On Non-simultaneous phases

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We, the dissertation committee for the above candidate for the

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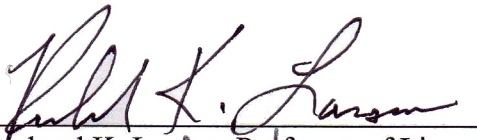

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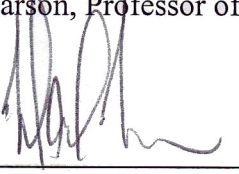

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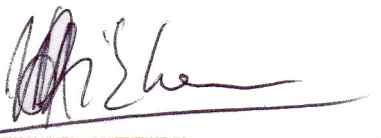

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Abstract of the Dissertation

On Non-simultaneous Phases

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According to the phase theory, the recent development of the Minimalist Program, sentences are built in smaller chunks—phases. Each phase starts out with its own numeration and is completed when the structure constructed in a phase is sent to the two interfaces, PF and LF. Thus, because of simultaneous Spell-Out, every element participating in the derivation should be both pronounced and interpreted within the same phase. But we know that certain items can be interpreted lower than where they are pronounced, as in cases of *total reconstruction*, or pronounced lower then where they get interpreted as a result of *covert movement*.

Total reconstruction is analyzed as a result, following copy theory of movement, of the deletion of the lower PF copies following some potentially tricky lower-copy-deletion algorithm. Much less clear is the derivation of covert movement. We can again derive a solution using another algorithm that would delete the higher PF copy and the

lower LF copy. Needless to say, these algorithms don't really seem to be the optimal solution.

A different approach to the two phenomena is possible if we accept the existence of non-simultaneous phases. As argued by Megerdoomian (2003), Felser (2004), and Marušič and Žaucer (2004), at the point of Spell-Out, the structure built in a phase can be spelled-out to a single interface (either only to PF or only to LF). Accepting the idea of single interface spell-out, we can derive the two phenomena of non-aligned pronounciation and interpretation. If at a certain point in the derivation an element is only spelled-out to a single interface, what has not been sent off can still participate in the derivation and move on. In this way the structural positions of syntactic item's interpretation and its pronounciation are different.

The main goal of this thesis is to show how the machinery of non-simultaneous Spell-Out can be used to derive both Total reconstruction and Quantifier Raising within syntax proper. The remainder of the thesis is aimed at providing further arguments for the existence of non-simultaneous Spell-Out. The arguments involve somehow long discussions of two very interesting constructions, the Slovenian FEEL-LIKE construction and the Slovenian non-finite clausal complementation.

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Acknowledgments

I will finish writing this on the very day I will file (actually someone else will do it for me) this object of despise, source of malnutrition, and cause of despair, constant depression and general lack of will. At the time I will probably be in a different mood and might not want to remember how life was when this KD was being put together.

Before I get into the real acknowledgements let me first paste acknowledgements for specific chapters as they were given in their original publications. A very early version of chapter 2 was presented at BIDE 2004 (Bilbao/Deusto SCiL 2004, July 6-8, 2004) and subsequantly published in BIDE proceedings. At the time, I was thinking the following: "Work on this topic was partially supported under the NSF Grant BCS-0236952 (Richard Larson, PI). I'd like to thank the organizers of BiDe'04 for the invitation and the audience for comments. I also thank Richard Larson, Dan Finer, and Rok Žaucer for helpful discussions and Diane Abraham, Sandra Brennan, Carlos de Cuba, and Jon MacDonald for help with data." But I am especially thankful to Susana Huidobro for inviting me to BIDE and giving me the chance to present those early stages of the POS at that very interesting conference.

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Med sedenjem v pisarni sm poslušal tudi neke Ježkove cedeje in enkrat prestregel tole resnico: "Naučit se morem kar precej pametnega, če hočem povedat kej neumnega." Or as it would sound in **English**: “I have to learn a lot of smart things in order to say something stupid.” (I heard this on one of the CDs with songs by Fran Milčinski – Ježek, but i can't remember which soing it was in).

Chapter

1. Introduction

A word, a phrase, or more generally, a part of a sentence can be interpreted in a location different from where it is pronounced inside the sentence. So for example, although the noun phrase *an Englishman* in (1) is located to the left of (and thus structurally higher than) the predicate *likely*, it can be interpreted inside the scope of (and therefore structurally lower than) the predicate, as indicated by the gloss. Similarly, although the object DP in (2) is to the right of (and thus also lower than) the subject DP it can be interpreted as having scope over it (and is therefore interpreted as being located higher in the tree than the subject), as indicated in the gloss.

(1) *An Englishman is likely to be arrested for hooliganism in Germany next year.*
"It is likely that an Englishman (whoever he might be) will be arrested for hooliganism in Germany next year (during the World Cup)."

(2) *A plant grew out of every seed.*
"For every seed (that was planted) a plant grew out of it."

In a way, this is surprising. In fact, just as movement is sometimes considered an imperfection (e.g. Chomsky 2000[1]), misalignment of pronunciation and interpretation also seems less than a perfect property for a linguistic system. Since these phenomena have been extensively studied (May 1985, Nissenbaum 2000, Sportiche 2003, Boeckx 2001, to give just a few references), it might appear that these misalignments are not surprising, yet the explanations one finds in the literature are not always completely satisfactory and it appears that, the two possibilities of mismatch—a word being interpreted either lower or higher in a syntactic tree than where it is pronounced—do not have a uniform analysis even though they do appear to be related. The goal of this thesis is to give an account that will derive and properly relate both phenomena, which intuitively appear to be two sides of the same coin.

[1] The status of movement or displacement property as an imperfection changed since Chomsky (2000) to 'an apparent imperfection' in Chomsky (2001), and to 'a virtual conceptual necessity' in Chomsky (2005a). But notice that if movement is really just an instance of internal Merge (that is Merge of an element already present in the derivation) and as such a conceptual necessity, a number of other constraints are lifted. E.g. why can't the same thing that is merged internally be merged externally, and if it can be, where do all the binding principles come from. Similarly, if internal and external merge are just two variants of the same basic operation, why does only internal merge leaves copies, thus deriving the copy theory of movement.

1.1 Background

The proposal given in this thesis employs a computational mechanism that manipulates phases, the current term for a transformational cycle. The notion of the cycle has played an important role in linguistic theory, from its beginnings, when the cycle was defined on complement (and relative) clauses as the point at which all the operations and rules were applied, to the latest developments of the Minimalist Program and the Phase theory (Epstein *et al.* 1998, Chomsky 2001, 2004, 2005a,b, Uriagereka 1999 etc.).

In phase theory, a cycle/phase is a complete stage in a derivation that starts with a numeration and proceeds ultimately to the two interfaces. A phase starts with its own subarray of lexical items, which are merged together to build structure. Lexical items in this view are of type {S,P,F}—sets of semantic, phonological and formal features, where P features yield π (pronunciation), S features yield λ (interpretation), and F features participate in the derivation, but must be eliminated for convergence. When the derivation closes a phase the features get spelled-out to the relevant interface. Phonological features are sent to the Phonetic Form [PF], while semantic features end up in the Logical Form [LF]. The third group of features, formal features, is needed only for the derivation and cannot get interpreted at the two interfaces. What I call phonological features are not really features that can be directly pronounced (e.g. [+/- sonorant], [+/- nasal]) but rather features that can be read by the PF side of the derivation at the time of lexical insertion (assuming late insertion of the sort proposed in Distributed Morphology (e.g. Marantz 1997)). So these should be grammatical features that have some sort of representation at the actual level of pronunciation. E.g. if a language has case and gender distinctions, then case and gender features have to be present among the P features.

Phases are said to have interface realities. The structure sent to the interface in a phase constitutes some sort of a unit at that interface. According to Chomsky (2001, 2004, 2005a,b) there are two such phases in the main clausal frame of syntactic projections (ignoring the DP), *v*P and CP, representing two major steps in the derivation. *v*P marks the completion of argument structure, while CP marks the completion of the propositional structure at LF, the meaning side. The two phases also have relative independence at the PF side. Contra Chomsky, I also take TP to be a phase (following Uriagereka & Martin 1999[2], Grohmann 2000, and Sauerland & Elbourne 2002), a position which I argue for below.

1.1.1 TP is a phase

TP is the typical locus of the EPP feature, called by Chomsky (2005a,b) the edge property. EPP is a typical edge feature because it allows items from inside the phase to evacuate to its edge remaining active. Taking TP to be a phase thus would explain why is there an EPP feature in T. TP is also the projection where agreement with *phi*-features takes place, again suggesting TP should be a phase, just like *v*P is the locus of Acc case

[2] Uriagereka & Martin (1999) actually give the status of a phase only to non-deficient Ts. As discussed lower, there is no true difference in terms of semantics between a deficient and a non-deficient TP, they are both propositional elements. On the other hand, there seem to be a significant difference between the two TPs in terms of their phonetic independence. I will return to this point (that is actually one of the main points of this thesis) lower in the next section and in chapters 2 & 5.

assignment (and agreement with the object).[3] On a more empirical level, TP is the projection that maps to a proposition, as is very clearly seen with modals. The sentences in (3) are ambiguous between root and epistemic interpretation of the modal.

(3) a. You must be in the University Café right now.
b. Every student from Stony Brook must be in the University Café right now.
c. A student from Stony Brook must be in the University café right now.

Root modal interpretation of (3a) is typically paraphrased as: '*you have the obligation to be in the University Café right now*.' The epistemic modal interpretation, on the other hand, is commonly paraphrased as *it is a necessary assumption that you are in the University Café right now*. The two paraphrases already suggest a difference between the two modals with respect to the scope of the subject. Whereas the root modal takes narrow scope with respect to the subject, the epistemic modal takes wide scope. In simplified logical notation, (3c) would thus get the following two interpretations, $\exists x \Box [Px]$—there is an x such that it is necessary that P(x) is true—for the root and $\Box \exists x [Px]$—it is necessary that there is an x such that P(x) is true—for the epistemic reading. Assuming the subject is always positioned in SpecTP, the difference has to come from the position of the modal. Indeed, the two modals are argued to be located in two different functional projections, the epistemic ModP is higher than TP while the root ModP is lower (e.g. Cinque 1999, 2004a, Butler 2003a).[4]

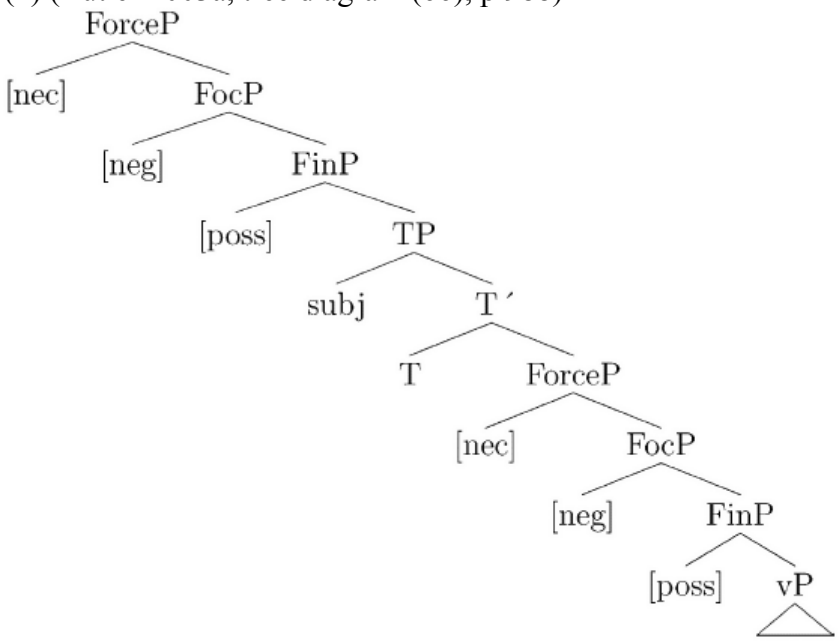
Kratzer (1981, 1991) analyzes both modals as propositional operators (they combine with a proposition to give a proposition) quantifying over possible worlds. This is most clearly seen for epistemic modals that are commonly said to take scope over the whole sentence. Butler (2003a), building on Kratzer's analysis, claims that modals scope over any propositional element. Thus accepting there are two strong phases, we get two modals: root modals that scope over the *v*P proposition and epistemic modals that scope over the TP. Although Butler doesn't take TP to be a phase, it seems that he should, after all, he is paralleling TP and *v*P. Instead, he claims that (epistemic) modality is bound to the CP phase, so that the semantic unit is the complement of the phase head rather than the entire phase phrase.

Butler (2003a) analyzes the two modal interpretations as related to the two phases, CP and *v*P, but note that this correlation of the two modals with the two phases is problematic, or at least not completely parallel. Whereas root modals come above *v*P and thus inhabit the functional space between *v*P and TP, as shown in (4), epistemic modals come above TP and are actually playing the role of a CP. If the only difference was really in terms of which phase they belong to, the two modals should have matching relation with the existing phase edges. To fix this, Butler proposes that *v*P is actually not a phase. The only phase is the expanded CP layer with the modal projections that repeats twice, once right above *v*P and again right above TP.

[3] Chomsky (2005b) acknowledges all these properties of T that make it look like a phase, but claims they are all inherited from C, the true phase, but note that such inheritance is countercyclic.

[4] Ross (1969) argued root modals are control constructions thus giving their subject a thematic role (and interpreting them higher than the modal), while epistemic modals are raising verbs, thus interpreting their subjects within their scope. Wurmbrand (1999) claims modals are always raising showing even subjects of root modal can be interpreted inside the scope of the modal. As Butler (2003a) claims, only indefinites can be interpreted inside the scope of a modal, but not canonical subjects.

(4) (Butler 2003a, tree diagram (66), p 988)



In this way, the parallel we are seeking between *v*P and TP has been established. Both projections have the same status, for me, they are both phases, for Butler, they both aren't phases. In order to decide between the two options (they both are/aren't phases), we'll have a look at embedded clauses. But let me first note another potential problem. Butler assumes a phase is the complement of the phase head, not the entire phase phrase. If the phase is really only the complement, then it is the complement that needs the escape hatch, not the phase-head, but if complement has the escape hatch, then it is the complement that is a phase, in terms of when Spell-Out occurs, not the phase-head phrase. Additionally, it is not clear which of the three projections is actually the phase head or if maybe all of them are. Since the three projections can appear alone, each one should be qualified as a phase. But then, if all of them are working separately, that would mean we have three phases, not just one.

As said, epistemic modality operates over the entire sentential proposition. The epistemic modal is located above TP, so the proposition it operates on is the TP proposition. Now, if epistemic modal is indeed located in or above CP, we would expect it either could not appear in embedded finite clauses or else it would appear to the left of the complementizer. Neither is true. Epistemic modals are perfectly ok in embedded clauses, as shown in (5).

(5) a. I am afraid that it might rain tomorrow.
b. Susana thinks that Hiroko must be at home right now.
c. Povedal mi je, da zna jutri deževat. (Slovenian)
told me AUX that can tomorrow rain
"He told me that it could rain tomorrow."

Another argument for the phasehood of TP comes from quantifier interpretation. According to Chomsky (2001) (also Legate 2001, 2003) phase edges are both sites of reconstruction and positions where quantifiers take scope. All syntactic movements have to go through phase edges, therefore both quantifiers and *wh*-words are at some point located in this escape hatch positions, especially when they participate in long distance movements (see Legate 2001 for discussion). Assuming this, we can check to see if quantifiers can be interpreted in SpecTP position. ECM constructions, as in (6) and (7), are typically analyzed as not having the CP projection, since the subject from the embedded clause can get case from the matrix verb. Thus if we can interpret a DP in the region between the verb and the embedded negation, it would have to be in SpecTP.

To illustrate, example (6) has a reading where the embedded object gets scope over negation but under the main verb, which would correspond to the rough paraphrase 'Jon wants there to be a cake which Jessica does not eat'. This reading is appropriate in a situation in which Jon brings Jessica a lot of different cup cakes, and since he is not yet full, doesn't want Jessica to eat them all, but wants one cup cake for himself. He doesn't have any preferences regarding cup cakes, he simply wants there to be one cup cake Jessica doesn't eat. (Note that this reading is different from one in which he wants that it is not the case that Jessica eats a single cup cake, which would be the narrow reading of the indefinite with respect to negation.)

(6) Jon wants Jessica not to eat a cup cake.

Example (7) is a bit more complex. In the crucial interpretation the embedded subject takes scope over the embedded object, which in turn takes scope over negation. This reading should be paraphrasable as 'John expects that there is someone for whom it is true that for all classes, he will not attend them'. The embedded subject of the example (7) can definitely be understood *de dicto*, suggesting it is interpreted inside the lower clause.[5] Since the embedded object can be interpreted inside the scope of the indefinite and outside of the scope of negation (assuming QR goes through phase edges), the embedded object must be in the phase edge in the lower SpecTP (in the lower specifier). (Not all speakers whom I've contacted have confirmed this judgment.)

(7) John expects some student not to attend all classes. $\exists > \forall >$ not

Note that in (6) and (7) we were talking about non-finite TP, that is, a TP that doesn't assign NOM case[6] and possibly doesn't even have the EPP (its EPP is not visibly checked), which are two of the prominent features of a phase head. So the question is whether a non-finite TP, which lacks these properties, can still qualify as a phase. As it will be discussed later, case and (standard) EPP are both properties associated with PF phases. But here, we were only checking interpretation of quantifiers, which should only give us evidence for LF phasehood. As will become clear later, a non-finite TP is one of

[5] Actually, this fact alone suggests the lower clause is a separate semantic unit, sent to the LF interface separately from the matrix clause.

[6] I am ignoring Icelandic facts from Sigurðsson (1991) and Slavic facts from Franks (1995) and Marušič *et al* (2002, 2003a). Or better, I want to say (at least) Nominative case on PRO (or maybe just on the depictives and floating quantifiers) in these cases is actually a default case.

the typical non-simultaneous phases, it is an LF phase, but not a PF phase (when structure gets spelled-out, it gets spelled out only to LF, but not to PF).

1.1.2 Steps of the derivation

There are many ways of understanding how derivation proceeds in stages. I will here explain what view I am adopting (and provide brief arguments for where possible). A phase begins with its own lexical subarray (a phase-specific part of the numeration). When the phase head is merged in the structure, elements in the domain of the phase—inside the complement of the phase head—must move to the specifier of the phase head if they want to participate further in the derivation. When a new phase starts building new structure from a new subarray, whatever is left in the complement of the phase head is invisible and doesn't participate in further derivation. Only the head of the phase and its specifier remain visible and can participate in further derivation. The entire phase is spelled-out to the two interfaces once its elements cannot participate at any later stage of the derivation. Thus, the structure is spelled-out at the completion of the next higher phase and also at the completion of the entire derivation.

The freezing (inaccessibility) of structure is captured in the Phase Impenetrability Condition [PIC] (Chomsky 2000): 'In phase α with head H, the domain of H [=complement of H] is not accessible to operations outside α [=HP], but only H and its edge [=H plus any/all of its specifiers].' PIC guarantees that mappings to the two interfaces don't have to worry about what they have already done, which represents a major saving in memory. So, once a phase is mapped to the interface it is "forgotten" and *everything* inside it is frozen for further derivations. But, as mentioned, a phase is not frozen immediately after it is completed. A phase is completed when it reaches the top-level projection of the phase head, but it is only shipped and thus sealed, when the next phase is completed.[7]

In order for extraction from a phase to be possible, phase heads must have an edge feature, e.g. the EPP-feature. This feature permits raising to the phase edge without feature matching, it simply allows the elements to be visible for further operations (Chomsky 2004, 2005a,b).

I will make the assumption that, at the point of Spell-Out, structure is not just frozen in place waiting its ultimate shipment to the two interfaces, but actually shipped to LF and PF. There are several reasons to favor this option over simple freezing of the structure. The most obvious reason is the prime conceptual reason for introducing phases, namely, saving in memory (cf. Chomsky 2001, 2004, 2005a,b).

[7] I reject alternative understandings of/approaches to the Phase Impenetrability Condition. Fujii (2004) claims the proper way to frame PIC is "The domain of a phase is only accessible to syntactic derivations until the head of the next phase is introduced" (Fujii 2004: (54)), but notice that with this understanding there is no need for an escape hatch since everything in the entire phase, not only the specifier and the head, can participate in the derivation. The idea of the escape hatch has been criticized by Grohmann (2000) and Boeckx and Grohmann (2004). Grohmann (2000) in addition provides a system of hatch-less phases. In such a system a phase would indeed be sealed off only when the next higher phase is completed. I believe that the particular understanding of phases, whether they have an escape hatch or not is not so important for the main point argued in this thesis. It seems both workings could be used to present what I want to present here (with some modifications, of course).

If we assume that working memory for structure building is limited, then it makes perfect sense to say structure must be shipped off to the two interfaces and not just left untouched. If it were just merely untouched, there would be no savings in memory in the structure building part of the language organ. Of course, even if this structure is actually shipped off to the two interfaces, it has to be stored there and would end up consuming some part of memory anyway. But arguably, this (interface) memory is different and it might even be separated from the language organ altogether.[8]

The other reason to prefer shipping over freezing is that only under shipping we get clear explanation for the fact that the same pieces of structure get constantly assigned similar realities at the interfaces. Since this is part of the way we identify phases, it would be strange to say shipment of separate chunks doesn't exist.

But what do we do with long distance dependencies, like Principle C and certain weak NPIs? Following Progovac (1994) (and Laka 1990), "any"-NPIs can be licensed with the help of covert movement, therefore at LF, outside of syntax proper. Principle C on the other hand, might be altogether extralinguistic as suggested by Chomsky (in one of his lectures at Stony Brook University in May 2003). Another way around the long distance binding problem is to adopt a movement approach to binding ala Kayne (2002). This could also explain long distance *wh* and quantifier dependencies. Although movement dependencies should not be problematic, they become less obvious once we reject the copy theory of movement. But even without it, the trace and the moved element are connected either via an index or with the lambda extraction that is created whenever an element is moved (cf. Heim and Kratzer 1998).

1.2. Non-simultaneous phases

Items/elements can escape their source phase moving from inside phase-delimited structure to the phase edge and later participate in the derivation of a higher phase. Therefore, not all elements that enter the derivation in a phase and originate from a single subarray of lexical items get spelled-out (sent to the two interfaces) at the same time, that is, in the same phase. Conversely, what gets spelled-out simultaneously, may have entered the derivation at different times (in different phases originating in different subarrays). We, therefore, have a mismatch between what enters the derivation in a subarray and what gets spelled-out to the two interfaces when the same phase is completed. Usually, when we are comparing two things, we either find them parallel or else what we thought needs to be parallel doesn't have these kinds of requirements. Since in this case, we already have some mismatch, matching clearly isn't the inviolable requirement. The question, now, is where else could we observe mismatch between input and output of a derivation?

In a derivational phase-based syntactic theory, where structure is frozen and shipped to the two interfaces in phases, the natural question comes to mind: *Is structure sent to the two interfaces at the same time or do the two interfaces receive different*

[8] After all the two interfaces or better the ability to produce sounds and the ability to think (this being a somehow related to LF) are not unique to humans, while language is.

structures at different times? Before answering this question, we should have a closer look at what exactly we are talking about when we talk about phases at the interfaces.

1.2.1 Phases as interface units

As said, phases are stages or cycles of the derivation at the completion of which structure is sent to the two interfaces. Structure is therefore sent to the two interfaces in units/chunks and we might expect these units to be preserved at the two interfaces and find some reflex of phases on the interfaces. That is to say phases have some sort of interface reality. Indeed this seems to be the case. According to Chomsky (2001), phases are propositional elements, suggesting that whatever is shipped to LF can be seen as a unit of information. At the level of LF, sentences are commonly separated in "units" such as *events*, *propositions*, *facts*, *speech acts* etc. For example, Ernst (2002) divides the clausal structure in three areas that allow attachment of different kinds of adjuncts. Depending on where an adjunct is attached, it can modify the *event internal* part of the clause, the *event* part of the clause or the *proposition* part. It seems that these three areas of attachment correspond to the three phases proposed here—*v*P, TP and CP.[9] Butler (2003b) gives an account of syntax-semantics interface where every phase corresponds to a quantificationally closed situation, a kind of a semantic unit.

On the PF side, phases are reflected as phonological units. They have some level of phonetic independence (Chomsky 2001, 2005a, Marvin 2002, Marušič 2001) and can correspond to prosodic words, prosodic phrases, intonational phrases etc. These are also units on which sentential stress is computed (Legate 2001, 2003, Matushansky 2003, cf. also Cinque 1993, Truckenbrodt 1999, Wagner 2003).

Since phases have interface realities, we would not expect them to be created inside interfaces, but rather with shipment to the interfaces. Thus, when a chunk of structure becomes inaccessible it is shipped to the interfaces rather than just frozen (as discussed above).

1.2.2 Mismatching interface units

Standardly, a phase is said to be both the point of PF and LF Spell-Out—shipping of the features to the two interfaces is said to happen simultaneously (Chomsky 2004, 2005a,b, Legate 2001, 2003). But since phases are reflected as units at the two interfaces, assuming this is the only way interfaces units can be created, if every PF phase has a corresponding LF phase, then every PF unit should have a correspondent LF unit and vice versa (PF phase = LF phase ←→ PF unit = LF unit). Intuitively, this is not the situation in natural languages. The phonologically complex phrases in (8), for example, are not semantically complex.

(8) a. John let the cat out of the bag.
b. John spilled the beans.

[9] Note that I am not assuming correctness of Ernst's analysis of adverbial modification, I am simply pointing out an analysis that divides the semantics of a sentence into three parts.

c. Janez je šel v Kanoso.
Janez AUX go in Canossa
"Janez repented"

The semantic composition of the italicized phrases in (8) does not correspond to their phonological composition. Similarly, the single phonological unit in (9) has complex semantic structure and is even ambiguous (even stronger proving it has semantic (/syntactic) structure).[10,11]

(9) *unlockable* = [un-[lock-able]] or [[un-lock]-able]

On a more conceptual side, if one of the virtues of grammar is also minimal design, then restriction to a single interface Spell-Out, assuming this property doesn't follow from anything else, perhaps shouldn't be something given by the grammar proper.

The standardly assumed simultaneous Spell-Out, which is also the most straightforward and the most restricted possibility, seems to be too restricted. In addition, as pointed out above, we already have a mismatch between what enters the derivation in a phase and what gets spelled out in it. A different kind of mismatch is the one we are pursuing here. In this thesis I look at the mismatch between what gets spelled-out to LF and what to PF interface in a particular phase. I explore the possibility of having spell-out occurring only to a single interface. This would mean that, at the point of Spell-Out, only some features of the structure built thus far would get frozen and shipped to an interface. Since lexical items are composed of three types of features, {S,P,F}, if only one type gets frozen, the other two can still take part in the derivation. If for example a certain head is an LF phase head but not a PF phase head, let's call it an **LF-only phase**, its completion would freeze/ship all the features that must end up at LF, but not those that are relevant for PF. Then, at the next (full) phase, when the derivation reaches e.g. *v*P, the structure ready to be shipped to PF would be twice the size of the structure ready to get shipped to LF, since part of the structure has been already shipped to LF at an earlier point of LF-only Spell-Out. Non-simultaneous Spell-Out to the two interfaces has already been proposed in Megerdoomian (2003), Felser (2004), and Wurmbrand & Bobaljik (2003) (an earlier version of Bobaljik & Wurmbrand 2005). It is also hinted at in Sauerland & Elbourne (2002) and offered as a possibility but rejected in Matushansky (2003).

One obvious but so far unmentioned problem comes to mind if one accepts non-simultaneous spell-out. A phase boundary is not only the point where the completed phase is spelled-out but also the point where a new phase begins. If the endpoints of the LF and PF phase differ, does it mean the starting points of new phases also differ? Since a phase is defined as a complete cycle including the subarray and the derivation, having completely independent phases would suggest completely independent subarrays consisting of only PF or only LF related material/features. But that would suggest the

[10] One can argue every word has in fact complex phonological structure since it can be divided into syllables and into even smaller phonemes. But note that these appear to be different units since their existence and distribution does not depend (in any important way) on the syntactic/morphological composition, that is, syllables do not have a correspondent in semantics/LF.

[11] See Carlson (2005) for more examples and a different explanation of such mismatch. Note that these cases are not given as an argument for non-simultaneous phases. Rather they are used only as an illustration.

matching of PF and LF is a result of pure coincidence, which seems plainly wrong. After all simultaneous Spell-Out to PF and LF interfaces is presumably the normal way things work; it's the non-simultaneous Spell-Out that is exceptional. I am assuming lexical items (and other elements in the numeration) comprise sets of the three kinds of features discussed earlier, therefore all features enter the derivation at the same time, simply because of the nature of the lexicon. That is to say, if a lexical item consists only of semantic and formal but no PF features (e.g. the null verbs of Inkelas 1993, den Dikken *et al.* 1996, van Riemsdijk 2002, Marušič and Žaucer 2005 etc.) or the other way around (having only sound but no meaning), then the PF and LF numerations would indeed differ, but this would not be through phase mismatch, but rather a consequence of the specific lexical items. PF and LF sides of the structure would still both be shipped to their respective interfaces at the point of Spell-Out. It is simply that the amount of spelled-out material would diverge.

Assuming the lexicon consists of lexical items of the form {S,P,F}, as explained above, numeration and its subarrays cannot consist of exclusively semantic/LF (S) or exclusively phonetic/PF (P) features. Every subarray of the numeration is both a PF and an LF subarray, and therefore starts both a PF and an LF phase.

It also seems natural to say that by the time the derivation reaches the point of Spell-Out, the subarray must be emptied. That is to say that, when new elements enter the derivation in a new subarray, no old ones should be waiting there.[12] If at the point of Spell-Out the derivation is not shipped to both interfaces, one could say that the phase is not really completed and perhaps the lower subarray could still provide items for the derivation, but then the lower subarray also wouldn't have been emptied. Thus, it seems, even at the point where only a partial phase is completed, the subarray must be completely empty. Assuming it is empty, then, of course, the new phase must bring in items relevant for both interfaces (both S and P features). Thus any partial phase acts as a starting point for both phases. I see this as a welcome result.

Notice that it doesn't matter how much material is being shipped to the interfaces at the point of Spell-Out since a phase regularly accepts items that joined the derivation in a previous phase and moved up. In case of an LF-only phase, the next PF phase would spell-out structure constructed from two subarrays, corresponding to two LF phases. Thus in a way phases do remain parallel and have a one to one correspondence, it's just that in some cases they don't Spell-Out to both interfaces simultaneously.

In this view, when I say a phase is either PF-only or LF-only, I mean that at the point of Spell-Out the structure can be transferred only to one of the two interfaces. A more appropriate way of saying this might be that **it is only the Spell-Out that is LF or PF-only**. I am using the terms *PF/LF-only phases* to mean PF/LF-only Spell-Out.[13]

This thesis gives two (complex) arguments for the existence of non-simultaneous Spell-Out in chapters 4 and 5. They are both built on Slovenian data and they both

[12] Assuming we have a single active memory location for subarrays, one might say that the old items from the previous subarray get simply overwritten.

[13] Megerdoomian (2003) makes the interesting proposal that Spell-Out to the two interfaces differs in that LF-Spell-Out is universal and applies at the strong phases identified by Chomsky, while PF-Spell-Out is subject to parametric variation among languages and is thus the prime reason why what appears as a single word in one language can be realized with multiple words in another (the example she uses is the Japanese causative, which always constitutes a single word, and Eastern Armenian causatives, which can be both a single word and analytic – composed of two words). I do not have much to say about her proposal.

involve Slovenian clausal complementation (one more obviously than the other). Both of them are presented briefly in the next two subsubsections.

1.2.3 The Slavic FEEL-LIKE construction

In the Slovenian FEEL-LIKE construction a single verb (root + affixes) is composed of parts belonging to two different clauses. As argued in chapter 4, this apparently monoclausal construction, illustrated in (10), is in fact structurally biclausal, with a hidden matrix predicate, as shown in (11). The hidden predicate corresponds to the overt verb that appears in the construction's paraphrase.

(10) Gabru se je pilo koktejle.
Gaber$_{Masc,DAT}$ *SE* *AUX*$_{3P,Sg}$ *drink*$_{Sg,Neu,Past}$ *cocktail*$_{Masc,Pl,ACC}$
"Gaber felt like drinking cocktails."

(11) [$_{TP}$ *Gabru* NON-ACT [$_{VP}$ FEEL-LIKE [$_{FP}$ PRO [$_{vP}$ [$_{VP}$ *drink* [$_{DP}$ *cocktails*]]]]]]]

The construction is apparently monoclausal, containing only one overt verb, but as suggested already by the glosses, it is interpreted with two distinct predicates, the pronounced verb and a non-pronounced dispositional element. Several arguments, including the co-occurrence of double temporal adverbials referring to two distinct events denoted by the two predicates, as in (12), and the co-occurrence of the two opposing depictive predicates, as in (13), suggest the construction actually involves two events occurring at two different times.

(12) Včeraj se mi ni šlo jutri domov.
yesterday *SE* *I*$_{DAT}$ *AUX*$_{Neg,Past}$ *go* *tomorrow* *home*
"Yesterday, I didn't feel like going home tomorrow."

(13) Jušu se treznemu ni kuhalo pijan / trezen.
J$_{DAT}$ *SE* *sober*$_{DAT}$ *not* *cooked* *drunk*$_{NOM}$ *sober*$_{NOM}$
"Juš—(all) sober—didn't feel like [cooking drunk / sober]."

On a different note, the FEEL-LIKE construction exhibits apparent violations of the strict Cinquean functional hierarchy. If the hierarchy is indeed inviolable, the order of adverbs can only be reversed if the construction consists of two sets of functional projections and thus two clauses. Since the adverbial order in the FEEL-LIKE construction can indeed be reversed, as shown in (14a-b), we can conclude that this construction involves two sets of functional projections. Having two sets of functional projections also predicts that one of the two adverbial orders (the one that obeys the hierarchy) will have three distinct interpretations, depending on where the adverbs are located—in the higher clause, in the lower clause, or one in each clause. Example (14a), with the order that obeys the functional hierarchy, is three ways ambiguous and thus confirms the prediction.

(14) a. Bobanu se **spet** pogosto kadi havanke.
Boban$_{DAT}$ SE again often smokes Havanas
"Boban again often feels like [smoking Cubans]"
"Boban again feels-like [often smoking Cubans]"
"Boban feels-like [again often smoking Cubans]"
b. Bobanu se pogosto **spet** kadi havanke.
Boban$_{DAT}$ SE often again smokes Havanas
"Boban often feels like smoking Cuban cigars again."

Facts with functional verbs presented in (15) are parallel to the adverbial examples in (14). (Again) following Cinque (2004a), functional verbs are functional heads merged into the structure in strict hierarchy so that as a result they can only appear in one order, e.g. modals can only precede aspectual verbs, because aspectual functional projections appear lower in the functional hierarchy than the modal projections. Interestingly, the FEEL-LIKE construction allows modals also as the complements of aspectual verbs, (15b). If functional verbs are always heads and if the hierarchy is always inviolable, the only way to get the reversed order is to have two sets of functional projections on top of each other (with an unpronounced V in between). Just like (14a), (15a) is also multiply ambiguous. Actually, (15b) with the modal verb preceding the aspectual verb is 4 ways ambiguous since the matrix modal verb can have either an epistemic or a root interpretation. Epistemic interpretation is ignored in the glosses of (15a) for reasons of simplicity.[14]

(15) a. Sme se mi začet fuzbalirat.
may SE I$_{DAT}$ begin play-soccer$_{INF}$
"I am allowed to begin to feel like [playing soccer]."
"I am allowed to feel like [beginning to play soccer]."
"I feel like [being allowed to begin to play soccer]."
b. Začel se mi je smet fuzbalirat.
begin SE I$_{DAT}$ AUX may$_{INF}$ play-soccer$_{INF}$
"I begun to feel-like being allowed to play soccer."

Similarly, the construction allows otherwise unacceptable perfective complements to aspectual verbs. (16a) is ungrammatical since the aspectual verb *nehal* 'stop' cannot take the perfective verb *začeti* 'begin' as its complement. The acceptability of (16b), with the same overt sequence of verbs, thus suggests a hidden imperfective verb in its own clause, giving us the already familiar biclausal structure.

(16) a.*Tone je nehal začeti laufati.
T$_{NOM}$ AUX stop begin$_{PF\text{-}INF}$ run$_{IMPF\text{-}INF}$
"Tone stopped beginning to run."

[14] This argument for biclausality is not given in Chapter 4 since the status of modal infinitives is not really clear in Slovenian. In general, they do not exist except as forms in which they are listed in the lexicon. Example (15b) is therefore acceptable to the degree one accepts modal infinitives.

b. Tončku se je nehalo začeti laufati
T_{DAT} SE AUX stop $begin_{\underline{PF}\text{-}INF}$ $run_{IMPF\text{-}INF}$
"Tonček stopped feeling like beginning to run."

The construction also exhibits ambiguity of the deontic modal in (17), which is interpreted either inside or outside the scope of the disposition. Because of two possible positions of the deontic (root) modal, two sets of functional projections are suggested.

(17) Joni se sme igrati fuzbal.
$Jona_{DAT}$ SE may play soccer
"Jona feels like being allowed to play soccer."
"Jona is allowed to feel like playing soccer."

Lastly, the non-pronounced disposition allows intensifiers, shown by the double contrary intensifiers in (18a) and (18b), suggesting two different verbs and thus again two clauses.

(18) a. Pomalem se mi je zelo razgrajalo.
somewhat SE I_{DAT} AUX very make-noise
"I felt somewhat like making a lot of noise."
d. Zelo se mi je malo tarnalo
very SE I_{DAT} AUX little whine
"I very much felt like whining a little."

On the basis of these arguments, the chapter concludes that the construction under discussion is covertly composed of two clauses with their own predicates denoting separate events, possibly occurring at different times. Different times of the two events suggest two separate LF units and thus two phases. Two LF phases are also suggested by the intensionality of the construction, the de dicto/non-specific reading of the object, possible use of non-denoting terms etc. Last but not least, the construction has been standardly analyzed with a covert modal element, taking a *proposition* as a complement (cf. Franks 1995, Rivero & Milojević-Sheppard 2003 among others). If phases create propositions, then the complement of the "modal" is an LF phase even in these monoclausal analyses.

Interestingly, unlike its LF structure, the construction's PF structure is quite simple. There is no obvious clausal boundary that would for example prevent scrambling and clitic climbing:

(19) a. Televizijo se je Vidu [gledalo t_i že včeraj]
TV_{ACC} SE $AUX_{3P,Sg}$ Vid_{DAT} $watch_{Past,Sg,Neut}$ already yesterday
"Vid felt like watching the television already yesterday."
b. Včeraj se jo_i je Vidu [gledalo t_i]
Yesterday SE $her_{Cl,ACC}$ $AUX_{3P,Sg}$ Vid_{DAT} $watch_{Past,Sg,Neut}$
"Yesterday, Vid felt like watching her/it." (e.g. television)

Even more revealingly, tense inflection on the sole overt verb actually does not belong to this verb since it modifies the disposition rather than the event denoted by the

verb. Thus, tense morphology belongs to the hidden FEEL-LIKE predicate. Since the FEEL-LIKE predicate is the matrix predicate in this construction, the tense morphology related to its event also originates in the matrix tense projection. Therefore tense morphology of the matrix TP ends up attached to the lower verb, forming a single word composed of elements from two distinct clauses.

These points are illustrated in (20), where the future tense morphology signifies a future disposition towards *sitting outside* rather than a present disposition towards a future event of *sitting outside*. To express a present disposition, the verb has to be in the present tense, as in (21). And of course, if the verb carries present tense morphology, the sentence cannot express a future tense disposition.

(20) Filipu se ne bo sedelo jutri odzuni.
Filip$_{DAT}$ *SE NEG* *AUX-**FUT***$_{Neut}$ *sit*$_{Neut}$ *tomorrow* *outside*
"Filip won't feel like tomorrow sitting outside."
* "Filip doesn't feel like tomorrow sitting outside in the future."

(21) Filipu se jutri sedi odzuni.
Filip$_{DAT}$ *SE tomorrow* *sit*$_{Neut,\mathbf{Pres}}$ *outside*
* "Filip won't feel like tomorrow sitting outside."
"Filip doesn't feel like sitting outside tomorrow."

(21) additionally shows that although the verb appears in the present tense, it can still appear with a future adverbial. Not surprisingly, this is OK. The adverbial modifies the time of the sitting and is located inside the lower clause, which explains why there is no conflict between the present tense on the verb and the future adverbial.

The verb and its tense inflection make up a single word. Note that the verb did not raise out of its position since it is interpreted inside the lower clause, inside the scope of the feel-like predicate (additionally, the verb itself is opaque, for example, it need not refer to an actual event; it may in fact be non-denoting; one surely can feel like levitating for example). With its temporal inflection clearly belonging to the matrix predicate, we have an example of a single word—a single phonological unit (created in a single PF phase)—that is composed of parts belonging to two different semantic units/LF-phases.

1.2.4 Infinitives and restructuring

Non-finite clauses show transparency to clitic climbing and scrambling, but still induce scopal effects such as non-specific readings of an embedded object. On one hand they exhibit less structure, while on the other they get interpretations comparable to those of other clausal complements – the clausal complement expresses a proposition (cf. Wurmbrand 2001, Wurmbrand and Bobaljik 2003). The chapter shows that Slovenian non-finite clauses lack the CP projection, that they express a proposition, and that the structure corresponding to the proposition does not represent a PF phase.

Scrambling from Slovenian finite clausal complements shows A-bar scrambling properties. Scrambling in (22a) triggers WCO just like comparable *wh*-movement, (22b). A scrambled DP must also totally reconstruct, as shown in (23).

(22) Janez$_i$ je njegov$_{j/*i}$ oče reku, da __ ne igra golmana.
J_{NOM} AUX his father said that not play goalie
"John$_i$, his$_{j/*i}$ father said doesn't play goalie."

b. Kdo$_i$ je njegov$_{j/*i}$ oče reku, da ne sme igrat golmana?
who AUX his father said that not may play goalie
"Who$_i$ did his$_{j/*i}$ father said that he mustn't play goalie?"

(23) a. Nekdo je rekel, da so vse punce vredne greha. *∀>∃
someone AUX said, that AUX all girls worthy sin
"Someone said that all girls are worthy of sin."

b. Vse punce, je rekel nekdo, da ___ so vredne greha. *∀>∃
all girls AUX said someone that AUX worthy sin
"Someone said that all girls are worthy of sin."

c. Vsaka punca, je rekel nekdo, da ___ je vredna greha. *∀>∃
every girl AUX said someone that AUX worthy sin
"Someone said that every girl is worthy of sin."

Scrambling from non-finite complements, on the other hand, shows A-properties: it does not trigger WCO, as shown in (24a), and it does not trigger total/radical reconstruction of the scrambled element, as shown by (24b-c), where the scrambled quantifier can be understood in its surface position.

(24) a. Janeza$_i$ je njegov$_i$ oče sklenil poslati __ v semenišče.
J_{ACC} AUX his dad decided send$_{INF}$ to theological seminary
"His$_i$ father decided to send John$_i$ to the theological seminary."

b. Vse punce se je nekdo odločil poklicati po telefonu. ✓∀>∃
all girls REFL AUX someone decided call$_{INF}$ over phone
"Someone decided to call all girls."

c. Vsako punco se je nekdo odločil poklicati po telefonu. ✓∀>∃
every girl REFL AUX someone decided call$_{INF}$ over phone
"Someone decided to call every girl."

Clitics can easily climb from Slovenian non-finite complements, (25). Assuming Slovenian second position clitics are positioned in PF (Marušič *in prep* B), this not only shows there is no CP boundary, but that there is in fact no PF phase between the matrix clause and the embedded non-finite complement (or at least no more PF phases than there are in a monoclausal sentence).

(25) Res **sem ji ga** sklenil [PRO opisati __ __]
really AUX her him decide describe$_{INF}$
"I really decided to try to describe him to her."

Other arguments (involving multiple *wh*-movement, partial *wh*-movement, genitive of negation, and depictive secondary predicates) similarly show there is no (PF) phase between the matrix and the embedded clause. Non-finite complementation creates opaque contexts and the clausal complement denotes a proposition, therefore the clausal

boundary obviously shows properties of an LF phase. Thus we have a conflict of phases, what appears to be an LF phase, is not a complete phase.

1.3 Predictions

Once our theory allows phases/Spell-Out to be interface specific, two apparently quite different processes can be brought together under a common mechanism. If an item is only partially spelled-out—spelled-out to a single interface—its non-spelled-out part can still participate in the derivation and potentially move from the position where it has been partially spelled-out. This results in an item being pronounced and interpreted at different points in the derivation in potentially different positions. Thus, an item can be interpreted higher than it is pronounced or it can be pronounced higher than it is interpreted. Both cases seem to correspond to actual phenomena in natural language. When something is interpreted higher up in the structure than its surface position, it is said to have "covertly moved." When something is interpreted lower than its surface position, it is said to have "reconstructed (covertly lowered)."

(26) interpretation > pronunciation → instance of **Covert Movement**
pronunciation > interpretation → instance of **Reconstruction**

1.3.1 Covert Movement

Covert movement presents standard phase theory with a serious challenge. If phase boundaries freeze all syntactic movements, nothing should escape. If something escapes, such movement can only be an instance of purely LF movement. But covert movement is typically argued to be syntactic. Chomsky (2005a,b) cites Nissenbaum's (2000) "solution", which takes the difference between *covert* and *overt movement* as a difference in timing between Spell-Out and move. If movement to the edge applies prior to Spell-Out, movement is overt. If Spell-Out applies prior to movement to the edge, movement is covert. With the standard assumption that Spell-Out is simultaneous, and that Spell-Out creates uncrossable boundaries, there should not be any movement after Spell-Out, therefore, there should not be any covert movement. Nissenbaum (2000) assumes Spell-Out is not simultaneous to both interface, but rather that only phonological features get spelled-out to PF, while the others remain in the derivation on its way to LF. In such a system, his solution makes perfect sense, but for us it is unacceptable. Another possible analysis, assuming copy theory of movement, deletes the lower LF copies and the upper PF copies created by movement (e.g. Bobaljik 1995). This analysis lacks a convincing way of determining which copy is to be deleted at which interface (knowing the two interfaces are not related and knowing the opposite mechanism deleting the higher LF and the lower PF copy has been proposed for reconstruction, such mechanism seems impossible).

