-coordination structure found in the Mainland Scandinavian languages. In this construction, a verb of motion or position appears to be coordinated with another verb, yet extraction of the embedded argument, indicates that it is in fact a subordination structure, otherwise it would be a violation of the Coordinate Structure Constraint, cf. example (1):

- (2) *Hvad sidder Peter og læser?*  
 What sits Peter and reads ‘What is Peter reading’

I distinguish between two kinds of pseudo-coordinations; positional and directional, depending on whether the higher verb is a verb of position or of movement. The two kinds trigger different semantics, but syntactically they behave in an almost identical way. Throughout this chapter I argue that the verbal complement, which semantically is the heavier one of the two verbs, is deficient and lacks any functional structure above vP. I demonstrate this by showing that material connected to Cinque’s functional projections cannot have scope over the second verb only.

Furthermore, I argue that the inflection on the second verb is semantically and syntactically vacuous. I speculate that a bare vP complement cannot have a form assigned independently and it would therefore have to surface as a bare stem. Bare verbal stems are generally not licensed in the Germanic languages (English being an exception to some extent) and therefore a repair strategy must be applied. In the case of pseudo-coordinations, the lower verb copies the inflectional morphology of the higher verb and hence may appear to be finite. This copying I assume to be a PF-operation.

Towards the end of Part I provide a brief overview of Serial Verb Constructions and discuss whether pseudo-coordinations might be classified as such. I conclude that this depends entirely on the definition of serial verbs, but that there are striking structural similarities between these two superficially different constructions. One of the similarities concerns the verb classes involved in serialisation and quirky verbal morphology. Cross-linguistically, these verbs form a fairly uniform group, containing primarily verbs

of motion and position in the broadest sense. An obvious difference between serial verbs and my cases of quirky verbal morphology is that in many verb serialising languages, the lower verbs surface as bare stems. This is not an option in Mainland Scandinavian languages and through the copying mechanism, pseudo-coordinations end up looking different than verb serialisations.

Part II deals with the Infinitive-for-Participle effect, (IPP) which is widespread in the West Germanic languages (not including English). This effect occurs when certain verbs that take a verbal complement appear in the perfect tense. Instead of the expected past participle, the verb immediately dominated by the perfect tense auxiliary appears as an infinitive as in the following example:

- (3) *Peter hat das Buch nicht lesen wollen*  
 Peter has the.ACC. book not read.INF. want.INF.  
 ‘Peter didn’t want to read the book’

IPP occurs to varying extents in the different IPP-languages. For Standard German I argue that three different structures underlying IPP can be identified, and I hypothesise that the same structural conditions are applicable to the languages that display IPP with a larger number of verbs.

The first structural condition I identify concerns the Standard German causative verb *lassen*. The verbs which correspond to this trigger obligatory IPP in all the relevant languages. Based on the fact that none of the clausal functional projections are allowed to be filled, I argue that they are not present, i.e. the verbal complement of *lassen* is functionally deficient, as was also the case for the verbal complements in pseudo-coordination. *Lassen* has different usages with slightly different semantics. One is a simple causative verb, and for this usage I argue that it fills a little  $v_{do}^{\circ}$  and takes a bare VP complement. In other words, there are two verbs in one verbal domain (making up vP and VP respectively).

Other than the simple causative usage, *lassen* has modal-like usages which may be semantically decomposed into [cause [permission/ability/obligation]]. These I analyse in a fashion parallel to causative *lassen*, the difference being that in these latter cases, a silent modal is embedded under the little  $v$ , which in this case is a  $v_{cause}$ . These usages of

*lassen* may embed agentive verbs but for example no passives and I therefore conclude that this *lassen* embeds a  $v_{do}$ . This means that the structure underlying IPP with modal-like usages of *lassen* involves two full verbs (each projecting a regular [vP [VP]] structure) sharing one clausal domain.

Modal verbs are also IPP-verbs in all of the IPP-languages. In line with Cinque (1999), I argue that they are merged directly into the functional structure of the clause, specifically in the modal projections that are situated between TP and the aspectual projections. In the perfect tense, where presumably the temporal auxiliary is merged in  $T^{\circ}$ , we have two verbs in the functional structure of the clause.

Finally, perception verbs trigger optional IPP in Standard German. I argue that these are full lexical verbs which project a regular VP and select a reduced verbal complement, specifically a  $v_{do}$ . Failed insertion of modal and aspectual adverbs between the perception verb and its complement provide the empirical arguments for the lack of clausal functional structure connected to the lower verb. Again, the structural condition is that two full lexical verbs must share one clausal domain.

For all the cases of IPP, the actual form assignment, i.e. the fact that an IPP-verb ends up as an infinitive instead of a past participle, has two possible explanations; either the IPP-verb copies the inflection of its complement or the infinitive, being the least marked form, is inserted by default. For Standard German we cannot determine which of two options apply, but data from other German dialects than Standard German suggest that at least in these variants, copying is not be an option, as the IPP-verb may appear in other non-finite forms than its complement.

Part III deals with some other cases of quirky verbal morphology in connection with verbs of motion and position. Here I include data primarily from German and Danish. The structural conditions appear similar to those underlying IPP and pseudo-coordinations, such that either they are cases where two verbs make up one lexical domain (projecting vP or VP respectively) or where two full verbs (each projecting vP + VP) must share one clausal domain.

Finally, I sum up the findings of my dissertation and discuss some of the open questions.