But covert movement can be understood coherently in terms of non-simultaneous phases. We can view it as an instance of a syntactic object that was previously spelled-out to PF and now participates in the derivation with its as yet unspelled-out *S* & F features. As for the location of such a partial phase, the general account must lie in our analysis of

DP structure. Covert movement (e.g. Quantifier raising and covert *wh*-movement) is a property of (strong) quantifiers, a subgroup of DPs, therefore it seems reasonable to look into the internal structure of the DP for the source of its movement.

The basic idea I will pursue is that certain DPs have a phase that sends the structure to PF but not to LF. In other words, DP is a phonological/PF phase, but not always a semantic/LF phase. When DP gets merged into the structure, there are no differences between the position of the *S*, P, and F features of the DP, but when the next phase is introduced, the DPs internal structure becomes partially invisible, in particular, the PF related features get spelled-out since they are inside a smaller PF-only phase, as in (27a). Since they are already spelled-out they cannot participate in the later derivation. The LF-related features (non-PF related features are actually both *S* & F) of the syntactic object, on the other hand, remain in the derivation. Since there's no complete phase in between, the probe can see the F features inside the DP and attract them, (27b). Thus we get (27c) after merging of the subject DP and QR of the object. In the end the S features of the object DP end up being interpreted at the left most edge of the clause, while the PF features remain in their base position where they also get pronounced, as sketched in (27d).

(27)a. *S* *[v [$_{VP}$ V [$_{DP}$ NP]]]*
P [v [$_{VP}$ V [**$_{DP}$**]]]

b. *S* *[**$_{vP}$**[$_{DP}$ NP]$_i$ v [$_{VP}$ V t_i]]*
P [**$_{vP}$** v [$_{VP}$ V [**$_{DP}$**]]]

c. *S* *[$_{TP}$ [$_{DP}$ NP]$_i$ [$_{TP}$ DP$_{Sub}$ T [**$_{vP}$** —spelled-out—]]]*
P [$_{TP}$ [$_{TP}$ DP$_{Sub}$ T [**$_{vP}$** —spelled-out—]]]

d. *S–interpretation* *DP$_{OBJ}$* *DP$_{SUB}$* *V*
P–pronounciation DP$_{SUB}$ V DP$_{OBJ}$

The structure of the DP argued for in this thesis is actually a bit more complicated and the entire derivation a bit more complex than indicated above. I want to suggest that much like what has been proposed for *wh*-words (e.g. Hagstrom 1998, Yoon 1999 (going back to Kuroda 1965 etc.)) is also true of quantifiers. In this view, quantifiers are basically separable from the rest of the DP in terms of their interpretation (cf. Ruys 1997). The way they are separated determines their interpretational properties and their movement possibilities. Ideas like that are of course not new. One related implementation is Sportiche's (1997) analysis of DPs as clausal projections, where what gets merged in the verbal argument positions are only NPs. Instead of "clausal" DPs I propose scope is marked in the clausal structure with the presence of a [+Quant] feature in the TP (or any other phase projection except CP). Thus, instead of merging the quantifier high in the tree, what gets merged is only a feature determining the scope of the quantifier, just like the presence of a [+WH] feature determines the scope of a *wh*-word. This feature then attracts the (LF part of the) quantifier, which thus appears to have covertly moved to the edge of the clause. The [+quant] feature actually attracts [+Q], a formal feature of the quantifier.

Following Svenonius 2004, DPs (or nominals) have two distinct phases a NP (parallel to *v*P) and a DP (parallel to CP) phase. So since we are saying there is a non-simultaneous phase in the DP, we have to determine which one it is. We said that the quantifier can get separated from the rest of the nominal. This suggests the highest phase

inside DP (the one encompassing both the quantifier and NP) is a PF-only phase. Indeed, DPs form a prosodic/intonation phrase and seem to be phonetically independent (Matushansky 2003). But this highest phase in a DP with a strong quantifier does not have any comparable semantic independence. Crucially, the highest phase inside a DP with a strong quantifier (labeled DP in (28)) is not an LF phase, as argued by Matushansky (2003) and Sauerland (2005). Whenever the DP spells out to PF, since it is only a PF phase, its LF related features ([$_{LF}$]) are not removed from the derivation (like their PF correspondent features) and can move further.

(28) *quantificational DP*

PF & LF phase

[$_{DP}$ D [$_{QP}$ Q [$_{NP}$ N]]]

PF, but not LF phase

There are two phase heads in (28), D and N. These two phase heads create two DP internal phases, DP and NP respectively. The difference is that NP spells-out to both LF and PF, while DP only spells-out to PF. The phase in between N and Q is not controversial, NP is also considered a bounding node in older terms, but its exact location might be different (cf. Sportiche 1997, Svenonius 2004). The phase encompassing both Q and NP is also intuitive. But notice that the clearest evidence for the independence of DP is phonetic. A DP like any other maximal projection in the specifier position forms its own prosodic phrase, thus a DP is intuitively a PF phase. DP is also the element that participates in all kinds of movements including those possibly non-syntactic (cf. Matushansky 2003). While semantically, DPs show much less independence.

Sauerland (2005) shows DP is not a scope island and that the quantifiers from inside the DP in inverse scope linking constructions actually never end up taking scope at the DP level (contra e.g. Larson 1985). Since positions where quantifiers can take scope are commonly taken to be (LF) phases, having no scope positions at the edge of the DP means DP is not an LF phase.

Additionally, quantifiers do not constitute a natural semantic constituent only with the NP that is their complement. Whatever view we take of the quantifiers, be it relational (Larson 1991) or clausal (Sportiche 1997), their semantic unit includes both their restriction—the NP—and their scope—the rest of the clause. Intuitively, this means that the top level projection of the DP is not a semantic phase (following Larson 1991, DP includes both restriction in the complement position and scope in the shape of a *pro* in SpecDP. Under this view DP is a semantic phase, but I'll leave his proposal aside for now). We can start from here and see where this will lead us.

Now we need to make a bit of a detour before we present the actual derivation. The separation of Spell-Out to the two interfaces makes us think what other properties associated with phases can be seen as interface specific. One typical edge property is the EPP feature. van Craenenbroeck & den Dikken (2005) argue EPP is actually a PF condition. We would think, this makes it a property of the PF phase. No counterarguments to this reasoning seem to exist. The only identified LF-only phase so far is the non-finite TP for which it is most likely that it doesn't have the (classic) EPP. Note that it is impossible to determine where the typical subject of the non-finite clause PRO is located (and even if we could, if EPP is indeed a PF condition, how can a null

subject satisfy it?). The kind of arguments from Icelandic (Sigurðsson 1991) and Slovenian (Marušič *et al.* 2002, 2003a,b) for a nominative cased PRO can probably be explained with the default status of the nominative case and need not posit any movement of PRO to TP. In addition, as Bošković (2002) argues, expletives don't move, therefore in a sentence like (29), there is nothing in the embedded SpecTP, suggesting the embedded T doesn't have the EPP.

(29) There is likely to be someone in the seminar room.

If having the (observable) EPP is a property of the PF phase edge, what is the property of the LF phase edge? I propose that just like there is an observable EPP (observable at the surface level, i.e. PF), there is also an EPP_{LF}, which has roughly the same function at the other interface. It allows LF moved phrases to be accessible for further derivation. Note that this is not necessarily a different feature than [+quant] marking the scope of quantifiers.

With the basic assumptions presented, we can have a look at a sample derivation in (30). To make the sample derivation clearer, elements spelled-out and those inaccessible because they have been closed off by a phase and are waiting to be shipped off are not written in the next lines. Only elements that are accessible and can actively participate in the derivation are written. We start the derivation with a prefabricated DP in which, as discussed, the maximal projection is a PF-only phase, so that the lower phase NP, gets spelled out to PF, (30a). When the DP is merged with the verb in (30b), only the *S* & F features of the quantifier are visible. The lower NP phase has the active edge, but again only for *S* & F-features. P-features of the complement of the DP phase are inaccessible, and P-features of the lower phase NP are already spelled-out at this point. When the next higher phase, *v*P, merges in, the *S* & F-features of *QP* are visible, but not its P-features. Only DP and D are P-visible at *v*P, (30c). Thus only *S* & F-features of the QP can move up (the relevant F feature is attracted by the EPP_{LF} or the scope marking feature of the *v*P, while the *S* features pied-pipe). When the derivation reaches TP, the *S* & F features of the quantifier are still accessible since they are located at the edge of the *v*P phase. They get attracted to the quantificational probe (the scope marked projection which I assume here is simply TP, where the EPP_{LF} is located), where they also move to, (30e). Thus we end up with the quantified object DP being interpreted higher than the subject, yet at the same time, pronounced lower, inside the VP, (30f).

(30)a. *S* $[_{DP}[_{QP}\ Q\ [_{\mathbf{NP}}\ N \quad]]]$

P $[_{\mathbf{DP}}[_{\mathrm{QP}}\ \mathrm{Q}\ [_{\mathbf{NP}}\ \mathrm{N} \quad]]]$

b. *S* $[_{VP}\ V\ [_{DP}[_{QP}\ Q\ [_{\mathbf{NP}}\ N \quad]]]]$

P $[_{\mathrm{VP}}\ \mathrm{V}\ [_{\mathbf{DP}}\ \mathrm{D}$ –spelled-out–]]

c. *S* $[_{\mathbf{vP}}[_{QP}\ Q[_{\mathbf{NP}}\ N\ ]]_i\ v$ $[_{VP}\ V\ [_{DP}\ D \quad t_i \quad]]]$

P $[_{\mathbf{vP}}\ \mathrm{v}$ $[_{\mathrm{VP}}\ \mathrm{V}\ [_{\mathrm{DP}}\ \mathrm{D}$ –spelled-out–]]]

d. *S* $[_{TP}\ DP\ T\ [_{\mathbf{vP}}[_{QP}\ Q[_{\mathbf{NP}}\ N\ ]]\ v$ –*spelled-out*–]]

P $[_{\mathrm{TP}}\ \mathrm{DP}\ \mathrm{T}\ [_{\mathbf{vP}}\ \mathrm{v}$ –spelled-out–]]

e. *S* $[_{TP}\ [_{QP}\ Q[_{\mathbf{NP}}\ N\ ]]_i\ [_{TP}\ DP\ T\ [_{\mathbf{vP}}\ t_i \quad v$ –*spelled-out*–]]]

P $[_{\mathrm{TP}}\ [_{\mathrm{TP}}\ \mathrm{DP}\ \mathrm{T}\ [_{\mathbf{vP}}\ \mathrm{v}$ –spelled-out–]]]

f. *S-interpretation* $DP_{OBJ}\ DP_{SUB}$

P-interpretation $\mathrm{DP}_{\mathrm{SUB}}\ \mathrm{DP}_{\mathrm{OBJ}}$

I will largely ignore the partial reconstruction facts observed with QR and *wh*-movement. As shown in (32a-c), parts of the moved *wh*-phrase behave as if they are interpreted in the base position of the *wh*-phrase. Note that this is not the actual restriction of the quantifier but rather some even smaller part of the restriction. Restriction is typically interpreted where the quantifier is, as shown with the falsity of (31). But since the restriction can be composite, parts of it behave as if they are interpreted low, reflexives can bind subject that appear lower than the *wh*-word, (32a), and names inside the restriction are subject to principle C violation caused by the pronoun that only c-commands the *wh*-trace, (32c). Notice that the same facts hold also for complements of quantifiers. Not everything gets QRed to a higher position where they could escape Principle C violation, (32d,e), etc.[15]

(31) # Which unicorn is likely to be approaching?

(32) a. Which picture of himself did John like **t**.
b. Which of each other's friends did they remind **t** that he saw Bill.
c.*Which one of $John_i$'s friends did he_i see?
d.*He_i saw every one of $John_i$'s friends.
e.*He_i showed Mary every picture that $John_i$ took on his last trip.

1.3.2 Reconstruction

The other phenomena presented as a prediction of the presented (non-simultaneous) phases theory is reconstruction, the clearest instantiation of which is Total Reconstruction. Unlike partial reconstruction, total (or radical) reconstruction reconstructs the entire phrase from its surface position/ position where it is pronounced to its base position/position where it is interpreted. Aoun & Benmamoun (1998) treat total reconstruction to be the result of PF movement. Sauerland & Elbourne (2002) extend this proposal and claim that only things that are already shipped to LF at some earlier point, at some intervening phase, reconstruct, therefore every case of total reconstruction is a result of PF-movement.

A typical example is given in (33) where although the Subject DP *someone from Stony Brook* is pronounced higher than the predicate *likely*, it can still be interpreted lower than the predicate. For the sentence (33) to be true, there need not be anyone specific from Stony Brook, who has the property of being likely to be in Country Corner (the local Armenian restaurant). This narrow scope interpretation of the indefinite in (33) simply means that there is above chance (or hugely above chance) likelihood/probability that there is someone from Stony Brook at the moment in Country corner (maybe because this is one of the few good places around). Boeckx (2001) claims that only indefinites reconstruct in the raising constructions as (33).

[15] In a way, the existence of QR suggests that a sentence like *a girl saw every picture of herself* would have the reading where for every picture with a girl, there would be a girl that saw that picture. This reading is impossible. This might be an instance of scope freezing and I have nothing to add here. The fact that an example with a quantifier parallel to (32c) (e.g. **Someone sent him$_i$ to everyone of John$_i$'s friends*) is bad suggests that the complement of the quantifier does get interpreted low.

(33) *Someone from Stony Brook is likely to be in Country Corner right now*.

Sauerland & Elbourne's (2002) proposal for these kinds of examples has certain problems, since it cannot explain the data in all relevant details (nor can it explain all data). In addition, although they explain total reconstruction away with PF-movement, they don't really provide any mechanism for PF-movement itself. I propose a revised version of their proposal. In particular, I derive an understanding of the kind of "PF-movement" they discuss as syntactic movement of isolated P & F features. Because of LF-only phases at certain points in the derivation, P features remain available for further movement even after the *S* features were spelled-out. Thus whatever is interpreted low can move on and get pronounced higher.

The derivation presented in (34) starts off with a simple intransitive (unergative) verb merging with *v*, the first phase, and its subject, (34a). DP, being an indefinite, cannot see the quantificational EPP_{LF} located in the SpecTP (as explained in the previous subsection), so it doesn't move to the non-finite SpecTP, which is an LF-only phase, (34b). When elements from the next phase, and next clause, merge in the *S* side of the complement of T becomes inaccessible, (34c). Since the embedded TP is only an LF phase and the matrix *v* is a raising verb and as such not a phase, when the highest TP is merged in, the P & F part of the DP in the lower Spec*v*P is accessible and move up because the F feature of the D get attracted by the matrix EPP, (34d) (again, F features cause the movement while the P features pied pipe). Since this is a finite TP, the EPP it has is the standard (dual-interface) EPP. The difference between the P and the *S* part of the derivation resulted from the presence of the non-finite TP (an LF-only phase). Only the P & F-features of the DP can move to SpecTP from the embedded to the matrix clause. The difference in the size of the spelled-out phase is erased with any new phase (e.g. the root C) merged into the structure. The derivation results in (34e).

(34)a. *S*						*[$_{vP}$ DP v [$_{VP}$ V]]*
P						[$_{vP}$ DP v [$_{VP}$ V]]
b. *S*					*[$_{TP}$ T*	*[$_{vP}$ DP v* *]]*
P					[$_{TP}$ T	[$_{vP}$ DP v]]
c. *S*			*[$_{vP}$ v*	*[$_{VP}$ V*	*[$_{TP}$ T*	*—spelled-out—* *]]]*
P			[$_{vP}$ v	[$_{VP}$ V	[$_{TP}$ T	[$_{vP}$ DP v]]]]
d. *S*	*[$_{TP}$*	*T*	*[$_{vP}$ v*	*[$_{VP}$ V*	*[$_{TP}$ T*	*—spelled-out—* *]]]]*
P	[$_{TP}$ DP$_i$	T	[$_{vP}$ v	[$_{VP}$ V	[$_{TP}$ T	[$_{vP}$ t$_i$ v]]]]]
e. *S-interpretation:*		*V*	*[$_{TP}$ DP* ...			
P-interpretation:	DP	V	…			

In the crucial step, (34d), the P-features of DP that remained visible due to the lack of a PF phase move to the edge of the TP phase and thus split from the *S*-features of the same DP, which were already spelled-out to LF as part of the *v*P phase. At the end, the P-features get pronounced higher than where their *S*-counterparts get interpreted. With the interpretation being lower than pronunciation, DP appears to have reconstructed.

1.4 Outline

The preceding introduction has given some background on phase theory and presents the framework assumed here. It also has explained what specific terms mean and precisely how I understand the working of phases. It has set out the main proposal of this thesis—the existence of non-simultaneous phases— and has briefly presented the two main arguments showing phases are indeed non-simultaneous and discussed two main predictions that are dealt with in Chapters 2 and 3.

Chapter 2 discusses total reconstruction. It starts with the presentation of Sauerland & Elbourne (2002) proposal (based on Aoun & Benmamoun 1998), according to which what reconstructs has been previously spelled-out to PF and appears in a high position only because it is post-spell-out PF-moved. I show their proposal to be inadequate since it cannot explain certain facts regarding agreement between the reconstructing subject and the matrix verb. The idea is that at certain phases/boundaries parts of the main clausal projection, spell-out only partially, i.e. in this case only to LF (semantics) leaving the relevant PF related features in the derivation. These PF only syntactic objects can further move stranding their spelled-out LF counterparts, creating the mismatch we know as Total Reconstruction. The chapter also discusses certain problems of this approach and tries to explain them.

Chapter 3 discusses the other prediction mentioned above, Covert movement. In particular it focuses on Quantifier raising and derives it as a consequence of DP structure. The nominal is composed of two phases, one below and one above the quantifier (or the quantificational element, to be more general). The one under the quantifier is a phase that spells-out to both interfaces, but the one above spells-out only to PF, leaving the LF related features relevant for the interpretation of the quantifier visible for further syntactic process. This allows the quantifier to raise to its LF landing site, even though it is pronounced in some lower position.

Chapter 4, coauthored with Rok Žaucer, is a detailed look at a particular Slovenian construction (appearing also in other most notably Slavic languages), which has a dispositional interpretation without any single element that would encode it. In the paper we argue that the volition/disposition comes in from a null verb taking a deficient clausal complement. Since the verb is null, tense morphology associated with its event cannot attach to it, and must find some other host. Since the matrix clause has no other verb (modals and other functional verbs can host verbal agreement in Slovenian), the closest host is the verb inside the clausal complement. Although the clausal complement is prepositional/a semantic phase, creating an opaque/intensional context, the fact that verbal agreement and tense morphology can attach to the lower verb and still refer to the matrix event shows that the boundary between the two clauses is not a phase. It seems thus, that the boundary between the two clauses is not the same for all syntactic processes. In particular, what appears to be a semantic phase is not a phonological phase. The resulting verb is composed of phonological/morphological material originating and interpreted in two different clauses.

Chapter 5 presents another set of data arguing for the same separation of spell-out to the two interfaces. Slovenian non-finite clausal complements are syntactically transparent in a number of ways. The chapter focuses primarily on arguing that there is no CP in Slovenian non-finite clausal complementation. Without CP, there is no phase, but

control structures do create scopal boundaries, and exhibit intensionality phenomena, so the embedded clause is said to create a semantic phase. Yet again, what appears to be a semantic phase, doesn't prove to be a phonological unit. The mismatch between interpretational and pronunciation units suggests the existence of non-simultaneous phases.

Chapter 6 is the conclusion, which briefly summarizes the thesis and points out the major issues discussed in it.

Chapter

2. On Total Reconstruction as a result of LF-only phases*

The second part of this thesis (chapters 4 & 5) argue that spell-out doesn't always occur to both interfaces simultaneously. This goes against the standard assumption that when a phase is completed features participating in the derivation get shipped to both interfaces at the same time, so that *v*P and CP (I am actually assuming TP is also a phase) would both be a PF and an LF phase.

Once we allow phases to be interface specific we can use this modified tool to explain some interesting phenomena. Pronunciation and interpretation of a particular item do not always occur at the same time, an item can be interpreted higher than it surfaces or it can get pronounced higher than it is interpreted. When something is interpreted lower in the structure than its surface position, it is said to have reconstructed. On the other hand, when, for example, a quantifier phrase gets interpreted higher than its surface position, it is said to have covertly moved. This chapter looks at the former case. A case of an LF-only phase blocking LF related/semantic features (S features) of a syntactic object and at the same time allowing PF related features to continue the derivation together with the rest of formal features (F features) of the syntactic item.

Aoun & Benmamoun (1998) take total reconstruction to be the result of PF movement. Sauerland & Elbourne (2002) extend this proposal and claim that only things that are already shipped to LF at some earlier point, at some intervening phase, reconstruct. In this chapter I look at the phenomenon of total reconstruction and show that it is not necessarily a result of PF movement, as claimed by Sauerland & Elbourne (2002), but rather a result of an early LF-only spell-out occurring at the edge of the embedded clause (PF spell-out only occurs at the next complete phase—the matrix finite TP). It might appear that the proposal given here is just a notational variant of the Aoun & Benmamoun's and Sauerand & Elbourne's proposal. I show that this is not the case.

In section 2.1 I describe the problem, and give the proposal. In section 2.2, I discuss some details regarding the composition of lexical items and the phasal composition of (non-finite) clauses. Section 2.3 discusses some potential problems and other relevant data. Section 2.4 concludes the chapter.

2.1. Total reconstruction

As is well known, examples like those given in (1) are ambiguous., Both indefinite subjects in (1) can be interpreted either specifically or non-specifically, in the scope of *likely*. Accordingly There need not be any particular Basque in (1a) that has the property of being likely to win the Tour, nor need there be anyone specific from London

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in (1b) who has the property of being likely to win the lottery. It could be that it is just likely that some Basque cyclist wins the tour, since there are a lot of good cyclists in the Basque country, or that a resident from London will win the (British) lottery, since London has the greatest concentration of lottery players in South-EastBritain.

(1) a. A Basque is likely to win the Tour *likely* > ∃
b. Someone from London is likely to win the lottery of SE Brittan. *likely* > ∃

The DPs in (1) are interpreted in the lower clauses from which they originate. But they do not surface in them. The surface position of the DP in such cases is higher than the surface position of *likely*, some operation had to either move DP up for pronunciation or move it down for interpretation. Both of these possibilities have been explored.

As pointed out by Sauerland and Elbourne (2002), this type of reconstruction, total reconstruction, is different from the better known and more widely discussed *binding* or *partial reconstruction*, as in (2) (sometimes also called "connectivity effects").

(2) a. [Which article about himself$_k$]$_i$ did every politician$_k$ read t$_i$?
b. [Which article about himself$_k$]$_i$ did Mary ask every student$_k$ to read t$_i$?

As evident from the indexing, (at least a part of) the moved *wh*-constituent must reconstruct in order for the reflexive to be c-commanded by the universal quantifier at LF in (2a) & (2b). Saito (1989) points out that the reconstruction found in (2) is not comparable to the one in (1) for the simple reason that in (2), it is not the whole *wh*-constituent that reconstructs. This can be most clearly seen with the question (2b). If the whole *wh*-constituent reconstructs leaving in the upper most scope position only the Q marker, we would expect (3a) (or (3b)) to be the LF representation of (2b).

(3) a. Did Mary ask every student [*which article about himself*]$_i$ to read t$_i$?
b. Did Mary ask every student to read [*which article about himself*]?

But (3a) and (2b) are two different questions.[16] So, it is not just the Q marker that is interpreted high, rather, only parts of the moved phrase occupy a lower position at LF. The LF representation of the question in (2b) is something like (4).

(4) *Which$_i$* did Mary ask every student$_k$ to read [*article about himself$_k$*]$_i$

Whatever the best analysis of these cases turns out to be, they are different from the phenomena discussed here – total reconstruction, where the entire moved phrase occupies a lower position at LF. Total reconstruction is not available with *wh*-movement. The main reason for limiting the discussion to total reconstruction is simplicity.[17]

[16] (3b) is there just for the completeness of the paradigm, but it doesn't appear to show much or add much to the argument.

[17] Partial reconstruction seems much more complex and appears to be a result of a combination of different processes. Since this research is still at an initial stage, it is reasonable to start with the more straightforward phenomena and only later try to capture the more complicates facts. There is a possibly related and therefore relevant way of looking at this, but I don't do anything but mention it in the next chapter.

2.1.1 Some properties of raising constructions

Raising constructions with indefinites, such as (1), are obviously ambiguous. In addition to the reconstructed interpretation of the subject they also have an interpretation where the subject is interpreted high, in its surface position. This is not surprising and will be discussed in section 2.3.1 and 3.3. The situation with universal quantifiers is a bit different. Bobaljik & Wurmbrand (1999) and Boeckx (2001), while discussing reconstruction of indefinites, conclude that only indefinites reconstruct in raising constructions such as (1). This is a fairly strong statement if one looks at a raising construction with a universal quantifier, as in (5), which also appear to be ambiguous.

(5) *Every Basque cyclist is likely to be among the top 10.* $\forall >$ *likely*, *likely* $> \forall$

As noted by Lasnik (1998), the readings are not really distinguishable in (5), but if we change the raising predicate and make the reading distinguishable, it appears that strong quantifiers do not reconstruct. (6) doesn't have the reading with the universal quantifier interpreted inside the scope of the raising predicate *3% likely*, that is according to (6) it is not the case that the likelihood for every coin to land heads is 3%, rather that for each coin its individual likelihood to land heads is 3%.

(6) Every coin is 3% likely to land heads (Lasnik 1998:93)
=/= it is 3% likely that every coin will land heads

As noted by Bobaljik and Wurmbrand (1999), it is not really clear that indefinites reconstruct with the modified likely-predicates. So for example, in context with three coins, (7) does not necessarily have the reconstructed interpretation of the subject, while at the same time, in a context with only two coins, (8) does have the reconstructed interpretation. Bobaljik and Wurmbrand do not draw any conclusion from this, but suggest that "n%-likely" and "likely" might not be syntactically equivalent (Bobaljik and Wurmbrand 1999, p.13). Starting from Lasnik and Saito (1992), who suggested that for every raising verb or adjective there is also a homophonous control verb or adjective, we could suspect that the potential difference between the two types of likely-predicates lies precisely in that those reconstructing are clearly raising predicates, while those not showing any reconstruction behave more like control predicates.

(7) One coin is 38% likely to land heads.
i. One of the coins is weirdly weighted in favor of tails.
ii. ?# It is 38% likely that only one coin will turn up heads.

(8) One coin is likely to land heads.
ii. ✓ It is likely that only one coin will turn up heads.

Bobaljik and Wurmbrand (2005) discuss a different set of raising constructions in German, Itelmen and Japanese. In those cases, they find no reconstruction of the universal quantifiers. The comparable long-distance passives in Slovenian behave slightly differently. There are two types of passive in Slovenian (adjectival and *se*-passives),

which makes in combination with the two universal quantifiers (*all* and *every*) four possible examples. All 4 sentences are very marginal, yet the interpretation can still be judged. For all 4 sentences it appears that both scopes of the universal quantifier are available (PA is a particle that has in this sentences the role of a topic marker).

(9) a. i. Čist vse postelje so bile pa pozabljene bit pospravljene.
clear all *beds*$_{NOM}$ *AUX*$_{PL}$ *PA forgot*$_{PASSIVE1}$ *be*$_{INF}$ *fix*$_{PASSIVE1}$
"All beds were forgotten to be fixed." ∀ > *forget*; *forget* > ∀

ii. Čist vse postelje so se pa pozabile pospraviti
clear all *beds*$_{NOM}$ *AUX*$_{PL}$ *SE* *PA forget*$_{PASSIVE2}$ *fix*$_{INF}$
∀ > *forget*; *forget* > ∀

b. i. Čist vsaka postelja je bila pa pozabljena bit pospravljena
clear every *bed*$_{NOM}$ *AUX*$_{SG}$ *PA forget*$_{PASSIVE1}$ *be*$_{INF}$ *fix* $_{PASSIVE1}$
∀ > *forget*; *forget* > ∀

ii. Čist vsaka postelja se je pa pozabila pospraviti
clear every *bed*$_{NOM}$ *SE AUX*$_{SG}$ *PA forget*$_{PASSIVE2}$ *fix*$_{INF}$
∀ > *forget*; *forget* > ∀

I will draw no conclusion on the basis of these facts, but I will continue to assume quantifiers do reconstruct in simple raising constructions like (5). Where ever the lower reconstructed reading is not available we are probably dealing with a homophonous control predicate. I will return to the strong quantifiers in raising construction in section 3.3 (in the next chapter).

2.1.2 Earlier analyses

One of the earliest analyses of reconstruction takes it to result from a lowering operation at LF, after syntax has completed all upward movements (May 1985, also Boeckx 2001). In particular, the cases in (1) involving total reconstruction are analyzed as displacement of the entire DP subject to a lower scopal position, roughly as is depicted in (10), where *A Basque* first raises over *likely*, and finds itself in the highest surface position (at the point of Spell-Out), but is later lowered to the clausal boundary where it takes lower scope.

(10) a. [*A Basque*]$_i$ *is likely to* t_i *win* ... (in syntax proper)

b. __ *is likely* [*a Basque*]$_i$ *to* t_i *win* ... (at LF)

Boeckx (2001) claims arguments are interpreted in the same position they are assigned case and that the exception to this rule, the reconstructed indefinites, can be explained as an LF process of (optional) insertion of a null LF expletive (*there*$_{LF}$). This *there*$_{LF}$ pushes the indefinites down for interpretation so that they undergo literal lowering. Since quantifiers cannot be associates of an expletive (**there is every man in the room*), an expletive would never be inserted in a sentence with a raised quantifier, which is why quantifiers do not or cannot lower at LF.

Any version of lowering will always return the derivation to a previous stage. Lowering is thus an undoing operation and as such unwanted. In an ideal language design we would not want to do something just so that we can undo it later.

Chomsky (1993) proposes a different approach to reconstruction (also Hornstein 1995, Romero 1998, Fox 1999) using the *copy theory* of movement. According to this approach, movement leaves a copy of the moved constituent in every position the object moves from rather than a trace. At the two interfaces, one of the two copies of a two-element chain must be deleted but not necessarily the same copy at both interfaces. In case of total reconstruction as in (1), the first-merged constituent is not pronounced at PF, but it gets interpreted at LF, while the remerged higher copy doesn't get interpreted at LF, but it is interpreted at PF – pronounced.

Heim & Kratzer (1998) claim movement creates a λ-operator in addition to the copy at the top of the chain. If the topmost copy is deleted, the λ-operator is left alone, turning the sentence into a function and with the λ-operator not binding anything. Additionally, just like lowering, deletion of a created copy is also an (unwanted) undoing operation, while we are also left without an answer to the question: 'How do we know/determine which copy is pronounced and which interpreted?'

2.1.3 Total Reconstruction as PF Movement

The two syntactic approaches to total reconstruction[18] involve initial overt movement followed by an optional undoing operation, either lowering or deletion of the remerged element. To avoid the undoing operation, Sauerland & Elbourne (2002) defend a proposal by Aoun & Benmamoun (1998) that total reconstruction comes as a result of PF movement. Aoun & Benmamoun show that PF movement is involved in certain Clitic left dislocated phrases in Lebanese Arabic, which are also subject to total reconstruction. As they explain, since these dislocated phrases only move in the PF component of the derivation, they do not affect their LF structure, which remains as it is at the end of the common syntactic derivation at the point of Spell-Out. Sauerland and Elbourne (2002) extend and strengthen this claim by claiming that total reconstruction is available only as a result of PF movement.

The subjects in (1) are part of the common syntactic derivation, which Sauerland & Elbourne (2002) call *stem derivation*, to the point of the embedded TP. Sauerland & Elbourne (2002) are assuming TP is a phase, so at this point the lower structure is sealed off. When the derivation reaches TP, Spell-Out occurs, the subject is frozen in its position, and later sent to the interfaces. After the stem syntactic derivation, the subject moves higher in the PF component, to satisfy a PF interface condition.

Since all operations occurring at PF must follow Spell-Out, at which point material is shipped to the interfaces, they also follow the stem derivation. Since at the point of Spell-Out the derived structure is also sent to the LF interface, all subsequent PF only operations fail to have any effect on the LF. There is no path from the PF interface back to LF, therefore PF movement cannot affect interpretation. All PF moved constituents get interpreted at the point where they were located at Spell-Out (unless there are some further LF operations transposing them).

[18] I am ignoring semantic approaches to total reconstruction, e.g. Chierchia (1995). For arguments against them see e.g. Fox (1999).

2.1.4 Why total reconstruction is not just PF movement

Sauerland & Elbourne (2002) make some controversial assumptions. They argue that the (standardly syntactic) need to have a filled SpecTP—the EPP—is satisfied with a PF movement.[19] In addition, the pure PF movement they propose ends up targeting a specific syntactic position.[20]

Sauerland & Elbourne's analysis of (1) also makes wrong predictions and fails to explain basic facts. If at the point of TP the derivation reaches a phase and all the material is frozen or shipped to the interfaces, we would predict that the DP that is later PF-moved to a higher position does not have any affect on the higher portion of the sentence; that it does not participate in the later syntactic derivation. In particular, the low-interpreted DP––with narrow scope interpretation—should not trigger agreement on the verb/T from the matrix clause, since its *phi*-features are already spelled out and have left the syntactic derivation. And if nothing moves to check the features on T, they should only get default values (if any at all). But this is not what we find. The plural DP in (11) is subject to total reconstruction but also agrees with the upper T.

(11) a. 4 Basque**s are** likely to win all the jerseys. *likely* > 4
b. Scissor**s are** likely to be in the drawer. *likely* > ∃[21]

In order to derive sentences in (11), we must claim agreement occurs at the PF interface, crucially after Spell-Out. But having agreement in PF is not permitted by Sauerland & Elbourne. They need agreement in the stem derivation to explain facts like (12) from British English. As seen in (12), even without overt plural marking, collective names can trigger plural agreement (supposedly with [Mereology: plural]). Interestingly, when they do trigger plural agreement in the sentences under discussion, the subject doesn't undergo total reconstruction (the indefinite only receives the specific reading), which suggests it was LF interpreted in its surface position. Since the agreement on the verb is forced by [Mereology: plural], which is a semantic feature that never spells-out to PF, it could not have been sent to LF at the lower TP phase, otherwise there would be nothing to interpret in the matrix clause and no features to trigger agreement.

(12) a. A northern team is likely to be in the final. ∃ > *likely*, *likely* > ∃
b. A northern team are likely to be in the final. ∃ > *likely*, **likely* > ∃

Given this result, a PF-moved DP should not be able to trigger agreement in the matrix clause. Yet as we see in (11) it does. Note that the application of AGREE, which could in principle explain facts in (11) and (13) (e.g. Chomsky 2000, 2001) cannot do the job. Again following Sauerland and Elbourne's (2002) explanation of the facts in (12), if

[19] I do not disagree with their claim that EPP is a PF condition, but I do claim it cannot be satisfied by PF movement, cf. Bošković (2001) for a similar mix of syntax forced to satisfy a PF condition. See van Craenenbroeck & den Dikken (2005) for arguments in support of the view of EPP as a PF condition.

[20] This seems a bit strange, especially if PF consists of no more than phonological features, but views of the structure available in the PF component differ and this should not be taken as an objection.

[21] More about the plural agreement and pluralia tantum nouns in section 2.2.1

AGREE is active and causes the plural verbal agreement in (11) and (13), it should be active also in (14), allowing plural verbal agreement in British English, which it doesn't. Similarly, it should allow reconstructed interpretation of the subject with plural agreement in (12b), but it doesn't.

(13) a. There *is/**are** likely to be 5 Basques among the top 10.
b. There *is/**are** likely to be scissors in the drawer.
(14) * There are likely to be a northern team in the final.

Den Dikken (2001) gives a different analysis of collective names or "pluringulars", as he calls them. According to him, nouns like *team*, *committee* do not have the LF feature [Mereology: plural], but are rather part of a DP headed by an empty plural *pro*. Den Dikken proposes that (14) is out, not because AGREE cannot apply, but because pronouns cannot be associates of *there*. But note that even if we explain (14) without anything blocking AGREE, we cannot do that with the lack of ambiguity in (12b).

AGREE is an operation on phasemates (Bobaljik and Wurmbrand 2005), so, having no AGREE suggests there is more than one (LF) phase between the subject position of the embedded cause and the matrix T. In chapter 1, explained why TP should be viewed as a phase. Here I would like to suggest that non-finite TPs are deficient phases in that they only spell-out to LF. That is, semantically speaking non-finite TPs are just as propositional as finite TPs, what they lack is syntactic agreement and nominative case assignment. Intuitively, these properties are relevant for the PF interface, not for LF.[22]

Sauerland and Elbourne's account of these facts therefore appears unsustainable. Neither is their explanation of "pluringulars" obviously correct, nor is it clear how to derive the facts in (11) and (13). What I propose is that the operation responsible for the plural agreement in (13) is indeed AGREE, but what is important is that it operates inside the not-spelled-out extended PF phase, thus checking the *phi*-features on T with the PF related plural ([$_{PF}$ Plural]) features of the DP. Regardless of the analysis of "pluringulars" we accept, they do not have any [$_{PF}$ Plural] features, but either an unpronounced plural pronoun or an [$_{LF}$ Mereology: Plural] feature. So since only [$_{PF}$] features of the lower clause are visible for the derivation at the matrix clause, "pluringulars" cannot trigger plural agreement in (14).

2.1.5 A different approach to PF movement

The proposal made here, which avoids the problems just discussed, is anticipated by Sauerland & Elbourne (2002, pp. 315):

> "Slightly extending Chomsky's idea, we propose that actually the edge of a phase can be distinct for LF and PF and that a phrase in only the LF or PF edge of a phase is accessible only for LF or PF movement, respectively, in a later phase."

I want to elaborate this line of thinking and show how the data can be explained. If we accept that phases can spell-out/ship features to PF or LF alone, we can retain all

[22] In section 5.5.1 (also in 4.8.1), I discussed this issue at length and provided more evidence for the same conclusion.

movements in (1) in syntax proper. Syntactic elements/objects would move in syntax proper, but whatever moves would not be a standard syntactic object/item anymore. The item moved after such a partial Spell-Out would only have specific PF-only characteristics, with all the relevant LF-only features spelled-out.

When the derivation of a raising construction reaches the embedded TP projection, a "part" of the structure gets frozen and later (at the next higher phase) only this "part" gets spelled out. As explained in Chapter 1, I am taking TP to be a phase (following Uriagereka & Martin 1999, Grohmann 2000, and Sauerland & Elbourne 2002). Avoiding discussion of the finite TP, non-finite TP is not a standard phase boundary. Semantically, non-finite complements are propositions, but phonologically they (typically) don't have their own phrase[23] [24]. Sauerland & Elbourne (2002) also suggest that, in addition to *v*P and CP, TP should be considered a phase, but for them, every phase spells-out to both interfaces and as we have seen, their approach runs into problems. So, rather than taking non-finite TP as a usual phase boundary, I suggest it only spells out to LF.[25] Whatever would be sent to PF in a complete phase (spelling out to both interfaces) and the unchecked formal features remain in the derivation, and can participate in further syntactic derivation (of course with some limitations). Accepting this kind of approach, we retain all the movements in syntax proper. The derivation for the particular item (parts of which were sent to LF) would not be a typical *stem derivation* anymore, since the participating items would be only parts of the initial items, but the derivation would nevertheless be part of a syntactic derivation.

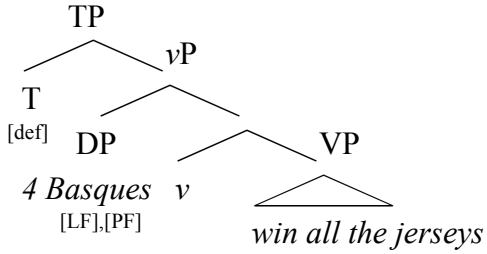
The lower clause is derived in the usual way by stem derivation all the way to the TP. As explained in Ch.1, (the visible) EPP is a PF condition (cf. van Craenenbroeck & den Dikken 2005) and therefore related to PF phases. Since the lower TP is only an LF phase, it does not have (the visible) EPP. Since it doesn't have (the visible) EPP, the indefinite doesn't move from the Spec*v*P to SpecTP. As said, non-finite TP is an LF-only phase, so that when *likely* is merged into the structure, a new phase begins, (15b). At this point, the LF related features ($[_{LF}$ x]) of the complement of *likely*, including the $[_{LF}$] features of the lower subject in the Spec of the lower *v*P phase are sent to the interpretative component and become completely inaccessible. Since *likely* only induces an LF phase, all the PF related features ($[_{PF}$ x]) are left untouched.

[23] This is also the topic of Chapter 5 of this thesis, in particular of section 5.5.1 and is also discussed in Chapter 1.

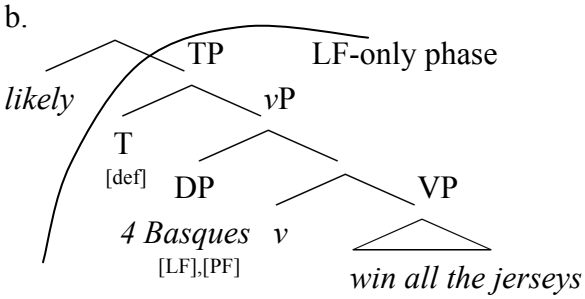
[24] When non-finite complements are fronted, they seem to be much more phonetically independent, but as Uriagereka (1999) claims, phrasal movement forces/creates a phase. This phase is forced by the PF linearization requirements and thus obviously corresponds to a PF phase.

[25] Bobaljik & Wurmbrand (2005) argue for existence of induced 'agreement domains' (parts of the derivation that roughly correspond to phases. Since they don't block both movement and agreement, but only agreement, they don't call them 'phases'). As they say "The (verbal) complement to a lexical verb delineates an *agreement domain*" (Bobaljik and Wurmbrand 2005, (21) p. 828). The LF-only TP phase could be seen as an induced phase to the scopal (yet not verbal) predicate *likely*. This option might be preferred in light of the deficient clausal complements presented in chapter 4, but other than that, the current proposal could work in either way.

(15) a.

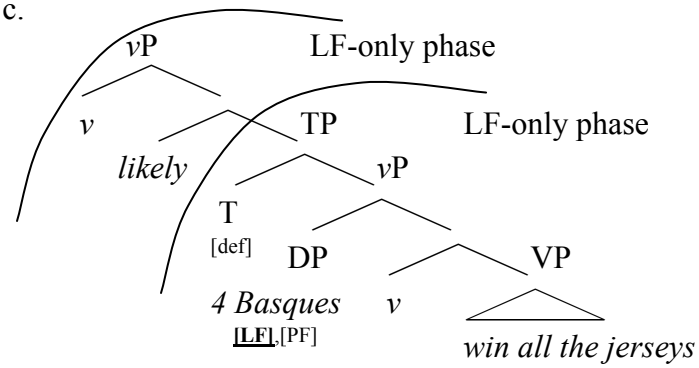


b.



When the derivation continues from (15b) to (15c), the next phase head, the matrix *v*, is merged in. Similarly to the deficient TP, for which I assume it is an LF-only phase, raising *v*P is also a "deficient" phase.[26] Since this is only an LF phase, it only affects the LF part of the derivation. When this (partial) phase is completed, the [$_{LF}$] features of the lower TP are sent to the interpretative component and become completely inaccessible (including the edge of the lower phase, SpecTP).

c.



A lexical item is here, following Chomsky (1995b), seen as a set {P, S, F}, where P represent phonological features, S semantic features, and F formal features. Since the feature we are interested in at the moment, [Plural] on the DP, is relevant for interpretation, it seems natural to treat it as one of the semantic features (that get spelled-out to LF). But if it is a semantic feature, then it should get spelled-out in its SpecTP position when the derivation reaches the next higher phase. Yet as shown in (11), plurals can get a non-specific interpretation while also triggering plural agreement. Phonological features are the kind of features that have no influence on interpretation (they are sent to PF). But if plural has overt morphology on nominals, then [Plural] also has to reach the

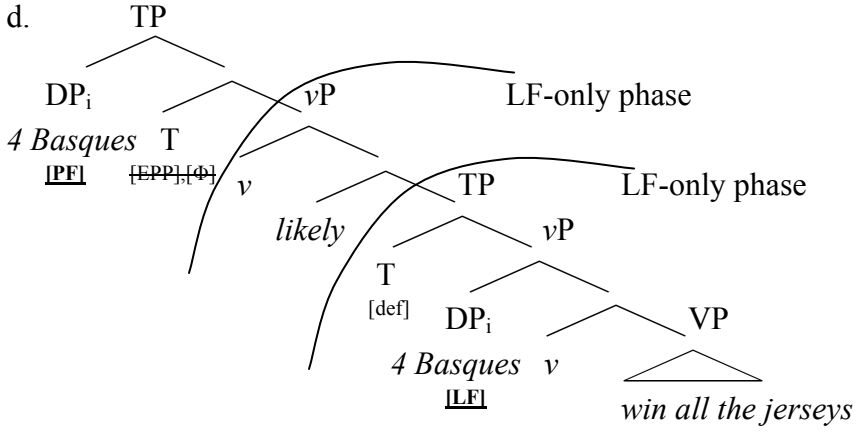
[26] I will return to this and justify these assumptions in section 2.2.2.

PF interface (or more precisely the Morphological component on the way from Spell-Out to actual pronunciation). In addition, *Pluralia tantum* nouns are not necessarily interpreted as plural entities, yet they have overt plural marking and in addition trigger plural agreement, suggesting, that the phonological [Plural] ([$_{PF}$Plural]) can trigger plural agreement just as well as purely semantic [$_{LF}$Plural] (e.g. [Mereology]) would.

Since [$_{PF}$Plural] is a phonological feature, one could suspect the whole verbal agreement occurs in PF, thus saving Sauerland & Elbourne's (2002) analysis. But notice that agreement on the verb is triggered both by "pluringulars" whose plurality is not realized phonologically/morphologically and by purely phonological features like [$_{PF}$Plural].[27] This shows that agreement cannot happen in only one part of the derivation (either only in PF or only in LF). Further, the fact that in our case plural agreement is derived with non-specific interpretation suggests that agreement is also not restricted to stem derivations.[28]

If *v*P were not an LF-only phase, a number of problems for this derivation would arise that will become visible once we discuss the derivation of quantifiers, in particular their narrow interpretation. For now, I will simply describe the problem briefly. A universal quantifier must raise to SpecTP for compositional reasons. If raising *v*P is a full phase, then, in order for the quantifier (now located in SpecTP) to be available for AGREE it would have to go to the edge of this phase, to Spec*v*P, since any lower position is unavailable, but then it would not be pronounced or interpreted inside the lower clause. Since the entire DP would be available for movement, the entire DP would move. If raising *v*P is not a phase (as is claimed in Chomsky 2001, 2004), then even the LF part of the DP in the SpecTP should be available for movement and even for AGREE with the upper T, but this is not what we find.

When the rest of the upper clause is constructed, the subject (actually just its "PF" part, lacking [$_{LF}$ x]) can move all the way up to SpecTP, to check the EPP and the *phi* features of the upper T. Since [$_{PF}$ x] of the subject include [$_{PF}$Plural], agreement on the upper verb is not surprising, (15d).



[27] Whether plurality comes from a purely semantic features like [$_{LF}$Mereology], as claimed by Sauerland & Elbourne 2002, or from the empty pronoun, as argued for by den Dikken 2001, is not important.

[28] We will return to the issue of what exactly [$_{LF}$ x] features and [$_{PF}$ x] features are in section 2.2.1.

At the end, when the entire sentence is constructed and the top CP closes the sentence, everything is spelled-out to both interfaces. But since the spell-out at the phases did not happen to both interfaces simultaneously, the misaligned DP *4 Basques* is pronounced in the upper subject position, where its [$_{PF}$ x] features end up, and interpreted in the lower subject position (within the scope of *likely*), where it was sent to LF. Thus we end up with sentence (16a), interpreted as (16b).

(16) a. 4 Basques are likely to win all the jerseys.
b. It is likely that 4 Basques win all the jerseys.

(16) is underivable for Sauerland & Elbourne (2002), for whom the *phi*-feature [Plural] spells-out at the lower TP phase where both interfaces are fed. A purely PF movement that follows should not target a specific syntactic position and check the features of the upper T thus triggering plural verbal agreement. Only a syntactic movement can trigger agreement with the required features. I proposed there are [$_{PF}$ *phi*] features that are not affected by the LF-only phase and can trigger agreement, since a DP with phonologically overt Plural, e.g. in (11), has its [Plural] features visible both at LF and at PF. For non-specific reading, only the DP's [$_{LF}$ x] features get frozen in the lower clause, while the rest of the DP continues the derivation and checks *phi*-features on T in the upper clause with its [$_{PF}$ *phi*] features.[29]

2.2. On two non-standard claims

In order to derive the desired non-specific reading indefinites in raising constructions in other frameworks, non-standard assumptions had to be made. In addition to the main claim of this dissertation, that phases—stages in the derivation—do not have to be the same for the two interfaces, I have assumed that there are [$_{PF}$ *phi*] features, independent of their LF correspondents, that can also check T's *phi*-features and thus trigger plural agreement on the verb and that non-finite T and defective *v* are both LF only phases . In this section, we will look at these assumptions in more detail and provide motivation for them.

2.2.1 PF plural features

According to the proposal advanced in this paper, there are [$_{PF}$ *phi*] features that can trigger verbal agreement. First note that Sauerland & Elbourne (2002) discuss a kind of plurality found in British English that has no morphological exponence but can nevertheless trigger plural agreement on the verb, (17).

(17) The government are ruining this country.
(Sauerland & Elbourne 2002, (13b))

[29] As explained earlier, raising constructions as in (1) and (11) are actually ambiguous. Section 2.3.1 explains how the other reading is derived.

For them, this is a case of the purely semantic plural feature [$_{LF}$ Mereology] triggering verbal agreement.[30] In a similar way, one can also think of a purely phonological [$_{PF}$ *phi*] feature. I claim there are (gender and) number features that have a morphological reflex but cannot or may not make it to LF, and that in addition, they are part of the syntactic derivation and have the same effect on verbal agreement as the more common LF relevant *phi*-features.

In Slovenian, a verb has to agree with the nominative subject in person, number, and gender. Since person is not a feature of nominals apart from personal pronouns, and gender is a bit tangential to the main point, they will be left out.

First note that there are a lot of plural place names in Slovenian. In such cases we clearly refer to a single individual – the town or village so-named – but the nominal morphology and the verbal agreement it triggers are both plural. Such names are for example: *Abitanti, Banjšce, Baske, Bate, Benetke* ('Venice')*, Brezje, Firence* ('Florence')*, Gorje, Helsinki* ('Helsinki')*, Jesenice, Lohke* etc. Although, they are plural only phonologically, only plural pronouns can be used to refer to them.

(18) Lohke so majhne. Na Banjščah pa ni od njih večjega kraja.
Lohke$_{Pl}$ ***are*** *small. on Banjšce$_{Pl}$ TOP not than* ***them*** *bigger place*
"Lohke is small. But there is no village bigger than it on Banjšce."

In addition to plural, Slovenian also has many pluralia tantum nouns, (19), which trigger plural agreement on the verb, (20), but refer to a single entity/item and fail to show any signs of semantic plurality. These kinds of nouns can be used also with the numeral *one,* interpreted either as an indefinite or as a true numeral counting the number of items referred to, (20).

(19) hlače, očala, škarje jetra sanke
trousers, glasses, scissors liver sled

(20) Razbila so se mi samo ena očala.
broken AUX$_{Pl}$ REFL me only one glasses$_{Pl}$
"Only one pair of glasses have fallen apart."

In addition, pluralia tantum cannot be used with a floating quantifier, which can only be used with semantically plural arguments, as shown with the English example (21). Thus we can safely conclude these nouns are, despite their plural morphology, semantically simply not plural. Or at least not plural in the usual sense.

(21) * The trousers have all been very dirty, since M^{a}José doesn't want to take them off.

[30] As mentioned already, den Dikken (2001) analyzes these nouns as parts of a DP headed by an empty plural pronominal. According to him, plural comes from (the *phi* features of) the pronoun, not from the semantic feature [$_{LF}$ Mereology: Plural]. But note that even according to den Dikken, agreement would be established with a plural feature that is visible at LF, but obviously not at PF.

Semantic plurality should also license the use of reciprocals. And again, as we see in (22), such use is not grammatical with the pluralia tantum nouns when they refer to a single item. The plural that is realized with plural morphology is thus not spelled-out to the LF interface, suggesting we are dealing with a PF-only plural feature – [$_{PF}$ Plural].

(22) * Svoje edine hlače sem drgnil ene ob druge.
REFL$_{POSS}$ only pants$_{Pl}$ AUX rub one next other
* "I rubbed my only trousers against each other."

To confirm that we are really dealing with the same kind of plural features here and in the non-specific plural examples in (11), we have to show these same nouns with [$_{PF}$ Plural] triggering plural agreement can also trigger plural agreement when they are interpreted non-specifically. The approach presented here predicts plural agreement on the matrix verb would not interfere with the scope of the indefinite. This prediction is confirmed in (23) (= repeated (11b)), where we don't have to be talking about any specific scissors, even when we don't mean more than one pair of scissors. Just to make it easier to understand, we can imagine we have more than one pair of scissors at home, but the drawer in the table can only fit one of them. In this situation we can utter (23) without thinking of any specific scissors, but still talking about a single pair of them.

(23) Scissors are likely to be in the drawer. *likely* > ∃

It should be clear by now what is meant by [$_{PF}$ Plural] features, and that they are indeed responsible for verbal agreement. This, of course, does not mean they are the only plural features that can trigger agreement. If they were, then verbal agreement might have been a PF operation and we could maintain the movement of the non-specific subject in (1) and (23) in PF. But, as was already explained, morphologically singular nouns can also trigger plural agreement. This suggests that agreement cannot happen in only one part of the derivation (either only in PF or only in LF). It has to happen in syntax proper, in the derivation before (complete) Spell-Out. Further, the fact that in our case plural agreement is derived with non-specific interpretation, suggest that agreement is also not restricted to stem derivations in the sense of Sauerland & Elbourne (2002), that is, derivations before any partial Spell-Out.

2.2.1.2 More on features

Floating quantifiers like *all* require semantically plural DPs in their clause. Therefore we can use floating quantifiers as a test to see whether semantic plurality indeed accompanies the type of reading – specific vs. non-specific. As it turns out, it does. (24) with the floating quantifier below *likely* requires plurality to be in the clause below *likely*. And indeed (24) has a non-specific reading of the subject. There aren't any 5 specific Basques that have the property of being likely to be among the top then, it is just likely, that among the top 10, there will be all the 5 Basques, that will participate in the event we are talking about.

(24) 5 Basques are likely to all be in the top 10. *likely* > 5

(25), on the other hand, with the floating quantifier preceding *likely*, only has the specific interpretation, with 5 (specific) Basques all sharing the property of being likely to end up among the top 10 (e.g. on next year's Tour de France). This is result not surprising. The floated quantifier requires a semantic plural argument in its clause, therefore, to license the floating quantifier, the subject had to move to the upper clause entirely (including its LF plural features). This resulted in the wide scope interpretation of the subject. (This was pointed out to me by Richard Larson.)[31]

(25) 5 Basques are all likely to be among the top 10. 5 > *likely*, **likely* > 5

To license *all*, semantic plural features have to be present in the movement, which means the DP cannot be sent to LF inside the lower phase. (25) is comparable in its effect to the British English facts reported by Sauerland & Elbourne (2002), given in (12).

2.2.2 Notes on the proposed phasal composition

Sauerland (2003) and Legate (2001) argue for the existence of an intermediate scope position in raising constructions claiming the matrix *v*P in raising constructions is a phase (contra Chomsky 2001). Sauerland's claim is based on sentences like (26), where the universal quantifier falls under the scope of negation yet it still binds the pronoun thus showing it has to be interpreted higher than the internal object of the raising verb and at the same time lower than negation, the only such position is *v*P of the matrix raising predicate.[32] Reconstruction sites, positions where raised quantifiers can take scope, are phase edges, since quantifiers, when raising from within a lower phase, obviously moved through them. Assuming reconstruction doesn't involve lowering, every position through which a quantifier moved is an edge position of the lower phase (phrases can move from lower to a higher phase only through a phase).

(26) Every child$_i$ doesn't seem to his$_i$ father to be a genius. *not* > ∀ > *his*

Assuming these tests hold and show what Sauerland claims they do, we can show the same to be true also for sentences with *likely*. First notice that the test works also with floating quantifiers if they are positioned between the negation and the matrix verb, as in (27a). We can also use a slightly different test without the quantifier binding the pronoun. Firstly, the presence of the quantifier between negation and the raising predicate, which already suggests the DP moved through a position in that area (Sportiche 1988), suggesting there is a phase edge position in between negation and the verb, i.e. raising *v*P is a phase. In addition, the universal quantifier in (27b) is interpreted under negation and has wide scope with respect to the raising predicate, so it is interpreted in the Spec*v*P position. The same is true of (27c), which means the *v*P above *likely* is indeed a phase.

(27) a. Children$_i$ don't all seem to their$_i$ parents to be smart.

[31] Not all speakers I have contacted have confirmed these judgments. This observation should thus be taken more as an aside.

[32] A potential problem for the validity of this argument comes from the idea that negation raises to a position above TP where it gets interpreted (Zanuttini 1997).

b. Children don't all seem to be in the room.
c. Austrians aren't all likely to be placed among the top 10.

In a similar vein, Legate (2001) claims on the basis of reconstruction facts that passive and unaccusative *v*Ps are phases since *wh*-movement proceeds through them allowing parts of the *wh*-word to be interpreted in that position. Since passive *v*P are also raising verbs, the conclusion holds also for them.

The preceding arguments are all arguments for an LF phase, since they are concerned with the positions at which items get interpreted. It is less obvious how to show that something isn't a PF phase. As evidence against PF phases, I submit the previously discussed cases of long-distance agreement. The preceding section showed that agreement between the T and the DP can be established with PF features of the DP. We have seen that there are two LF phase boundaries between the position of DP inside the lower clause and the matrix T, therefore there cannot be any agreement with LF related features. Agreement only exists between phasemates, so the fact that we have it in (28) suggests there is no PF phase between the lower clause and the matrix T.

(28) There seem to be mosquitoes all around me.

At the same time, raising *v*P does not have the typical properties of PF phases. Of the three tests for PF phases, I will here only use (PF) movement tests, the other two (isolability and nuclear stress rule) are less clear or more controversial. Taking Matushansky's (2003) paradigm of not clearly syntactic movements, we can test each type of movement with raising verbs. Doing so, we see that raising *v*Ps cannot participate in pseudo-clefting, (29b-d), predicate fronting, (30b-e), and though constructions, (31b).

(29) a. What Goneril did was [$_{v\text{P}}$ blind Gloster]
b.*What there was was [$_{v\text{P}}$ seem to be a man in the garden].
c.*What there was was [likely to be a man in the garden].
d.*?What somebody was was [likely to be in the garden].[33]

(30) a. Mary said she would kick her, and [kick her] she did.
b.*Bill said Jill would be likely to be inside and [likely to be inside] she was.
c.*John said Mary would seem to be tired and [$_{v\text{P}}$ seem to be tired] Mary did.
d.*John said Mary would be believed to be able to drink 4 beers in 10 minutes, and [$_{v\text{P}}$ believed to be able to drink 4 beers in 10 minutes] she was.[34]
e.*Bill said someone would be likely to be inside and [likely to be inside] somebody was.

(31) a. [$_{v\text{P}}$ Marry her lover] though Juliet did, the results were disastrous.
b.*[$_{v\text{P}}$ Seem to be tired] though Mary did, she still had to work.

[33] (29d) is said to be marginal in case there's a definite *somebody*. With wide scope of the indefinite (29d) might be a case of a control equivalent of the raising construction.

[34] There is some disagreement regarding the ungrammaticality of this example.

These data show that raising *v*Ps (I am assuming *likely* has a raising *v*P) are not PF phases, that nothing gets spelled-out to the PF interface when a raising *v*P is completed. Since we saw earlier that raising *v*Ps are LF phases, we have established another case of a non-simultaneous phase (phase with spell-out to a single interface).

2.3 Further Issues

2.3.1 On apparent optionality

Raising constructions with indefinites, as for example the sentences in (30), are ambiguous between narrow and wide scope interpretation of the indefinite. But if the derivation goes as explained in section 2.1.5, wide scope for the indefinite remains underivable. Indefinites remain LF-trapped inside the lowest LF-phase and can thus not move higher for interpretation.

Sauerland & Elbourne (2002) claim the specific reading of (32), the one described as ∃ > *likely*, comes from stem-movement of the DP to the upper subject position. But they don't really explain anything beyond this. Their explanation is somewhat problematic in that movements in syntax shouldn't be optional, items move if they have to, and when they don't have to, they shouldn't. Obviously, it is also not the case that an LF phase is optional.

(32) *A bull is likely to run over a tourist in Iruña.*

I would like to suggest indefinites are ambiguous between a quantifier and a regular DP (a non-quantified DP). When they are a regular DP the derivation proceeds as explained in section 2.1.5, but when they are quantifiers, they have to QR to SpecTP. Once there, they have the option of raising higher to Spec*v*P of the matrix clause if the appropriate feature in *v*P attracts them. Once there, they are both LF and PF-visible for final movement to SpecTP. This derivation is explained in all relevant details in the next chapter (section 3.3).

There seem to be other ways of getting the specific interpretation. It can be seen as a special case of the non-specific one. This is either done by saying indefinites are ambiguous between a true quantifier and a choice function (Kratzer 1997) or that their restriction, being a set, can be a singleton resulting in a so-called *singleton indefinite* that behaves just like a referential noun phrase (Schwarzschild 2002, von Fintel 2000). In both cases the specific/referential reading is not derived by movement, but is a result of some property of the indefinite quantifier and the consequences this property has on the form of the LF representation. If we say indefinites can be singleton indefinites, nothing else needs to be said, the specific reading comes from their singleton restriction.[35]

[35] Note that in some cases, like the one where the "pluringular" triggers plural agreement on the matrix T/verb, the subject does appear to have moved the matrix clause in (stem) syntax. For such cases, the movement analysis explained above and given in full detail in the next chapter seems to be much more appropriate.

2.3.2 A sequence of raising predicates

Aoun (1985) gives examples with two raising predicates one of which is *likely* and claims the indefinite subject cannot get the lower ("reconstructed") interpretation, (33). This appears to be problematic for the approach advanced here. If *likely* induces an LF phase, the indefinite should get interpreted in the lower clause regardless of how many additional raising predicates are merged into the structure.

(33) *Some politician seems to be likely to address John's constituency*.
(Aoun 1985: 84, (12))

Although this objection seems valid, it appears that the data Aoun reports aren't entirely correct. Fox (1999) gives examples in (34), claiming their subject **can** be reconstructed into any of the positions it moved through, therefore it can receive both the most deeply embedded scope as well as the intermediate scope.

(34) a. Someone from New York seems *t* to be very likely *t*' to win the lottery.
b. Many Soldiers seem *t* to be very likely *t*' to die in the battle.
(Fox 1999, p.160, ex. (2b-c))

In addition, although the native speakers I've asked agree that (33) doesn't have the reconstructed interpretation of the subject, they do get the narrow scope interpretation of the subject in comparable raising constructions as in (35). Actually, the subject indefinite can get the non-specific/narrow scope interpretation even if there are more than two raising predicates in a sequence, (35c).

(35) a. A politician **appears** to **be likely** to give a speech at the convention.
b. A politician **was believed** to **be likely** to give a speech at the convention.
c. A politician **is expected** to **appear** to **be likely** to give a speech.

Assuming there is probably something example specific that is blocking the narrow scope interpretation in (33), I conclude that even if there are more raising predicates embedded one under another, the predictions turn out to be correct.

2.3.3 Universal quantifiers and complex likely predicates

Sentences with a universal quantifier in subject position, like (36), are a bit tricky––judgments are not really clear, but some sort of agreement can nevertheless be established. The universal quantifier can definitely be interpreted outside the scope of *likely*, but the reading with the quantifier taking narrow scope is less clear. Wurmbrand (1999) and Boeckx (2001) claims only indefinites totally reconstruct in raising constructions, while non-indefinites only exhibit connectivity effects (partial reconstruction). Nevertheless, as discussed earlier, it seems that sentences like (36) are indeed ambiguous, which is what I assume.

(36) Every Basque cyclist is likely to be among the top 10.
$\forall >$ *likely*, *likely* $> \forall$

The same kind of ambiguity, as observed in (33), seems to be also available for other strong quantifiers, e.g. *most* in (37).

(37) Most Basque cyclists are likely to be among the top 10.
most > *likely*, *likely* > *most*

The situation changes with more complex *likely* predicates. The ambiguity of (33) & (34) disappears, as observed by Lasnik (1998). (35) is unambiguous with the universal quantifier taking wide scope. The "reconstructed" interpretation from (33) is impossible.

(35) a. Every Basque is 3% likely to be among the top 10. **3% likely* >∀
b. Every Basque is somewhat likely to be among the top 10. **s/w likely* >∀

Lasnik (1998) and Chomsky (1995a) actually claimed A-movements never reconstruct. If this is true, none of the cases discussed so far in this chapter should exhibit reconstruction. Their claim seems to be too strong and should be modified. Wurmbrand (1999) and Boeckx (2001) claim (only) indefinites reconstruct, which was earlier shown not to be the case.

2.3.4 Ellipsis facts

Ellipsis is standardly taken to be licensed by some form of LF sameness of the antecedent and the elided portion (Merchant 2001). A combination of LF sameness and the analysis presented here, where the high surfacing subject gets interpreted low because that is where it is located at LF, predicts ellipsis of a conjunct should not be possible, if (36a) gets interpreted as (36b).

(36) a. A Swiss is likely to be among the top 10 and a Czech is likely to be among the top 10 too.
b. It is likely for a Swiss to be in the top 10 and it is likely for a Czech to be in the top 10.

But as shown in (37), ellipsis in such cases is possible. The two indefinites are both read non-specifically, which according to the proposal advanced here is a result of the early LF spell-out of the lower clause. But if the subject is really interpreted in the lower clause, the elided clause is not LF identical to its antecedent.[36]

(37) *A Swiss is likely to be among the top 10 and a Czech is too.*

These facts indeed seem problematic, but we also pose the question whether ellipsis is really conditioned solely by LF identity. I do not offer an answer, I simply want to point out to another case of ellipsis where LF identity seems to be violated. Consider the sentences in (38). Since the reflexive and the possessive in the subject are co-indexed with the subject of the embedded clause, the subject seems to be interpreted in some lower position inside the embedded clause.

[36] This was pointed out to me by Thomas Leu.

(38) a. [Three pictures of himself$_k$]$_i$ is a lot for Peter$_k$ to take t_i.
b. [Three pictures of himself$_k$]$_i$ are a lot for Peter$_k$ to take t_i.
c. [Three pictures of his$_k$ teacher]$_i$ are a lot for anybody$_k$ to take t_i.
d. [Three papers by his$_k$ professor]$_i$ are a lot for every student$_k$ to read t_i.

Since reflexives and quantifiers co-indexed with pronouns are commonly used as diagnostics for reconstruction and as a general interpretation location search, I take the claim that (38) involves reconstruction to be correct. Without going any further into this construction, let me just point out that this construction also allows ellipsis, presumably without LF identity.[37]

(39) a. 3 chickens is **a lot to eat** and 3 melons is too.
b. 3 chickens are **a lot to eat** and 3 melons are too.
c. 3 pictures of himself is **a lot for Peter to take** and 3 pictures of his mother is too.
d. 3 papers that he wrote is **a lot for every professor to assign** and 3 books he edited is too.

Since this construction exhibits reconstruction and allows ellipsis of a constituent that is not LF identical with its antecedent, I conclude (37) does not represent a counterexample for the analysis presented in this paper.

2.3.5. How likely to be right about anyyhing is an Eastern European?

For sentences like (40), Sauerland and Elbourne (2002) report that the subject does not have a narrow scope/reconstructed interpretation. According to every native speaker I have asked so far this isn't the case. Based on their proposal, Sauerland and Elbourne derive the desired result—the exclusive wide scope. But note that the narrow scope of the indefinite in (40) seems compatible with the proposal advanced in this chapter. [$_{PF}$*An Austrian*] can raise to the matrix clause before the XP raises to its final A'-position. Since only the PF features [$_{PF}$] would raise, the stranded [$_{LF}$] would end up being interpreted inside the XP (of course, in order to get the proper interpretation, the XP has to partially reconstruct (which should be just a consequence of its partial spell-out)).

(40) a. [$_{XP}$How likely to t_i win next year's Kitzbühel]$_j$ is [an Austrian]$_i$ t_j ?
($\exists$ > *likely*, *likely* > $\exists$)
b. [$_{XP}$How likely to t_i die in every battle]$_j$ are [5 soldiers]$_i$ t_j ?
($\exists$ > *likely*, *likely* > $\exists$)

But even in case the examples in (40) are indeed without the narrow scope interpretation (respecting the Barss' Generalization – Barss 1986, 418-427), there is a way out. As explained earlier, Lasnik and Saito (1992) claim that for every raising verb

[37] This might as well be a *tough construction*. Note that we are not talking about any specific Long Islander when we say *A Long Islander is tough to convince Bald Hill is not a hill*, which suggests the indefinite subject can get narrow scope with respect to *tough*.

and adjective there is also a homophonous control verb or adjective. Example (40a) could thus also be given as (41), and the potentially exclusive wide scope is explained (the other derivation could be bad because it has an unbound trace at the time of Spell-Out).[38]

(41) $[_{XP}$How likely to PRO$_i$ address every rally$]_j$ is [some politician]$_i$ t_j ?

2.4 Conclusion

When the derivation reaches a phase (or the next higher phase) features do not necessarily get shipped to both interfaces (PF and LF), since a phase can be an exclusively PF or exclusively LF phase. Features not spelled out at an LF-only phase continue the derivation and can move higher together. These PF related features, together with the unchecked formal features, can also check the uninterpretable *phi*-features of a higher T that attracts them. A DP has both LF and PF *phi*-features. Some of these features apparently semantic, like the number feature of a DP, are relevant also for the PF interface and should thus be also part of what is shipped to PF. If that is the case, then early spell-out to LF of such features should not prevent them from triggering verbal agreement later on in the derivation.

[38] A similar conclusion can be drawn if we look at copy raising constructions, as in (i). They all have exclusively wide scope interpretation of the subject. According to Potsdam & Runner (2001) these are instances of two base generated arguments forming an A-chain. I will not say anything else about this.

(i) a. Somebody seems like he is tired.
b. Someone looks as if he wants to go skiing.
c. The shit appears as though it's going to hit the fan very soon.
d. Advantage appears like it was taken of the workers.

Chapter

3. Covert Movement – Quantifier Raising

This chapter offers an understanding of quantifier raising (being the clearest case of covert movement it is the ideal case to look at) in terms of non-simultaneous phases. In order to understand this proposal, we'll need to have a look at the internal structure of the DP, since quantifier raising is a property of a subset of DPs. The main characteristics of the proposed structure are the two phase make-up of DPs and the difference between quantifiers and other DPs in terms of a quantificational (formal) feature.

As explained in the Introduction, covert movement is problematic for the standard phase theory. The Copy theory of movement lacks a good mechanism for determining which copy of a moved quantifier is to be deleted at which interface. Non-copy theory of movement explanations have problems with a strict understanding of phases and parallel Spell-Out. If Spell-Out means freezing and shipment of the structure to both LF and PF, then there should not be any syntactic movement after Spell-Out.

But Covert movement, or at least quantifier raising, does indeed seem to exist, hence we need to find an analysis of it. The idea behind my proposal is that covert movement is indeed syntactic movement (as is usually assumed), which is invisible because the moved element is not the same syntactic object that participated in the derivation thus far (which is also a fairly standard assumption). Covert movement is movement of features meant for the LF interface that haven't been yet spelled-out to LF, with the other features of the lexical item (those relevant for the PF interface) already spelled-out (to PF). To allow this kind of solution, we first have to accept the possibility of having non-simultaneous phases. Once we do, we can analyze covert movement as movement of the part of the DP that hasn't been spelled-out in a PF-only phase.

The proposal here is not new, rather it is just a reinterpretation of the classic view (or the newer non-copy movement approach) of Quantifier Raising [QR] as movement of the syntactic item after Spell-Out (that is, Spell-Out in the earlier Minimalism, which only happened once and only to the PF interface. The novelty of the proposal given here is the stricter derivational understanding of syntax and integration of the cyclic Spell-Out to both interfaces. The only really new part is the proposed phase structure of the DP and the mechanism of movement. And even this "new part" was already discussed or pointed out to in Matushansky (2003). As said, quantifier raising [QR] is a property of certain DPs, so we need to take a closer look at the syntax of DPs and try to find the structural reason for the existence of QR. Before we do that, I'll briefly review what covert movement is (actually, I will be talking only about QR here).

3.1 Basics of Quantifier raising

3.1.1 Locality

QR explains why a sentence like (1) can be true in a situation where there are 10 books and 10 students and where each book was read by a different student. This reading

is described as having the universal quantifier in the object position taking wide scope over the subject. Since the universal quantifier is pronounced in a position lower than the subject, it had to raise covertly to a position higher than the subject. I am assuming QR is obligatory. It is necessary not only in cases where the object scopes over the subject, but always. QR is needed for semantic composition (cf. Cecchetto 2004 among many other references). A quantifier cannot be interpreted in the position of the object, since there the verb requires an <*e*> type object, which the quantifier isn't. Unless we allow type ambiguity, we need obligatory QR[39].

(1) A different student read every book.

QR, unlike covert *wh*-movement, is local in that a quantifier cannot scope outside of the finite clause it is located in. Thus, the inverse scope exemplified by the wide scope interpretation of the universal quantifier in (1) and (2) is not available in (3) (cf. Cecchetto 2004).

(2) A different student tried to read every book.
(3) # A different student said that John read every book.

Although Antecedent Contained Deletion [ACD] is a very well known phenomena standardly assumed to involve QR, the two processes appear to be slightly different, at least in terms of their locality. Certain ACD facts show a different locality than QR. In particular, whereas QR cannot climb out of finite clauses as shown in (3), ACD out of a finite clause is acceptable, (4). (See Hornstein 1995 and den Dikken forthcoming for more examples showing the same kind of locality difference.)

(4) John said that you were on every committee that Bill did (say that you were on).

These facts aside, quantifiers obligatorily QR to some edge position. This position was said to be an A'-position by May (1985), one reason being that just like *wh*-movement QR triggers Weak Cross Over. Hornstein (1995) reanalyzed QR as a type of A-movement to an IP internal position[40], and Johnson (2000) as scrambling. Regardless of the type of movement,[41] it is pretty clear, QR should target some edge position outside of VP. If QR can go long distances, it must, by assumption, go through phase edges. As has been argued earlier in this thesis, and as it is argued in the last two chapters, non-finite clauses do have phases, and if quantifiers can QR out of them, QR has to go through phase edges. As I said in the beginning of this chapter, QR is movement of LF related features without any PF related features accompanying them. Since this kind of movement of LF related features is only important for the LF interface, it also respects

[39] I am not objecting to the entire type ambiguity project, but I do not accept type ambiguity as a valid way of saving quantifier interpretation.

[40] This analysis of QR as A-movement for case reasons to ArgOP was shown to be inadequate by Kennedy (1997). Very briefly, ACD can be out of adjuncts, yet adjuncts don't A-move to AgrOP for case.

[41] A vs. A' distinction doesn't have a position in the theory anymore.

(only) LF phases. So if quantifiers can climb out from non-finite clauses, they must stop in SpecTP, which is an LF only phase (cf. chapter 5).

What lets quantifiers raise must be a kind of edge feature—the LF counterpart of the EPP. This feature should also work exactly like the EPP, except that it is only relevant for the LF, that is, it can be checked by an element without any PF features. It seems that the final position must be something lower than the CP. As said, quantifiers cannot QR out of a finite CP, so we might expect they cannot even move into CP. If there is a single CP and this CP is a strong phase, then anything moving in its Spec, remains active for further derivation. But if quantifiers can achieve such a position, then it is not clear why they couldn't raise further into the matrix clause. The easiest thing to say is that they can never raise to SpecCP; i.e., QR only targets Spec*v*P and SpecTP.

ACD gives some evidence that QR doesn't always go higher than Spec*v*P. If it would, the elided *v*P would be interpreted differently, it seems. Slovenian doesn't have the kind of VP ellipsis English does, so that the ellipsis in the ACD example in (5) is replaced with a propositional pronominal *to* 'this'. Cecchetto (2004) argues that the Italian ACD examples with a pronominal in the place of the elided VP constituent actually work in exactly the same way as the English ACD. Since the Slovenian construction is completely parallel to the Italian one, (6), I am assuming the Slovenian construction can be compared to the English ACD as well. The interesting fact about (5) is that the pronominal *to* is understood as 'send 3 postcards' rather than just 'send y'. The interpretation of (5) is not 'for every girl there are 3 postcards which she asked john to send to her' but rather 'for every girl it is true that she asked Janez to send her three postcards'. We are not taking about any three specific postcards each girl asked Janez to send to her, but rather about each girl asking him to send her 3 postcards. If *to* is indeed verbal ellipsis, as suggested by Cecchetto (2004), then it is clear that it cannot replace VP without the quantifier and that in addition the quantifier couldn't have moved higher than Spec*v*P.

(5) Janez je poslal 3 kartice vsem puncam, ki so ga prosile nej to nardi.
Janez AUX sent 3 postcards all girls that AUX him ask to that do
"John bought 3 products from every salesman that asked him to do that."

(6) Ho [$_{VP}$ interrogato ogni ragazzo che mi aveva chiesto di far*lo*]
"I have examined every boy that had asked me to do it."
(Cecchetto 2004, 377)

(5) also provides an argument against the hypothesis that complement of the head is spelled out. If QR targets *v*P (which presumably it should), then the VP at LF would be just *sent x y*. But as explained earlier, this is not what the verbal pronoun replaces. So Quantified noun phrases [QNP] would have to stay inside the VP, which would cause problems for the interpretation of quantifiers. As it was explained, QR is obligatory. In other words, if QNPs don't QR we have a problem with the interpretation of quantifiers, and if they do QR to Spec*v*P and what is being spelled-out as a unit is the complement of *v*, VP, we have a problem with the interpretation of the pronominal (assuming pronouns replace phases).

3.1.2 Analyses

Of the various analyses of Quantifier Raising, I will here present just two recent ones and provide some brief criticism against them. It is not very clear what the standard/mainstream analysis is at the moment, but Chomsky in his most recent work (e.g. Chomsky 2004, 2005a,b) cites Nissenbaum (2001), asserting this is how covert movement should be analyzed. The main idea behind Nissenbaum's proposal is that covert movement is simply movement after Spell-Out (see also Cecchetto 2004). It is not really clear how movement can exist after Spell-Out, especially since Spell-Out is precisely the reason why elements cannot move further or higher in the tree. This kind of proposal can only exist if Spell-Out to the phonetic component is cyclic applying at every phase while Spell-Out to the LF isn't. Only if there is only one single Spell-Out to LF at the end of the derivation can we talk about covert (syntactic) movement of the elements already spelled-out to PF.[42]

Without cyclic spell-out we also loose our prime conceptual argument for the existence of phases. I have discussed this in Chapter 1 (section 1.1.2) and concluded cyclic Spell-Out should send structure to both interfaces when an appropriate phase head demands it.

The other influential proposal takes covert movement to be a sort of side effect of the copy theory of movement. The so-called Phonological theory of covert movement was proposed by Bobaljik (1995) and Pesetsky (1998) (see also Fox & Nissenbaum 1999). This analysis takes covert movement to be essentially the same as overt movement in that it is just regular copying and remerging of the elements from inside the structure. The difference between covert and overt movement is made at the interfaces. At the LF interface the lower copy deletes or is assigned the semantics of a variable and the upper copy gets fully interpreted, while at the PF interface the upper copy deletes and the lower one gets pronounced. Note that this proposal makes the two phenomena that this thesis set out to unify look essentially the same. Just as this thesis does, it treats them as two sides of the same coin. So, since this is basically the same proposal as the copy theory of movement's analysis of Total reconstruction, it shares with it the same problems, and it can thus be rejected using the same objections. Deletion of a copy is an unwanted undoing operation, and should be avoided if possible. In addition it is very unclear what principles determine when to delete which copy, since now we see that both situations exist. In large, complicated sentences in particular, it seems determining which copy is higher/lower and which should be deleted is quite obscure.

[42] Cecchetto (2004) claims this is precisely how the theory should look like since LF supposedly needs to see the entire structure before it can evaluate all the relevant things, e.g. the various long distance Principe C violations and the weak NPI licensing. Especially for Principle C it is far from clear that it is really syntactic, since it doesn't respect any locality conditions. If principle C indeed turns out to be something outside of syntax, there seem to be very few arguments for a single LF Spell-Out.

(i) * He_i said Jill thought Mary believed Ann heard Peter say that Rose once saw Jim_i.

3.2 Structure of the DP

We now turn to the actual proposal. As noted above, the possibility for quantifier raising presumably follows from the specifics of DP structure. Only quantifiers undergo QR, therefore they must have something that allows or forces them to move covertly. (Strong) quantifiers are a subgroup of DPs. My proposal is that certain DPs have a split status, sending structure to PF, but not to LF, so that such a DP constitutes a phonological phase, but not a semantic one. This setting does not differentiate between the two types of DPs (Strong quantificational QNPs vs. NPs) when they are merged into the main clausal frame; but as soon as the first phase of the main clausal frame is merged in, an NP's internal structure becomes completely invisible, whereas QNP's internal structure becomes only partially invisible. Since a QNP is only a PF phase, only its PF-related features are invisible, but everything else remains visible and can undergo subsequent movement.

Just as *wh*-scope is marked in the appropriate CP with a +WH feature, so the scope of a quantifier is marked in clausal structure with the presence of a [+Quant] feature. This feature can only be located in TPs and *v*Ps but not CPs. This feature attracts the formal feature of the quantifier [+Q], which forces the LF part of the QNP into movement. The feature that attracts quantifiers is the LF counterpart of EPP – EPP_{LF}.

I propose that the internal structure of a QNP looks like (8), with an internal phase that spells-out to both interfaces, a bigger phase that only spells out to PF, and the quantifier in between the two phases. This structure is somewhat similar to Svenonius (2004), with the difference that the maximal projection of the DP isn't a full phase, but rather only a PF phase. As a result, quantifiers can get separated from the rest of the nominal in terms of interpretation. This makes them parallel to *wh*-words, which can be split in two parts, the quantifier and the restriction (e.g. Hagstrom 1998, Yoon 1999 (going back to Kuroda 1965 etc.)). This separation of the interpretation of a quantifier and its restriction is noted in Ruys (1997) (cf also Sportiche 1997).

Further, DPs seem to be phoneticly independent and form a prosodic/intonation phrase of their own as argued by Matushansky (2003). At least for subject DPs, it is true that they typically have a break following them. Typically, mappings from syntax to prosody treat every maximal projection in a Specifier position as some sort of independent prosodic unit. Whether this is because of their Specifier position or because of their internal structure is a different question. On the other hand, QNPs have no comparable semantic independence. This, I claim, means they are not an LF phase.[43]

(8) *Structure of a (quantificational) DP*

PF & LF phase

$[_{DP}$ D $[_{QP}$ Q $[_{NP}$ N $]]]$

PF, but not LF phase

[43] Whether the top projection is really DP or maybe KP is not clear. It is not completely clear to me where KP is supposed to be, Svenonius (2004b) puts it under QP, while Bittner and Hale (1996) put it above DP. I'd like to point out that since case is a feature important for PF, but not for LF, KP might indeed prove to be the relevant projection that is a PF, but not an LF phase. Note that taking KP to be the relevant top projection also covers preposition phrases (if they are indeed just some sort of KPs).

Lack of an LF phase was most clearly shown by Sauerland (2005). He claims DP is not a scope island and that Quantifiers from inside the DP in inverse scope linking constructions never end up taking scope at the DP level (cf. e.g. Larson 1985). If quantifiers never take scope at the DP edge, then this should mean DP is not an appropriate scope position for quantifiers, which in turn means DP has no LF phase edge. I will go through Matushansky's arguments for PF phasehood of DPs and Sauerland's argument for lack of an LF phase in DP in more detail in the next section, where I'll also provide some different arguments for the same conclusion.

Notice that claiming a QNP does not constitute a natural semantic constituent with the NP alone is actually the standard way of understanding quantification. Both in relational (Larson 1991) or clausal (Sportiche 1997) view of quantifiers, the semantic unit of the quantifier includes both its restriction (the NP) and its scope (the rest of the clause). Unless we put a pronominal representing the scope in the Specifier of the DP, as in Larson (1991), the top level projection of the QNP doesn't form a semantic phase/unit.

With all this in mind we can have a look at a sample derivation in (9). A prefabricated DP with a quantifier is merged with the verb. Since DP is a PF-only phase, as soon as the next phase starts, the PF inside of the DP becomes invisible. But the rest of the DP, the F and *S* features of the quantifier remain visible. When the next phase head *v* is merged in, the formal features of *QP* gets attracted by the edge feature of the *v*P – the EPP_{LF}. Since only the *S*-features of the quantifier are visible, only *S*-features can move up, (9c). At the next higher phase (TP), *S*-features of the quantifier are still not spelled-out and can move still higher. In order for the QNP to take scope at TP, TP needs to have the scopemarking/edge feature. The result is that the object QNP is interpreted higher, but pronounced lower than the subject:

(9)
a.	*S*						*[DP[QP Q [NP N]]]*	
	P						[DP[QP Q [NP N]]]	
b.	*S*					*[VP V*	*[DP[QP Q [NP N]]]]*	
	P					[VP V	[DP D –spelled-out–]]	
c.	*S*		*[vP[QP Q[NP N]]i*	*v*	*[VP V*	*[DP D*	*ti*	*]]]*
	P		[vP	v	[VP V	[DP D	–spelled-out–]]]	
d.	*S*	*[TP DP T*	*[vP[QP Q[NP N]]*	*v*			*–spelled-out–]]*	
	P	[TP DP T	[vP	v			–spelled-out–]]	
e.	*S [TP [QP Q[NP N]]i [TP DP T*		*[vP ti*	*v*			*–spelled-out–]]]*	
	P [TP	[TP DP T	[vP	v			–spelled-out–]]]	
f.	*S-interpretation*	*DPOBJ*	*DPSUB*					
	P-interpretation		DP_{SUB}	DP_{OBJ}				

3.2.1 Inverse scope linking

In a recent LI squib Sauerland (2005) shows that a DP is not a scope island. This is important for the present discussion since quantifiers QR through LF phase edges so that QNPs failure to take scope at the DP edge suggests DP is not an LF phase.

Sauerland's arguments come from Inverse scope linking constructions in which a Quantified NP embedded inside another QNP takes scope higher than the QNP it is embedded in. So that although the structure is something like [QNP1 [QNP2]], the

interpretation ends up being QNP2 > QNP1. To give an actual example, the embedded QNP *every linguist* in (10) can take scope over *one book*, which results in the interpretation that Tom read not only one book, but several, namely, for every linguist he read one book this linguist wrote.

(10) Tom read [DP one book by [DP every linguist]].

The main question at this point in these examples is where exactly the embedded QNP *every* linguist having wide scope over the main DP *one book* takes scope, outside or inside the DP. The standard answer so far (e.g. Larson 1985) was that it always takes scope inside the DP, but just outside of the quantifier. Sauerland argues against this view and shows that an embedded QNP can indeed take scope outside of the Main DP. But before we go into his main arguments, let's see his main background assumptions. Sauerland looks at invert scope linking constructions in the object position of an intensional verb. Since there are three quantificational elements, great care is needed to determine which element takes scope over another one. Indefinites are good for testing narrow scope with respect to an intensional verb. A sentence like (11), has two readings corresponding to the two relative scopes of the indefinite and the intensional verb. On one reading, marrying anyone from Valencia would satisfy Jon (e.g. Jon doesn't know anyone from Valencia, so he doesn't have the desire to marry anyone in particular, but believes that Valencian girls are really beautiful, since he heard it on the radio or from a friend). In this case the indefinite takes scope under the intensional verb. On the other reading, there is someone from Valencia (e.g. Jessica Serrano), such that Jon wants to marry her. On this reading (as is obvious from the paraphrase), the indefinite takes scope over the intensional verb. Note that wide scope of the indefinites is sometimes argued to arise from reasons other than QR, but since indefinites will be used to determine narrow scope, this is not really important.

(11) Jon wants to marry someone from Valencia.

Plurals, on the other side, are good to test wide scope relative to an intensional verb. In (12), there are again two readings, the narrow reading of the plural DP *these two women from Shanghai*, is true in a situation where Xu wants to marry both women we are talking about. The wide scope, on the other hand is true in a situation where Xu wants to marry either of the two women, but not both of them. This second reading is said to require QR of the plural DP over the intensional verb. That this is really the case is shown in example (13), which is supposedly necessarily understood with the narrow scope (CP blocks QR, so that the plural is always under the intensional verb), so that it is only true in a situation where Sue desires that John marry twice.

(12) Xu wants to marry these two women from Shanghai.
(13) Sue desires that John marry these two women from Spain.
(Sauerland 2005, 305)

Putting these two things together, Sauerland constructs an example with a plural DP inside an indefinite DP. The point is to separate the two parts of the DP (the embedded QNP_E from the main QNP_M) with the help of an intervening intensional verb.

Since indefinites are easy to test their narrow scope and plurals for their wide scope, QNP_E should be a plural and QNP_M an indefinite. This kind of DP is observed in (14). As Sauerland argues, the embedded QNP *these two countries* in (14) can take scope not only higher than *someone* but also higher than *want*, and at the same time on the other side of *want* than *someone*. (example (14) from Sauerland 2005, p. 306, ex. (8))

(14) a. *Mary wanted to marry someone from these two countries.*
b. 'For these two countries, there's someone that Mary wanted to marry.'
(two > someone > want)
c. 'Mary's desire: For these two countries, marry someone from that country.'
(want > two > someone)
d. 'For these two countries, Mary had the desire to marry someone from that country.'
(two > want > someone)

(14d) should not exist if the embedded QNP_E takes scope inside the DP, yet this is the salient reading in a context where Mary writes in a personal add that she is looking for a Japanese or Canadian man to marry. Same data can be replicated in Slovenian. (15) indeed has the interpretation where Mary wanted to marry only once and that she didn't care whom she marries as long as that person is from one of the two countries she specified.[44]

(15) Marija je hotela poročit nekoga iz teh dveh držav
Mary AUX wanted marry someone from these two countries
'Marija wanted to marry someone from these two countries.'

Sauerland suggests that the DP internal QNP_E never takes scope at the DP edge. Since scope taking is a determining factor for (LF) phase edges, not being able to take scope at the DP edge means DP edge is not an (LF) phase edge.

3.2.2 More on inverse scope linking

In this section I give a novel argument for the lack of a scope position at the edge of a DP. If contained QNPs ($QP_{embedded}$) can only scope at the edge of the containing QNP (QP_{main}), then we have some strong predictions in cases where a QP_e is a QP_m for another QP_e. Something like the examples in (16) sketched in (17).

(16) Someone from [two cities in [three countries]]

[44] At the same time an indefinite under an intensional verb can be understood non-specifically, parallel to (11) and a plural can scope wider than the intensional verb parallel to (12), (i). At the same time, when QR is impossible (e.g. out of finite clausal complements), such reading is impossible, (ii).

(i) Rok si danes želi it na ta dva hriba. Ali na Krn ali pa na Kanin.
Rok REFL today wish go on this two mountains either on Krn or else on Kanin
"Rok wishes to go to these two mountains today. Either on Krn or on Kanin."

(ii)#Želi si da bi danes šel na ta dva hriba. Ali na Krn ali pa na Rž.
wish REFL that COND today go on this two hills either on Krn or else on Rž
#"He wishes that he would go to these two mountains today. Either on Krn or on Rž."

Some exit from [every freeway in [a large California city]]
Every book by [some author from [some Eastern European country]]

(17) $[_{QPm}\ Q\ [_{NP}\ \ldots\ [_{QPe/m}\ Q\ [_{NP}\ \ldots\ [_{QPe}\ Q\ [_{NP}\ \ldots\ ]]]]]]$

In these cases, DP-only scoping predicts, that a QP_e could not QR directly to QP_m so that we could never get the scope order in (18). It also predicts other scope orderings to be impossible, but I will limit myself to this one.

(18) $*QP_e > QP_m > QP_{e/m}$

This prediction seems to be wrong. (19), with three QNPs one inside the other, is obviously multiply ambiguous. In a situation where Vili is a building manager and has to take care of several buildings, the interpretation of the QPs in their base order refers to no key since a door can only be located in one house (in case he would only have one house, this would be different). But even the predicted interpretation with the order $QP_m > QP_e > QP_{e/m}$, (19b), is not the salient reading nor is it the most pragmatically reasonable. Most salient, natural, and pragmatically acceptable is the reading given in (19c), where the most embedded QP_e takes scope over the main QP_m. According to this sequence of quantifiers, what Vili got is a master key for each building he takes care of.

(19) a. Vili je dobil en ključ za vsa vrata v vseh njegovih stavbah.
Vili AUX got one key for all door in all his buildings
"Vili got a key for all doors in all his buildings."
b. Vili got a master key that opens all doors for each house.
c. Vili got a single master key for all the doors in all his houses.

Similarly, a sentence like the one in (20) can be understood with the deepest plural taking widest scope (even over the intensional *want*), with the other two quantifiers having the same scope they have on the surface. This reading would be paraphrased as *for these three universities Carlos has the desire to read every paper written by a linguist who works there*. This reading is true of a situation where Carlos decides to read every paper by a linguist from a top institution, but cannot narrow down his search and ends up deciding on three universities from which he would eventually read every paper that was written by a linguist who works there.

(20) *Carlos wants to read every paper by a linguist from these three universities*

3.2.3 Other Phasal properties of the DP

The previous two sections argued that DP is not an LF phase. Earlier, it was mentioned that this is also the conclusion Matushansky (2003) comes to. She cites two tests for LF phases: *phases have the status of a "proposition"* and *QR and successive cyclic wh-movement can target edges of phases*. The first test is fairly clear and easy to make. Propositions are supposedly syntactic objects with the semantic type <t>, but DPs are never of the semantic type <t>. Matushansky (2003) further shows that there is a DP

internal projection that is of semantic type <t>, but it is less clear whether this projections is also a phase. This projection that is also a QR landing site, has to be under the projection of the article. This is clearly seen in example (21) (from Matushansky 2003, 6), where the NPI *any* has to QR in order to be interpreted, yet cannot QR higher than the article (either to an IP adjoined position or to a higher projection inside the DP) or else the NPI would not get licensed (nor would we get the appropriate interpretation). According to Matushansky (2003), this node possibly, but not necessarily, corresponds to the escape hatch for QR of degree operators, which is presumably SpecNumP.

(21) No student from any foreign country was admitted.

Matushansky (2003) shows that in the case of DP, PF and LF diagnostics actually produce contradictory results. LF diagnostics, on the one hand, show that DP is not a phase, while PF diagnostics, on the other hand show that it is. Matushansky discusses three different PF diagnostics: *isolation*, *movement*, *and nuclear stress rule*. On the assumption that a minimal convergent derivation must be a phase, anything pronounced in isolation should be a phase. As shown in (22), a DP is a PF phase, just like *v*Ps.

(22) (Can you teach lexical semantics?) – Lexical semantics?/Me?
(op.cit., ex.(18))

(23) (Can you teach lexical semantics?) – Me teach lexical semantics?
(op.cit., ex.(17))

Isolation is not a very good diagnostic (as also noted by Matushansky 2003), since nearly anything can be pronounced in similar isolation. Instead of the reply in (23) one could also just say *Me teach*?, but this is not a constituent of any kind. Therefore we should be looking for stronger evidence for a PF phase. As mentioned, Matushansky (2003), gives two more arguments. The first involves movement structures that possibly do not involve purely syntactic operations.

One such case is extraposition. Since it only applies to *v*Ps and CPs but not to DPs (there is possibly a syntactic reason for that), it is not useful in our case. Topic left dislocation, on the other hand, possibly testing for the same effect, applies to DPs, just like it applies to CPs, but it doesn't work with *v*Ps, (24) (examples (24) through (28) are from Matushansky 2003, p. 10-11).

(24) a. [$_{CP}$ That Hermione was interested in someone else], who could imagine **it**?
b. [$_{DP}$ Hermione's interest in someone else], who could imagine **it**?

Clefting, as in (25), does not apply to *v*Ps, but it again applies to both CPs and DPs.

(25) a. It's [$_{CP}$ that Desdemona was faithful] that Othello doubted.
b. It's [$_{DP}$ Desdemona's faithfulness] that Othello doubted.

Pseudo-clefting applies to both uncontroversial cases, *v*P and CP, and it also works with DPs, (26). As shown in the previous chapter, pseudo-clefting also doesn't apply to raising *v*Ps, arguing that they are not PF phases.

(26) a. What King Lear said was [$_{CP}$ that Cordelia was no longer his favorite daughter].
b. What Goneril did was [$_{vP}$ blind Gloster].
c. What Regan listened to was [$_{DP}$ Goneril's suggestions].

Predicate fronting is not really applicable to CPs, because it only applies to predicates and CPs aren't predicates, yet (27a) is only given a question mark in Matushansky (2003).

(27) a. Juliet promised that she would marry Romeo, and [$_{CP}$ that she would marry Romeo] her parents didn't think/know.
b. Goneril said she would pluck out Gloster's eyes, and [$_{vP}$ pluck out his eyes] she did.
c. Regan is called the villain of the play and [$_{DP}$ the villain of the play]$_i$ she is t_i

Though-constructions also exclude CPs, possibly for the same reason, CPs aren't predicates, but apply to *v*Ps and DPs, (28).

(28) a. [$_{vP}$ Marry her lover] though Juliet did, the results were disastrous.
b. [$_{DP}$ The villain of the play] though Regan is t_i, I still like her best.

It seems thus, that movement diagnostics confirm PF phasehood of DPs. The results aren't completely unanimous with respect to all the other phases, but there seem to be (syntactic) reasons for each case where a diagnostics doesn't apply.

Just like movement diagnostics, Nuclear stress rule also argues for the PF phasehood of DPs. Nuclear stress rule assigns stress to the rightmost stress-bearing element in a PF phase (cf. Legate 2001, Cinque 1993). It assigns primary stress to the rightmost element in the object DP and to the preposition left behind when this rightmost element moves out, (29), thus suggesting DP is a unit on which nuclear stress rule applies.

(29) a. Balthasar dislike rumors about **Justine**. (Marushansky 2003, p. 12-13)
b. Who did Balthasar dislike rumors **about**?

Since DPs pass all the proposed PF diagnostics for phases (with movement, this is less obvious because of the large number of potentially relevant movement operations, but nevertheless, DPs pass a comparable amount of movement diagnostics as the two most uncontroversial phases, CP and *v*P), we can safely conclude DP is a PF phase (see Matushansky 2003 for more discussion and skepticism). Thus we have shown a DP is a PF but not an LF phase. Such phasal composition is exactly what we said we need to explain QR in terms of non-simultaneous phases.

3.3 quantifier raising in environments adapt for total reconstruction

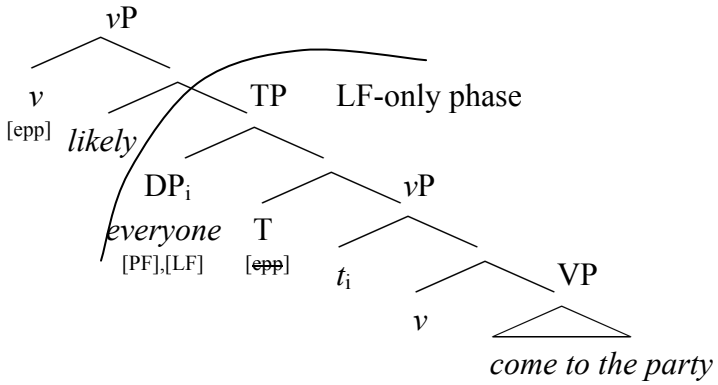
In the previous chapter, I explained away the ambiguity of indefinites in raising constructions by calling them ambiguous between indefinites and quantifiers. I have postponed the discussion of the actual derivation of quantifiers in raising constructions until this section. But before we get into the actual derivation I must review some background assumptions.

As was explained in the introduction DPs, need case, which they get from the two strong phases TP and *v*P, which also check their EPP features against them. We also mentioned that the visible EPP is a PF interface condition and is as such bound to PF phases. Since case is an uninterpretable feature, that is, irrelevant for LF, but relevant for/pronounced at PF, it seems to be a PF interface condition on DPs. As I mentioned in the introduction, if we want to be really serious about non-simultaneous phases, we need to take every phase property to be split between the two interfaces. So just like PF phases have case as an interface condition for DPs, LF phases have a similar condition for (strong) quantifiers. QPs need appropriate position for interpretation, while their formal feature [+Q] (possibly parallel to the categorical features) needs to be checked/deleted. On the other side, just like a (finite) TP has the visible EPP it probably also has an EPP_{LF}, a feature that attracts quantifiers (possibly related to the feature marking scope). Every PF phase would then have a visible EPP, while every LF phase should have the EPP_{LF} (EPP_{LF} is given as '$^{[epp]}$' in the structure in (30)).

Now, we can have a look at the actual derivation in (30). DP doesn't get case in the embedded clause (non-finite Ts do not have any nominative case to assign), but since this DP is a Quantified NP it raises to TP to check the EPP_{LF}. Whether its PF features pied-pipe with the LF features or not, is a separate question and will not be addressed here (It is related to the actual status of the DP without a case. DPs need case to be PF convergent and until they become PF convergent, they might not be spelled-out to the relevant interface (cf. Atkinson 2000)). In the embedded SpecTP, the DP waits until the next (partial) phase *v*P, (30a).

(30)

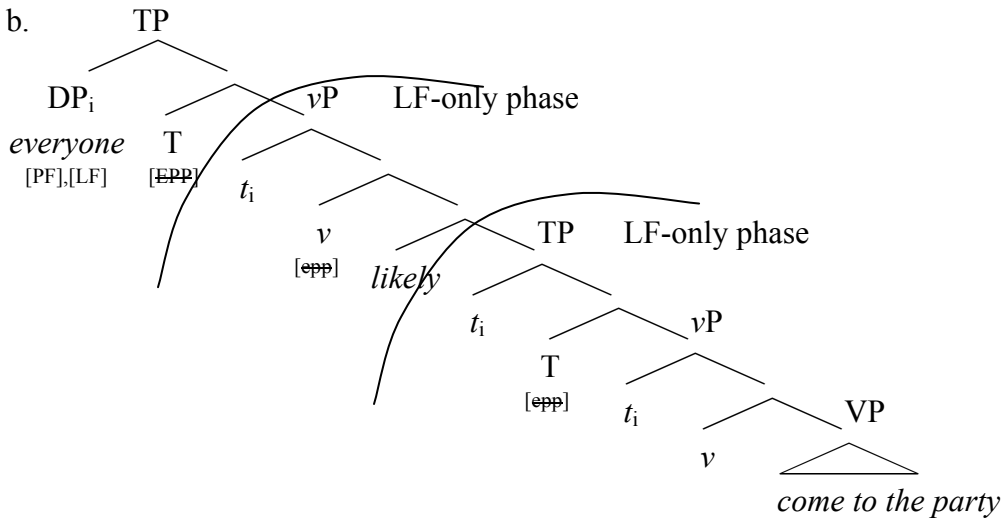
a.



At this point, the DP has the choice of moving to the raising *v*P if the *v*P has the appropriate EPP_{LF}. If no such edge feature is present in the *v*P, the DP remains in the SpecTP where it eventually gets interpreted, deriving the narrow scope interpretation of the quantifier. From here on, the PF derivation proceeds completely parallel to the one

explained in the previous chapter where LF part of the DP remains inside the lower clause, because its LF features get blocked by the intervening *v*P LF phase.

In case the matrix *v*P has the relevant EPP_{LF}, DP (both its LF and its PF part) moves to the Spec*v*P, where it awaits final movement to the matrix SpecTP. Matrix T is finite, it has EPP and the power to check NOM. This attracts the PF-features of the DP, which move (either from the embedded or from the matrix *v*P) to the matrix TP. Thus we end up with the QNP being both pronounced and interpreted in the matrix specTP (both LF and PF-features moved to the matrix clause).



Since the embedded T is deficient—it has no [Φ] features and no visible EPP—it doesn't attract the indefinites. Its only feature is the LF phase edge feature the EPP_{LF}. In case of indefinites, the EPP_{LF} gets checked by an LF expletive $there_{LF}$ (cf. Boeckx 2001).

3.4 Wh movement and partial reconstrucion

Wh-phrases partially reconstruct and can take higher scope than their position suggests. In some languages, *wh*-phrases only move covertly (the *wh*-in-situ languages), much like quantifiers in English, but presumably to a different position. When *wh*-phrases move in English, the P-features of whatever gets interpreted lower in the structure move together with the *wh*-word to the position where the *wh*-quantifier/*wh*-word gets interpreted. The separation of the [+Q] feature from the rest of the *wh*-word is proposed for *wh*-in situ languages with the overt question marker (Hagstrom 1998, Yoon 1999 among others).

The special property of *wh*-movement is that parts of the moved *wh*-constituent, e.g. *which picture of himself* in (31a), behave as if they are interpreted in their base position. This is shown with binding of the reflexive in (31a,b) and by the induced Principle C effect in (31c-e).

(31) a. Which picture of himself did John like **t**.

b. Which of <u>each other</u>'s friends did <u>they</u> remind **t** that he saw Bill.
c.*Which one of John$_i$'s friends did he$_i$ see?
d.*He$_i$ saw every one of John$_i$'s friends.
e.*He$_i$ showed Mary every picture that John$_i$ took on his last trip.

The proposal I would like to develop ultimately for such cases is that parts of the *wh*-moved constituent get spelled-out to the LF interface in their base position, but at the same time not to the PF interface. Exactly how this would be done is left for future research. This approach might shed some light on the difference between adjuncts and arguments in terms of reconstruction. The standard analysis by Lebeaux (1990) for the cases he discusses, where an adjunct doesn't but an argument does trigger Principle C violation because of a referring expression it contains and a pronoun in the main clause, is that adjuncts merge in later than arguments and can thus avoid certain apparent violations of binding principles. But notice that this kind of answer runs into problem when it is applied to relative clauses with idiomatic expressions that are typically taken as the strongest argument for a raising analysis of relative clauses. Raising analysis of relative clauses is obviously not compatible with a late adjunction analysis, needed to explain the lack of Principle C violation in (33). But sentences, such as (33), are acceptable.

(33) Which picture that John$_i$ took did he$_i$ see in the newspaper?

Chapter

4. On the Intensional FEEL-LIKE Construction in Slovenian*

This chapter is a detailed description of an interesting construction found in many (most notably Slavic) languages. The chapter argues for a specific analysis involving two clauses and a covert matrix verb. The entire chapter is not directly relevant to the main topic of this thesis, but the construction itself provides a very clear argument for a non-simultaneous spell-out. This is explained firstly in section 4.3.3 and later repeated and thoroughly discussed in the concluding section 4.8.1.

4.1. Introduction – overt syntax of the FEEL-LIKE construction

In this chapter we discuss the apparently monoclausal Slovenian construction in (1), found also in other, mostly Slavic languages, and argue that it is best analyzed as biclausal, containing a covert matrix psych-predicate. We thus go against the monoclausal treatment proposed by Rivero & Milojević-Sheppard (2003) [henceforth R&MS].[45]

(1) a. Temle Slovencem se hribolazi.
These *Slovenian*$_{DAT,Masc,Pl}$ *SE* *mountain-climb*$_{3P,Sg,Pres}$
"These Slovenians feel like mountain-climbing."
b. Lini se je jedlo cmoke.
Lina$_{DAT,Fem}$ *SE* *AUX*$_{3P,Sg,Past}$ *eat*$_{Sg,Neu}$ *dumplings*$_{ACC,Masc,Pl}$
"Lina felt like eating dumplings."

A striking aspect of the construction is the fact that its meaning corresponds to what is typically conveyed with two (event-introducing) verbal forms—*feel like* (or *be in the mood for*) and *mountain-climb* of the English prose translation of (1a)—while its surface form only exhibits one verbal form, i.e. *hribolazi* 'mountain-climb'. Another striking aspect, first noted in Marušič & Žaucer (2004), is the tense morphology on the verb. As is evident from the glosses in (1b), the Tense inflection on the verb modifies the FEEL-LIKE predicate, not the overt verb's predicate (*eat*), so that the past tense morphology on the verb denotes a past disposition rather than a disposition towards a past event, while the present tense morphology of (1a) yields a present disposition. In recognition of its meaning, we will call the construction in (1) the *FEEL-LIKE construction* (other names in

* This chapter is a (late) version of a paper coauthored with Rok Žaucer to appear in *Natural Language & Linguistic Theory*.

[45] Unless stated otherwise, our examples are from Slovenian. As the construction has a colloquial flavor, many examples come from colloquial Slovenian (younger-population Ljubljana speech). While the grammaticality judgements reported do not depend on the presence of some intensifying adverbs or modalizing particles, which is why we mostly avoid their use in our examples, the construction *does* typically co-occur with such elements. Neutral intonation is assumed on examples throughout the paper.

the literature include Dative Impersonal (Dispositional) Reflexive Construction, Dative Existential Disclosure Construction, desiderative inversion, etc.).

The subject of the FEEL-LIKE construction is in dative case, and since agreement on the verb in Slovenian is closely tied to nominative case assignment, the gender, person, and number inflection on the verb in the FEEL-LIKE construction does not agree with the subject. Rather, it is always *neuter*, *3rd person*, *singular*, which Benedicto (1995) and R&MS see as default. SE in (1) is formally the reflexive-pronoun clitic, occurring also in passives, middles, impersonal constructions, etc. Loosely following Rivero (2004), we see SE as non-active morphology.

At various points, we will be contrasting the covert FEEL-LIKE construction with its paraphrase with an overt matrix predicate, (3), i.e. with a biclausal construction with an overt psych-predicate 'feel-like'. We propose that the two are—though not identical—essentially parallel in structure, the main difference being that the matrix verb *luštati* in (3) replaces a near synonymous phonologically null verb in (2).

(2) Gabru se pleše. ➔ '(covert) FEEL-LIKE construction'
Gaber$_{\underline{DAT}}$ *SE* *dance*$_{\underline{3P,Sg}}$
"Gaber feels like dancing."

(3) Gabru se lušta plesati. ➔ 'overt 'feel-like' paraphrase'
Gaber$_{\underline{DAT}}$ *SE* *desire*$_{\underline{3P,Sg}}$ *dance*$_{INF}$
"Gaber feels like dancing."

Apart from inversion accounts in Relational Grammar (Hubbard 1985), the similar-spirited Schoorlemmer (1994a), and Kallulli's (1999) Pustejovskyan event-(de)composition account, the shared feature of the previous analyses—most elaborated in R&MS—is a single clause (i.e. a single VP) with a high modal functional head introducing the 'feel-like' interpretation (Franks 1995, Benedicto 1995, Dimitrova-Vulchanova 1999, R&MS, Rivero 2003). We will, in contrast, advocate a biclausal structure for the FEEL-LIKE construction (i.e. two VPs with adjacent functional projections), with a covert matrix predicate instantiated by a null (Belletti & Rizzi's 1988 class 3) psych-verb FEEL-LIKE. The properties of the FEEL-LIKE construction mentioned in the preceding paragraphs will be shown to fall out naturally.

Our analysis thus identifies a hidden *matrix* predicate and thereby confirms the logical possibility predicted, for instance, in the den Dikken *et al*. (1996) analysis of intensional transitive verbs. In the same vein, the analysis bears on the debate between the sententialist and the intensionalist approach to intensionality. On a quite different note, the paper explores the behavior of a deficient sentential complement, together with its consequences for our understanding of the phase-based theory of syntax. Finally, our null verb FEEL-LIKE relates to van Riemsdijk's (2002) case for letting independent, phonologically null lexical verbs into modern (post-generative-semantics) linguistic theory (going beyond the more common accounts with a null HAVE as in Larson *et al*. (1997)).

The paper is structured as follows. Section 4.2 presents the initial motivation for the biclausal structure laid out in section 4.3. In section 4.4, we provide six additional arguments for favoring a biclausal structure of the FEEL-LIKE construction. Section 4.5 presents the FEEL-LIKE construction in Serbian and gives a typology of FEEL-LIKE constructions. Section 4.6 looks at the semantics of the construction and discusses some

theoretical implications of a biclausal structure and a covert matrix predicate. Section 4.7 defends a null verb FEEL-LIKE against an account with (specified) ellipsis and discusses the licensing/recoverability of the null verb. Section 4.8 concludes the paper.

4.2. Temporal adverb(ial)s, VPs and modal FPs

4.2.1 Temporal adverb(ial)s

4.2.1.1 The classic argument with intensional transitive verbs If the FEEL-LIKE construction has monoclausal syntax, it should be subject to the restrictions that obtain in other monoclausal constructions. Conversely, if it has biclausal syntax, it should pattern with biclausal constructions. This section offers a standard argument for biclausality—temporal adverbial modification—which will motivate our proposal in section 4.3.

Constructions with clausal complements create ambiguity with temporal adverb(ial)s, as in (4), where *tomorrow* can either modify the 'needing' or the 'having'. On the first reading, *tomorrow* describes the time when Max will have the need to have the bicycle at some unspecified later time. On the second reading, it is the needing that occurs at an unspecified time between now and tomorrow, when the having is interpreted to occur. It has been pointed out by Ross (1976), Partee (1974), McCawley (1979), Dowty (1979), den Dikken *et al*. (1996), Larson *et al*. (1997), among others, that the same type of interpretational ambiguity arises with adverb(ial)s in superficially monoclausal sentences with intensional transitive verbs, as in (5).

(4) Max will need to have a bicycle tomorrow. (Larson *et al*. 1997)
(5) Max will need a bicycle tomorrow. (Larson *et al*. 1997)

Furthermore, McCawley (1979) observes that clausal complement constructions as well as sentences with intensional transitive verbs even allow non-agreeing temporal adverb(ial)s (positional adverbials referring to distinct points in time), as in (6) and (7), respectively. On the other hand, non-agreeing adverb(ial)s are impossible in ordinary monoclausal constructions, (8).

(6) Tomorrow Jim will want to have a new bike in two weeks.
(7) Tomorrow Jim will want a new bike in two weeks.
(8) *Tomorrow Jim will play basketball in two weeks.

These facts have been captured with a unifying analysis of clausal complement constructions and intensional transitive verbs setting them apart from ordinary monoclausal constructions. The structure of intensional transitive verbs would thus—in one form or another—implement the idea of a concealed clausal complement (Ross 1976, etc.), with the simplest version given in (9). The proposed structure draws a direct parallel with the structure of clausal complement constructions, (10), with the only difference hiding in the fact that in the case of intensional transitive verb constructions, the lower clause contains a covert predicate HAVE.

(9) Yesterday Jim wanted [PRO TO-HAVE a new bike tomorrow]

(10) Yesterday Jim wanted [PRO to have a new bike tomorrow]

Put very intuitively, one event can only be ascribed to one time. On a treatment such as Larson's (1988) (cf. also Demirdache & Uribe-Etxebarria 2004), where temporal adverbs are basically treated as temporal adverbials and thus as originating inside VP, one can only accommodate two temporal adverb(ial)s with stacking, where one is a further specification of the other. However, directly opposing adverbials such as *yesterday* and *tomorrow* cannot be stacked in this way. Therefore, non-agreeing adverbs can only come from distinct syntactic clauses, from two different VPs. Also, as Larson *et al*. (1997) point out, there seems to be no plausible alternative to (hidden) biclausality for explaining the contrast between the possibility of adverbial ambiguity/doubling with intensional transitive verbs and its absence with extensional transitive verbs.

4.2.1.2 The classic argument applied to the FEEL-LIKE construction Turning to the FEEL-LIKE construction, observe, first, that adverb(ial)s in this construction exhibit ambiguous interpretation, just as they do in clausal complement constructions and sentences with intensional transitive verbs. *Včeraj* 'yesterday' in (11) can either modify the dispositional FEEL-LIKE predicate or the 'climbing' predicate.[46] Second, observe that the paraphrase of the FEEL-LIKE construction, the overt 'feel-like' construction in (12), admits non-agreeing adverb(ial)s. And indeed, just like (12), the FEEL-LIKE construction also admits non-agreeing adverb(ial)s, (13), making it parallel to the construction with an obvious clausal complement rather than to monoclausal constructions such as (8) above.

(11) Črtu se je včeraj šlo na Rž.
Črt$_{DAT}$ SE AUX$_{Past}$ yesterday go to Rž
"Črt felt like [climbing Mt. Rž yesterday]."
"Yesterday, Črt felt like [climbing Mt. Rž]."

(12) Včeraj se mi ni luštalo [iti jutri domov].
yesterday SE I$_{DAT}$ AUX$_{Neg,Past}$ feel-like go$_{INF}$ tomorrow home
"Yesterday, I didn't feel like going home tomorrow."

(13) Včeraj se mi ni šlo jutri domov.
yesterday SE I$_{DAT}$ AUX$_{Neg,Past}$ go tomorrow home
"Yesterday, I didn't feel like going home tomorrow."

The fact that adverb(ial)s in the FEEL-LIKE construction exhibit interpretational ambiguity and that the construction admits non-agreeing adverb(ial)s shows that the construction contains two events related to two different times. Moreover, the dispositional FEEL-LIKE event of, for example, (13), is situated in the past and so the disposition cannot be dismissed as being only a pragmatically derived attitude with contextual anchoring to speech time.

[46] All examples with the FEEL-LIKE construction occur with the same agreement on the verb (3P,Sg,Neut) as shown in (1a) for present tense and (1b) for composite tenses. When the agreement is not relevant to the point being made (sections 4.2.1, 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.6, 4.6), we omit it from the word-for-word gloss for reasons of simplicity and clarity.

On the assumption that events are introduced only by verbs and other primary predicates that can replace verbs in a sentence (i.e. lexical projections dominated by clausal structure, as in copular structures with an AP), multiple temporally independent events provide evidence for multiple clausal domains. The assumption we are making is neither uncommon nor too controversial; it is obviously in congruence with the vast majority of linguistic data, and in addition, its conceptual simplicity clearly justifies accepting it as the null hypothesis. This assumption seems to underlie any constrained model where the semantics is compositionally read off the syntax, and it has proven fruitful in the study of intensional transitive verbs, causatives (e.g. Travis 2000), serial verb constructions (e.g. Baker & Stewart 1999), event nominals (e.g. Alexiadou 2001), etc. We thus follow the reasoning of Ross (1976) and McCawley (1979), and offer the presence of multiple events in the FEEL-LIKE construction as the first piece of evidence for its biclausal structure. Structurally, double/non-agreeing same-type adverb(ial)s suggest, assuming Larson's (1988) treatment, that there must be two distinct VPs, i.e. two lexical verbs, two clauses.

4.2.1.3 Frame adverbials Parsons (1990: 209) identifies a class of adverbials—he calls them "frame" adverbials—that set the context within which the rest of the sentence is interpreted, (14).

(14) During the war I ran every day in the afternoon.

The co-occurrence of a frame adverbial and a temporal adverbial presumably does not mean that we are dealing with two clauses. So in reply to worries that the outer adverbial in examples such as (13) could be merely an instance of a frame adverbial, we put forth examples (15a-b), showing that the FEEL-LIKE construction allows both two distinct frame adverbials, (15a), as well as one frame adverbial with two temporal adverbials, (15b).

(15) a. Med vojno se mi je po vojni hodilo vsak dan na Krn.
during war SE I_{DAT} AUX after war go every day onto Krn
"During the war I felt like climbing Mt. Krn after the war every day."
b. Med vojno se mi je vsako dopoldne šlo naslednji dan na Krn.
during war SE I_{DAT} AUX every morning go following day on Krn
"During the war I felt every morning like climbing Mt. Krn the next day."

4.2.1.4 Three non-agreeing adverb(ial)s Although non-agreeing adverb(ial)s of the type presented in sections 4.2.1.1 and 4.2.1.2 have been taken to support a biclausal analysis of intensional transitive verbs (e.g. Ross 1976), it turns out that non-agreeing adverbs are sometimes possible even in more common constructions, e.g. (16) (cf. Vetter 1973, Prince 1974).

(16) Today you are out of the hospital in a week (but if something goes wrong during your operation tomorrow, then you might have to stay here longer).

In view of such examples, one might want to question the validity of doubled adverb(ial)s such as in (13) above as supporting a biclausal analysis of the FEEL-LIKE construction. Two points can be made here. First, one way of accounting for these facts is to make this construction parallel to the FEEL-LIKE construction by postulating a hidden matrix predicate, something like IT-LOOKS-LIKE or IT-IS-THE-CASE-THAT (cf. Prince 1974), as in (17). Nevertheless, analyzing these sentences as containing a hidden predicate may be controversial and would certainly require more detailed scrutiny than we can afford here.

(17) Today ~~IT-IS-THE-CASE-THAT~~ you are out of the hospital in a week.

Second, in whatever way such sentences are analyzed, even if monoclausally, they do not present a counterargument to our claim that the double adverb(ial)s in the FEEL-LIKE construction, as in (13), constitute solid evidence for a biclausal structure, the reason being that the FEEL-LIKE construction can host two non-agreeing adverbs *in addition* to the outer adverbial of (17), as in (18). [47]

(18) Zdej se mi pa jutri res ne bo šlo v petek domov.
now SE I_{DAT} *PTCL tomorrow truly not* AUX_{Fut} *go on Friday home*
"Now it seems that tomorrow I won't feel like going home on Friday."

4.2.1.5 Comparison with modal accounts Since the major contenders to our biclausal account are the monoclausal modal analyses (e.g. Franks 1995, R&MS, Rivero 2003), in order to make our first argument for biclausality work, we have to show that non-agreeing adverbials of the type found in the FEEL-LIKE construction are impossible in monoclausal structures with a modal. And indeed, the only way double adverb(ial)s may be tolerated in monoclausal structures with modals, as in (19), is on a reading along the lines of example (16): An interpretation parallel to the non-agreeing adverb(ial)s in the FEEL-LIKE construction from (13) is unavailable. As a consequence of this restriction on the interpretation of non-agreeing adverb(ial)s, modals do not—unlike the FEEL-LIKE construction in (18)—allow three non-agreeing adverb(ial)s, (20).

(19) Zdajle ne bom smel iti jutri domov.
now NEG $AUX_{1P,Sg,Fut}$ $may_{Sg,Masc}$ go_{Inf} *tomorrow home*
"Now it seems that (tomorrow) I'll not be allowed to go home (tomorrow)"

(20) * Zdajle ne bom smel jutri iti domov v petek.
now NEG $AUX_{1P,Sg,Fut}$ $may_{Sg,Masc}$ *tomorrow* go_{INF} *home on Friday*
"Now it seems that tomorrow I won't be allowed to go home on Friday."

[47] The judgments reported in this paper were checked and confirmed by other Slovenian speakers (of relevant dialect, cf. footnote 45). (18) is the only potentially disputable example; however, the majority of speakers, once independently made aware of the two options in (13) and (16-7), accept (18) as grammatical.

We conclude that the temporal-adverb(ial) data we presented constitute solid evidence for rejecting the existing modal analyses as well as good motivation for a biclausal analysis.

4.2.2 Want, feel-like, etc. as lexical verbs, modals as functional 'verbs'

In terms of its meaning, our FEEL-LIKE predicate groups with *want*-type verbs, or more generally, desire/volition predicates. It will have become clear that we do not consider *want*-type verbs, including our FEEL-LIKE, as functional heads but rather as full lexical verbs (V^0) (following e.g. den Dikken *et al*. 1996 and Bobaljik & Wurmbrand 2005, and against e.g. Cinque 2003, 2004a, van Riemsdijk 2002). On the other hand, we consider modals such as 'must', 'can', 'may' as functional heads (F^0's, situated in the IP-domain, cf. Butler 2003a, Cinque 2004a). We see the basic difference in the fact that *want*-type verbs introduce an event, which in principle comes with its own event time, and that they introduce an argument, while modals introduce neither a separate event nor any additional arguments. Semantically speaking, *want*-type verbs—including FEEL-LIKE and other desire predicates—do *not* introduce a type of modality/modal force (cf. Kratzer 1991, Kearns 2000) but are rather propositional attitude-report predicates (cf. Richard 1990, Heim 1992, Larson 2002). That is, while modals and attitude predicates are both world-creating/ intensionality elements, only modals have modal force; and even with respect to intensionality, *want*-type predicates create a hyperintensional context while modals create a weakly intensional context (e.g. Kearns 2000; cf. section 4.6).

From the class of desire/volition predicates, 'want' would seem the most plausible candidate for functional status. Nevertheless, there are many formal indications that *want*-type verbs and modals are different; since an elaborate demonstration of this dissociation would require a separate study, we will here merely point at some obvious morphosyntactic differences between the two types of elements (focusing on two of the two languages we use in our discussion, i.e. Slovenian and Serbian). As in many languages, *hoteti* 'want' in Slovenian admits (superficially) DP-only complements, while modals (*morati* 'must', *smeti* 'may', *moči* 'can') do not. Sentences with 'want' and a lexical-verb complement license nonagreeing adverbs and contradictory depictives, combinations of a modal and a lexical verb do not (i.e. 'want' introduces an independent event time, modals/functionals do not) (cf. sections 4.2.1 & 4.4). 'Want' can be modified with intensifying manner adverbs such as *močno* 'strongly', *rahlo* 'mildly' (suggesting eventhood and presence of VP), modals cannot (cf. section 4.4.5). Related to the fact that 'want' introduces an argument, *hoteti* 'want' can take *that*-clause complements with a distinct lower-clause subject, while modals only take infinitival complements. Next, Slovenian verbs can be turned into some sort of manner adverbs with the affix *-e/-(a)je*, as in *molčati* 'keep quiet' > *molče* 'without saying anything', *jokati* 'cry' > *jokaje* 'cryingly'; while *hoteti* 'want' naturally forms this adverb, *(ne)hote* '(un)willingly', the forms are nonexistent with modals (**more/*moraje, *sme/*smeje, *može/*možeje*). Similarly, Slovenian verbs undergo productive nominalization; just like *trpeti* 'suffer' forms *trpljenje* 'suffering', *hoteti* forms *hotenje* 'wishing/wanting', but there are no such forms with modals (**moranje*, **smetje*, **moženje*). Furthermore, in Serbian, *hteti* 'want' developed into a future auxiliary; however, when used as a future auxiliary—in some Serbian dialects—*hteti* takes an infinitival complement (*hoću umreti* ' $\text{FUT}_{1P,Sg}$ die_{Inf}'), but when used as 'want', it takes a *that*-clause (*hoću da umrem* '$\text{want}_{1P,Sg,Pres}$ that $\text{die}_{1P,Sg,Pres}$').

Moreover, when it cliticizes on the verb, the element only functions as future marker (*umre(t)-ću* 'die-$FUT_{1P,Sg,}$'), not as 'want' (for which *hoću da umrem* '$want_{1P,Sg,Pres}$ that $die_{1P,Sg,Pres}$' is used).

Note that none of these differences between necessity/possibility modals and *want*-type verbs seems to be explainable in semantic terms, i.e. by attributing the different behavior of *want*-type verbs to a different kind of 'modality'. For example, with regard to the Slovenian manner-adverb facts, one can do something and want to do it, and one can do something and have permission to do it; nonetheless, there is a manner adverb from *hoteti* 'want' (*hote* 'willingly') and there is no such manner adverb from *smeti* 'may'.

We thus treat *want*-type verbs as lexical verbs (V^0) and modals as functional heads (F^0).[48] As most previous analyses of the FEEL-LIKE construction encode the disposition with some sort of (null) Modal head, though, we will contrast the FEEL-LIKE construction with monoclausal structures with modals (i.e. their only kind, necessity and possibility modals).[49]

4.3. Derivation of the FEEL-LIKE construction

In sections 4.2.1.1-4.2.1.4, we presented the standard type of data, which have previously been used to argue for a covert HAVE in the complement of overtly DP-taking intensional transitives such as *want*, and which remain unaccounted for in the previous accounts of the FEEL-LIKE construction and hint at a biclausal structure. In this section, we provide an actual implementation of a biclausal syntax for the FEEL-LIKE construction. In a sense, then, we make two claims whose validity is in principle independent: the first one is the more general claim that the construction has a biclausal syntax, the second concerns our actual implementation of the first claim.

We will argue that the FEEL-LIKE construction, (21a), is essentially parallel to its closest paraphrase with an overt 'feel-like' verb, (21b). Put generally, we propose that the main difference between (21a) and (21b) is in the overtness/covertness of the matrix verb (other differences are derived in the following subsections), while the variants are structurally the same. The position filled by the overt matrix verb 'feel-like' in (21b) is filled by a near-synonymous null verb FEEL-LIKE in (21a), with both verbs representing Belletti & Rizzi's (1988) psych-verbs of class 3. Note that although null verbs are not very common, they have been proposed for English (den Dikken *et al.* 1996, among others), other Germanic languages (van Riemsdijk 2002), Nimboran (Inkelas 1993), etc. Accepting the overtness/covertness distinction between (21a-b) as fundamental, we will

[48] In all fairness, we acknowledge that there are facts—though they seem scarcer and considerably less compelling—that can be seen as leading to the opposite conclusion. For example, Slovenian *hoteti* (also Serbian *hteti*) 'want' can be phonologically reduced (Slo. *ne hodim* 'neg $walk_{1P,Sg,Pres}$' vs. *ne hočem* > *nočem* 'not $want_{1P,Sg,Pres}$') (cf. Barbiers & Sybesma 2004). Still, phonological reduction or even the morphemic nature of *want*-type predicates in certain languages does not automatically force an FP analysis; see, for example, Travis (2000) for a V analysis of some causative morphemes in Malagasy and Tagalog.

[49] Rivero's (2003) TP-embedding applicative is translated into a ModalP at LF, so it also falls within the scope of this comparison. On the other hand, as the only such element in the literature, this ApplP lacks a candidate for comparison/testing; still, one can raise theoretical considerations against it, which we will do at several points.

show that all the other differences—such as the location of verbal morphology—follow naturally from our proposal.[50]

(21) a. Gabru se pleše. ➔ '(covert) FEEL-LIKE construction'
G_{DAT} *SE* $dance_{3P,Sg,Pres}$
"Gaber feels like dancing."
b. Gabru se hoče/lušta plesati. ➔ 'overt 'feel-like' paraphrase'
G_{DAT} *SE* $want/desire_{3P,Sg,Pres}$ $dance_{INF}$
"Gaber feels like dancing."

We will discuss the properties of the two constructions in parallel. If the two constructions only differ in the overtness/covertness, i.e. in the phonological make-up of a same-slot lexical item, their syntax should not be too different.

4.3.1 The dative argument

Both sentences in (21) have a DAT experiencer subject. It is far from unusual—both in Slovenian and crosslinguistically—for the argument receiving the experiencer θ-role, or more specifically, for the experiencer argument of Belletti & Rizzi's (1988) class-3 psych-verbs, to carry DAT. For example, the experiencer argument of *ugajati* 'to please', another psych-verb of Belletti & Rizzi's class 3, receives DAT case, (22). Typically, the DAT of such constructions is seen as an inherent case that comes with the experiencer θ-role and is not related to any particular structure (Chomsky 1986, Belletti & Rizzi 1988, Boeckx 2003, etc.).

(22) Meti ugaja prepih v sobi.
M_{DAT} $please_{3P,Sg}$ $draft_{NOM}$ *in room*
"The draft in the room pleases Meta."

Moreover, even if one rejects the analysis of the DAT as a θ-role-based inherent case (e.g. Cuervo 2003), this poses no problem. Whichever mechanism we use for deriving the DAT in (21b), we simply use the same formalism for the DAT in (21a). Since the general issue of DAT licensing is irrelevant for the main point of this paper, we need not commit to a specific analysis.

On the other hand, some other issues regarding DAT experiencer subjects do seem relevant for the present discussion. Mahajan (2004) and Boeckx (2003) note a correlation between the presence of non-nominative/quirky subjects and the unavailability of accusative case that holds in Hindi and to a certain degree in Icelandic. The observation actually goes back to Belletti & Rizzi's (1988) claim that psych-verbs are unaccusatives. To derive the generalization, Boeckx proposes that quirky subjects (usually experiencers,

[50] As an NNLT reviewer points out, an analysis with a null verb is not the only option; one could also pursue a biclausal analysis with, say, an AP as the primary predicate (i.e. some sort of a copular structure). Though we will not address this issue per se, our reasons for preferring a null verb account should become clear in the course of sections 4.3 and 4.4. Briefly, the reasons include simplicity (only a null V instead of a construction-specific null copula and a null A), capturing parallels with the overt 'feel-like' paraphrase (sections 4.2 and 4.4), a natural explanation for the morpheme SE (section 4.3.2), a natural explanation for verbal prefixes (section 4.4.6), etc.

goals, or beneficiaries) merge as specifiers of *vQ*P, which is a projection just above VP and can be seen as some sort of an applicative phrase, akin to Pylkkänen's (2002) High Applicative Phrase (cf. also Cuervo 2003).

Similarly to the implementation of Burzio's generalization via a *v*P that both assigns an agent *θ*-role and licenses ACC case, as in Chomsky (1995a), Boeckx proposes that *vQ* assigns a Quirky *θ*-role (=applicative) while licensing NOM for the object. Unlike *v*P, *vQ*P cannot license ACC case and does not assign an agent *θ*-role. In addition, *vQ*P exists in the structure only if it assigns an experiencer *θ*-role; but whenever it is present, *v* cannot merge with it, which results in the unaccusativity of the verb with a quirky experiencer subject.

Assuming the validity of the above mentioned generalization, i.e. that DAT experiencer subjects are indeed incompatible with an ACC object, the FEEL-LIKE construction—having exactly these two incompatible items—would present, under standard monoclausal analysis, a counterexample to the generalization. But since, as we claim, the FEEL-LIKE construction is actually biclausal, the conflict disappears. The DAT experiencer is the 'subject' of the upper clause, while the object gets ACC case inside the lower clause. Therefore, we have another argument for biclausality.

According to R&MS, the dative argument is a syntactic adjunct, sitting as an experiencer in the Spec of a ModalP just above TP, and is thus independent of the argument structure of the main verb. In logical form, the dative triggers the operation of Dative Disclosure, with the result of the dative binding the variable of the lower subject position. In a similar vein, Rivero (2003) treats the dative as an experiencer introduced in a "'super-high' Applicative Phrase" (op.cit.) which takes the TP as its complement. In both cases the dative case comes from the additional functional head, with no independent evidence of the existence of such a head, or its event-introducing nature. On our account, on the other hand, the dative case comes from the same place where most (if not all) other dative experiencers receive it.

Note also that we have just derived the unaccusativity of the FEEL-LIKE predicate. As we demonstrate in section 4.5, the predicates FEEL-LIKE and 'feel like' do not tolerate modification with manner adverbials. This is a property observed also with verbs without a passive correspondent—verbs that, according to Cinque (1999), do not really have an active *v*P or VOICEP. We claim that in the case of FEEL-LIKE and 'feel like', unaccusativity is actually expressed overtly with the non-active morpheme SE.[51]

4.3.2 SE (non-active/argument-manipulating morphology) and Agreement

Non-active morphology is present in the FEEL-LIKE construction in Albanian. As shown in (23), the Albanian non-active morphology seems to be the affixal correspondent of the clitic SE in the Slovenian and other Slavic versions (cf. Rivero 2004).[52]

[51] Dąbrowska (1994) associates the dative argument and się (= Slovenian se) in the overt Polish paraphrase to the matrix verb 'want' and states that it is the "dative construal" (in contrast to the "nominative construal") that requires the się. She sees się as an "intransitivizing particle", whose "function is similar to that of a passive marker on a verb in that it indicates that the normal subject-selection principles were not observed" (op.cit.: 1035, 1038).

[52] The Albanian non-active morphology can in fact be realized as an affix on the main verb, as an affix on the auxiliary verb or as a clitic, depending on the tense/aspect/mood form (see Kallulli 1999 and Rivero 1990).

(23) Më puno-het. (Albanian)
I$_{DAT}$ *work*$_{NON\text{-}ACTIVE,3P,Sg}$
"I feel like working." (Kallulli 1999: 269)

Extrapolating from Rivero (2004), we take the reflexive clitic to be an instantiation of NON-ACTIVE morphology. Following the general spirit of Reinhart (2000)—but with a syntactic rather than lexical implementation—we take SE to reduce the external theta role and thus place it in the head of *v*QP, or non-active *v*P. Essentially the same effect has been ascribed to the "reflexive clitic" for Romance (cf. Reinhart 2000 for references). Note that Grahek (2003) claims that the SE from the FEEL-LIKE construction is a case of 'inherent *se*' and as such belongs to the lexical verb itself. Motivating this stance is Grahek's claim that the Slovenian FEEL-LIKE construction is not productive and only occurs with a few verbs, and so these verbs are simply listed in the lexicon with the SE morpheme as their integral part. However, for both authors as well as for a number of other Slovenian speakers we consulted, the claim about unproductivity is misplaced. Also, regardless of a speaker's familiarity with a particular lexical verb in the FEEL-LIKE construction, the FEEL-LIKE interpretation is always available. Rather than saying that in such cases we are simply adding new entries to our lexicon, this suggests a structured approach. On our account, the SE in the FEEL-LIKE construction is a non-active morpheme just like it is with other unaccusatives, except that it co-occurs with a phonologically null verb (FEEL-LIKE); therefore, we have dispensed with the need for relegating it to an idiosyncratic status such as 'inherent *se*'.

We claim that the non-active morphology in both the covert FEEL-LIKE construction, (21a), and the overt 'feel-like' paraphrase, (21b), belongs to the matrix verb, with no agent θ-role and no ACC case to assign. The association of the non-active SE with the upper verb can also be shown in Russian.[53] Unlike in Slovenian, where SE is a clitic and thus gets placed in the usual clitic position with its place of origin concealed, Russian SE (*-sja*) is an affix attaching to the verb. Now, in the FEEL-LIKE construction, SE attaches to the only available verb (which is actually part of the lower clause):

(24) Mne ne rabotaet-sja. (Russian)
I$_{DAT}$ *not* *work*$_{3P,Sg}$*-SE*
"I don't feel like working." (Franks 1995: 364)

However, when the FEEL-LIKE predicate is replaced with its overt correspondent, SE attaches high—to the 'feel-like' verb, (25). Since the non-active affix can neither skip clauses nor (in this case) attach to any auxiliary verbs, this suggests that it is indeed part of the matrix clause.[54]

[53] It is not entirely clear whether the Russian construction is really the same as the Slovenian FEEL-LIKE construction. But since the point being made here is interesting for *structural* reasons, we ignore, at this point, the possible *interpretational* differences between Russian and Slovenian. See section 6.4.3 for a brief discussion of the interpretation of the Russian construction.

[54] The SE affix in (24), originating in the matrix clause, is attached to the lower-clause verb. This attachment skipping a clausal boundary parallels the tense morphology attachment in Slovenian from section 4.3.3.

(25) Mne ne xočet-sja rabotat'. (Russian)
I_{DAT} not $want_{3P,Sg}$-SE $work_{INF}$
"I don't feel like working." (Franks 1995: 373)

A similar point can also be made in Slovenian. Observe that the overt 'feel-like' verb can take a *that*-clause complement, (26). In such cases, it is the matrix clause that contains both the dative and the SE clitic. Since Slovenian clitics cannot climb out of *that*-clause complements (cf. Golden & Milojević Sheppard 2000), SE must belong to the matrix clause. Indeed, this SE has been associated with *hoteti* also for traditional Slovenian linguists, with *hoteti se* 'feel-like' forming a separate dictionary entry in Bajec *et al*. (1994) (cf. also Dąbrowska 1994: 1037-1040 for Polish).

(26) Hotelo/luštalo se mu je, da bi odšli zgodaj.
$want / desire_{Sg,Neu}$ SE he_{DAT} $AUX_{3P,Sg}$ that would $leave_{Masc,Pl}$ early
"He felt like leaving early. / He had the desire to leave early."

Having SE—NON-ACTIVE morphology—associated with the FEEL-LIKE predicate presents another problem for the modal analyses. If SE reflects argument manipulation, then there are argument structure and thematic relations involved, but these are phenomena that functional verbs should not exhibit. This is also problematic for the "super-high" applicative analysis (Rivero 2003), since an applicative head should not host both a DAT argument and NON-ACTIVE morphology.

R&MS, constituting the only previous account that provides a clear analysis of SE, claim that SE is a deficient nominative indefinite pronoun. They present various arguments to show the nominative and subject nature of SE: it can bind a reflexive or reciprocal; it can control PRO; the main verb assigns accusative case while the sentence has no overt subject/nominative DP. In their monoclausal analysis, then, SE is the subject of the only clause, which in logical form gets bound by the dative argument. However, all that R&MS's arguments really show is that both the FEEL-LIKE and the impersonal construction, which they see as providing the syntactic skeleton for the FEEL-LIKE construction, have a subject (possibly nominative), but not that this subject is necessarily SE (cf. also Dobrovie-Sorin 1998). In our biclausal account, both clauses have subjects; the matrix clause has the dative argument as its logical subject (cf. section 4.2.3.1) while its SpecTP hosts an expletive *pro*, and the lower clause has a PRO subject, as we lay out in the following section. The morpheme SE, however, is treated as is most standard, i.e. as an argument-structure-manipulating morpheme.

4.3.3 The structure

A parallel between the FEEL-LIKE construction, (21a), and its overt parallel, (21b), holds also in terms of gender/person/number agreement. Both variants contain non-agreeing morphology: neuter, 3rd person, singular. The only difference is that (21b) has default agreement realized on the overt matrix 'feel-like' verb, while (21a)—having no overt matrix verb—realizes the default inflection on the only possible host, the lower verb.

Note that default morphology is far from uncommon in dative experiencer constructions. When the psych verb *ugajati* 'to please' takes a clausal complement or

when it takes no other arguments but the experiencer, it also receives the default 3rd person, singular, neuter, as in (27). The same pattern occurs with psych verb constructions in other languages (cf. e.g. Boeckx 2000). Where exactly such default agreement comes from is—although a matter of some controversy—somewhat immaterial for the purpose of this paper. Simply, whatever is responsible for it in (21b) is also responsible for it in (21a). Whether that is a null expletive with default agreement features or something else is quite irrelevant for the present discussion.

(27) Renati je ugajalo, da je Primož naredil telemark.
R_{DAT} $AUX_{3P,Sg}$ $pleased_{Neut,Sg}$ that $AUX_{3P,Sg}$ P_{NOM} $made_{Masc,Sg}$ telemark
"Renata was pleased that Primož landed in telemark."

A more relevant question in contrasting the covert FEEL-LIKE construction and the overt 'feel-like' paraphrase, however, is how agreement morphology can be realized on two different verbs, especially if one claims that they are essentially parallel. Particularly intriguing is the fact that the agreement morphology, which should originate in the upper clause, gets realized on the main verb of the lower clause in (21a). The case of default agreement seems to be paralleled with tense morphology. That is, tense inflection on the lower verb in the FEEL-LIKE construction modifies the time of the FEEL-LIKE disposition, not the time of the overt verb's event. Thus, future morphology in (28) actually signifies a future disposition, not a present disposition towards a future event.[55] This suggests that the tense inflection realized on the overt verb actually belongs to the null FEEL-LIKE verb.

(28) Lini se še ne bo šlo ven.
$Lina_{DAT}$ SE still NEG AUX-$FUT_{3P,Sg}$ $come_{Neut,Sg}$ out
"Lina still won't feel like coming out."
(not: "Lina still doesn't feel like coming out in the future.")

We will provide an account for the placement of morphology shortly. Note, at this point, that the facts about the interpretation/association of tense inflection in the FEEL-LIKE construction are clearly problematic for a modal analysis (and go unmentioned in all of them), and indeed constitute compelling evidence for a hidden verb.

Let us now turn to the placement and interpretation of some other grammatical elements. Unlike tense, aspect inflection realized on the verb in the FEEL-LIKE construction indeed belongs to the overt verb, not to the FEEL-LIKE predicate. Both examples in (29) present the event of 'feeling-like' (a disposition) from an imperfective perspective (cf. Smith 1997); however, while (29a) expresses a disposition towards a 'playing' event presented perfectively, (29b) expresses a disposition towards a 'playing'

[55] Tense morphology is realized with an affix in the present tense, (21a), and via the use of a suppletive form of auxiliary in the past and future tense (*je* as default-agreement past AUX, *bo* as default-agreement future AUX). The surfacing of the auxiliary thus repeats the pattern of SE, with the AUX belonging to the upper predicate but, being a clitic, getting placed in its usual clitic position with its place of origin getting concealed, cf. (28).

event presented imperfectively.[56] Given that aspect is standardly placed lower than (the highest) TP (inside the split-Infl domain) (e.g. Giorgi & Pianesi 1997, Cinque 1999, Dimitrova-Vulchanova 1999), the fact that aspect should be bound to the lower verb and tense to the upper verb does not result in any straightforward contradiction.

(29) a. Zdejle se mi pa ful odšpila kakšno igrco.
now *SE* I_{DAT} *PTCL* *so* *play-through*$_{PF}$ *some* *game*$_{ACC}$
"Right now I so feel like playing through a computer game."
b. Zdejle se mi pa ful špila kakšno igrco.
now *SE* I_{DAT} *PTCL* *so* *play*$_{IMPF}$ *some* *game*$_{ACC}$
"Right now I so feel like playing a computer game."

Next, in between AspectP and TP there comes the root-modal phrase (cf. Cinque 1999, Butler 2003a). Example (30), which expresses a disposition towards the permission to V, shows that the complement clause embedded under the FEEL-LIKE predicate can contain a root modal.[57] This suggests that the size of the clausal complement must be larger than stated in Marušič & Žaucer (2004), where the highest projection of the complement is said to be AspectP.

(30) Zdajle se mi pa jutri ful sme igrat fuzbal.
now *SE* I_{DAT} *PTCL* *tomorrow* *so* *may* *play*$_{INF}$ *soccer*
"Right now, I so feel like being allowed to play soccer tomorrow."

According to Cinque (1999) and Butler (2003a), root modality and epistemic modality are encoded in separate functional projections, with root modality situated below TP and epistemic modality above TP:

(31) $[FP_{EP.NECESSITY.}\ [FP_{EP.POSSIBILITY.}\ [TP\ [FP_{ROOT.NEC.}\ [FP_{ROOT.POSS.}\ [\ldots]]]]]]$

Evaluating the complement of the FEEL-LIKE with respect to (31), (30) shows that the embedded clause minimally includes a root-modal projection. On the other hand, we have seen above that there is no morphological evidence for TP. We have therefore established the size of the clausal complement of the FEEL-LIKE predicate—the highest evidenced projection is the Root-Modal Phrase.[58] We thus propose the structure given in (32) (assuming a transitive verb in the lower clause). As to the exact location of the dative argument, we follow Boeckx (2003) and put it in the specifier position of *vQ*P, the

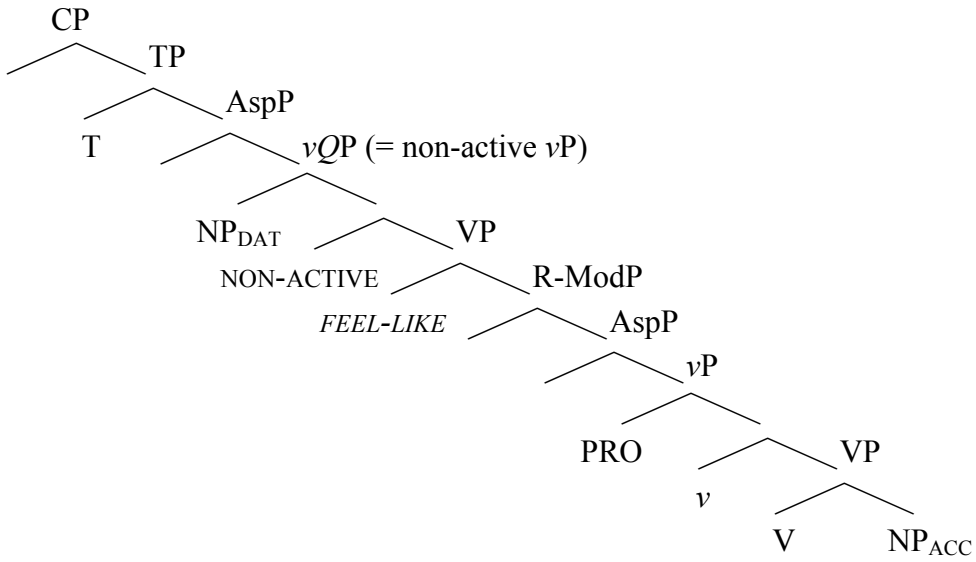
[56] On this point, we counter R&MS, who state that the Slovenian FEEL-LIKE construction is only grammatical with verbs in the imperfective aspect. While the construction is indeed less productive and dispreferred with verbs in the perfective, such sentences are *not* simply ungrammatical as a class. Cf. section 4.6.4.1 below.

[57] Overt 'feel-like' examples with the modals sound odd, since Slovenian modals lack infinitives. The forms exist as dictionary entries but do not occur in actual speech. (30) is actually three-way ambiguous as discussed in section 4.4.1.

[58] As we would predict, the lower-clause modal in (30) can only get a root reading but not an epistemic reading. However, we cannot submit this as further evidence of the deficiency of the lower clause, since the same restriction on the interpretation of lower-clause modals also obtains with overt 'feel-like' verbs such as *luštati* when they take a *that*-clause complement. The restriction appears to be semantic (it also holds in clausal complements to *hoteti* 'want', *želeti* 'wish', etc.).

experiencer θ-role assigning phrase. Since *vQ*P is, in addition, responsible for the lack of active *v*P, we can assume that *vQ* is the locus of SE, the NON-ACTIVE morphology. Although we leave the Specifier of TP in (32) empty, we are not saying that the position is not filled, violating the EPP. It may well be filled with a covert *pro* expletive with the default agreement features—3rd person, neuter, singular (cf. Rizzi 1982, Dobrovie-Sorin 1998).[59]

(32)



The structure represented in (32) is biclausal, it has two sets of functional projections dominating two VPs. However, both the matrix and the embedded clause are deficient. The matrix clause is deficient at the bottom in that it lacks the active *v*P, while the embedded clause is deficient at the top in that it has no TP and no CP. Therefore, both the upper and the lower clause of (32) lack a strong phase (Chomsky 2001)—active *v*P and CP, respectively. Given that there are no spell-out phases between the lower verb and the upper T, the lower-clause verb is as accessible to the upper T as any verb in an ordinary clause. The lower verb should therefore be able to get the agreement and tense morphology from the upper T, just like any other verb can in any ordinary construction. Specifically, the lower verb can get the agreement and tense morphology because the upper verb is null and thus unavailable for affix attachment. In case the matrix 'feel-like' is overt, the verbal morphology surfaces on the matrix verb (which wins out against the lower-clause verb on simple economy grounds). Since the lower verb raises at least to *v* inside the lower clause, both the upper and the lower verb are inside the same phase. Therefore, although the construction is biclausal in the sense of containing (two sets of functional projections dominating) two VPs, its lacking an active *v*P in the upper clause

[59] As a reviewer points out, when the dative is a clitic pronoun, it follows the non-active clitic SE. This is surprising in view of our structure. We have nothing to add with respect to the relative order of clitics inside the clitic cluster, except that this kind of reversal occurs even in clitic-climbing examples such as (i):

(i) Prepovedala se$_i$ mi je [fentat t$_i$].
forbade *REFL* *I$_{DAT}$* *AUX* *kill*
"She forbade me to kill myself."

and a CP in the lower clause makes the whole structure, from the lower-clause *v*P (where the lower verb has risen) to the upper-clause CP, constitute a single spell-out phase. When the lower verb moves (at least) to *v*P, the lower verb and the matrix verb FEEL-LIKE thus end up in the same spell-out phase.[60,61]

4.3.4 Non-simultaneous LF and PF Spell-Out

The FEEL-LIKE predicate takes a clausal complement that is syntactically (at least) a Root-Modal Phrase and, as also stated in R&MS and Rivero (2003), semantically a proposition. The level of the Root-Modal projection does not constitute enough structure for a strong phase in the syntax, for which a CP is needed (Chomsky 2001). Now, if at the point of spell-out things are shipped to LF and PF simultaneously, as claimed by Chomsky (2005), our structure predicts that the clausal complement should not constitute a semantic phase; if, as in Chomsky (2001), units at the interfaces reflect syntactic phases, this is problematic. Just like phonological phrases (prosodic words, prosodic and intonational phrases, etc.) reflect phases on the PF side, elements such as *the proposition*, *the event* and *the fact* reflect phases on the LF (Butler 2003b). Therefore, if the complement of the FEEL-LIKE predicate is a proposition, it constitutes an LF phase, despite the fact that it is not a structural phase. Crucially, then, although constituting an LF phase, the complement of FEEL-LIKE does not constitute a PF phase. Now, regardless of whether affix attachment is implemented with affix hopping, head movement or some feature movement followed by a late insertion of lexical items, we assume that it is always more or less a PF phenomenon, which clearly has no effect on the interpretation (with verbal morphology being just the realization of uninterpretable phi-features on T). Therefore, the fact that such affix-attachment processes can take place despite there being two LF phases should not be too much of a surprise. Obviously, the lower verb must be interpreted without the tense morphology that eventually ends up affixed to it, and which must, of course, be interpreted in the upper clause (as noted above, the tense inflection on the overt lower verb denotes the time of the matrix-verb disposition and not the time of the event of the overt verb). But the whole thing nevertheless seems compatible with both

[60] While the absence of TP in the lower clause is well-motivated in view of the absence of tense inflection, one might question such a structure from a semantic perspective since TP is often seen as the head binding the event variable; with no TP, we may not be able to explain the temporal independence of the lower-clause event. Without going into detail, we point out that the Reichenbachian model of Demirdache & Uribe-Etxebarria (2000, 2004) splits the encoding of temporal information between TP, AspP and VP (cf. also Giorgi & Pianesi 1997). With the TP absent, our embedded clause lacks the position responsible for utterance time. On the other hand, the lower clause does have the level of event time, i.e. the VP, so the temporal independence of the lower-clause event is semantically not problematic. Also unproblematic are temporal adverbs per se, which we assume originate inside VP, as in Larson (1988) and Demirdache & Uribe-Etxebarria (2004) (contra Alexiadou 1997 or Cinque 1999, on whose analyses the possibility of a (deictic) temporal adverb associated to the lower predicate would imply the presence of a TP projection in the lower clause).

[61] An issue we do not address is negation. If there are two clauses with two sets of FPs, one would expect that it should also be possible to have two negations, and the presence of sentential negation should be impossible without a TP since sentential negation is in a NegP above TP (Zanuttini 1997). However, although conclusive judgments are obstructed by the fact that FEEL-LIKE is a neg-raising predicate, negation in the complement of FEEL-LIKE seems to be constituent negation rather than sentential negation. Therefore, if sentential negation is indeed impossible in the lower clause, this may in fact support the claim that the lower clause lacks a TP.

late-lexical insertion models (e.g. Marantz 1997) and post-spell-out affix-hopping-like models. Finally, if semantic features are the only thing that gets sent to the semantic spell-out, then the verb—as a bundle of "phonological" (and perhaps other formal) features—can still move around in the syntax, though its interpretation has been completed.

To rephrase this in more intuitive terms, on the one hand we have shown that the overt verb is interpreted inside the lower clause, which is also suggested by its opacity and relative scope with respect to the scope-bearing matrix-clause verb FEEL-LIKE. On the other hand, the temporal inflection with which it is spelled out clearly belongs to the matrix clause. A single word, forming a single phonological unit/phrase, is thus composed of parts belonging to two different semantic units/phases. We believe this constitutes strong evidence for concluding that PF and LF phases are not always completed at the same time and shipped off to their respective interfaces simultaneously (cf. Sauerland & Elbourne 2002 and Matushansky 2003 for a hint in this direction and Megerdoomian 2003 and Felser 2004 for proposals involving single interface phases).

Unlike phonological phases, which are determined by the structure—CP and active *v*P—semantic phases can be induced by the selecting verb, as proposed by Wurmbrand & Bobaljik (2003). They claim that German 'want' is a lexical restructuring verb taking a complement, which constitutes an induced phase. Since FEEL-LIKE is an attitude report verb, just like 'want', and since one of the Slovenian overt 'feel-like's seems to contain merely a non-active version of 'want', FEEL-LIKE can be considered an LF phase-inducing verb.

4.4. Syntactic support for biclausality, problems for modal analyses

4.4.1 Apparent violations of Cinque's (1999) adverbial hierarchy

On Cinque's account, adverbs sit in the specifiers of various functional projections, which follow a (universal) inviolable hierarchy, that is, the functional heads can be merged in one way only, making it impossible to flip the linear order of adverbs. Therefore, if the relative order is reversible, the adverbs in the atypical order must actually originate in separate sets of functional projections, i.e. separate clauses.

The strictly hierarchical behavior of adverbs can be observed also in Slovenian, where *spet* 'again' and *nepretrgoma* 'nonstop' can only appear in the order of (33a) but not in the reverse order of (33b). In Cinque's model (cf. also Alexiadou 1997), this is due to the fact that the functional projection $Asp_{REPETITIVE}P$, which hosts 'again', dominates $Asp_{DURATIVE}P$, the locus of 'nonstop'.

“

(33) a. Boban spet nepretrgoma kadi havanke.
Boban again nonstop smokes Havanas
“Boban again nonstop smokes Cuban cigars.”

b.*Boban nepretrgoma spet kadi havanke.
Boban nonstop again smokes Havanas

In a biclausal structure, 'nonstop', which should otherwise come second, can precede 'again' when the latter is part of the lower clause. Interestingly, the strict linear order can, in fact, be violated in the FEEL-LIKE construction, (34a-b). Given the inviolability of the adverbial hierarchy, the admissible reversed order of 'again' and

'nonstop' suggests that the two adverbs in (34b) are in separate clauses with two distinct sets of functional projections.

(34) a. Bobanu se spet nepretrgoma kadi havanke.
Boban$_{DAT}$ SE again nonstop smokes Havanas
"Boban again nonstop feels like smoking Cuban cigars."
b. Bobanu se nepretrgoma spet kadi havanke.
Boban$_{DAT}$ SE nonstop again smokes Havanas
"Boban nonstop feels like smoking Cuban cigars again."

An analysis with two clauses is further suggested by the three-way ambiguity of (34a). If the FEEL-LIKE construction is biclausal and consists of two sets of functional projections, then example (34a), with the adverbs in the relative order in which they come in ordinary sentences, should have three interpretations resulting from three different combinations of merging the two adverbs. The two adverbs can both be associated with either the matrix clause, (35a), with the embedded clause, (35b), or they can each be associated with a different clause, (35c).

(35) a. Bobanu se spet nepretrgoma ~~FEEL-LIKE~~ [kadi havanke].
"Boban again nonstop feels like [smoking Cubans]."
b. Bobanu se ~~FEEL-LIKE~~ [spet nepretrgoma kadi havanke].
"Boban feels-like [again nonstop smoking Cubans]."
c. Bobanu se spet ~~FEEL-LIKE~~ [nepretrgoma kadi havanke].
"Boban again feels-like [nonstop smoking Cubans]."

As expected, no such ambiguity is exhibited in (34b). There is only one way to get the otherwise unacceptable order of the two adverbs in question: the adverbs have to sit in two distinct clauses. Thus, adopting Cinque's (1999) strict linear order of adverbial placement, evidenced by (33), the data in (34) support a biclausal analysis over a monoclausal one.

With this type of data, we can make another argument against a monoclausal 'modal' analysis. Recall from section 2 that the majority of existing proposals of the FEEL-LIKE construction employ a null modal to get the relevant interpretation. Consequently, the presence of a modal should create the same pattern of interpretations that we have just seen with the adverbial pair in the FEEL-LIKE construction. However, as shown in (36) below, the presence of a modal does not license the kind of adverb reversal that we have observed in (34).

(36) a. Boban mora spet nepretrgoma kaditi havanke.
B$_{NOM}$ must again nonstop smoke Havanas
"Boban must again *nonstop* smoke Cuban cigars."
b.*Boban mora nepretrgoma spet kaditi havanke.
B$_{NOM}$ must nonstop again smoke Havanas
("*Boban must *nonstop* again smoke Cuban cigars.")

Note that 'again' and 'nonstop' are not the only two adverbs whose order can be switched in the FEEL-LIKE construction. Other adverbs work the same way. See Marušič

and Žaucer (2004) for the same argument with 'still' and 'usually': monoclausal constructions allow only 'usually' > 'still', while the FEEL-LIKE construction allows 'usually' > 'still' as well as 'still' > 'usually'.

In sum, the FEEL-LIKE construction allows what a monoclausal sentence does not (even when it contains a modal FP), so the two are clearly different. Since on Cinque's (1999) account the only way to get the reversed order of adverbs is by having two separate sets of functional projections, we conclude that the FEEL-LIKE construction contains two sets in two separate clauses. In the next section, we turn to potential counterarguments to this reasoning, which stem from some disagreement in the literature on whether Cinque's hierarchy indeed holds and whether it is indeed universal.

4.4.1.1. Possible counterarguments Following Ernst (2002), Svenonius (2002) argues for a semantics-driven distribution of adverbs, which are adjoined to independently motivated projections. Their ordering restrictions stem from their semantics and the semantics of the projections they adjoin to. He motivates his claim by arguing that some adverbs can shift, e.g. *usually* and *no longer* in (37).

(37) a. After 10, John usually no longer drinks anything. (Svenonius 2002:211)
b. After 10, John no longer usually drinks anything.

Two things should be added. First, several of our (and all six of a reviewer's) informants reject (37b). Second, most of the informants that *do* accept (37b) also accept (38), with two *no longer*'s. This indicates that—depending on its relative position—the *no longer* in (37) gets different interpretations, which suggests that it originates in two different positions; this also explains (38). (See Cinque 2004b for more arguments in defense of the strict-ordering stance.)

(38) No longer does John usually no longer drink anything after 10.
(= It is no longer the case that John has, usually, finished drinking by 10.)

To support this argument, we show that the FEEL-LIKE construction allows two such adverbs associated to the matrix predicate. On its lower, non-sentential reading, the Slovenian *še zmeraj* 'still' only combines with imperfective aspect, as evidenced by the minimal pair of non-FEEL-LIKE sentences in (39) (similarly in English, cf. the glosses). Therefore, if the overt/lower verb in a FEEL-LIKE sentence with *še zmeraj* 'still' is in the perfective, as in (40)'s *spiti*$_{PF}$ 'drink up', the adverbial can either be a sentential modifier or a modifier of the FEEL-LIKE predicate but not, crucially, a modifier of the lower predicate.

(39) a. Še zmeraj po deveti še zmeraj pijem svoj prvi pir.
still after nine still drink$_{IMPF}$ *my first beer*
"It is still the case that I'm still drinking my first beer after nine."
b. *Še zmeraj po deveti še zmeraj spijem svoj prvi pir.
still after nine still drink$_{PF}$ *my first beer*
("*It is still the case that I still drink up my first beer after nine.")

(40) Še zmer se mi celo po deveti še zmer spije svoj prvi pir.
still SE I_{DAT} even after nine still $drink_{PF}$ my first beer
"It's still the case that even after 9 I still feel like emptying my first beer."

Although the lower verb is in the perfective, example (40) can still accommodate two instances of 'still', showing that these are possible independently of the lower predicate. (For the same adverb associated to the lower predicate of the FEEL-LIKE construction see (35b-c).) The FEEL-LIKE predicate therefore hosts genuine modifiers independently of sentential-level modifiers.

To conclude this section, we stress that whether Cinque's hierarchy is really universal or not does not affect the status of our argument. Crucially, the Slovenian *spet* 'again' > *nepretrgoma* 'nonstop' are not reversible in ordinary constructions, as shown in (33), while they are reversible in the FEEL-LIKE construction, as shown in (34). The independence of the argument is shown also with the difference in the interpretation of the two orders in the FEEL-LIKE construction and the clear association of the two adverbs with the two different predicates and their corresponding events. In fact, we have shown that the possibility of having two same-type adverbs in ordinary (non-FEEL-LIKE) sentences carries over to FEEL-LIKE sentences in that these can have two same-type adverbs both associated to the matrix predicate, independently of the lower predicate.

4.4.2 Scopal ambiguity with modals

The FEEL-LIKE construction is ambiguous as to the relative scope of the FEEL-LIKE predicate and root modals. (41) can be interpreted with either the FEEL-LIKE predicate or the root modal scoping higher (cf. (30) above). In addition, when the modal scopes over the FEEL-LIKE predicate, it is ambiguous between a root and an epistemic reading, parallel to the English gloss with *may*.[62]

(41) Joni se sme igrati fuzbal.
$Jona_{DAT}$ SE may play soccer
"Jona feels like being allowed to play soccer."
"Jona may feel like playing soccer."

Now, if root modals sit in FPs below TP (Cinque 1999, Butler 2003a) and if the FEEL-LIKE operator sits in an FP that dominates TP, as the modal analyses have it, it should be impossible to get the root modal scoping over the FEEL-LIKE. However, the latter reading is not only possible, it is in fact the more natural one. And more generally speaking, the mere fact that the two "modals" can be understood in either scope relation should be unexpected on a monoclausal modal analysis; wherever the root-modal FP and the FEEL-LIKE FP sit in the tree, their positions should be fixed, with no scope-reversing possible. The same holds if the dispositional reading is attributed to an ApplP (Rivero 2003)—with both the modal and the purported applicative being FPs, their order should not be reversible. On the other hand, if FEEL-LIKE is a null lexical verb, the scopal ambiguity of (41) is in fact predicted. The root modal is interpreted either in the matrix

[62] Cf. fn 58 on the absence of an epistemic reading for the modal originating in the lower clause.

clause or in the embedded clause; the covertness of the matrix verb allows both syntactic structural analyses.

4.4.3 Restrictions on complements of aspectual verbs

The aspectual verb *nehati* 'stop'—whether in its perfective form, $nehati_{PF}$, or its imperfective form, $nehavati_{IMPF}$—requires an imperfective verb in its complement, as shown in (42) and (43) (cf. Schoorlemmer 1994b).

(42) Tonček je nehal laufati /* zalaufati.
T_{NOM} *AUX* *stopped* $run_{IMPF\text{-}INF}$ / $run_{PF\text{-}INF}$
"Tonček stopped running."

(43) Tonček je nehal začenjati laufati / * začeti laufati.
T_{NOM} *AUX* *stopped* $begin_{\underline{IMPF}\text{-}INF}$ $run_{IMPF\text{-}INF}$ $begin_{\underline{PF}\text{-}INF}$ $run_{IMPF\text{-}INF}$
"Tonček stopped beginning to run."

However, in the FEEL-LIKE construction, *nehati* 'stop' can be followed by either an imperfective or a perfective verb, (44). This suggests that the requirement for an imperfective complement, exhibited by *nehati* 'stop', can be satisfied by the null FEEL-LIKE predicate. This fact remains mysterious on a monoclausal account, with the purported null modal/applicative as a functional head, since such elements should not exhibit categories such as perfective/imperfective aspect.[63] On the other hand, if we are dealing with a lexical verb FEEL-LIKE, we in fact predict that the latter will, apart from the category of tense (cf. above), also exhibit the category of aspect. On a biclausal account, then, the acceptability of (44) is due to the fact that the imperfectivity-requirement of *nehati* 'stop' is satisfied by the covert verb FEEL-LIKE in the matrix clause, while the perfective *začeti* 'begin' avoids the imperfectivity-requirement by being in the lower clause. This is further confirmed by the three-way ambiguity of (44b) (but this cannot serve as a decisive argument in our favor, since the same result is also predicted by the modal analyses), where the overt verbs respect the sequence *nehati IMPF* (cf. (35) for the same effect with adverbs).[64]

(44) a. Tončku se je nehalo začeti laufati.
T_{DAT} *SE* *AUX* *stop* $begin_{\underline{PF}\text{-}INF}$ $run_{IMPF\text{-}INF}$
"Tonček stopped feeling like beginning to run."

[63] Throughout the paper, we use *aspect* to refer to grammatical aspect (i.e. im-/perfectivity). We use this term as it is traditionally used in Slavic linguistics, e.g. Filip 2000, with verbs that are either perfective or imperfective.

[64] A reviewer notes that it is not clear how the tense morphology of the disposition can end up on the highest aspectual verb. We do not have an answer yet, but wish to point out that tense morphology presents a problem for the competing analyses as well, in that it would have to originate in the TP below ModalP/ApplP, but gets realized on the aspectual verb scoping over the modal/applicative. If aspectual verbs are VPs, we have a problem, since 'stop' carries the morphology of the lower Tense (below the ModalP/ApplP of the FEEL-LIKE) and scopes over the ModalP/ApplP. If 'stop' is an FP, either its position seems unusually high (above TP, which is below ModalP/ApplP) or the position of the modal/applicative is unusually low (below both TP and AspP). Regardless of one's analysis of aspectual verbs (FPs or VPs), our analysis fares better than the competing ones, since it explains example (44a).

b. Tončku se je nehalo začenjati laufati.
T_{DAT} SE AUX stop $begin_{\underline{IMPF}\text{-}INF}$ $run_{IMPF\text{-}INF}$
"Tonček stopped begining to feel like [running]."
"Tonček stopped feeling like [beginning to run]."
"Tonček felt like [finishing begining to run]."

4.4.4 Depictive secondary predicates

Depictive secondary predicates are temporally dependent on the matrix predicate in the clause. The property they express must hold of the denotation of its subject throughout the extent of the matrix event (Rothstein 2000). Therefore, if two separate depictives are stacked in a single clause/on syntactically (and referentially) the same host, they must hold at the same point/period of time, (45). (Note that depictive adjectives in Slovenian agree in case with their host; for more information on depictives in Slovenian, see Marušič *et al.* 2003a,b.) As a result of this restriction, it makes no sense to stack two contradictory depictives such as *drunk* and *sober*, (46). One simply cannot be both sober and drunk at the same time. Moreover, it is redundant even to the extent of ungrammaticality to stack two instances of the same depictive, for example, *sober* and *sober*. Furthermore, having an ordinary sentence with a dative experiencer and the clitic SE does not change anything, (47) is ruled out both with two contradictory depictives and with two instances of the same depictive.[65]

(45) Peter je trezen šel v šolo umazan.
P_{NOM} AUX $sober_{NOM}$ went to school $dirty_{NOM}$
"When Peter was sober, he went to school dirty."

(46) Juš je trezen kuhal #pijan / * trezen.
J_{NOM} AUX $sober_{NOM}$ cooked $drunk_{NOM}$ $sober_{NOM}$
"When Juš was sober, he was cooking drunk / sober."

(47) * Jušu se je treznemu kolcalo pijan / trezen.
J_{DAT} SE AUX $sober_{DAT}$ hiccupped $drunk_{NOM}$ $sober_{NOM}$
"When Juš was sober, he was hiccupping drunk / sober."

Again behaving quite unlike ordinary, monoclausal sentences, the FEEL-LIKE construction *does* allow two non-stacked depictives (on a denotationally identical host), once again paralleling the behavior exhibited by the overt 'feel-like' paraphrase. The two depictives in the FEEL-LIKE example in (48), with different case marking, are associated with two events occurring at two distinct times. Moreover, since the two depictives are temporally independent (via association with temporally independent events), there is no restriction on having either two contradictory depictives or two instances of the same depictive. The two depictives are not stacked around the same predicate but represent

[65] In fact, the NOM depictive is impossible in (47) even if it is the only DAT subject-oriented depictive.

independent structural projections inside two separate clauses. In other words, they are hosted by syntactically distinct hosts with the same denotation.[66]

(48) Jušu se treznemu ni kuhalo pijan / trezen.
J$_{DAT}$ SE sober$_{DAT}$ not cooked drunk$_{NOM}$ sober$_{NOM}$
"When Juš was sober, he didn't feel like [cooking drunk / sober]."

The same effect cannot be achieved with monoclausal constructions with modals. The two depictives in (49) necessarily both refer to the same time—whether on an epistemic or root reading of the modal—and (50) with two instances of the same depictive sounds just as bad as (46-47). Once more, the parallel between the FEEL-LIKE construction and modals fails. The fact that two depictives refer to two events, which can take place at different times, strongly suggests a biclausal structure. [67]

(49) Juš je trezen moral kuhati umazan.
J$_{NOM}$ AUX sober$_{NOM}$ must cook dirty$_{NOM}$
"When Juš was sober, he had to cook dirty."
"When Juš was sober, he must have cooked dirty."

(50) Juš je trezen moral kuhati *pijan / #trezen.
J$_{NOM}$ AUX sober$_{NOM}$ must cook drunk$_{NOM}$ sober$_{NOM}$

4.4.5 Manner adverb(ial)s and intensifiers

If the FEEL-LIKE predicate is a full verb with its own VP projection, then one might also expect it to take its own VP-adverb(ial)s, such as manner adverbs, say, *quietly*, and different instrumentals, etc. Though such a prediction turns out to be incorrect, it is important to note that the same holds for the overt 'feel-like' paraphrase.

The unavailability of manner adverbs on the overt 'feel-like' predicate does not simply mean that the predicate lacks a VP projection of its own. Rather, the restriction on combining the overt 'feel-like'/null FEEL-LIKE and such modifiers stems from the fact that

[66] Given that we argued that the lower clause has no TP, which is standardly taken as the locus of nominative case, one may wonder how nominative subject-oriented depictives as in (48) can be possible at all. We suggest that the nominative on the lower-clause depictive is a realization of default case. Schütze (2001) makes a case for default case, and shows that English uses accusative as its default value while German uses nominative. We note that unlike English, Slovenian also uses nominative, as in the left-dislocation nominals in (i)-(ii) and appositive nominals in (iii)-(iv). Therefore, the nominative on the lower-clause depictive may simply be an instantiation of default case.

(i) Me, I like beans (Schütze 2001: 210)
(ii) Tončka, videl sem jo včeraj.
T$_{NOM}$ saw AUX her yesterday
"Tončka, I saw her yesterday."
(iii) The best athlete, her/*she, should win. (Schütze 2001: 210)
(iv) Najboljša športnica, Tončka/*Tončko, naj zmaga.
best athlete$_{NOM}$ T$_{NOM}$ / T$_{ACC}$ let win
"The best athlete, Tončka, should win."

[67] A similar case for syntactic biclausality could be made with double dative arguments. In general, there cannot be more than one dative argument per clause, while the FEEL-LIKE construction admits double dative arguments. However, due to unclarities with several types of datives, we will not pursue this possibility here.

these verbs are stative (experiencer) verbs. The same incompatibility is displayed by English stative verbs such as *cost*, *have*, *resemble*, etc., as in Parsons's (2000: 84) **Brutus has a dog quietly* or **Brutus resembles a cat violently with a knife*. This restriction goes back at least to Lees (1960), who also notes the correlation between the availability of manner adverbials and passive transformation, i.e. verbs which disallow manner adverbials also do not allow their NP to undergo passive transformation. In trying to account for the same observation, Cinque (1999) proposes that manner adverbs are Specifiers of VOICEP, Kratzer's (1996) equivalent of active *v*P. Therefore, the incompatibility of manner adverbs and the FEEL-LIKE predicate suggests that FEEL-LIKE is an unaccusative verb, just as we propose in section 3. The stativity (/the lack of manner adverbs) of FEEL-LIKE is therefore a consequence of the lack of VOICEP/active *v*P (or the presence of Kratzer's 1996 HOLDERP).

On the other hand, both the overt verb 'feel-like' and the silent verb FEEL-LIKE allow a set of adverbials which are typically analyzed as VP adjuncts, and which are not found with modals/ functional verbs. Specifically, modals cannot be modified with respect to degree/intensity, even when the modification would semantically seem to make sense. For example, one can naturally express the degree with an overt modifier such as *zelo* 'very much', *pomalem* 'somewhat', etc., (51a-b), and in parallel to temporal adverb(ial)s (cf. section 4.2.1), the FEEL-LIKE construction also admits opposing modifiers, (51c-d). In contrast, the same type of adverbs is not available with the functional modals; (52) is impossible if the adverb is to modify the modal.

(51) a. Zelo se mi lušta plesat.
very SE I_{DAT} *feel-like dance*
"I very much feel like dancing."

b. Zelo se mi pleše.
very SE I_{DAT} *dance*
"I very much feel like dancing."

c. Pomalem se mi je zelo razgrajalo.
somewhat SE I_{DAT} *AUX very make-noise*
"I felt somewhat like making a lot of noise."

d. Zelo se mi je malo tarnalo.
very SE I_{DAT} *AUX little whine*
"I very much felt like whining a little."

(52) * Zelo/pomalem moram/smem/morem delati.
very/somewhatmust/may/can work
("*I very much/somewhat must/may/can work.")

The fact that these all seem to be VP modifiers (or following Cinque 1999, Specs of VOICEP) and that they modify the 'feel like'/FEEL-LIKE predicate suggests that the latter is a true verb, overt in one case and silent in the other, rather than just a functional one. It is a lexical head, heading a VP, not a functional head, heading an FP between the VP and TP or above TP.

4.4.6 (Overt) prefixes on the null FEEL-LIKE

4.4.6.1 Basic facts Slavic languages exhibit a vast array of prefixes, often quite comparable to Germanic particles (cf. Spencer & Zaretskaya 1998). One of the uses of prefixes in Slavic is the inceptive use. For example, when the Slovenian verb *sovražiti* 'hate' is prefixed with *za-*, it has the meaning 'come to hate/start hating'; also, there is a concurrent change of aspect value, so that while *sovražiti* is imperfective, *za-sovražiti* is perfective. An intriguing set of FEEL-LIKE examples with inceptive prefixes exists in Serbian and Bulgarian.

Unlike Slovenian, Serbian and Bulgarian exhibit a restriction whereby the overt verb of the FEEL-LIKE construction has to be imperfective; with perfectives, the construction is ungrammatical. Curiously, though, this generalization seems to be violated in cases such as (53-54), where the verb 'eat'/'sleep' occurs in the perfective, bearing the inceptive prefix *pri-* (cf. Dimitrova-Vulchanova 1999: 203-4, 212). Since such prefixed cases are the only instances where seemingly perfective verbs are grammatical in the Serbian and Bulgarian FEEL-LIKE construction, and since they are (semi-)productive (i.e. compositional, though lexically restricted [cf. McIntyre 2002]) rather than idiosyncratic, they call for an explanation.

(53) Pri-jele su mi se jabuke . (Serbian)
INCP-ate$_{PF}$ *AUX* I_{DAT} *SE* *apples*
"I came to feel like eating apples."

(54) Pri-spalo mi se. (Serbian)
INCP-sleep$_{PF}$ I_{DAT} *SE*
"I came to feel like sleeping."

Recall from the Slovenian-based discussion above that the aspect value of the overt verb indeed sets the aspectual interpretation of the overt verb (unlike tense morphology, which sets the temporal interpretation of the FEEL-LIKE predicate). However, paying close attention to the English glosses, observe that the inceptive prefix *pri-* in (53-54) marks the onset of the FEEL-LIKE event and not of the 'eating'/'sleeping' event, and the perfectivity that results from the prefix-induced inceptivity marks the FEEL-LIKE predicate. The meaning of (53) is thus 'I came/started to feel like eating apples' rather than 'I felt like starting to eat apples'. (Note that Bulgarian, but not Serbian, allows two other prefixes in the FEEL-LIKE construction. *Pri*-like inceptivity can also be expressed by *do-*, and the terminative meaning 'to stop feeling like V' is expressed with *ot-*.)

4.4.6.2 Prefix on a null verb A biclausal analysis of the FEEL-LIKE construction offers a straightforward explanation for these facts. Following the reasoning proposed above with respect to the attachment of tense morphology, we suggest that the prefix *pri-* (also *do-*, *ot-*) in fact belongs to the covert FEEL-LIKE verb but since it is an inseparable prefix, it gets realized on the only possible host, i.e. the lower, overt verb. As to the precise starting point of the prefix *pri-*, we do not really need to commit ourselves, although we point out that on an analysis in the spirit of McIntyre (2004), the prefix may well start out as a prepositional element inside the VP of the hidden FEEL-LIKE verb, from where it moves down to find its host in the lower, overt verb. Just like with Tense and agreement morphology, this is possible due to the absence of an intervening strong

phase.[68] On such an analysis, of course, these examples no longer constitute an exception to the generalization that the complement of the Serbian and Bulgarian FEEL-LIKE predicate can only be imperfective.

Once more, a comparison between the covert FEEL-LIKE construction and the overt *feel-like* paraphrase offers itself. Consider the Bulgarian examples in (55a-b), which differ in the presence/absence of the prefix and the ensuing change in meaning, with (55a) paralleling an unprefixed-FEEL-LIKE example and (55b) a *pri*-FEEL-LIKE example, such as (53). (The verb *iska* 'want' takes a nominative subject when used without the nonactive SE.)[69]

(55) a. Iskaše mi se da jam jabŭlki. (Bulgarian)
want$_{3P,Sg,IMPF}$ *I*$_{DAT}$ *SE* *that* *eat*$_{1P,Sg}$ *apples*
"I felt like eating apples."

b. Pri-iska mi se da jam jabŭlki. (Bulgarian)
INCP-want$_{3P,Sg,Aorist}$ *I*$_{DAT}$ *SE* *that* *eat*$_{1P,Sg}$ *apples*
"I came to feel like eating apples."

Again, the overt 'feel-like' paraphrase and the covert FEEL-LIKE construction behave more or less on a par, supporting our claim that they should be analyzed along the same lines. [70]

4.4.6.3 Problems for the modal analysis It is not clear to us how any account of the covert FEEL-LIKE construction where the disposition is introduced by a functional/modal head could account for these data. Clearly, one would not want to say that *pri-* comes from the lexicon with the verb (e.g. 'to eat' in (53) above), while it modifies a null modal that somehow arises in the construction and is taken to sit above TP. Indeed, it seems that in order to explain how the prefix ends up on the lexical verb when it actually modifies the dispositional predicate, proponents of a modal analysis can only do something similar to what we have proposed, i.e. base-generation of the prefix on a null modal and then affixation to the closest overt verbal host. But if the prefix

[68] Note that even if one puts the inceptive prefix in a FP between TP and VOICEP (cf. Cinque 2003: 55), the same absence-of-strong-phase reasoning can be maintained, since the VOICEP of the FEEL-LIKE is a non-active one.

[69] Note that while the Slovenian paraphrase admits both an infinitival complement and a *that*-clause (cf. (26)), the Bulgarian paraphrase only exists with a *that*-clause complement because Bulgarian lacks infinitives. The biclausal and yet *that*-less FEEL-LIKE construction can presumably exist in Bulgarian (and Serbian) because of the peculiar inflection-attachment pattern (cf. section 4.4.1), which prevents the ungrammaticality that would arise with an infinitive in the complement clause.

[70] Van Riemsdijk (2002) argues that Germanic sentences such as the German *Ich darf ins Bett* (lit. I may to bed) 'I may go to bed' contain a null verb *GO*. In this context, he also discusses apparent combinations of modals and particles, such as (i), proposing that they in fact constitute of a modal embedding a (lexicalized) particle verb *GO aan*. Our claim that the prefix *pri-* in the FEEL-LIKE construction originates on the null verb, i.e. that there is a verb *pri*-FEEL-LIKE, thus actually has a fairly close parallel in recent literature.

(i) Jan kan zijn werk niet aan. (Dutch)
Jan *can* *his* *work* *not* *on*
"John cannot cope with his work." (van Riemsdijk 2002)

originates on the modal, then the latter can hardly be a real modal, that is, a functional head. Such elements should not introduce additional structure to license such prefixes, and they should not exhibit the category of aspect, i.e. (im)perfectivity. Rather, the element should be a lexical verb with its own VP. And even if one wanted to take *pri-* for an inceptive-aspect functional head (rather than a VP-internal prepositional element), the latter should sit below TP (cf. Cinque 2003: 55) and should thus not be able to modify the modal predicate, which the modal analyses place above TP.

Prefixes associated to the FEEL-LIKE disposition present compelling evidence for the non-functional/non-modal nature of the upper predicate. Moreover, these data also show that the aspect of the upper predicate cannot be reduced to just default imperfective; the FEEL-LIKE can take on a perfective value as well, clearly showing that the upper predicate contains an Aspect projection (for which an upper-predicate VP is a prerequisite).[71]

4.4.6.4 Slovenian Unlike Serbian and Bulgarian, Slovenian does not have the type of prefixed FEEL-LIKE examples just discussed. If the overt verb in the FEEL-LIKE construction hosts an inceptive prefix *za-* (*pri-* is not an inceptive prefix in Slovenian), then the prefix will be interpreted as encoding the inception of the overt-verb's event, not of the FEEL-LIKE event:

(56) Za-spalo se mu je.
INCP-sleep$_{PF}$ *SE* *him*$_{DAT}$ *AUX*
"He felt like falling asleep." (not: "He started to feel like sleeping.")

On the one hand, this restriction seems unusual, especially knowing that several overt 'feel-like' paraphrases in Slovenian employ the prefix *za-* (*za-hoteti se, za-luštati se* 'come to feel like'). In fact, Bulgarian and Serbian also have *za-* as an inceptive prefix (besides *pri-*), yet in neither of the languages can *za-* be used in the FEEL-LIKE construction; it will be interpreted as inceptively modifying and perfectivizing the lower predicate, thereby yielding ungrammaticality. However, knowing that prefixed verbs are notorious for lexical restrictions and limited productivity (Spencer & Zaretskaya 1998, McIntyre 2002), it is not unreasonable to conjecture that the Bulgarian/Serbian lexicon simply happens to contain the verb *pri*-FEEL-LIKE while it happens to lack the verb *za*-FEEL-LIKE, and the Slovenian lexicon lacks *za*-FEEL-LIKE as well. To substantiate the lexical-idiosyncrasy claim, note that Polish has an overt 'feel-like' construction with the non-active form of the verb 'want', which can host both an inceptive *za-* (*za-chcieć się*) and a terminative *ode-* (*ode-chcieć się*), yielding the meanings 'come to feel like V' and 'stop feeling like V', respectively (Dąbrowska 1994: 1040). The direct Slovenian counterpart with the non-active 'want', however, only admits the inceptive *za-* but not the terminative *od-* (**od-hoteti se*), despite the fact that *od-* does have a terminative use, as in

[71] Note also that Serbian does not have a verb such as *pri-jesti* 'start eating'. The combination of this prefix and this verb exists only in the FEEL-LIKE construction. The same holds for the inceptive *pri-* and the verb *piškiti* 'to pee', which yield the predictable meaning 'to come to feel like peeing / need to pee', while there is no verb *pri-piškiti* 'to start to pee'. This further supports the association of the prefix *pri-* to the null verb, and *pri-* examples such as those in (53-54), in turn, provide support for a biclausal analysis of the FEEL-LIKE construction.

od-peti 'finish singing'. And Serbian *only* has an inceptive-prefixed overt 'feel-like', *pro-hteti se*, while an unprefixed **hteti se* (at least in some dialects), inceptive **za-hteti se* or **pri-hteti se* or a terminative **ot-hteti se* do not exist. Bulgarian, however, exhibits both of its non-active 'want' paraphrases (*iska* and *šte*) as well as FEEL-LIKE with three prefixes, the inceptive *pri-* and *do-* (but not **za-*) and the terminative *ot-*.

4.5. FEEL-LIKE across languages

4.5.1 The 'passive' variant

4.5.1.1 The Slovenian Passive FEEL-LIKE Apart from the construction discussed so far, where the lower-clause object is in the accusative, (57), Slovenian exhibits a second variant of the FEEL-LIKE construction, in which the object of the overt verb (what would have been the internal argument of a transitive verb) appears in the nominative, (58). Like R&MS, we call this the 'passive' variant of the FEEL-LIKE construction, since the lower clause shows signs of a passive sentence; it has a nominative object agreeing with the verb. Although the passive variant of the FEEL-LIKE construction is less productive than the 'active' variant (with default agreement and an accusative object of transitive verbs), for the most part it allows similar structures. Also, with regard to tense and aspect inflection, the passive variant behaves just like its active counterpart, with tense modifying the disposition and aspect modifying the lower predicate.

(57) Petru se je cmoke. ➔ 'active' variant
P_{DAT} *SE* $eat_{3P,Sg}$ $dumpling_{Masc,Pl,ACC}$
"Peter feels like eating dumplings."

(58) Petru se jejo cmoki. ➔ 'passive' variant
P_{DAT} *SE* $eat_{3P,Pl}$ $dumpling_{Masc,Pl,NOM}$
"Peter feels like eating dumplings."

We take the upper clause to be the same in both variants (i.e. a null verb FEEL-LIKE, a non-active clitic SE and a dative subject), and claim the 'active' and 'passive' variants only differ in their complement. In the 'active' variant, the NON-ACTIVE clitic SE belongs to the upper clause, and the complement clause is just an ordinary active construction, as derived in section 4.3; on R&MS's monoclausal account, this variant of the FEEL-LIKE construction is parallel to the (active) impersonal sentences with SE differing only in the presence/absence of the dative argument. As for the 'passive' variant, we have just said that the lower clause has a passive structure; similarly, R&MS claim that this part of the FEEL-LIKE construction has a passive structure but, crucially, they postulate no upper clause. Both accounts see the clitic SE in the 'passive' variant—which occurs also in *se*-passive sentences—as the overt realization of the passive (non-active)

morphology. (Regarding nominative case on the embedded-clause object of the 'passive' variant, see section 4.5.2.)[72]

According to our analysis, then, the active variant of the FEEL-LIKE construction contains one SE, which is located in the upper clause. The passive variant, however, is postulated to contain two SE's, one from the non-active upper clause and one from the passive lower clause. (On R&MS's account, both variants have only one SE, which in both cases comes from the only clause.) Realization of two co-occuring SE'S is ruled out, presumably as haplology[73], so that the passive variant and the active variant superficially look the same, i.e. they both show one realization of the clitic SE (in its usual position within the second-position clitic cluster). However, it appears that—unlike the active variant of the FEEL-LIKE construction—the passive variant indeed exhibits two SE's.

One indication of the two SE's in the passive variant comes from the fact that SE seems to exhibit two possible positions in the passive variant but not in the active one. In Slovenian, clitic climbing from the embedded to the matrix clause is optional (cf. Golden & Milojević Sheppard 2000), so that it should be possible to leave the SE that presumably originates in the embedded clause in its original position. We illustrate the two possible placements for the clitic SE with the overt 'feel-like' paraphrase, since the effects are more easily observed (and the FEEL-LIKE's overtness/covertness should really make no difference syntactically, neither on our nor on R&MS's account).[74] (The fact that the plural auxiliary comes before *se* in (59) and the singular after *se* in (60) has to do with the fixed order in the clitic cluster, which is independent of this particular construction; cf. Golden & Milojević Sheppard 2000.)

(59) Petru so se hotele jest (?se) jagode.
P_{DAT} $AUX_{3P,Pl}$ SE feel like$_{Pl,Fem}$ eat$_{Inf}$ SE strawberries$_{Fem,Pl,NOM}$
"Peter felt like eating strawberries."

(60) Petru se je hotelo jest (*se) jagode.
P_{DAT} SE $AUX_{3P,Sg}$ feel like$_{Sg,Neu}$ eat$_{Inf}$ SE strawberries$_{Fem,Pl,ACC}$
"Peter felt like eating strawberries."

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[72] A new variant of monoclausality is being developed by Kallulli (2004), with the dispositional meaning derived from the suppression of the [+control] feature on little v^0 and the bundling of [+affect] and [+act] features. In its present state, this model likewise falls short of explaining any of our data from sections 2 and 4, and in addition, it does not discuss—and presumably cannot derive—the 'active' variant, which is our primary concern here.

[73] Rivero (2001: 175) rules out the sequence **się się* for Polish. The same constraint applies in Slovenian. As shown in (i), a reflexive clitic can co-occur with a full reflexive pronoun in finite matrix clauses, but both cannot co-occur as clitics, (ii). In this case only one is realized.

(i) Metka se je nagledala sebe v ogledalu. / Gledalo se je sebe.
Metka SE AUX PREF-watch herself$_{GEN}$ in mirror watch SE AUX oneself$_{ACC}$
"Metka got fed up with looking at herself in the mirror. / People watched themselves."

(ii) Metka se (*se) je nagledala v ogledalu. / Gledalo se (*se) je.
Metka SE REFL AUX PREF-watch in mirror watch SE REFL AUX

[74] Note that in certain cases R&MS's account likewise predicts that the singly surfaced SE in the FEEL-LIKE construction in fact realizes two SE's. An example is (i), whose lexical verb *pogovarjati se* 'converse' exists in the language only with SE, while the construction needs another SE, on R&MS's account, to realize the structural subject.

(i) Maši se ne pogovarja z Dedkom Mrazom.
M_{DAT} SE NEG converse$_{3,Sg,Neu}$ with Grandpa Frost
"Maša does not feel like conversing with Father Frost."

Admittedly, the sentences in (59) should not be taken as good; the judgements in this section are to be read only as relative, with (59) being better than (60). Nevertheless, we believe that the contrast between (59) and (60) suggests that the active variant does contain only one clitic SE—from the matrix clause—while the passive variant contains two, one from each clause. This is congruent with our analysis.

4.5.1.2 The Serbian(/Bulgarian) FEEL-LIKE The passive variant is the only one exhibited in Serbian/Croatian and Bulgarian. Since the Slovenian passive FEEL-LIKE is rather unproductive, we tested some of its semantic and biclausal properties on the Serbian counterpart. The passive FEEL-LIKE construction is intensional just like its active variant, i.e. an indefinite in the object position can be read non-specifically (cf. section 4.6 below for more on intensionality). Although most of our Serbian informants are reluctant to accept sentences with double temporal adverb(ial)s (with less reluctance when the matrix-clause one is *now*), they do accept adverb(ial) association to either of the two predicates.[75] (61) is a case where the adverb is not consistent with the time of the disposition, signaling the presence of two temporally independent events, which, in turn, suggests biclausality. And indeed, the time of the FEEL-LIKE disposition is indicated by the tense inflection on the verb, which in itself is an obvious trace of a hidden verb.

(61) Baš mi se sutra ne ispravljaju ispiti. (Serbian)
really I_{DAT} *SE* *tomorrow* *not* $grade_{3P,Pl}$ $exams_{NOM,Masc}$
"I really don't feel like grading exams tomorrow."

Also replicated in Serbian was the test with the apparent violation of Cinquean hierarchy from section 4.4.1 and the test with intensifying adverbials from section 4.4.5. The aspectual-verb test from section 4.4.3 is not applicable to Serbian because of the restriction on FEEL-LIKE's complements to imperfective verb forms.

4.5.2 A tentative typology

As noted above, the FEEL-LIKE construction (or at least something very similar) is also found in other languages: Serbian/Croatian, Bulgarian, Russian, and genetically distant Albanian. The literature reveals additional languages with examples where the gloss of a sentence without an overt 'feel-like' verb suggests similarities with our FEEL-LIKE construction; see Nelson (2000) and Pylkkänen (2002) for Finnish, Harris (1981) for Georgian, Zepeda (1987) for Tohonno O'odham, and Gràcia & Riera (2003) for Catalan.

[75] The non-agreeing-adverbs test can be replicated in the Slovenian passive FEEL-LIKE construction. Since the passive construction is rather uncommon, though, natural examples such as (i) are hard to find.

(i) Zdajle se mi pa jutri ful rešujejo matematične naloge.
right-now *SE* I_{DAT} *PTCL* *tomorrow* *so* $solve_{3P,Pl}$ *mathematical* $problems_{Fem,Pl,NOM}$
"Right now I so feel like solving mathematical problems tomorrow."

However, we cannot straightforwardly relate these constructions to ours, so we will not discuss these additional languages.[76]

The FEEL-LIKE construction in other languages is subject to various restrictions, and at this point we may not have an answer to every one of them. We thus take advantage of the flexibility of the Slovenian variant to derive the core structure of the construction, which should then open the door to language-specific analyses capable of incorporating the various restrictions of individual languages. Nevertheless, we will now describe the crosslinguistic distribution and restrictions and then tentatively suggest how our account can approach the variation.

As already mentioned, Serbian/Croatian FEEL-LIKE only admits imperfective verbs in the complement clause, and the same holds in Bulgarian. Apart from this restriction, though, the FEEL-LIKE construction of these languages corresponds to the Slovenian passive FEEL-LIKE construction (cf. Dimitrova-Vulchanova 1999, Rivero 2004). Their construction is identical with the Slovenian passive variant in (58) also with respect to the verb-object agreement, as shown in (62) and (63).

(62) Ivici su se jele baklave. (Serbian/Croatian)
I$_{DAT}$ *AUX*$_{3P,Pl}$ *SE* *eat*$_{Pl,Fem}$ *baklava*$_{Pl,Fem}$
"Ivica felt like eating baklavas."

(63) Jadjaxa mi se jabŭlki. (Bulgarian)
eat$_{3P,Pl}$ *I*$_{DAT}$ *SE* *apple*$_{Pl}$
"I felt like eating apples."

Since the lower verb in the 'passive' FEEL-LIKE construction cannot assign accusative case, the object must check its features against Tense to get nominative. Immediately, the question arises as to where the DP finds a Tense projection (or *vQ*P, following Boeckx 2003). Based on the fact that there was no morphological evidence for a Tense projection in the lower clause, since the Tense inflection on the overt/lower verb was shown to modify the matrix predicate, we claimed that the Slovenian 'active' FEEL-LIKE construction does not have a TP in the lower clause. Since the tense inflection in the passive variant also modifies the disposition rather than the overt-verb event, as shown in (61) above, the passive variant also shows no morphological evidence for a TP in the lower clause. Now, with no TP in the lower clause, the object has no nominative assigning projection inside its own clause. But since nominative case comes from agreement and the latter is closely tied to tense, then the nominative must be coming from the same TP that also hosts the tense inflection. So, if the only TP with nominative case is in the upper clause, this must be where the nominative is coming from (following Boeckx 2003, the nominative must likewise be from upstairs). Similarly, just like the Slovenian default agreement on the verb of the active variant comes from the TP of the upper clause, so does the verbal agreement (cf. also auxiliary) in the passive (62) and (63).

[76] A parallel with the Tohonno O'odham and the Finnish construction seems clearest. Both of these have a causative morpheme on the verb but lack an overt causer. Nelson (2000) argues that the Finnish causative morphology in such cases actually creates unaccusatives, as it also creates class 3 psych verbs from class 1 psych verbs. This and the default (3 person) inflection that occurs on both the Finnish and Tohonno O'odham examples makes the parallel quite obvious. In Tohonno O'odham, there is actually an additional desiderative morpheme, and the structure thus seems to correspond to the overt 'feel-like' paraphrase rather than to the covert FEEL-LIKE construction.

These agreement and Tense characteristics of the passive construction can be further confirmed with the Slovenian or Croatian overt 'feel-like' paraphrase. Just as we would predict, in the presence of an overt 'feel-like' verb in the matrix clause, the agreement and tense morphology is indeed realized on the 'feel-like' verb, (64). Unlike Croatian, Serbian (at least some dialects) does not have a directly related productive paraphrase. While the Croatian paraphrase with the non-active form of *htjeti* 'want' is wide spread, the variant with *guštati* 'enjoy' is dialectal.

(64) Ivici su se htjele/guštale jesti baklave. (Croatian)
I_{DAT} $AUX_{3P,Pl}$ SE $want/enjoy_{Pl,Fem}$ eat_{INF} $baklava_{Pl,Fem,NOM}$
"Ivica felt like eating baklavas."

Albanian, a non-Slavic but neighboring language, has a construction that seems completely parallel to the South-Slavic FEEL-LIKE construction, (65) (Hubbard 1985, Kallulli 1999). It has the experiencer in dative case, the non-agreeing/default verbal morphology, the non-active morpheme, and with transitives, the nominative-marked internal argument. Just like in the other languages, the tense inflection on the overt verb actually modifies the upper, FEEL-LIKE predicate, and just like in Serbian/Croatian/Bulgarian, the complement of FEEL-LIKE can only be read imperfectively, i.e. in the default aspectual value. When the overt verb is inflected for 'aorist', an aspectually sensitive past tense (in the sense of de Swart 1998), the FEEL-LIKE predicate is interpreted as completed, (66) (Dalina Kallulli, p.c.).

(65) Nuk më hahen mollë. (Albanian)
NEG I_{DAT} $eat_{3P,Pl,Pres,Non-act}$ $apples_{NOM}$
"I don't feel like eating apples."

(66) Benit i-u punua. (Albanian)
Ben_{DAT} $him_{Cl,3P,DAT\text{-}Non\text{-}act}$ $work_{3P,Aorist}$
"Ben felt like working (i.e. but he doesn't anymore)."

Of the languages we surveyed, Russian appears to be the one with the most restricted FEEL-LIKE construction (assuming that its FEEL-LIKE construction is comparable to the South-Slavic ones). The Russian construction allows only intransitive verbs without a delimiting prepositional phrase or adverb—the disposition can presumably only be directed towards an atelic event (cf. Franks 1995, Schoorlemmer 1994a, Benedicto 1995). (In addition, in order to receive the 'feel-like' interpretation, the sentence has to be negated, for which see section 4.6.4.3.)

Comparing the three types of languages, an interesting pattern emerges. As shown in (67) below, the types of complement that the FEEL-LIKE head in a particular language allows are not just randomly scattered; they are associated with clausal projections that form a sequence.

(67) *Types of complement to FEE-LIKE across languages*

	Slovenian	Serb./Cro./Bulg./Alb.	Russian
Root-ModP – *modals*	+	–	–
AspP – *perfectives*	+	–	–
*v*P – *transitives*	+	+	–
VP – *atelic intransitives*	+	+	+

Assuming a rigid (universal) clausal structure (cf. Cinque 1999), it feels like the difference is in the amount of structure in the complement of the FEEL-LIKE, (68). In Slovenian, with the most permissive FEEL-LIKE construction, the complement is a phrase minimally smaller than TP—we propose Root-ModP—allowing modal and aspectual verbs in the scope of the FEEL-LIKE, and also perfective verbs. In Serbian, Croatian and Bulgarian, the complement is a more deficient clause, whose highest projection is *vQ*P (= *v**P), while an Aspect projection is missing. Since in Slavic the imperfective is the unmarked value for aspect (cf. e.g. Orešnik 1994), verbs in the imperfective can be seen merely as an instantiation of the default aspect option. While Albanian also falls in the *vQ*P group, in Russian, the language with the most restrictive construction, the complement seems to be smaller than *v*P.

(68) *Slovenian* *Bulgarian/Serbian/Croatian/Albanian* *Russian*
Root-ModP > … > *vQ*P (= *v**P) > … > VP

Though our discussion does not constitute an explanation of why a particular language allows a particular type of complement to the FEEL-LIKE verb, it nonetheless suggests that the crosslinguistic variation concerning the FEEL-LIKE construction is not just random but can be captured in a pattern. It all depends on the size of the complement the FEEL-LIKE selects in a certain language. The variation is thus manifested in the size of the complement of the FEEL-LIKE head, but the variation itself hides in the FEEL-LIKE verb, i.e. in the lexicon. On the other hand, if the FEEL-LIKE were a modal (or applicative) head and if we assume that FPs have fixed positions in clausal structure, one would not predict the possibility for the FEEL-LIKE head to occur in just any functional position and freely choose the size of its complement. The very fact that we do find variation may therefore be taken as another argument against a modal/functional analysis of the FEEL-LIKE construction.

Note finally that since FEEL-LIKE is an LF phase-inducing verb, the complement of FEEL-LIKE will always be a proposition, regardless of its size, thereby explaining the crosslinguistically parallel semantics of the FEEL-LIKE constructions despite different syntactic details. (If the restrictions of the Russian FEEL-LIKE construction really derive from a VP-only complement, rather than a (passive) *v*P-complement, then this may be problematic for the claim that the complement of Russian FEEL-LIKE is a proposition. We leave this issue open.

4.6. The (intensional) semantics of the FEEL-LIKE construction

In this section we introduce the issue of intensionality, present three characteristics of intensional contexts (cf. e.g. Larson 2002), and use them to show that the FEEL-LIKE construction creates an intensional context. If one adopts sententialism (cf. below), the construction's intensionality lends further support to a biclausal analysis, or, approached from the opposite angle, our biclausal analysis offers support for sententialism (by reducing a possible counter example). We conclude the section with a discussion of the precise interpretation/lexical semantics of FEEL-LIKE.

4.6.1 Diagnosing intensionality

The basic ideas about intensionality go all the way back to Frege (1892). According to Partee (1974: 83), a grammatical construction is *extensional* if the extension of the whole is a function of the extension of the parts, while a construction is *intensional* if the extension of the whole is a function of the intensions of one or more parts and the extensions of the remaining parts.

One characteristic of intensional contexts concerns substitutivity. Specifically, substitution of a coreferring term in extensional/transparent contexts such as (69) necessarily preserves the truth value of the proposition, so that—with *J. Garland* being *F. E. Gumm*'s stage name—the truth of the sentence in (69a) entails the truth of (69b). By contrast, in an intensional/ opaque context, such a substitution does not necessarily preserve truth, and so although *J. Garland* was just *F. E. Gumm*'s stage name, the truth of (70a) does not entail the truth of (70b).[77]

(69) a. Jim met Frances Ethel Gumm. ==> (69b)
b. Jim met Judy Garland.

(70) a. Jim believed [$_{CP}$ Frances Ethel Gumm was in the movie]. =/=> (70b)
b. Jim believed [$_{CP}$ Judy Garland was in the movie].

The second contrast between extensional and intensional contexts concerns the interpretation of indefinite DPs. An indefinite DP in an extensional context shows no ambiguity: the indefinite DP in (71a) can only be read specifically. An indefinite DP in an intensional context, however, is ambiguous, and so (71b) can also be read non-specifically, Jim may have simply believed that there was a famous actress in the movie but did not have a specific one in mind.

(71) a. Jim met a famous actress.
b. Jim believed [$_{CP}$ a famous actress was in the movie].

[77] The validity of this test has been questioned, e.g. Saul (1997a) and Zimmermann (2005). There is an unsettled debate going on in the literature regarding this issue; without getting involved, we adopt the test as a valid diagnostic for distinguishing opaque and transparent contexts. See Forbes (1997, 2000) for a defense of this test, and Forbes (1999), Moore (1999), Saul (1997b, 1999), Predelli (1999) for further discussion of the issue.

Thirdly, related to the non-specific reading of an indefinite DP is the fact that the presence of a non-referring term in an intensional context need not yield falsity. While (72a) can be true despite the fact that the noun *unicorn* does not have a referent in our world, a non-referring term in an extensional context necessarily yields falsity, (72b).

(72) a. Jim believed [$_{CP}$ he saw a unicorn cross-country skiing].
b.#Jim met a unicorn.

Observe now that of the examples (69) to (72), those that exhibit intensionality—(70), (71b) and (72a)—all contain a matrix clause and an embedded clausal complement (note the bracketing). On the other hand, the sentences we offered as showing a lack of intensionality effects—(69), (71a) and (72b)—are all simple transitive constructions with no embedded clausal complement. In other words, there seems to be a correlation between grammatical structure and intensionality: simple sentences do not create intensional contexts, clausal complementation does.

The observation of this correlation has motivated one of the two major ways of analyzing intensionality, namely the sententialist approach, as opposed to the intensionalist approach. *Intensionalism* holds that "intensionality is more the norm than the exception for grammatical relations" (Partee 1974: 81), that "intensions are centrally involved in the semantic interpretation of all or most grammatical relations" (op. cit.: 100). Intensionalism has been argued for, among others, by Montague (1974) and Kratzer (1981), primarily on the basis of several intensional contexts which do not involve overt clausal complementation, such as intensional transitive verbs (e.g. *want, look for, worship*) with DP complements, intensional adjectives (e.g. *alleged*) and intensional adverbs (e.g. *possibly*, *allegedly*). On the other hand, *sententialism* (in Forbes' [forthcoming] terminology *propositionalism*) holds that intensionality does not arise just anywhere in language, but that it is instead intimately linked to a specific grammatical structure (e.g. McCawley 1970, Larson & Ludlow 1993, Parsons 1997, Larson 2002). The sententialist approach allows a more restrictive and thus theoretically more appealing account of intensionality. Specifically, intensionality is confined to structures with clausal complements, be the latter overt or covert. Consequently, if all intensional contexts are reduced to contexts of clausal complementation, a uniform semantic analysis—for example the Interpreted Logical Forms algorithm of Larson and Ludlow (1993)—can be used for all of them.

In the sententialist spirit, biclausal analyses with a covert clausal complement have been proposed for intensional transitive verbs such as *want*, *need*, etc. (e.g. McCawley 1970, den Dikken *et al.* 1996), thereby explaining the semantic characteristics of such constructions and their syntactic peculiarities (cf. section 4.2.1.1) in one fell swoop. A simplified structure for intensional transitive verbs is given in (73), where the covert embedded verb is HAVE.

(73) John will need [PRO TO-HAVE a bicycle].

4.6.2 Intensionality of the FEEL-LIKE construction

Let us now test the Slovenian FEEL-LIKE construction for the three distinguishing characteristics of intensionality. First, (74) shows that the substitution of coreferring

terms in the FEEL-LIKE construction need not preserve truth (where *M. Bor* was the literary and Partisan pseudonym of *V. Pavšič*). The truth of (74a) does not entail the truth of (74b).

(74) a. Črtu se bere Mateja Bora. =/=> (74b)
Črt$_{DAT}$ *SE* *read* *Matej*$_{ACC}$ *Bor*$_{ACC}$
"Črt feels like reading (poetry by) Matej Bor."
b. Črtu se bere Vladimirja Pavšiča.
Črt$_{DAT}$ *SE* *read* *Vladimir*$_{ACC}$ *Pavšič*$_{ACC}$
"Črt feels like reading (poetry by) Vladimir Pavšič."

Second, the FEEL-LIKE construction allows both a specific and a non-specific reading of indefinite DPs, and (75) can describe a situation where the person *Tonček* feels like talking to is either a specific Partisan or just any Partisan. And finally, (76) shows that non-referring terms in the FEEL-LIKE construction do not yield falsity, so that (76) can be true even though the name *Zeus* does not have a referent in our world.

(75) Tončku se pogovarja s partizanom.
Tonček$_{DAT}$ *SE* *talk* *with* *Partisan*$_{INST}$
"Tonček feels like talking to a Partisan."
(76) Maši se objema Zevsa.
Maša$_{DAT}$ *SE* *hug* *Zeus*$_{ACC}$
"Maša feels like hugging Zeus."

To summarize the above, the FEEL-LIKE construction has intensional semantics.[78] Our biclausal analysis of this intensional construction thus provides support for the sententialist approach to intensionality, by extending the den Dikken *et al.* (1996) concealed-verb analysis of intensional transitive verbs to include a different kind of null verb, i.e. a matrix covert predicate. In fact, their account not only leaves this as a logical possibility but actually predicts it, and our FEEL-LIKE predicate is an attestation of this theoretical prediction. At the same time, the construction's intensional semantics offers additional support to our claim that the FEEL-LIKE construction has a (covertly) biclausal structure. For the intensionalist we may also note that while anti-sententialists object to a biclausal analysis of *all* intensional contexts, at least some of them seem to accept a biclausal analysis for the *want/need/long for* class of intensional transitive verbs (cf. Partee 1974, Forbes, forthcoming), which is where our FEEL-LIKE would also fit.

[78] The construction is intensional also according to one of the three alternative tests proposed in Moltmann (1997: 5-8). As Moltmann observes, complements of intensional verbs cannot be antecedents to a definite anaphoric pronoun (# means that the sentence doesn't have intensional reading). Just like this is true for the English (i), it is also true for the FEEL-LIKE construction in (ii). The other two tests (identity conditions and use of impersonal proforms) are language-specific not applicable to Slovenian.

(i) # John is looking for a horse. Mary is looking for it too. (Moltmann, p.6, (7))
(ii) # Petru se jaha enga konja. Tudi Micki se ga jaha.
Peter *SE* *ride* *one* *horse* *also* *Micka* *SE* *him* *ride*
"Peter feels like riding a horse. Micka feels like riding it too."

4.6.3 Modals and intensionality (strong/hyper- vs. weak intensionality)

Depending on their behavior with respect to the test of substitutivity, intensional contexts can be divided into hyperintensional and weakly intensional ones. Simple modal structures fail this test: the substitution of co-referring terms in (77) necessarily preserves truth (*Chomolungma* is the Tibetan name for *Mt. Everest*). Because they lack this property, modals are said to create weakly intensional contexts (e.g. Kearns 2000).

(77) Črt might climb Chomolungma. ==> Črt might climb Mt. Everest.

Unlike modals, intensional transitive verbs and other instances of clausal complementation do not allow substitution of co-referring terms and thus create a hyperintensional context (e.g. Kearns 2000). Given that modal contexts are only weakly intensional, a modal analysis of the FEEL-LIKE construction (e.g. R&MS, Franks 1995, Benedicto 1995) predicts that the construction will *not* be hyperintensional, contrary to fact (cf. section 4.6.2, examples (74a-b)). To pair up the modal example in (77) with its FEEL-LIKE counterpart, consider (78), where the entailment of (77) fails; (78a) does not entail (78b). This semantic difference provides further evidence against a modal analysis of the FEEL-LIKE construction.

(78) a. Vidu se osvaja Chomolungmo. =/=> (78b)
Vid$_{DAT}$ *SE* *conquer* *Chomolungma*$_{ACC}$
"Vid feels like conquering Chomolungma."
b. Vidu se osvaja Everest.
Vid$_{DAT}$ *SE* *conquer* *Mt. Everest*$_{ACC}$
"Vid feels like conquering Mt. Everest."

By providing a biclausal analysis of the FEEL-LIKE construction, we can maintain the sententialist, i.e. the stricter and thus theoretically preferable approach to intensionality. Moreover, this type of hidden predicate in the matrix clause in fact attests a logical possibility in, among others, the McCawley (1979) or den Dikken *et al.* (1996) analysis of intensional transitive verbs, where the hidden predicate is in the clausal complement.

4.6.4 More on the interpretation of FEEL-LIKE

4.6.4.1 Indefinite yearning The empty verb FEEL-LIKE does not have a single unambiguous interpretation. Its interpretation varies a little within Slovenian as well as across the languages exemplifying the FEEL-LIKE construction. The interpretation and its variation is the subject of this section.

It is difficult to pin down the precise meaning of the predicate *FEEL LIKE*. Just as this proves difficult for the English *feel like*, so it does for FEEL-LIKE. Dąbrowska (1994) discusses the Polish overt 'feel-like' construction with a non-active *chcieć* 'want' with SE and a dative subject, contrasting it with the ordinary 'want' construction with the active *chcieć* 'want' and a nominative subject. She ascribes the meaning of a "definite desire/intention" to the latter construction and the meaning of "wistful longing" or "indefinite yearning" to the former (op.cit.: 1037, 1039). The Slovenian FEEL-LIKE likewise expresses something along the lines of 'wistful longing/indefinite yearning', a

wish which is not fully explicable, which does not have a rationally dissectable motivation, a wish for something which we think we might enjoy.

Indeed, this 'indefinite-yearning' component seems to be at the root of a general dispreference for perfective complements in the Slovenian FEEL-LIKE construction (cf. fn 54). The dispreference is not, however, a simple ban (contra R&MS). Observe that examples with a transitive lower verb in the perfective are possible with an indefinite direct object, (79a). Changing the indefinite *a/some article* in (79a) for a definite such as *Derivation by Phase*, though, makes the sentence more or less unacceptable, (79b).

(79) a. Zdejle se mi pa ful prebere kakšen članek.
now *SE* I_{DAT} *PTCL* *so* *read-through*$_{PF}$ *some* *article*$_{ACC}$
"Right now I so feel like reading through some article."
b. *Zdejle se mi pa ful prebere "Derivation by Phase".
now *SE* I_{DAT} *PTCL* *so* *read-through*$_{PF}$ $DbP_{(ACC)}$
"Right now I so feel like reading through *Derivation by Phase*."

When containing transitives, the FEEL-LIKE construction is most typically used with mass or bare plural direct objects, even when the complement clause has an imperfective verb form. Although with less clarity, the definite/indefinite contrast from (79) carries over to the same sentences with the imperfective form of the verb, i.e. *brati* 'to read'. Also, note that the contrast between indefinite and definite direct objects carries over to examples with an indefinite Incremental Theme object such as *kakšna jagoda* 'a/some strawberry' as the complement of the perfective version of 'to eat (up)' (*pojesti*$_{PF}$), so the restriction on perfective complements in the Slovenian FEEL-LIKE construction does not reduce to lexical aspect/telicity (contra R&MS); an indefinite such as *a/some strawberry* is just as bounded/quantized (non-divisive and non-cumulative) as the definite *this strawberry*.[79] In fact, 'indefiniteness' of some sort that will 'license' the perfective in the FEEL-LIKE construction can even come from non-arguments (confirming the irrelevance of lexical aspect/telicity), as shown by the contrast (80) vs. (81).

(80) Zdajle se mi pa ful za kakšno urco zadrema.
now *SE* I_{DAT} *PTCL* *so* *for* *some* *hour* *doze-off*$_{PF}$
"Right now I so feel like taking a nap of about an hour or so."
(81) ?Zdajle se mi pa ful (za deset minut) zadrema.
now *SE* I_{DAT} *PTCL* *so* *for* *ten* *minutes* *doze-off*$_{PF}$
"Right now I so feel like taking a nap (of ten minutes)."

This is presumably related to the nature of the disposition expressed by FEEL-LIKE, i.e. the verb's fine-grained lexical semantics expressing, following Dąbrowska (1994), 'wistful longing/ indefinite yearning'.[80]

[79] The definite/indefinite contrast explains the deviance of R&MS's perfective example (74c) (2003: 142), where the bare plural direct object will—in the presence of the perfective form of *to eat*—receive a total interpretation such as 'all (the contextually specified) strawberries' (cf. Filip 1994), and so the direct object is necessarily definite.

[80] Serbian/Croatian and Bulgarian, however, do not only exhibit a patterned dispreference for perfective complements but rather a categorical ban, thus inviting a structural explanation, which we provided in section 4.5.2.

4.6.4.2 Other interpretations There are further interpretational differences that deserve mention. As the opposite value of her "definite desire/intention", Dąbrowska (1994) in fact mentions two variants, "wistful longing/indefinite yearning" and "biological drive". And indeed, a difference along this line manifests itself when comparing Slovenian and Serbian. The Slovenian FEEL-LIKE is used for longings/yearnings related to one's psychological state, whereas the Serbian FEEL-LIKE also has the meaning of an uncontrollable physiological state, i.e. a drive or craving.[81] Some typical uses of the FEEL-LIKE construction in Serbian include verbs such as *piškiti* 'pee', *kakiti* 'poop', *spavati* 'sleep', *jesti* 'eat', *piti* 'drink'. Indeed, the way to say *I need to pee* in Serbian is with the FEEL-LIKE construction (*Piški mi se* – $\text{pee}_{3P,Sg,Pres}$ I_{DAT} SE), while the FEEL-LIKE construction is impossible for this meaning in Slovenian (**Lula se mi* – $\text{pee}_{3P,Sg,Pres}$ SE I_{DAT}).[82]

Note that such interpretational differences can have consequences that may seem to reflect structural differences. That is, when the complement of the Serbian FEEL-LIKE contains a physiological verb such as *pee* or *sleep*, double adverb(ial)s will not be acceptable. However, this is merely the result of the interpretation of FEEL-LIKE, and in fact, double adverb(ial)s do not work with such verbs even in the English *I need to pee*, although we showed in section 4.2.1 that such structures otherwise allow non-agreeing adverb(ial)s. In other words, although there are still two events, one simply does not have a physiological drive to do something for any time other than the time of the drive itself. Such restrictions thus do not reflect a different, monoclausal structure. The physiological-drive interpretation is also the reason that such FEEL-LIKE sentences sometimes receive simple/monoclausal translations such as 'I am sleepy', 'I am hungry', etc. This may further conceal the construction's biclausality, but note that when the overt verb in an affirmative Serbian FEEL-LIKE sentence is, say, 'to sleep', the sentence in fact does not assert that x is sleeping but rather the opposite, that x is *not* sleeping; it says that x is experiencing a physiological urge to sleep, and if true, that precludes the truth of 'x is sleeping'.[83]

4.6.4.3 Russian The Russian FEEL-LIKE construction is peculiar since it is only available in sentences with negation (e.g. Franks 1995). Interestingly, the FEEL-LIKE interpretation is available also in questions, (82), and relative clauses that are restrictions of a universal quantifier, (83).

[81] The ternary distinction can tentatively be paralleled with *I need to pee* (a physiological drive), *I feel like jogging* (an indefinite yearning) and *I want to jog* (definite desire).

[82] There is interspeaker variation with *spati* 'sleep' as the complement of the Slovenian FEEL-LIKE. While some speakers will give it the more controllable 'indefinite yearning' reading, close to 'I would like to sleep', others also accept a completely uncontrollable physiological-drive reading 'I am sleepy'. A similar idiomatized ambiguity occurs with the English *want*. Normally, it has a 'definite desire/volition' reading, so that *I want to throw up* need not mean *I'm likely to throw up*, but then there are also pairs such as *The mere sight of this makes me want to throw up = The mere sight of this makes me likely to throw up*.

[83] Perhaps the uncontrollable, physiological-drive meaning need not be restricted to strictly physiological verbs (*pee*, *eat*, etc.) and even feeling like going to the mountains, for example, can be conceived of as uncontrollable, physiological-drive-like. Then the Serbian FEEL-LIKE could perhaps only have the uncontrollable physiological-drive reading, which, in turn, could explain Serbian speakers' reluctance towards double non-agreeing adverbials.

(82) Emu rabotaet-sja? (Russian)
he$_{DAT}$ *work*$_{3P,Sg}$ *SE*
"Does he feel like working?"

(83) Kazhdyj, komu rabotaet-sja, dolzhen vzjat' lopatu. (Russian)
everyone *who*$_{DAT}$ *work*$_{3P,Sg}$*-SE should grab shovel*
"Everyone who feels like working should grab the shovel."

The distribution seems parallel to the Slovenian overt 'feel-like' paraphrase with non-active *dati* 'give', (84) (structurally parallel to the overt 'feel-like' paraphrase with non-active *luštati* 'desire'/*hoteti* 'want', as decribed in section 4.3). The latter only occurs in negated sentences, (84a), in questions, (84b), and in restrictive relative clauses to a universal quantifier, (84c)—that is, in (some) downward entailing environments. (In addition, it also occurs when 'give' is contrastively focused, in ironic positive sentences, etc.)

(84) a. Danes se mi *(ne) da delat.
today *SE* *I*$_{DAT}$ *not* *give*$_{3P,Sg}$ *work*
"I don't feel like working."

b. A se ti da delat ponoči?
Q *SE* *you*$_{DAT}$ *give*$_{3P,Sg}$ *work* *at night*
"Do you feel like working at night?"

c. Vsak, ki se mu da tečt, naj se zglasi pri Štefu.
everyone *that* *SE* *he*$_{DAT}$ *give run should SE present at Štef*
"Everyone who feels like running should report to Štef."

This overt 'feel-like' paraphrase with 'give' is also interesting in that it exist in Serbian, but with a surprisingly different interpretation (while Croatian shares the interpretation with Slovenian). In Serbian, this construction receives a kind of root-possibility reading, (85a), which is also manifested in what looks like the Polish structural parallel of the Slovenian/active FEEL-LIKE construction and the Czech structural parallel of the Serbian/passive FEEL-LIKE construction. (By "what looks like the Polish structural parallel ..." we mean that just like the Slovenian FEEL-LIKE construction, the Polish construction contains a dative argument, the clitic SE, an accusative object, and default agreement on the only verb, but gets a crucially different interpretation, something like 'Somehow, it was easy for me to V', an example is given in (85b). See R&MS and Rivero 2003, 2004 for more on the Polish and Czech constructions.)

(85) a. Ne da mi se da odem kući. (Serbian)
not *give*$_{3P,Sg}$ *I*$_{DAT}$ *SE* *that go* *home*
"I cannot go home / something prevents me from going home."

b. Jankowi czytało się tę książkę z przyjemnością. (Polish)
Janek$_{DAT}$ *read*$_{3P,Sg,Neu}$ *REFL this book*$_{ACC}$ *with pleasure*
"Janek read this book with pleasure."

Although a detailed analysis of these facts goes beyond the scope of this paper, we will hint at a possible solution. Since the Russian construction from (82-83) seems to

behave in parallel with the Slovenian overt 'feel-like'-construction with 'give' in (84), the two might share the same matrix predicate, with Russian having it covert. Thus what we have been calling the Russian FEEL-LIKE construction actually contains something like a null GIVE, making it different from the Slovenian/SC/Bulg/Alb FEEL-LIKE construction; these two types of constructions are structurally the same, but contain a different lexical item in the matrix clause. Note that the Russian construction does not only have the 'feel-like' meaning of desire but also that of 'not being able to' (cf. Benedicto 1995). The Russian null GIVE thus receives two interpretations, the 'feel-like' interpretation of the Slovenian/Croatian non-active 'give' (restricted to the same environments as the Slovenian non-active 'give') and the root-possibility interpretation of the Serbian non-active 'give' (available in more or less any environment). The Polish construction that we have not discussed in this paper would be parallel to the Russian in having a null verb GIVE, but unlike its Russian counterpart, it only receives the root-possibility reading of the Serbian 'give'-construction but not the 'feel-like' reading of the Slovenian 'give'. In this way, we are reinstating the direct parallel that R&MS and Rivero (2003) draw between the syntactic structures of the Slovenian FEEL-LIKE construction and the Polish dative reflexive construction. But while R&MS/Rivero (2003) derive the different interpretations from distinct logical-form procedures operating on the dative argument, resulting in a dispositional as opposed to a left-dislocated topic reading, we assign the difference in the interpretation simply to different null matrix verbs.[84]

4.7. Phonologically null/silent verbs

We have been talking about a null verb FEEL-LIKE and at the same time contrasting the FEEL-LIKE construction with the overt 'feel-like' paraphrase, so one can justly ask whether we are not simply dealing with a process of (specified) ellipsis of the main predicate (one of the overt 'feel-like's) rather than with a separate null lexical verb FEEL-LIKE. Note that if one opts for ellipsis, it is hard to explain how one could have cases where the elided variant is fine but the overt one is not. For a general discussion of this theoretically non-trivial choice, we refer the reader to van Riemsdijk (2002), who defends a null verb explanation (in his case for a null GO) on general grounds of learnability and economy. In this section, we present some arguments for adopting the null-verb position in the case of the covert FEEL-LIKE construction and address the issue of recoverability and licensing of the null verb FEEL-LIKE.[85]

[84] Note that the non-agreeing adverbial tests, etc., that we have used for showing the biclausality of the Slovenian FEEL-LIKE construction do not work in Polish (p.c. Magda Golędzinowska); however, this need not be a counterargument to biclausality. Such adverbs do not work in the Serbian overt construction with non-active 'give' either. The two predicates seem to be necessarily temporally dependent.

[85] Cf. also Lakoff (1968: 165-168) for related discussion. Note, though, that our proposal is significantly different from Lakoff's, which analyzed, e.g., the Latin optative mood as containing an abstract optative verb vel, but with the whole clause being silent, including the verb's morphology (cf. also Ross 1970, Prince 1974). In our proposal, only the verb (a lexical element) is null, while the dative argument and (parts of) the verb's inflectional and derivational morphology are (according to Marušič & Žaucer 2005 in fact *must* be) realized overtly. Also, optatives do not seem to show the biclausal characteristics that have motivated our proposal.

4.7.1 Null verb FEEL-LIKE or an elided non-active hoteti 'want'?

If one were to advocate an ellipsis account, the only plausible candidate from among the overt 'feel-like's in Slovenian would be the possibly primitive *hoteti* 'want', since the other candidate, *luštati* 'desire', is a fairly infrequent borrowing from German and may even be absent in some Slovenian dialects. The same would be dictated by the cross-Slavic facts, since *hoteti* 'want' (and its cognates) is the only verb that is shared as an overt paraphrase by all languages with an overt 'feel-like' paraphrase (and it is also the verb that is used in the overt 'feel-like' construction in the Slavic languages which do not have the covert FEEL-LIKE construction, such as Polish and Czech). Note, though, that while we considered the paraphrase with non-active *hoteti* 'want' and the covert FEEL-LIKE construction to be structurally parallel, we also said that they are semantically only near-synonyms. At least for some speakers, the paraphrase with *hoteti* and the FEEL-LIKE construction are not really interchangeable. The paraphrase with *hoteti* 'want' gets more of an uncontrollable reading (closer to a physiological drive), while the covert FEEL-LIKE construction typically gets a fairly controllable reading (e.g. indefinite yearning), if it allows the completely uncontrollable one at all.[86] The fact that some speakers consistently assign the covert FEEL-LIKE construction and the overt 'feel-like' paraphrase different interpretations argues for positing a separate null verb rather than an elided *hoteti* 'want'.[87] Strong support along similar lines also comes from Serbian, where at least some dialects have no overt 'feel-like' paraphrase at all. Simply, the way they express this meaning is with the covert FEEL-LIKE construction. Similarly, Albanian also does not seem to have an overt 'feel-like' paraphrase with a non-active version of 'want' (Dalina Kallulli, p. c.).

Further support comes from contrasting the prefixed FEEL-LIKE and prefixed 'feel-like's (cf. section 4.4.6). Although in Bulgarian, FEEL-LIKE occurs with the same three prefixes (inceptives *pri-* and *do-* and the terminative *ot-*) as the paraphrases with two variants of 'want' (*šte* and *iska*), the situation is different in Serbian. While *pri-jesti* (but not **do-jesti* and **od-jesti*) occurs in the FEEL-LIKE construction, 'to come to feel like eating', the language does not have either an active or a non-active form such as **pri-hteti* 'to come to want/feel like'. In fact, there *is* an inceptive form of *hteti* 'want', but it contains a different prefix, *pro-hteti* 'to come to want'. In addition, neither Bulgarian nor Serbian or Slovenian accepts the inceptive *za-* in the FEEL-LIKE construction, although they all have an inceptive use of *za-* and Slovenian even has non-active *za-hoteti* 'want' (also *za-luštati* 'desire') with the meaning 'to come to feel like'. An account with an elided 'want' cannot cope with these data. Taking into consideration the notorious lexical restrictions associated with prefixed/particle verbs, we submit that the Bulgarian/Serbian lexicon

[86] Some speakers do not even acknowledge the interpretation 'I am sleepy' for the FEEL-LIKE construction with the verb *spati* 'sleep' but only a controllable interpretation close to 'I would like to sleep'.

[87] It is not surprising that the overt 'feel-like' and the null FEEL-LIKE *can have slightly different meanings; languages differentiate many nuances of this general meaning. Slovenian expresses meanings close to 'feel-like' with numerous other constructions, including drži/tišči/ima/vleče me V* (lit. 'it holds/presses/has/drags me to V'), *zgrabi me da bi V* (lit. 'it grips me that I would V'), *ne ljubi/da se mi V* ('it doesn't $\text{love}_{\text{NON-ACT}}$/$\text{give}_{\text{NON-ACT}}$ to me to V'), *gre mi na bruhanje/smeh/...* (lit. 'it goes to me to vomiting/laughter/etc.'), *sili me na bruhanje/smeh/...* (lit. 'it forces me to vomiting/laughter/etc.'), *pride mi da bi V* (lit. 'it comes to me that I would V'), *mi je da bi V* (lit. 'it is to me that I would V'), *popade me kašelj* (lit. 'coughing befalls me'), etc.

contains the verb *pri*-FEEL-LIKE, the Bulgarian lexicon also contains the verbs *do*-FEEL-LIKE and *ot*-FEEL-LIKE, and the Slovenian lexicon contains only an unprefixed FEEL-LIKE.

We thus conclude—in line with van Riemsdijk (2002), and with Marušič & Žaucer's (2005) claims for the Slovenian null GO—that a null verb analysis is superior to one with ellipsis.

4.7.2 Recoverability and licensing

Having established that an account with a null verb is empirically preferable for our covert FEEL-LIKE construction, we address the question of how the null verb FEEL-LIKE is licensed. Null verbs (just like regular verbs that have undergone specified ellipsis/PF-deletion) have to be recoverable, and since the verbs themselves are null, there has to be something else in the sentence that flags the presence of a null verb (van Riemsdijk 2002). For his null verb GO, van Riemsdijk proposes that the structural licenser of the null verb is an adjacent modal head, while the obligatory directional PP is merely subcategorized by the verb. However, Marušič & Žaucer (2005) show that such a definition of licensing of GO does not hold crosslinguistically and that the strictly structural nature of licensing that van Riemsdijk advocates is dubious. In Slovenian, all sorts of 'world-creating' verbal elements can license a null GO, including modal heads, full verbs, etc.; conversely, other, non-modal types of functional verbs do *not* license a null GO, which is unexpected if the licensing is strictly structural. Complementing this evidence with the facts of a null HAVE (cf. section 4.2.1.1 above), which can occur with a DP complement and under a matrix-clause 'want' but not with a DP complement and under a modal such as 'must', Marušič & Žaucer (2005) conclude that while there is no doubt that there must be some flags that make the null verb recoverable, it is dubious that the licensing should be strictly structural. If null verbs did require some sort of formal licensing, one would expect it to be the same or at least comparable for different null verbs, which is not the case. See Marušič & Žaucer (2005) for a more elaborate argumentation against formal licensing for null verbs.

As for the "licensing" of FEEL-LIKE, it will have become clear that there are several features that make this null verb recoverable. First of all, the construction always contains a dative argument, even with verbs that do not co-occur with a dative argument outside the FEEL-LIKE construction. Secondly, the construction always involves a non-active (argument suppressing) clitic SE, which may clash with the active character of the overt verb and which—in our analysis—belongs to the null verb and thus uncontroversially reveals the presence of a null non-active verb. Departing a little from purely structural flags, we have noted that tense inflection on the verb may clash with the temporal location of the event denoted by the overt verb, so that one may find a temporal adverb(ia)l clashing with the morphological tense. And completely truth-conditionally speaking, FEEL-LIKE sentences typically describe a situation that is incongruent with the state of affairs in the actual world. The hearer of a FEEL-LIKE sentence will notice the SE and the tense, and may observe that the content of the rest of the sentence is contrary to fact; this will lead him or her to put together the structural ingredients they are faced with and at the same time fill in the emptiness. In a similar way, the structural flags along with the semantics that is incongruent with the state of affairs will presumably make the acquisition of such a null verb sufficiently unproblematic as well.

4.8. Conclusion

We have argued against the standard, modal analysis of the covert FEEL-LIKE construction and provided syntactic arguments that this monoclausal-looking construction, which exhibits intensionality, is biclausal. Consequently, we put forth a biclausal analysis, with the matrix verb realized as a null dative-experiencer psych-verb FEEL-LIKE, and we suggested an account for the cross-linguistic typology of the covert FEEL-LIKE construction, discussing both syntactic and interpretational variation.

Our biclausal analysis allows maintaining the stricter, sententialist approach to intensionality. Furthermore, if one extrapolates from FEEL-LIKE to intensional transitives such as *want*, the paper presents support for treating such verbs as full lexical verbs rather than functional heads. The intensionality created by intensional transitives thus also remains accountable for under the sententialist view. In addition, our null verb FEEL-LIKE lends support to some recent proposals using independent, phonologically null lexical verbs (e.g. den Dikken *et al.* 1996, Larson *et al.* 1997, van Riemsdijk 2002, Marušič & Žaucer 2005).

On a different note, we have argued for a deficient sentential complement and explored its consequences for our understanding of the phase-based syntactic theory. It appears that phonological phases can contain material belonging to different semantic phases and that PF and LF phases need not be completed and shipped off to their respective interfaces simultaneously.

4.8.1 More on Non-simultaneous Phases

In this subsubsection, I summarize the argument for non-simultaneous phases/Spell-Out. In addition, I provide some further evidence for the claim that the embedded clause of the FEEL-LIKE construction is semantically a proposition and thus a logical candidate for an LF phase/Spell-Out, but that at the same time does not constitute a PF unit, and thus by the same logic is not a candidate for a PF phase.

As mentioned already in section 4.3.3, there is a clear misalignment of where the two parts of the verb are pronounced and where they are interpreted. Tense inflection on the only overt verb (the verb of the embedded clause) is actually related to the covert disposition of the matrix clause. The only overt verb, although pronounced with tense morphology, is not related to any overt tense morphology—the (time of the) event of the verb is not an argument of any overt temporal predication. Therefore, morphology from the matrix T ends up being attached to the lower V forming a single word composed of elements from two distinct clauses, belonging to two distinct (independent) events.

Example (86), with future tense morphology on the verb, signifies a future disposition towards drinking beer, rather than a present disposition towards a future event of drinking beer (Slovenian future tense is composite. It is composed of a future auxiliary and the verbal participle which agrees with the auxiliary in gender and number. Although future tense morphology is therefore not directly on the overt verb it is still tightly connected since the AUX and the participle both agree with the subject. In the FEEL-LIKE construction the agreement on the verb is default (3P,Sg,Neut) and as we claim in section 4.3 this is the result of agreement with a null expletive in the matrix TP. So, even though

the root of the verb has no direct relation with future morphology, it still has relation with the matrix tense from where it gets its verbal agreement.). To express a present disposition, the verb has to be in the present tense, (87).

(86) Filipu se ne bo pilo pive jutri.
Filip$_{DAT}$ *SE NEG AUX*-**FUT**$_{Neut}$ *drink*$_{Neut}$ *beer tomorrow*
"Filip won't feel like drinking beer tomorrow."
* "Filip doesn't feel like drinking beer tomorrow."

(87) Filipu se jutri pije pivo.
Filip$_{DAT}$ *SE tomorrow drink*$_{Neut,}$**Pres***beer*
* "Tomorrow, Filip won't feel like drinking beer."
"Filip doesn't feel like drinking beer tomorrow."

Verb and the tense inflection make up a single word. Note that the verb is interpreted inside the lower clause, inside the scope of the matrix predicate. With the temporal inflection clearly belonging to the matrix predicate, we have an example of a single word—a single phonological unit (created in a single PF phase or as a result of a single PF Spell-Out)—that is composed of parts belonging to two different semantic units, two different LF-phases. Therefore spell out to the two interfaces can be non-simultaneous.

4.8.1.1 LF phasehood A common (I do not want to say anything about its quality) diagnostic for determining a phase (in particular an LF phase) is the position where quantifiers take scope, that is the position where they are interpreted, which should be their position at LF (e.g. Legate 2001, 2003, Sauerland 2003). Thus if it can be shown that a quantifier from the lower clause can take scope lower than the matrix verb, the embedded clause should have an LF phase that does not include the matrix verb. As shown in section 4.6, indefinites can be interpreted inside the scope of the matrix predicate, so that, for example, there need not be any specific banana Vid feels like eating up, for (88) to be true, he just feels like eating up a banana. Notice that the indefinite *banana* in (88) is in nominative case, which means this is a passive FEEL-LIKE construction. Since the lower clause has passive, there is not *v*P phase in the lower clause, therefore the only phase that could be, is the embedded ModP (or any other maximal projection of the embedded clause).

(88) Vidu se je ena banana
Vid$_{DAT}$ *SE eat one banana*$_{NOM}$
"Vid feels like eating up a banana."

Similarly in (89a), Vid can have a disposition to see every movie, but not a disposition for each individual movie to see it (which is the other possible reading). So seeing a single movie would not satisfy his disposition, only seeing all of them would. This is true also of (89b). In one of the readings, Vid can have a disposition that would be satisfied only if he would go to every single hill in the 100 km radius but not if he would go to only one of them.

(89) a. Vidu se gleda čist vsak film
Vid$_{DAT}$ SE watch completely every movie
"Vid feels like watching every movie."
b. Vidu se še danes gre na vsak hrib, ki je oddaljen mn ko 100 km.
Vid$_{DAT}$ SE even today go on every hill, that is distant less than
"Even today, Vid feels like going to every hill less than 100 km away."

Therefore in both cases the universal quantifier is interpreted lower than the disposition predicate, suggesting there is a scopal position inside the embedded clause. The existence of this scopal position suggests the presence of a (LF) phase. As was said earlier, since this kind of phase edge was determined on the basis of where items get interpreted, we can safely assume this phase is an LF phase. Notice again, that the lower verb, that is the verb of the complement clause, in (89b) is an unaccusative. This means the lower clause does not have a *v*P phase, where the quantifier could move to (assuming quantifiers QR to an LF edge position to get scope because of some EPP$_{LF}$). Without *v*P, the only other possible phase seems to be ModP (or any other maximal projection of the embedded clause). Therefore the lower clause is (at least) an LF phase.

This conclusion seems obvious also because the construction involves two distinct times (cf. section 4.2.2), which means two events, which are two LF units. The complement of FEEL-LIKE (same is true for the overt version of the verb) is opaque/intensional and forms a proposition (this is true also according to all the previous analyses of this construction, which mainly decomposed it into a modal taking a proposition as a complement). FEEL-LIKE is a propositional attitude report verb and therefore establishes a relation between an individual (the dative experiencer) and a proposition (the complement). As shown in section 4.4.2, the complement clause allows modal verbs—propositional operators. As soon as we build more structure over the embedded *v*P (lower clause has its own aspect, cf. 4.3.3) we can ask ourselves how this structure gets interpreted. If *v*P is the only (LF) phase of the lower clause, all functional projections of the lower clause would be sent to LF together with the matrix clause, but this doesn't sound reasonable since functional projections of the lower clause should not be important for the LF interpretation of the matrix clause. Matrix verb selects for a proposition in semantic terms, nothing else should be relevant in interpretation.

Assuming these arguments are good enough for the conclusion that the complement of the matrix verb is indeed an LF phase, we have to establish whether the same chunk of structure is also a PF phase.

4.8.1.2 PF phasehood The construction is standardly seen and analyzed as monoclausal, this entire chapter is actually arguing against this standard view. The standard view is based on the intuitive impression of this construction since it is in no way different from any other monoclausal construction, minimally it only has one verb and one subject, nothing else. There are no superficial differences between this covertly biclausal and any other monoclausal construction. The construction lacks the typical properties of a biclausal structure, e.g. it exhibits no phonetic independence of the two clauses. In effect certain cases of the FEEL-LIKE construction are actually ambiguous between the FEEL-LIKE reading, (90a), and a typically monoclausal construction with a dative possessor, (90b).

(90) Vidu se popravlja bicikel.
V_{DAT} SE fix bike
a. "Vid feels like fixing a bike."
b. "Somebody is fixing Vid's bike."

The lack of an obvious clausal boundary is observed in (91a), where embedded object scrambled from its base position to the front of the sentence. Note that this scrambling is not A'-scrambling, which is possible over a CP boundary (that is, over a strong phase), since it doesn't exhibit any Weak Cross-Over effect, as seen in (91a). Assuming a more phonological placement of clitics (Marušič *in prep* B), sentence (91b) in which the clitics climbed form the embedded clause to the second position inside the matrix clause also shows there is no phonetic/phonological boundary in between the two clauses.

(91) a. Črta$_i$ se je njegovi$_i$ mami poslalo __ po kruh.
$Črt_{DAT}$ SE AUX his mother send for bread
"His mother felt like sending Črt for bread."
b. Včeraj se jo je Vidu že spet gledalo __ .
Yesterday SE $her_{Cl,ACC}$ AUX Vid_{DAT} already again watch
"Yesterday, Vid again felt like watching her/it." (e.g. television)

A more striking exemplification of the kind of PF transparency the FEEL-LIKE construction shows is observed with multiple reordering/ pluriscrambling. With varied intonation Slovenian sentences become very flexible and appear not to respect any word order at all. So for example a sentence such as (92a) can be reversed into basically any order, as shown by (92b-e). This kind of reordering is not available to the same degree over a CP boundary. There, only one constituent can undergo some sort of left dislocation, which puts it in the clause initial position (more in chapter 5).

(92) a. Janez je Metki včeraj podaril slona.
J_{NOM} AUX M_{DAT} yesterday give elephant
"Janez gave Metka an elephant yesterday."
b. Metki je Janez včeraj podaril slona.
Metka AUX Janez yesterday give elephant
c. Včeraj je Metki slona podaril Janez.
Yesterday AUX Metka elephant give Janez
d. Slona je včeraj Metki podaril Janez.
Elephant AUX yesterday Metka give Janez
e. Podaril je Metki Janez včeraj slona.
Give AUX Metka Janez yesterday elephant

This kind of multiple scrambling is possible also in the FEEL-LIKE construction, which behaves much more like a regular monoclausal rather than a biclausal sentence in this respect. (Words originating in the embedded clause are bolded.)

(93) a. Vidu se včeraj ni **povabilo** **Petra** **na** **žur**
V_{DAT} SE yesterday not invite P_{ACC} to party
"Yesterday, Vid didn't feel like inviting Peter to the party."
b. **Na** **žur** se Vidu **Petra** včeraj ni **povabilo**.
to party SE V_{DAT} P_{ACC} yesterday not invite
c. **Na** **žur** se Vidu včeraj **Petra** ni **povabilo**.
to party SE V_{DAT} yesterday P_{ACC} not invite
d. **Povabilo** se **Petra** **na** **žur** Vidu včeraj ni.
invite SE P_{ACC} to party V_{DAT} yesterday not
e. **Povabilo** se včeraj **na** **žur** **Petra** Vidu ni.
invite SE yesterday to party P_{ACC} V_{DAT} not
f. **Petra** se **na** **žur** Vidu včeraj ni **povabilo**.
P_{ACC} SE to party V_{DAT} yesterday not invite
g. **Petra** se včeraj Vidu **na** **žur** ni **povabilo**.
P_{ACC} SE yesterday V_{DAT} to party not invite
h. Včeraj se **Petra** Vidu **na** **žur** ni **povabilo**.
yesterday SE P_{ACC} V_{DAT} to party not invite
i. Včeraj se **na** **žur** **Petra** Vidu ni **povabilo**.
yesterday SE to party P_{ACC} V_{DAT} not invite
j. Včeraj se **na** **žur** ni **povabilo** **Petra** Vidu.
yesterday SE to party not invite P_{ACC} V_{DAT}
k. **Povabilo** **Petra** **na** **žur** se Vidu včeraj ni. (different … VP fronting)
invite P_{ACC} to party SE V_{DAT} yesterday not
…

This kind of multi-scrambling is stylistic and has no effect on interpretation. All scrambled elements are interpreted in their base positions, as shown in (94), where a pronoun gets bound by the originally c-commanded quantifier when they are in their base positions, (94a). But as shown in (94b-e) the interpretation remains the same even when the quantifier is scrambled lower than the pronoun etc. Same is true of (95), where the pronoun inside the embedded finite clause gets the same bounded interpretation regardless of the position of the entire embedded clause.

(94) a. Vsakmu se **gleda** **televizijo** **pr** **sebi** **doma**
everyone SE watch television at self's home
"Everyone feels like watching television at his home."
b. **Pr sebi doma** se vsakmu **gleda televizijo**.
c. **Pr sebi doma** se **televizijo gleda** vsakmu.
d. **Pr sebi doma** se **televizijo** vsakmu **gleda**.
e. **Televizijo** se **gleda pr sebi doma** vsakmu.
…

(95) a. Vsakmu politiku$_i$ se cele dneve prepričuje volivce, **da morajo volit njega**$_i$
Every politician SE whole days convince voters that must vote him
"Every Politician feels like convincing voters for entire days that they must vote for him."
b. **Da morajo volit njega**, se cele dneve prepričuje volivce vsakmu politiku.

c. Volivce se prepričuje, **da morajo volit njega**, vsakmu politiku cele dneve.
d. Volivce se, **da morjo volit njega**, cele dneve prepričuje vsakmu politiku.
…

Same is true for Principle C effect observed in all examples (96), where despite the scrambled internal object, sentence with coindexed matrix dative experiencer pronoun and the name in the embedded object position.

(96) a. * Njemu$_i$ se ne **pospravlja Vidove$_i$ sobe**.
he$_{DAT}$ SE not tide Vid's room
"He doesn't feel like tiding up Vid's room."
b. * **Vidove$_i$ sobe** se njemu$_i$ ne **pospravlja**.
c. * **Vidove$_i$ sobe** se ne **pospravlja** njemu$_i$.

The logical conclusion of these examples is that whatever was scrambled around the sentence got totally reconstructed into its base position. In Chapter 2, I argued (following Sauerland and Elbourne 2002) that total reconstruction is a result of either pure PF movement or else movement of PF part of the structure that is available after a partial spell-out. In any case, it is only available within the same PF unit (or most easily available within one). If this is the case, then having this massive scrambling in the FEEL-LIKE construction means, there is no PF phase boundary between the two clauses.

It appears that such massive scrambling cannot be captured with any reasonable syntactic account. Anything can move anywhere. I suggest here that this reordering of words and phrases is not syntactic but happens in PF and is as such limited to PF units. Since such PF reorderings are possible within a FEEL-LIKE sentence, it appears the entire FEEL-LIKE construction is a single PF unit and as such a single PF phase. In the examples above, only syntactic constituents are shown to move around. But assuming syntactic constituents like DPs also form a PF unit (as argued in Chapter 3, DP is (at least) a PF phase), it is not surprising they move around together even if this is a type of PF movement. In addition, sometimes it is possible to split up a DP, e.g. the possessor from the noun or the quantifier and the noun from the relative clause etc. none of these movements appear to be genuinely syntactic (but they can, of course, be forced to fall within syntax) and could give even more arguments the kind of reorderings we observed above do not occur in syntax at all.

That said, what was shown to be an LF phase turned up not to be a PF phase.

Chapter

5. Slovenian non-finite complementation*

In this chapter I intend to demonstrate a mismatch in terms of spell-out to the two interfaces in Slovenian non-finite complementation. First part of the paper argues for the lack of a CP—a general strong phase—in between the two clauses. It gives six arguments in support of this claim. The second part of the paper argues that despite the lack of a CP projection, lower clause nevertheless constitutes an LF phase, as can be seen from its propositional semantics, interpretation of quantifiers. At the same time, I show that this same piece of structure is not spelled-out to PF and does not constitute a PF phase. Thus we have a projection that is spelled-out to LF but not to PF—a non-simultaneous phase.

5.1. Observation

Control constructions typically do not have an overt subject, the embedded clause typically does not have a complementizer, and the embedded verb typically lacks tense morphology.

The standard analysis of control structures from Chomsky (1995) is given in (1), where the embedded clause is a CP with a [-finite] TP as the complement of C. The subject of the control clauses is PRO, which is located in the embedded SpecTP inside the embedded CP and controlled by an antecedent in the matrix clause.

(1) $[_{CP}[_{TP}$ *John*$_i$ $[_{VP}$ *hopes* $[_{CP}[_{TP}$ PRO$_i$ *to* $[_{VP}$ *get the tickets*]]]]]]

Hornstein (1999, 2001) proposes an alternative analysis of control. Following Williams (1980), Hornstein divides control structures in two classes: Obligatory control (OC) and Non-obligatory control (NOC), and takes obligatory control structures to be a result of movement parallel to raising constructions. Under this analysis, OC PRO is a trace of the moved argument – the controller in the matrix clause, while the NOC PRO is just a small *pro*. Hornstein's analysis is sketched in (2). The details are suppressed since they are not important at this point.

(2) $[_{IP}$ *John* $[_{VP}$ *hopes* $[_{IP}$ ~~*John*~~ *to* $[_{VP}$ *get the tickets*]]]]

Hornstein does not say much about the categorical identity of the non-finite clause. He takes it to be an IP, but provides no independent evidence for this claim. Under his analysis, it is clear that the embedded clause cannot be a CP. Movements out of a CP are possible only with an intermediate stop in SpecCP, because CP is a strong phase. But SpecCP is an A'-position and movements out of A' into A-positions are a violation of the

* This is a highly modified, thoroughly revised, and well extended version of the paper presented at FDSL 5 in Leipzig, Germany in November 2003 and (to be) published in the *Proceedings of the 5th Formal Description of Slavic Languages* as Marušič (2003). A version of this paper closer to the main point of this thesis was also presented at the 5th GLOW in Asia (October 2005, Delhi) and (is about to be presented) at ConSOLE XIV (December 2005, Vitoria-Gasteiz).

Chain Uniformity principle. The movement analysis therefore crucially requires non-CP status for control clauses.[88]

This paper develops a Hornstein/movement analysis of non-finite complementation. In particular I claim that there is no CP projection between the embedded and matrix clause in Slovenian (non-*wh*-initial) non-finite clauses.[89] The idea is that although the complement clauses have an LF phase, i.e. a projection that spells-out to LF, they lack the corresponding PF phase. In section 5.2, I go over six arguments supporting my claim: scrambling (5.2.1), clitic climbing (5.2.2), multiple *wh*-movement (5.2.3), partial *wh*-movement (5.2.4), genitive of negation (5.2.5) and case agreement on depictives (5.2.6). In section 5.3, I extend my analysis and relate it to other proposals in the field. In section 5.4, I discuss the division of verbs according to their complements. Section 5.5 discusses the phasal composition of Slovenian non-finite complements, with arguments for the presence of an LF phase and the lack of a PF phase.

5.2. Slovenian non-finite clausal complements

In Slovenian, finite and non-finite clauses differ in a number of ways. The next five subsections go over several syntactic phenomena, all of which point to a structural difference between finite and non-finite clauses, and all of which suggest that non-finite clausal complements do not have the CP projection.

5.2.1 Scrambling

The argument presented in this subsection is a version of an argument originally given for Serbo-Croatian by Bošković (1997), but using Slovenian data. The main point is the observed difference between two types of scrambling with respect to weak cross-over (WCO) violations.

Like Serbo-Croatian, Slovenian allows scrambling from both finite and non-finite clauses. This is shown in (3b) for finite clauses with an obligatory complementizer, and in (3c) for non-finite clauses.

[88] The distinction between A and A'-positions and the status of the Chain Uniformity Principle are currently unclear. Since A'-movement is allowed through an A-position (e.g. long distance *wh*-movement must go through the intermediate Spec*v*P, supposedly an A-position), it is also not clear if A-movement over or through an A'-position should be excluded (see Fujii 2004 for an analysis of Copy raising that employs precisely these kinds of movements). I will nevertheless retain the older understanding of chains and constraints on movement, assume correctness of the Chain Uniformity Principle, and take Spec*v*P to be an occasional A'-position.

[89] The distinction between different classes of non-finite complement taking verbs will be introduced in section 5.3. Until then I assume a simple distinction between verbs taking finite and verbs taking non-finite clausal complements, avoiding (for the most part) use of restructuring and/or raising verbs since these have already been shown to exhibit monoclausal phenomena (Wurmbrand 2001, Cinque 2004a) and thus to lack CP. I also restrict this discussion to Slovenian since there are languages that appear to have a complementizer in obligatory control infinitives (e.g. Dutch, Marcel den Dikken p.c.), which would normally imply a CP projection. I also ignore questions about Balkan non-infinitival control clauses parallels.

(3) a. Rekel je, da se boji Janeza.
said *AUX* *that* *REFL* *fear* J_{GEN}
"He said he fears Janez."
b. Janeza je rekel, da se boji __ .
J_{GEN} *AUX* *said* *that* *REFL* *fear*
c. Vida je Lanko pozabil povabiti __ na žur.
V_{ACC} *AUX* L_{NOM} *forgot* *to invite* *on* *party*
"Lanko forgot to invite Vid to the party."

Since the embedded finite clause in (3b) has a CP, the scrambled DP *Janeza* must cross it to reach its final landing site in front of the matrix clause. The final landing site of long distance scrambling from inside a finite clause should be an A'-position, since movement from an A' to an A-position is excluded under the Chain Uniformity principle, and movements over CP (being a strong phase) requires an intermediate stop in SpecCP (Chomsky 2001). The final landing site of such scrambling is thus comparable to that of *wh*-movement. The prediction follows that the scrambled DP should be subject to WCO, and this is what we find. The scrambled DP in (4a) patterns with *wh*-movement in (4b); *njegov* 'his' in the matrix subject cannot co-refer with the fronted XP. This is possible only if the scrambled constituent does not cross the pronoun, as in (5).

(4) a. Janeza_i je $\text{njegov}_{j/*i}$ oče reku, da se boji __ .
J_{GEN} *AUX* *his* *father* *said* *that* *REFL* *fear*
"John_i, his_i father said he fears."
b. Koga_i je $\text{njegov}_{j/*i}$ oče reku, da se boji __ ?
whom *AUX* *his* *father* *said* *that* *REFL* *fear*
"Whom_i did $\text{his}_{j/*i}$ father said that he fears?"

(5) a. Janeza_i je Peter reku, da se boji __ v njegovi_i hiši.
Janez *AUX* *Peter* *said* *that* *REFL* *fears* *in* *his* *house*
"Peter said that he fears Janez_i in his_i house."
b. Koga_i je Peter reku, da se boji __ v njegovi_i hiši?
whom *AUX* *Peter* *said* *that* *REFL* *fears* *in* *his* *house*
"Whom_i did Peter said that he fears in his_i house?"

Given the pattern observed above, if control constructions also involved an intermediate CP above the embedded non-finite clause, we would expect long distance scrambling out of non-finite clauses to show WCO effects. If there were an intermediate CP, all movements would have to go through SpecCP position. Every movement through an intermediate A'-position should end in an A'-position. With an intermediate CP projection, we predict scrambling out of non-finite embedded clauses to show the same kind of WCO violations as scrambling out of finite clauses.

This prediction, however, is not borne out in the Slovenian data. In contrast to scrambling out of finite clauses, scrambling out of non-finite clauses does not induce WCO, as shown in (6). Since scrambling does not trigger WCO, we can conclude there is no CP node. No intermediate A'-projection between the two clauses prevents the DP from the lower clause to move to an A-position inside the matrix clause. In the end, the final landing site is not an A'-position so that the context for WCO does not arise.

(6) Janeza$_i$ je njegov$_i$ oče sklenil poslat v semenišče.
Janez AUX his dad decided send to theological seminary
"His$_i$ father decided to send John$_i$ to the theological seminary."

As shown, the non-finite clausal complement behaves as if no CP is present.[90]

The same test can be applied in other kinds of non-finite clauses. Restructuring verbs are claimed to involve a highly deficient or monoclausal structure (Wurmbrand 2001, Cinque 2004a), which should entail the same behavior as *decide* in (6). Below I show examples with complements to modals, (7), aspectuals, (8), motion verbs, (9), and implicatives, (10). Lack of WCO is observed also in object control constructions, which because of the internal argument on the matrix verb cannot be simply monoclausal sentences with a functional verb (cf. Cinque 2004a), (11).

(7) Janeza$_i$ mora njegov$_i$ oče naučit manir.
J$_{ACC}$ must his father teach good manners
"His father must teach Janez how to behave."

(8) Janeza$_i$ je njegov$_i$ oče začel pošiljat po čike.
J$_{ACC}$ AUX his father begun send for cigarettes
"His father begun to send Janez for cigarettes."

(9) Janeza$_i$ je njegov$_i$ oče šel prijavit na policijo.
J$_{ACC}$ AUX his father went report to police
"His father went to report Janez to the police station."

(10) Janeza$_i$ je njegov$_i$ oče uspel vpisati v šolo.
J$_{ACC}$ AUX his father managed enroll in school
"His father managed to enroll Janez in a school."

(11) Janeza$_i$ je njegova$_i$ mama ukazala Meti pripeljati nazaj čistega.
J$_{ACC}$ AUX his mother ordered M$_{DAT}$ bring back clean
"His mother ordered Meta to bring Janez back clean."

Lack of WCO effects is not a direct consequence of non-finiteness of the complement but rather the result of the type of scrambling, and the structure that the scrambled element moves over. The landing site of the scrambled DP in ((6)-(11)) is not an A'-position[91], because of the lack of WCO. The final landing site is also clearly outside of the embedded clause. The only way out of the embedded clause and over the supposed CP is through its A'-specifier position, but movements from A' to A-positions are not licit. Therefore, there is no CP in between the two clauses in (6).

There's another difference in scrambling out of the two types of clauses suggesting that non-finite clauses have a less complete clausal structure.

[90] Note that *wh*-extraction out of non-finite clauses, does not trigger WCO in Slovenian. In this respect non-finite complementation parallels non-embedded *wh*-movement—there is no WCO with *wh*-movement in monoclausal sentences.

[91] This kind of explanation might not be valid within the current minimalism, but the facts remain the same. Non-finite clauses are crucially different from finite ones with respect to WCO.

5.2.1.1 *A further note on scrambling* I have nothing to say at this point on the different mechanisms involved and responsible for the distinction between A-scrambling (out of non-finite clauses; not triggering WCO) and A'-scrambling (out of finite clauses; triggering WCO). I simply assume that whatever theory of scrambling one accepts, the two types of scrambling will have two different landing sites. Here this difference is observed on scrambled quantifiers.

As shown in (12a) a universal quantifier inside an embedded finite clause cannot take scope over an existential quantifier in the matrix clause. Scope interpretation does not change when the universal quantifier undergoes scrambling to the beginning of the clause (12b). Since the fronting does not influence the scope interpretation, the scrambled DP apparently must reconstruct. Total/radical reconstruction is a sign of A'-scrambling, therefore this scrambling appears to be A'-scrambling and the landing site an A'-position. This is just as expected. The scrambled DP in (12b) moves through the intermediate SpecCP and thus cannot land in an argument position inside the matrix clause.

(12) a. Nekdo je rekel, da so vse punce vredne greha. *∀>∃
somebody AUX said, that AUX all girls worthy sin
"Somebody said that all girls are worthy of sin."
b. Vse punce, je rekel nekdo, da so vredne greha. *∀>∃
all girls AUX said somebody, that AUX worthy sin

If control constructions have an intermediate CP, then we would expect scrambling out of non-finite clauses to show the same properties as A'-scrambling out of finite clauses. A scrambled universal quantifier from the complement clause should not have scope over an existential quantifier in the matrix clause.

This is not what we find. Example (13a), with the scrambled universal quantifier is ambiguous. This means that the landing site of the scrambled universal quantifier is an A-position, from which the DP from the embedded non-finite clause can take scope. Since the final landing site is an A-position, there cannot be any intermediate A'-positions. No intermediate A'-positions means no CP.

(13) a. Vse punce se je nekdo odločil poklicati po telefonu. ✓∀>∃
all girls REFL AUX someone decided call$_{INF}$ on phone
"Someone decided to call all girls"
b. Nekdo se je odločil poklicati po telefonu vse punce. ✓∀>∃
someone REFL AUX decided call$_{INF}$ on phone all girls

The interpretation of the non-scrambled sentence (13b) is not entirely clear. It seems that the universal quantifier can have a wide scope interpretation (at least with some degree of focus (and appropriate intonation)), but this is not really important at the present point. In case (13b) is really ambiguous (with the universal quantifier having both wide and narrow scope), then non-finite clauses show greater transparency than finite clauses. They allow embedded quantifiers to have a wider QR domain than finite clauses. This would suggest that non-finite clauses lack the structure that prevents universal quantifiers inside embedded finite clauses from escaping to take wide scope reading. If, on the other hand, (13b) is not ambiguous (contrary to what is indicated in (13b)), then

the only way to explain the ambiguity of (13a) is to posit that scrambling is an instance of A-movement. As mentioned before, A-movement means no CP projection.

Importantly, (13b) does have an interpretation in which the indefinite from the matrix clause takes scope over the verb, which in turn takes scope over the embedded universal quantifier, thus the embedded object can take scope inside the embedded clause. This suggests that although the clausal boundary shows transparency for scrambling and reconstruction (later it will be argued this is just a result of a special kind of movement) it is not completely transparent for LF phenomena. Since there is a scope position at the edge of the embedded clause, the embedded clause can be said to be an LF-phase. I will return to this in the very last section of this chapter.

5.2.2 Climbing of Pronominal Clitics

The previous section demonstrated that scrambling facts argue for the lack of a CP projection between the matrix predicate and the embedded non-finite clause. This section makes the same argument with pronominal clitic climbing facts.

As illustrated in (14), clitic climbing is also a long distance movement that does not trigger WCO, again supporting the claim that non-finite complements lack CP.

(14) Čist zares **ga**$_i$ **je** njegov$_i$ oče sklenil poslat $_i$ v semenišče.[92]
Seriously him AUX his dad decided to send to theo. seminary
"Seriously, his father decided to send him to a theological seminary."

Slovenian clitics are located in the second position in the clause (so-called "Wackernagel position"). They follow the first (syntactic) constituent of the sentence. Slovenian second position clitics are analyzed as heads adjoining to the clause initial functional head – C (Golden and Sheppard 2000).

Clitics cannot leave a finite embedded CP, as shown in (15). In (15) they follow the complementizer, which can also be seen as the first constituent (element) of the embedded clause, satisfying the requirement of the clitics to be in the second position.[93]

(15) Res **sem se** (***ji ga**) naveličal, da ***(ji ga**) nonstop hvalim.
really AUX REFL her him got tired that her him nonstop praise
"I got really tired of constantly praising him to her."

It is important to note that the presence of the complementizer is not decisive for the positioning of the clitic in the embedded clause. Clitics need not attach to the overt complementizer as shown in (16), where the clitics follow the *wh*-word in the SpecCP. A null complementizer in Slovenian finite clauses is allowed only with a *wh*-word in the specifier position, so that clitics either follow the *wh*-word or the complementizer. In both cases they remain inside the CP, adjoined to C.

[92] In this section and in other examples clitics are written in ***boldface***.

[93] The position of clitics following the complementizer can alternatively be seen as an attempt to satisfy the two contradicting positional constraints/ preferences – that the clitic be close to the *beginning of the clause* and that it be *non-initial*.

(16) Vid **ji** **je** povedal, kaj **so** **mu** froci kupili za razbito šipo.
Vid her AUX told what AUX him kids buy for broken glass
"Vid told her what did the kids buy him because of the broken window."

Given these points, the predictions are clear. If non-finite clauses contained a CP projection, we would expect clitics to adjoin to it's the CP head just as they do in embedded finite clauses.

This is not what we find. In non-finite clauses, clitics behave differently; they may raise to join the clitic cluster of the matrix clause, as shown in (17). This is exactly what we would expect if non-finite clauses do not have a CP node and therefore do not constitute a phase/phrase for clitics to cluster. Without the CP node for the non-finite clauses, we maintain the generalization that clitics cluster within the first CP phrase/phase available.[94]

(17) Res **sem** **ji**$_i$ **ga**$_j$ sklenil [PRO opisati $\_i$ $\_j$]
really AUX her him decide describe$_{INF}$
"I really decided to try to describe him to her."

5.2.2.1 An alternative account of clitic placement Note that the validity of the preceding argument does not depend on the kind of clitic placement analysis used. Sticking with a syntactic approach to clitic positioning, one possibility is to say that clitics actually adjoin to finite T head rather than C. Climbing out of non-finite clauses would then be a result of the lack of the finite T head rather than lack of the CP projection, but this kind of analysis faces some problems, since clitic climbing out of non-finite clauses is not obligatory in Slovenian, as shown in (18).

(18) a. Peter **se** **je** odločil kupiti **ji** darilo.
Peter REFL AUX decided buy$_{INF}$ her gift
"Peter decided to buy her a gift."
b. [Reči **ji**, da sem bolan], **mi** **je** ukazal že včeraj.
say$_{INF}$ her that AUX ill, me AUX ordered already yesterday
"Already yesterday, he ordered me to tell her that I am sick."

Therefore, if clitics can adjoin to non-finite T in some cases, it is not clear why they can move further to the matrix clause in (17). The fact that they can move to the matrix clause from non-finite clausal complements but not from finite ones, (15), shows that the two are different in some important respects. Whatever blocks further movement of clitics from finite clauses is not present in non-finite clauses. Movements are usually blocked by phases and CP is considered a phase, therefore, non-finite clauses lack CP. Other examples with a clitic (obligatorily) inside non-finite clauses are cases of NOC, discussed in section 5.5.

A possible solution for the alternative syntactic *adjoin-to-finite-T* approach would be to say that clitics inside a non-finite clause don't cluster on the embedded non-finite T but rather somewhere lower. Some evidence can be found for this alternative. Ilc &

[94] See Golden 2003 for an extended discussion and multitude of clitic climbing data in Slovenian.

Milojević Sheppard 2003 give an analysis of Slovenian verb movement, where they claim finite verbs only move as high as Asp^0. One of the properties of the finite verb they discuss is also its permanent inviolable attachment to overt negation. As shown in (19a), negation and the finite verb have to stand next to one another (finite verbs adjoins to the Neg^0). Unlike finite verbs, infinitives can be separated from negation, e.g. by the reflexive clitic in (19b).

(19) a. Peter **ji** (daril) ne (*daril) nosi (daril).
Peter her gifts not gifts bring gifts
"Peter doesn't bring her gifts."
b. Ukazal **ji** **je** ne **se** umiti
order her AUX not REFL wash$_{INF}$
"He ordered her not to wash."

If the infinitive doesn't raise as high as a finite verb, which supposedly moves to Asp^0, then (assuming the position of sentential negation is the same in finite and non-finite clauses) clitics inside the lower clause following the embedded infinitive in (19) are very clearly located lower than the embedded non-finite T. But similar counterarguments can be found also for adjunction of clitics to finite T. If finite verbs really move no further than Asp^0, as argued for by Ilc & Milojević Sheppard (2003), then clitics adjoined to finite T should never follow a finite verb, but this is again not the case, as shown in (20).

(20) Dostavljajo **mi** **ga** vsak dan.
deliver$_{3P,Pl,Pres}$ me him every day
"They deliver it to me every day."

The alternative syntactic approach is thus not supported. We cannot simply claim that clitics only adjoin to finite T heads and use this to explain why they can climb out from non-finite clauses.

5.2.2.2 Non-syntactic accounts Examples (18)-(20) actually represent a problem for the syntactic account favored here. If clitics indeed adjoin to C^0 in finite clauses, how can they remain inside a non-finite clause if there's no C^0 in a non-finite clause (were there a C^0 in non-finite clauses, clitics should always adjoin to it)? Similarly, how could movement of the non-finite clause, as in (18b) create the CP projection and allow clitics to adjoin to its head?

In Marušič (2002, *in prep* B) I argue for a prosodic analysis of Slovenian clitic placement. Following this and similar proposals made for clitic placement in other languages (Anderson 2000, Roberts 1997 for Pashto, Broadwell 2000 for Zapotec, O'Connor 2002 for Serbo-Croatian), I suggest that clitics are positioned in the phonological component of the grammar in the second position of the relevant clausal prosodic phrase. Assuming Chomsky (2001, 2004), phonological phrases can be seen as a prosodic reflex of phases in the syntactic derivation. Since CP is a phase, but not TP, clitics represent a way to test the presence or absence of the CP projection.

Following this proposal, clitics can raise from non-finite clauses, because there is no strong CP phase between the two clauses that would force the clitics to remain in the

lower prosodic phrase. Following Uriagereka (1999) I assume a moved constituent also represents a phase, i.e. it is spelled-out at the same time. Such a phase is observed in example (18b), a phase created by movement. The other case of non-finite clause internal clitics, i.e., (21), a case of NOC (see below), is different in that here there is indeed a CP. Thus, clitics remain inside the non-finite clause because they are confined by the CP phase and spelled out in that prosodic phrase together with the rest of the embedded clause. Clitics are of course not allowed to jump from one prosodic phrase to another; therefore they have to stay inside the lower non-finite clause.

(21) Ukazal **mi** **je** [kaj **ji** reči].
ordered *me* *AUX* *WH* *her* *to say*
"He ordered me what to say."

As I have shown, the specific clitic analysis adapted in the first subsection was not crucial for the argument. Whichever clitic analysis one assumes, the data point consistently to the lack of a CP projection or, more specifically, the lack of a PF phase.

5.2.3 Multiple wh-*movement*

Slovenian is a multiple *wh*-movement language. Like Serbo-Croatian and Bulgarian, it fronts all *wh*-words in a sentence. However, it differs from Bulgarian (Rudin 1988) in that it does not respect superiority (22a). That is, any *wh*-word can be placed in first position. Like Serbo-Croatian, Slovenian also allows the *wh*-word cluster to be broken up by clitics. The *wh*-word that follows the two clitics in (22) is thus also taken to be fronted. Also worth noting is that multiple *wh*-fronting is not obligatory in Slovenian, (22c).

(22) a. Koga kdo toži?
whom *who* *sue*
"Who is suing whom?"
b. Kdo **mu** **je** kaj povedal?
who *him* *is* *what* *told*
"Who told him what?"
c. Kdo mu je povedal kaj?
Who *him* *AUX* *told* *what*

Like Serbo-Croatian (and unlike Bulgarian), Slovenian does not allow multiple long distance *wh*-movement. Only one *wh*-word can move out of an embedded finite clause (23). This restriction is supposedly correlated with the fact that *wh*-words can be separated with clitics, adverbs and parentheticals (Rudin 1988). According to Rudin, only the first *wh*-word is moved to the SpecCP, which is why only one *wh*-word can move from the embedded CP to the matrix CP.

(23) Kaj je (*komu) rekel Vid,(* komu) da je Peter dal *(komu)?
what *AUX* *whom* *said* *V,* *whom* *that* *AUX* *P* *give* *whom*
"What did Vid say that Peter gave whom?"

If non-finite clauses have a CP projection just like finite clauses, we would predict that they, just like finite clauses, also disallow multiple long distance *wh*-movement. This is not what we find. Multiple *wh*-movement out of non-finite clauses is available in Slovenian. This suggests that non-finite clauses do not have the same structure as the finite clauses do. In particular, assuming Rudin's analysis of multiple *wh*-movement, it shows that non-finite clauses do not have the CP projection, which bans multiple *wh*-movement out of finite clauses. Although the judgments are not clear for every non-finite clausal complement taking verb, the sentences given in (24) are nevertheless acceptable.[95]

(24) a. Komu si kaj pozabil dati?
Whom AUX what forgot give
"Whom did you forget to give what?"
b. Komu si koga sklenil predstaviti?
Whom AUX who decide introduce
"Who did you decide to introduce to whom?"

From the observation that multiple *wh*-movement out of finite clauses is impossible, but available to some degree in non-finite clauses, it is natural to conclude that non-finite clauses lack the structure that prevents multiple *wh*-movements out of finite clauses. Following Rudin (1988) the relevant structure is the CP projection.[96]

5.2.4 Partial wh-*movement*

Slovenian exhibits the so-called partial *wh*-movement, as shown in (25). As extensively discussed by Fanselow (2003), in these constructions the base generated *wh*-word only moves part of the way towards its scope position, while in the specifiers of CPs in between the *wh*-word and the highest CP marked [+Q], the default *wh*-word is added – the *wh*-expletive. The Slovenian default *wh*-word is *kaj* "what". The complementizer following the *wh*-word is optional in Slovenian.

(25) Kaj praviš, kdo (da) je prišel?
What say, who (that) AUX came?
"Who do you say came?"

If non-finite clauses do have a CP projection, we would also expect them to allow partial *wh*-movement. This is not observed, though. Partial *wh*-movement is not available with embedded non-finite clauses as shown in (26). This again shows that the lower clause does not have a CP projection where the *wh*-word could be located. Only "full" *wh*-movement is possible out of non-finite embedded clauses, (27) (cf. section 5.2.3).

[95] Since this is the only test that appears to have non-uniform judgments for different verbs, I avoid the question of different verb classes for now.

[96] Again an immediate question comes to mind: can there be *wh*-words between the matrix and the embedded non-finite clause? If so, in what position could they occupy? I put this question aside for now and return to it in section 5.4, since embedded sentences with a *wh*-word in front do not involve obligatory control (Hornstein 1999) and behave quite differently in many other respects. In short, *wh*-non-finite clauses have a CP.

(26) a.*Kaj ti Janez ukazuje, koga udariti?
What you Janez order who hit$_{INF}$
"Who did Janez order you to hit?"
b.*Kaj je Janez pozabil, koga pozdraviti?
What AUX Janez forget, whom salute$_{INF}$
"Who did Janez forget to say hello to?"
(27) Koga ti Janez ukazuje udariti?
Whom you Janez order hit$_{INF}$
"Who did Janez order you to hit?"

Examples (26) are not forbidden because of selectional restrictions on the verb. In Partial movement constructions, the lower CP is not marked [+Q], and both verbs allow also a [+Q] CP complement as shown in (28).

(28) a. Janez ukazuje, koga moramo udariti?
Janez order who must$_{3P,Pl,Pres}$ hit$_{INF}$
"Janez is ordering whom we have to hit?"
b. Janez je pozabil, koga je hotel pozdraviti?
Janez AUX forget, whom AUX want salute$_{INF}$
"Janez forgot whom he wanted to say hello to."

According to this analysis, (26) are out because OC non-finite clauses do not have a CP projection. An even better illustration of the structural differences between finite and non-finite clauses is observed in examples with multiple embedding, like (29). When both the embedded and the double embedded clause are finite, the *wh*-expletive shows up in the upper two SpecCP positions. As shown in (30) the intermediate SpecCP between the *wh*-word and the CP where it takes scope cannot be empty (cf. Fanselow 2003, for similar facts in German).

(29) Kaj nam je Vid ukazal, kaj moramo reči, koga je Meta ljubila?
what us AUX V ordered what must say$_{INF}$ whom AUX M loved
"Who did Vid order us that we must say that Meta loved?"
(30) ?* Kaj je Vid mislil, da je Črt rekel, koga da je Meta ljubila?
what AUX V thought that AUX Č say whom that AUX M loved
"Who did Vid think that Črt said that Meta loved?"

In case the first embedded clause is non-finite and the lowest one finite, partial *wh*-movement leaves the *wh*-word in the SpecCP of the finite clause, but there is no intermediate *wh*-expletive between the matrix and the non-finite clause, (31). Since partial *wh*-movement cannot skip an intermediate SpecCP, as shown in (30), the lack of the intermediate *wh*-expletive in non-finite clauses again suggests the lack of CP projection.

(31) Kaj nam je Vid ukazal(*kaj) reči, koga da je Meta ljubila?
what us AUX V ordered what say$_{INF}$ whom that AUX M loved
"Who did Vid order us to say that Meta loved?"

Fanselow observes the same restrictions on partial *wh*-movement in non-finite clausal complements also in German and Hungarian. His explanation of non-availability of partial *wh*-movement in German relates this restriction to the fact that German does not allow *wh*-headed infinitival clauses, (32). Fanselow makes the following generalization: (p19, [W7]) "The CP related to a WP must be a syntactically legal indirect question."

(32) a.*Was glaubst Du [wen eingeladen zu haben]? (Fanselow 2003, (66))
what believe you who invited to have
"Who do you believe to have invited?"
b. *Wen glaubst du eingeladen zu haben?*
c.**Ich frage mich* [*wen eingeladen zu müssen*].
I ask myself who invite to must
"I wonder who to invite."

The Generalization seems to work for German, but it does not work for Hungarian and Slovenian. Slovenian allows *wh*-headed infinitives as the ones given in (33).

(33) a. Pozabil sem, kaj reči.
forgot AUX what say$_{INF}$
"I forgot what to say."
b. Odločil sem se, kje zgraditi hišo.
decided AUX REFL where build$_{INF}$ house
"I decided where to build a house."

I discuss these kinds of examples in section 5.4. Following Hornstein (1999, 2001) I claim these sentences do not involve obligatory control and are therefore substantially different. Only OC constructions are a result of movement for Hornstein and only for them the existence of a CP represents a problem.

The other question is why these non-obligatory control sentences in (33) cannot participate in partial *wh*-movement constructions. I propose that NOC sentences, as in (33), crucially involve an embedded [+Q] CP. When the *wh*-word is moved into its specifier position to check the [+Q] feature, the *wh*-word also gets its [+*wh*] feature checked off. Partial *wh*-movement involves the moving of a single feature to check features on the matrix [+Q] marked CP. Since that feature gets checked in the intermediate CP, it cannot move to the matrix CP.

This section has shown that non-finite clausal complements lack a certain structural position that finite clausal complements possess. Non-finite clauses in general do not allow partial *wh*-movement. In particular, OC constructions cannot exhibit partial *wh*-movement because they do not have the intermediate CP, where the *wh*-word would land. By contrast NOC constructions, which have a CP, crucially involve a [+Q] marked C, which prevents the [+wh] feature to undergo further movement.

5.2.5 Genitive of negation

Like many (and perhaps all) Slavic languages, Slovenian displays some version of genitive of negation – the object in a negated sentence receives genitive case instead of the accusative (cf. Orešnik 2001), (34).

(34) a. Slavko je pojedel cel krožnik žlikrofov.
Slavko$_{NOM}$ *AUX* *eat* *whole*$_{ACC}$ *plate*$_{ACC}$ *tortelini*
"Slavko ate a whole plate of tortellini."

b. Slavko ni pojedel celega krožnika žlikrofov
Slavko$_{NOM}$ *AUX*$_{Neg}$ *eat* *whole*$_{GEN}$ *plate*$_{GEN}$ *tortelini*
"Slavko didn't eat a whole plate of tortellini."

As expected, objects inside clausal complements behave differently. Matrix negation doesn't license genitive case on the object of the embedded finite clause, (35). Regardless of the exact mechanism of genitive case assignment, for which many analyses have been proposed (e.g. Kim 2003, Bailyn 2003) and about which there is considerable disagreement, the fact that the effect of negation is blocked in embedded clauses is most naturally correlated with the CP projection and the phase that it creates. CP being a phase blocks AGREE and without this long distance relation, genitive can not be licensed inside the embedded clause.[97]

(35) Meta ni vedela, da ji je Vili kupil bicikel / * bicikla
M *AUX*$_{NEG}$ *knew* *that* *her* *AUX* *V* *bought* *bike*$_{ACC}$ *bike*$_{GEN}$
"Meta didn't know that Vili bought her a bike."

Since this effect presumably derives from the presence of the CP node (or the strong phase it creates), we would predict that if non-finite complements have CP they should equally block the licensing of genitive of negation. This is not what we find. Genitive of negation is licensed in non-finite clausal complements to a negated matrix verb, (36).

(36) a. Stane še ni sklenil kupiti hiše
Stane *yet* *AUX*$_{NEG}$ *decide* *buy* *house*$_{GEN}$
"Stane hasn't decided yet to buy a house."

b. Petra Meti ni zapovedala kupiti avtomobila
Petra *Meta*$_{DAT}$ *AUX*$_{NEG}$ *order* *buy* *car*$_{GEN}$
"Petra didn't order to Meta to guy a car."

Again, we can reason from the absence of an effect predicted to exist if a CP were present. Non-finite complementation must lack a CP node[98]

5.2.6 Depictive secondary predicates

Slovenian depictive secondary predicates always agree with the DP they are associated with in gender, number and case. There are not many other restrictions on depictives in Slovenian. They can be subject, direct object, or indirect object oriented and can in fact even modify adjuncts and prepositional objects (Marušič *et al*. 2003a,b).

[97] Assuming the negative feature of the Slovenian C (or Σ as proposed by Laka 1990) cannot be licensed by the upper negation or license the lower genitive of negation.

[98] See Witkoś (2003) for a more developed argument against the CP using similar facts in Polish.

Depictives are of course possible also in biclausal sentences. In such cases, the depictive following the embedded clause must be associated with, and agree with one of the elements in the embedded clause. With neutral intonation, the depictive must also refer to the time of the event described in the embedded clause (Marušič *et al*. 2002). The depictive in (37), thus, cannot be associated with the upper event for two reasons: upper association is allowed only with non-neutral intonation, in addition, it also makes little sense to say that someone has made the decision undecided.

(37) Vid je sklenil [oditi od doma neodločen].
V_{NOM} AUX decided $leave_{INF}$ from home $undecided_{NOM,Masc}$
"Vid decided to leave home undecided."
✓*leave undecided*
#**decide undecided*

The subject-oriented depictive inside the non-finite clause in (37) bears Nominative case. This already poses problems for the standard analysis of control sentences. The depictive is supposed to agree in number, gender, and case with the argument it is modifying, in this case PRO, but PRO should have Null case, not Nominative. Three possibilities seem available: Nominative is the default case, Nominative comes from the subject in the matrix clause, or else PRO has nominative case as argued for by Sigurðsson (1991) for Icelandic.

The nominative case on the depictive could be some sort of a default value for case, but even though Nominative case is indeed the default case in Slovenian (cf. chapter 4, footnote 66), it seems, this does not seem to be what is responsible for the particular instance of Nominative case observed here. Note that the depictive carries also gender and number agreement morphology. Now, if case was to be assigned by default, we would expect also other parts of these adjectival agreement to be assigned default values. But this is not so. As shown in (38) and (39) neither gender nor number on the embedded depictive need to have default values (38). The data suggest, therefore, that the depictive gets its feature values from PRO. The question remains. How does PRO get them?

(38) Meta je sklenila poljubiti Petra vsa umazana.
M_{NOM} AUX decided $kiss_{INF}$ P_{ACC} all $dirty_{NOM,Sg,Fem}$
"Meta decided to kiss Peter, when she will be completely dirty."

(39) a. Janko in Metka sta sklenila oditi domov sita.
J_{NOM} and M_{NOM} AUX decided go_{INF} home $full_{NOM,Du,Masc}$
"Janko and Metka decided to go home, when they will be full."

b. Trije pujski so se odločili nadaljevati z delom odžejani.
3 pigs AUX REFL decided continue with work $quenched_{NOM,Pl,Masc}$
"The three pigs decided to resume their work once they are quenched."

Ignoring the transfer of gender and number features, I will pursue the hypothesis that Slovenian PRO bears nominative case.

If PRO indeed bears nominative case, we would expect all subject oriented depictives in non-finite clauses to bear nominative case. Now we can make a prediction, if there is a CP projection on top of an embedded non-finite clause, the case of the

controller of PRO should not have any influence on the choice of case on the depictive. CP is a strong boundary that should block all sorts of agreement relations over it and thus prevent the controller from the matrix clause from having an effect on case agreement in the lower clause.

As shown in (40) this prediction is not borne out. When a depictive is used to modify the subject of an object controlled embedded clause, the depictive is ungrammatical regardless of its case. Both the nominative and dative case agreement are somehow bad.[99]

(40) a. Vid je ukazal Mariji ostati doma * utrujeni / * utrujena.
V_{NOM} AUX ordered M_{DAT} stay home $tired_{DAT}$ $tired_{NOM}$
"Vid ordered *Mariji* to stay at home *tired*."

b. Vid je svetoval Mariji pričakati Petra * utrujeni /?? utrujena.
V_{NOM} AUX advised M_{DAT} wait P_{ACC} $tired_{DAT}$ $tired_{NOM}$
"Vid advised *Marija* to wait for Peter *tired*."

c.?*Ukazal sem mu sodelovati na jutrišnji proslavi vsemu
ordered AUX_{1P} he_{DAT} participate on tomorrow's party all_{DAT}
pijanemu/ ves pijan, od jutrišnjega predsedniškega kosila.
$drunk_{DAT}$ all $drunk_{NOM}$ from tomorrow's presidential lunch
"I ordered him to participate at the party drunk from tomorrow's lunch."

My hypothesis for ungrammaticality of (40) is that the depictive must agree with both the overt realization of the DP controller and with the DP it directly modifies – the PRO. The sentences are therefore bad because the depictive cannot carry double case agreement. If the examples in (40) are really excluded on these grounds, then the boundary between the two clauses is more transparent than we would predict were there a CP projection involved. This hypothesis is confirmed in (41).

We suspect that the DP cannot agree with two cases at the same time because of their different morphology. This predicts that depictives in such constructions should be possible when the two agreeing cases share their morphological/phonological realization (Bejar and Massam 1999). (41a) shows this hypothesis to be correct. The depictive is possible when it does agree with the two cases, in cases of case syncretism[100]. Nominative and accusative cases have the same ending in dual feminine declension. The depictive in (41a) is both accusative and nominative. (41b) however shows that this strange agreement pattern is not related to the strange behavior of *convince* type verbs (as discussed in Marušič *in prep* A), since when there is no case syncretism (when the Nominative case ending differs from the Accusative case ending), the nominative agreement on the depictive is still bad, as shown in (41b).

[99] These judgments are not shared by all speakers. Actually, many speakers find nominative case on the embedded depictive in (40) ok, but see Boeckx & Hornstein (2003b) for similar facts in Icelandic.

[100] Slovenian (like Polish) exhibits case syncretism sensitivity also on matching in free relatives. See Citko (2001) for discussion on case syncretism on matching in Polish free relatives and Izvorski (1997) for more on matching in Slovenian free relatives.

(41) a. Janez je prepričal obe punci ostati pri njemu pijani
J_{NOM} AUX convinced both girls$_{ACC,Du}$ stay at him drunk$_{ACC/NOM,Dual}$
"Janez convinced the two girls to stay at his place, when they were drunk"

b. Janez je prepričal Meto ostati pri njemu *pijano / ??pijana
J_{NOM} AUX convinced M_{ACC} stay at him drunk$_{ACC}$ drunk$_{NOM}$
"Janez convinced Meta to stay at his place, when she was drunk."

There seems therefore to be an AGREE relation between the depictive and the argument controlling the PRO over a clausal boundary. Since AGREE is possible between the depictive in the embedded clause and the DP in the matrix clause, there should be no boundary for AGREE separating the two elements. In particular, there should be no strong phase. Non-finite clauses, therefore, do not have a CP projection.

5.3 Consequences and extension

If non-finite clauses do not have a CP node, and therefore no boundary for A-movement, a movement analysis of control structures like the one proposed by Hornstein (1999, 2001) becomes available.

The standard analysis

Standard analyses of control sentences involve a CP as the verbal complement. The CP has a non-finite TP with a PRO in the subject position. PRO is controlled by the subject/object of the matrix predicate. But crucially, it is not governed, which is assured by the CP projection. A typical structure for control constructions is given in (42).

(42) (Chomsky 1995a): [$_{TP}$ *John$_i$* [$_{VP}$ *hopes* [$_{CP}$[$_{TP}$ PRO$_i$ *to* [$_{VP}$ *get the tickets*]]]]]

Bošković (1997)

Bošković (1997) claims the notion of government should be dispensed with and offers a Case-theoretic account for the distribution of PRO. He claims that since government by the matrix verb does not need to be blocked, as long as lexical properties of the verb do not require a CP, all control infinitivals without a complementizer lack the CP projection. He extends his claim also to all clauses lacking a complementizer – null-operator relatives and finite declaratives like *John believes Mary saw Peter*.

His claims seem to be a bit too strong, and the class of non-CP infinitives not precisely defined. In particular, *wh*-initial non-finite clauses (as discussed in section 5.5) seem to have a CP projection since none of them passes the tests given in section 5.2. As mentioned above, they also seem to involve non-obligatory control. All this makes them significantly different from OC, and is potentially a result of the presence of CP. Contra Bošković (1997), I claim the class of non-CP complement clauses is much smaller.

Wurmbrand (2001)

Wurmbrand (2001) makes a more detailed proposal. She gives 4 classes of restructuring verbs that take 4 different kinds of clausal complements. Three of her 4 clausal types are not complete CP clauses. The least complete clauses – complements to

lexical and functional restructuring verbs – lack in addition to CP, all functional categories including *v*P, so that the complements do not even have their own subject position. Reduced non-restructuring verbs take clausal complements that are more complete and have a subject position (and possibly also TP), but still no CP. The most complete clauses are complements to factive and propositional verbs, which both involve CP complementation. The class of restructuring verbs seems to coincide with Obligatory Control verbs. But if all restructuring verbs lack all projections dominating VP, then we would also not expect adverbs to be available between the restructuring verb and the embedded verb.

At first sight this prediction seems to be correct. The adverb *pametno* 'wisely' in (43) can have the sentential interpretation with respect to the matrix predicate, if it is positioned to the left of the matrix verb, as in (43a), but it cannot have the sentential meaning with respect to the lower predicate when it is positioned to the right of the matrix verb. In (43b) *wisely* can only have the lower VP internal manner interpretation.

(43) a. Njegov oče je pametno sklenil poskusiti opisati Petra Meti.
his dad AUX wisely decided try$_{INF}$ describe$_{INF}$ P$_{ACC}$ M$_{DAT}$
"His father wisely decided to try to describe Peter to Meta."

b. Njegov oče je sklenil pametno poskusiti opisati Petra Meti.
his dad AUX decided wisely try$_{INF}$ describe$_{INF}$ P$_{ACC}$ M$_{DAT}$
"His father decided to wisely try to describe Peter to Meta."

However, some other adverbs from the IP region are possible. Assuming, following Cinque (1999), that adverbs are placed into the specifier positions of a series of strictly ordered functional projections, every such adverb would represent a problem for Wurmbrand's analysis. This prediction is tested in (44). The examples in (44) are constructed in such a way that the second adverb cannot be associated with the upper clause. *Spet* 'again' to the left of the matrix verb is a fairly low adverb and so helps to eliminate confusion as to which clause the second adverb belongs to.[101]

(44)

frankly	* Peter	je	spet	začel	iskreno	pisati	nalogo
	Peter	*AUX*	*again*	*begun*	*frankly*	*write*	*assignment*
	"Peter again begun ADV to write the assignment."						
fortunately	* Peter	je	spet	začel	k sreči	pisati	nalogo
allegedly	* Peter	je	spet	začel	baje	pisati	nalogo
probably	* Peter	je	spet	začel	možno da	pisati	nalogo
once	* Peter	je	spet	začel	enkrat	pisati	nalogo
then	* Peter	je	spet	začel	takrat	pisati	nalogo
perhaps	?* Peter	je	spet	začel	mogoče	pisati	nalogo
necessarily	?? Peter	je	spet	začel	gotovo	pisati	nalogo

[101] Other restructuring languages, like Dutch (p.c. Marcel den Dikken), seem to behave similarly in this respect. The example in (i), the restructuring *infinitives pro participio* (IPP), has an adverb in the lower clause. This is problematic for Wurmbrand at least on Cinquean assumptions about adverb placement.

(i) opnieuw is Jan het artikel opnieuw beginnen te schrijven (p.c. den Dikken)
again/anew is Jan the article again/anew begin-INF to write
"Again, Jan has begun to write the article again/anew."

possibly	??Peter	je	spet	začel	verjetno	pisati nalogo
usually	? Peter	je	spet	začel	ponavadi	pisati nalogo
again	Peter	je	spet	začel	spet	pisati nalogo
often	Peter	je	spet	začel	pogosto	pisati nalogo
...						

As seen in (44), it is definitely the case that some adverbs are possible in the complement clause. It even seems that there is a cut-off point as to which adverbs are available. If the functional hierarchy is indeed part of the grammar, we would expect that if an adverb of a certain class were unavailable, so would all adverbs belonging to classes situated above it. And if an adverb in a certain class was available, so would adverbs belonging to classes situated below it. This is indeed what we find. In addition, the division between the available and unavailable adverbs should ideally be sharp. The results are not as clear with respect to sharpness of the boundary, although a cut between adverbs is still observed.

Since there are some functional projections present between *v*P and TP, we can conclude that a restructuring analysis with a VP complement to the matrix restructuring verb (Wurmbrand 2001) does not seem available for the case in question.

We might make an additional observation at this point. The particular verb *začeti* 'begin' used in (44) is an aspectual verb that was taken to be a functional verb in section 5.2.1 (cf. Cinque 2004a). It is also true that Slovenian aspectual verbs behave in a way expected of functional verbs (e.g. they don't appear to have their own subject, they show restructuring type of transparency, they don't introduce an independent event, etc.) and are thus irrelevant for the present discussion of control clauses and CPs. But, on the other hand, aspectuals also show some properties typical of lexical verbs and atypical of functional verbs. For example, they accept secondary imperfective morphology to derive *začenjati* 'to be begining' out of *začeti* 'to begin', *nehavati* 'to be stopping' out of *nehati* 'to stop'. They accept manner adverbs. And, as shown in (44), *začeti* 'to begin' also takes low aspectual adverbs like *again,* and allows higher adverbs in its complement. All this evidence suggests that *begin* is not always a simple functional verb.

We might speculate on the true nature of these constructions. As shown by (44) the complement of the restructuring aspectual verb is neither a bare VP nor a full blown set of functional projections. If the aspectual verb in (44) is indeed a V, rather than just an Asp^0 as proposed by Cinque (2004a), it is interesting to observe that it behaves in a very similar way with respect to the complement it takes in its functional version (the functional aspectual would only allow in its complement the adverbs from specifiers of the lower functional projections). But it does not behave in parallel with respect to the higher adverbs. Whereas the functional verb should allow only adverbs from higher functional projections, the verb in (44) can also accept a fairly low adverb like *spet* 'again'. One might speculate, then, that aspectuals come in two guises, they are either functional verbs or full V^0s. The two versions select for the same complement, e.g. the same functional projection that follows the one that the function verb is located in. But they differ in the upper part of the structure. The functional version consists of the rest of the functional hierarchy, while the V^0 version starts a new full-blown functional hierarchy.

Cinque (2004a)

Cinque (2004a) gives a monoclausal analysis of restructuring verbs – analyzing them as heads of the extended sequence of functional projections (Cinque 1999). According to Cinque, verbs can take as their complement only a complete CP clause. All instances of restructuring on the other hand are instances of a restructuring verb in the head of an appropriate functional projection. Such analysis easily explains the lack of certain adverbs in the complement of restructuring verbs. If all restructuring verbs are functional heads in the extended set of projections, then only adverbs in the specifiers of lower projections will be allowed in the complement, and all adverbs associated with higher projections will be unavailable.

But there seem to be also some problems with Cinque's analysis in addition to the problem hinted to in the previous paragraphs. Functional heads should not take internal arguments, therefore object control verbs should not be restructuring verbs. But Slovenian object control constructions do seem to exhibit transparency phenomena, comparable to those of plain restructuring verbs. Scrambling out of their complements doesn't trigger WCO, (45), they allow clitic climbing, (46) (cf. Golden 2003), and multiple long distance *wh*-movement, (46), but not partial *wh*-movement, (47), and when negated, the embedded object shows up in genitive case.

(45) Petri$_i$ je njena$_i$ mama Vidu dovolila kupit čokolatine.
P_{DAT} AUX her mother V_{DAT} allow buy chocolates
"Her mother allowed Vid to buy Petra some chocolates."

(46) a. Včeraj sem ga Petru ukazal pobrati __.
yesterday AUX it Peter order pick up
"Yesterday, I ordered Peter to pick it up."

b. Mama mi jo je dovolila povabit __ na kosilo.
Mother me her AUX allowed invite on lunch
'Mother allowed me to invite her for lunch.'

(47) Kaj ji je komu Matija svetoval kupiti?
what her AUX whom Matija suggested buy_{INF}
"What did Matija suggested her to buy to whom?"

(48) * Kaj ji je Peter dovolil koga povabit na zabavo?
what her AUX Peter allow whom $invite_{INF}$ to party
"Who did Peter allow her to invite to the party?"

(49) Mama mu ne dovoli gledat televizije.
mother him not allow $watch_{INF}$ $television_{GEN}$
"Mother doesn't allow him to watch television."

Hornstein (1999, 2001)

Hornstein (1999, 2001) claims that all cases of Obligatory Control PRO are really only traces of the moved argument. Non-Obligatory Control PRO, on the other hand, should be analyzed as little *pro*. A movement analysis of PRO is not compatible with the standard control structure. With a CP projection on top of the embedded clause, movement from the embedded clause to the matrix clause is impossible. Such movement would have to go to the final A-position through SpecCP, which is an A'-position, thus violating chain uniformity principle. Because of this, PRO has been postulated to reside

in the subject position of the lower clause. Without the CP projection a different theory of control is available.

(50) [$_{TP}$ *John*$_i$ [$_{vP}$ ~~*John*~~ [$_{VP}$ *hopes* [$_{TP}$ ~~*John*~~ *to* [$_{vP}$ ~~*John*~~ [$_{VP}$ *get the tickets*]]]]]]

Boeckx & Hornstein (2003a, 2004) provide an updated version of the movement theory of control. They take every control verb to assign its complement a theta role, which makes it different from raising verbs, which are often simply functional verbs. Being an argument on the other hand is often a property of a more complete structure, e.g. a DP (Longobardi 1994), and since a CP seems to be the right clausal correspondent to DPs (DP and CP are very commonly compared, e.g. Svenonius 2004) all complements to control verbs should be CPs. Positing a CP is clearly not in correspondence with the proposal of this chapter, so I will leave this proposals aside (at least for now).

Barrie and Pittnam (2003)

Barrie and Pittnam (2003) give an extension of Hornstein's theory. They claim all cases of Control involve movement. For them, OC verbs are either restructuring verbs or ECM. All other verbs exhibit partial control, which can also be taken to signal a biclausal structure with a non-movement relation between the two subjects. For them even partial control (NOC) is a result of movement. This is a very strong position.

Crucial questions remain unanswered, however, specifically: what is the actual division of verbs that take non-finite complements. For Cinque (2004a) they divide into non-restructuring verbs taking a CP complement and restructuring verbs, which are all monoclausal. For Wurmbrand (2001) only factive and propositional verbs take a CP complement, while others (non factive) take various non-CP clauses. Hornstein (1999, 2001) makes the simple distinction between non-OC verbs probably taking a CP and OC verbs taking an IP. In what follows I will present some further Slovenian data showing that Hornstein's division actually doesn't seem to be in perfect agreement with the structure of Slovenian clausal complements. All non-*wh*-initial infinitival clauses show some degree of transparency and therefore probably also lack CP.

Landau (1999) shows that non-obligatory or partial control is much more common than originally thought. For example English verb *decide* is actually not an OC verb since it allows sentences like (51). It is much less clear how the corresponding Slovenian verb *skleniti* "decide" stands in this respect. I took it to be a prototypical OC verb and used it in section 5.2, where I showed it takes a deficient clausal complement.

(51) John decided to meet at 9

Boeckx & Hornstein (2004) provide an interesting discussion and more skepticism about *partial control*. Their suspicions are based on example (52) with the raising verb *seems*—the prototypical "obligatory control" verb—that appears to exhibit partial control.

(52) John is a really busy professor. His days are filled with meetings, with students, deans, colleagues, lunch appointments, etc. Can you imagine?! Yesterday John met at 8 a.m., 9 a.m., 10 a.m., noon, and 7 p.m. His wife

told me, "John seems to be meeting all the time!" (Boeckx & Hornstein 2004, 449, ex. (42))

As they claim, example (52) shows that even a raising verb can have a "partial control" reading. Thus, *partial control* from example (51) could be allowed by the specific lexical verb in the complement, rather than by the specific clausal complement taking control verb. Regardless of the correctness of their argument it is true that division between partial and obligatory control verbs is not that sharp and obvious.[102]

Let us look at a clearer case of a partial control verb. It seems that the Slovenian verb *prepričal* "convince", which takes an accusative object together with a clausal complement is not a prototypical obligatory control verb. This verb is interesting because it doesn't allow clitic climbing like other object control verbs do, (53).[103]

(53) a.*Zvone ji je Micko prepričal dati __ darilo
Zvone her AUX Micka$_{ACC}$ convinced give gift
"Zvone convinced Micka to give her a gift."
b.*Metko sem mu prepričal predstaviti Slavca
Metka$_{ACC}$ AUX him$_{DAT}$ convinced introduce Slavc$_{ACC}$
"I convinced Metka to introduce Slavc to him."
c.*Metko sem ga prepričal predstaviti Petru
Metka$_{ACC}$ AUX him$_{ACC}$ convinced introduce Peter$_{DAT}$
"I convinced Metka to introduce him to Peter."

But otherwise it behaves on a par with other control Vs: it doesn't exhibit WCO, (54), it doesn't allow partial *wh*-movement, (55), and it allows multiple *wh*-movement, (56).[104]

(54) *Slavka$_i$ je Petro njegov$_i$ oče prepričal brcniti __ v piščal*
S$_{ACC}$ AUX P$_{ACC}$ his father convinced kick in fibula
"His father convinced her to kick Slavko in his fibula."
(55) * *Kaj je Jože Zdenko prepričal komu dati fičota?*
what AUX Jože Zdenka convinced whom give Fiat 600
"Whom did Jože convince Zdenka to give Fiat 600."
(56) *Komu je kaj Marko prepričal Meto dati za rojstni dan?*
whom AUX what M convinced M$_{ACC}$ give for birthday
"Whom did Marko convince Meta to give what for birthday?"

Although *convince* and possibly also *decide* are not OC verbs, they still exhibit transparency. This means that possibly all (non *wh*-initial) non-finite clausal complements

[102] It might be that it is actually the progressive that alows unspecified object deletion. This is even more obvious when we use a non-progressive tense since 'John seems to meet all the time' is ungrammatical as pointed out to me by Marcel den Dikken.

[103] For some speakers, clitic climbing out of complements of *convince*-type verbs is okay, and is also allowed when the matrix clause argument is a clitic (cf. Golden and Milojević-Sheppard 2003). For me such examples are unacceptable, worse in fact than the examples in (53).

[104] Interestingly, when negated, the object of its complement clause doesn't appear in Genitive case. This might be related to the presence of the matrix Accusative case argument that gets Genitive case, when the verb is negated.

lack a CP, regardless of whether they have a PRO or a *pro* in their subject position. The implication is shown to go only in one way: if we have OC we don't have CP, but lack of CP does not mean anything with respect to the choice between OC and NOC.

5.4 WH-initial infinitival clauses

A non-finite clause with a *wh*-word in front behaves differently from all other non-finite clauses. Non-finite clauses lose all the properties that imply they lack a CP projection when they contain a wh-word in initial position.

In section 5.3.2, I showed that clitics can raise from non-finite clauses (57a). But when the non-finite clause is a constituent question, the clitic cannot escape, as shown in (57b,c).

(57) a. Ukazal mi ji je [reči __, da sem bolan].
ordered *me* *her* *AUX* *say$_{INF}$* *that* *AUX* *ill*
"He ordered me to tell *her* that I am sick."
b. Ukazal mi je [kaj ji reči].
ordered *me* *AUX* *WH* *her* *say$_{INF}$*
c.*Ukazal mi ji je [kaj __ reči].[105]

Similar results hold for the other phenomena discussed. Depictives modifying the subject of the non-finite clause in object control constructions are possible with nominative case (that is, they are grammatical even for those that do not accept them in simple object control sentences). Since there is a CP boundary in between the depictive and the argument in the matrix clause, there cannot be any AGREE relation between the two. Since there is no AGREE relation, the depictive is not given two contradicting case assignments, and conflicting directions for PF interpretation.

(58) Vid je svetoval Mariji, kje postaviti šotor utrujena/ * utrujeni
V$_{NOM}$ AUX *advised* *M$_{DAT}$* *where* *put$_{INF}$* *tent* *tired$_{NOM}$* *tired$_{DAT}$*
"Vid advised to Marija where to place the tent, when she is tired."[106]

The *wh*-word also blocks assignment of genitive of negation. And since the genitive was available in the embedded non-finite clauses just because there was no CP, (59) apparently has the CP projection blocking the assignment/checking of genitive of negation on the lower object.

[105] Available readings where the *wh*-word is understood as an indefinite pronoun are ignored.

[106] If the *wh*-word in (58) is interpreted as "somewhere", the depictive then becomes impossible. In this case, *kje* is not in the SpecCP, it is just an indefinite location pronoun A-scrambled from its base position inside the VP. In this case there is no CP projection as suggested by the tests in the preceding section.

(59) Robi se še ni odločil kje kupiti hišo / *hiše
Robi REFL yet not decided where buy $house_{ACC}$ $house_{GEN}$
"Robi hasn't decided yet, where to buy a house."

Again similar behavior is observed in the scrambling facts. Scrambling out of *wh*-initial non-finite clauses is impossible. But here the explanation does not have to do only with the presence of a CP projection since scrambling out of finite clauses is possible in Slovenian (60c). Scrambling out of an embedded question, on the other hand, is bad, (60b). Therefore (60a) has a CP projection, but the unavailability of scrambling is probably due to the fact that the SpecCP is already filled with a *wh*-word.

(60) a.*Janeza se je Peter odločil, kdaj naučiti manir.
$Janez_{ACC}$ *Peter* *decided* *when to teach how to behave*
b.*Janeza se je Peter odločil, kdaj mora naučiti manir.
$Janez_{ACC}$ *Peter* *decided* *when has to teach how to behave*
c. Janeza se je Peter odločil, da mora naučiti manir.
$Janez_{ACC}$ REFL AUX Peter decided that must $teach_{INF}$ manners
"Peter decided (that he has) to teach Janez how to behave."

5.4.1 Non-Obligatory Control

What do these facts mean for the claim that non-finite clauses do not have CP? Firstly I want to say that sentences with the initial *wh*-word all involve non-obligatory Control, (61). If NOC constructions are really just non-finite clauses with a *pro*, nothing hinges on the presence or absence of a CP between them and the matrix clause.

(61) Vid_i je svetoval $Mariji_j$, kje si_{i+j} postavit šotor za oba.
V_{NOM} AUX advised M_{ACC} where REFL $build_{INF}$ tent for both
"Vid advised to Marija where to place the tent"

This is observed also by Hornstein (1999). Examples with a *wh*-initial non-finite clause do not involve OC. The subject of the embedded clause does not have to be interpreted as the subject/object of the matrix clause that otherwise controls the PRO.

(62) *He showed me how to fly a plane.*

The interpretation in (62) is not that I have to fly a plane, since he only showed me how anyone could, or better how flying is to be done. Similarly it should hold for any of these sentences.

(63) *I know how to stabilize Iraq.*

(63) doesn't mean that I know how I can/will/should/could stabilize Iraq (myself), but rather, how this could or should be done. All these cases also point out to the second major difference between control constructions and *wh*-initial non-finite clauses. As discussed by Bhatt (2000), there is a hidden modality in all these *wh*-initial non-finite clauses. This modality is not found in simple non-finite complements. Its existence can be

shown also by its licensing of silent verb GO, (64). As discussed by van Riemsdijk (2002), the silent verb GO, which is found in clauses with a modal and a directional PP, has to be licensed by the modal, and cannot appear in any other construction. If GO needs a modal, then the fact, that it is apparently present also in (64) as shown by the directional adverbial, suggests there is a hidden modal present in the clause (see Marušič and Žaucer 2005 for further discussion about GO).

(64) Pokazal sem mu kako (iti) domov
showed AUX him how go home
"I showed him how to go home"

The third major difference is that *wh*-initial non-finite clauses can be complements to verbs that do not take infinitival clausal complements, as shown in (65). They can be selected by verbs selecting only finite CPs. This suggests that plain non-finite clauses really are different in their lacking of the CP projection. In other words, they cannot be selected by verbs taking a CP complement.

(65) a. Pokazal sem mu kje (mora) pristati. *vs*. *Pokazal sem mu početi
I showed him where (he must) to land. **I showed him to land*
(only if: showed how to)
b. Ugotovil je kje prestopiti *vs* . *ugotovil sem prestopiti
He found out where to change ** He found out to change*
c. Vem kaj početi *vs*. *Vem početi.
I know what to do **I know to do*

No true punch-line can be given, but all these differences suggest that we are dealing with a different construction altogether here, whose resemblances to other non-finite clauses are minimal.

5.5 Conclusion

In this chapter I argued for a structural deficiency in non-finite clauses. I showed that (at least OC) non-finite clausal complements lack a CP projection. We established a three way structural distinction between clausal complements. The most complete type of clauses are finite clauses with a containing CP. Non-finite clauses with an initial *wh*-word might be less complete, but still have a CP projection and the corresponding phase. The least complete clauses are simple control non-finite clauses. These clauses lack at least the CP projection. Raising verbs (true restructuring verbs), on the other hand, might probably be best treated as monoclausal structures following Cinque (2004a).

Supporting evidence comes from scrambling, clitic climbing, *wh*-movement, genitive of negation licensing, and agreement of depictive predicates. With respect to these phenomena, control (in particular OC) constructions behaved differently from finite clausal complements and *wh*-initial non-finite clausal complements. Control constructions allow A-movement to the matrix clause, allow AGREE with elements in the matrix clause, and thus seem to involve a single phase for both the embedded and the matrix clause.

These results open the door for a movement analysis of control ala Hornstein (1999, 2001), Barrie & Putnam (2003), Boeckx & Hornstein (2003a,b, 2004) etc. In the final subsection I will discuss the phasal composition of non-finite clauses and go over the arguments again explaining what exactly they show with respect to non-simultaneous phases.

5.5.1 Phasal composition of non-finite clausal complements

So far, we have established that non-finite clausal complements lack the CP projection. Without the CP projection these constructions lack a strong phase between the two clauses.

Now I will show that the non-finite clausal complement is nevertheless a phase, but that it is only an LF/semantic phase. That is, the complement is spelled-out to LF once it is completed. Then I will show that the same chunk of structure is not spelled-out to PF at the same time. I will go over the arguments from section 5.2 and explain that the kind of structural deficiency they argue for can be understood with non-simultaneous phases. In particular, I will show that they only argue for the lack of a PF phase rather than the lack of a general strong phase. Thus it will be shown that the data in this chapter indeed argue for the existence of non-simultaneous phases.

5.6.1.1 LF phasehood Just like finite clausal complements, non-finite clausal complements denote propositions. Propositions are supposed to be the LF reality of phases. Non-finite clausal complements are opaque/intensional—an indefinite inside a non-finite clausal complement can have non-specific interpretation, a non-denoting term would not yield falsity of the entire sentence etc. (all these properties are obviously related to the semantic type of the non-finite TP). For example, there need not be any specific Finn Vid decided to marry for the sentence (66a) to be true, Vid simply decided that he will marry a Finn, but doesn't know yet whom, and (66b) with a non-denoting term in its complement, doesn't necessarily yield falsity. Similar examples can be given for every other type of non-finite complementation.

(66) a. Vid se je sklenil poročiti z eno Finko.
Vid REFL AUX decided marry$_{INF}$ with a Fin
"Vid decided to marry a Finn."

b. Vid se je sklenil poročiti z vampirko.
Vid REFL AUX decided marry$_{INF}$ with vampire
"Vid decided to marry a female vampire."

We can also find supporting evidence for the claim there is an LF phase under the matrix verb if we check the interpretation of universal quantifiers inside the embedded non-finite clauses, following similar reasoning discussed in section 4.8.1. Since the scope position of a (universal) quantifier is commonly taken to indicate the edge of an (LF) phase (as argued in Chapter 3, quantifiers always take scope on LF phase edges), finding an example where the quantifier gets interpreted inside the scope of the matrix verb should show the embedded clause is an LF phase, that it has an LF phase edge (c.f. Legate 2001, 2003, Sauerland 2003 among others). As shown in (67a) the universal

quantifier can be understood inside the scope of the matrix verb, since the sentence has the interpretation under which Vid forgot to close all the windows, but did manage to close some. Similarly in (67b) the universal quantifier can take scope under negation, which is understood inside the scope of the matrix predicate *odločil* 'decide'. What Janez decided is not to close all windows, but to leave some of them open. But even more revealingly, (67c) has the interpretation under which Črt decided that he will leave all the windows open. In this last case, the universal quantifier gets scope in between the matrix verb and negation (his decision is about every window, not about each individual one).

(67) a. Vid je pozabil zapret vsa okna. *forgot* > ∀
Vid AUX forgot close$_{INF}$ all windows
"Vid forgot to close all windows."

b. Janez se je odločil ne zapret vseh okn. *not* > ∀
Janez REFL AUX decided not close every window
"Janez decided not to close all windows."

c. Črt se je odločil ne zapret vsako okno. *decide* >∀>*not*
Črt REFL AUX decided not close$_{INF}$ every window
"Črt decided not to close every window."

Since the universal quantifier in (67b) is understood inside the scope of negation, it might be argued that it is actually interpreted at the *v*P phase rather than at the phase immediately under the matrix verb. But (67b) does have the interpretation where the universal quantifier is inside the scope of the matrix verb but outside of the scope of negation, we can conclude that in this case the quantifier being interpreted in between the verb and negation argues for the existence of a phase edge, in particular for the existence of an LF phase that closes of the embedded clause. We get similar results when we take a look at inverse scope linking cases in (68).

(68) Odloču se je ne povabit vseh s tremi izvodi Grooja
decide REFL AUX not invite all with three issue Groo
"He decided not to invite everyone with three issues of Groo."

(68) can be understood in the following way: He decided that for three issues of Groo, he will not invite everyone who has them. Thus the quantifier from inside the object DP is interpreted higher than negation but still lower than the matrix verb. The fact that the two quantifiers from the object DP are not interpreted one next to the other is not surprising following Sauerland's (2005) analysis.

More facts like this can be adduced. We can avoid the *v*P phase if we use an unaccusative verb in the non-finite complement. In this case the quantifier must be put in an adjunct position. Regardless of the lack of *v*P, a quantifier can still be interpreted inside the scope of the matrix verb, as in (69). Since there is supposedly no other phase (assuming an adjunct by itself is not a phase), the non-finite clause has to be the LF phase where the quantifier gets interpreted.

(69) Meta je sklenila iti na vse koncerte / na en koncert.
Meta AUX decided go$_{INF}$ on all concerts on one concert
"Meta decided to go to all concerts / one concert" decided > all, one

In addition, similar reasoning explained in the concluding section of the previous chapter (4.8.1) can be also applied in these cases. If the lower clause consists of more than just the embedded VP and *v*P (as was shown to be the case in section 5.3) then it makes perfect sense to include all the functional projections of the lower clause in the semantic computation of the lower clause, rather than in the computation of the matrix clause. As mentioned, the entire complement clause expresses a proposition, not just the lowest *v*P inside. The entire complement clause expresses a proposition regardless of the type of verb inside the complement clause. Even if the complement has an unaccusative verb, which doesn't have a *v*P phase, the complement still corresponds semantically to a proposition, and as such is a perfect candidate for an LF spell-out unit.

Thus we seem to have an LF phase where we would not expect any, since we showed there is no CP in non-finite complement clauses. In chapter 1, I argued that finite TPs are phases, if that is true, arguing non-finite TP to be a phase too is natural. Bobaljik & Wurmbrand (2005) claim verbs taking a non-finite clausal complement induce agreement domains, which are also loci of quantifier interpretation. In an earlier version of their paper they called them LF only phases (Wurmbrand & Bobaljik 2003). Regardless of where the phasehood comes from, the crucial question now is whether these phases are really LF-only phases, or are they complete phases (both PF and LF). In the next subsection I will look at PF phase diagnostics trying to show these LF phases do not have the properties of PF phases.

5.6.1.2 PF phasehood As argued throughout the chapter, non-finite embedded clauses do not have a CP projection. At several points it was argued that this in fact means there is no phase. Since the previous subsection argued there is an LF phase in between the two clauses, I will turn to the phonological properties of non-finite complementation and try to demonstrate evidence for the lack of a PF phase.

Assuming phonological positioning of clitics, clitics move to the second position inside the relevant prosodic unit. Since clitics climb from non-finite clauses, there is no PF boundary between the two clauses that would block their fronting. But we should be looking at clearer facts. Matushansky (2003), following Legate (2001, 2003), gives three types of diagnostics for PF phases: *isolability*, *movement*, and *nuclear stress rule application*.

A PF phase, the point at which structure is sent to the PF component, should be the locus of the Nuclear stress rule application (cf. Cinque 1993). Nuclear stress rule is a phonological rule that gives the nucleus stress to the right most lexical element in the structure. It is reasonable to assume it applies to structure when it is shipped to PF, that is, at every phase. Thus every PF phase would bring in another application of the nuclear stress rule. Finite clausal complements seem to have two intonational phrases with a pause in between the two clauses and two main stresses on the right most lexical word of every clause, as shown in (70a) (sentences have to be pronounced with neutral intonation for this to be observable). This is not the case in non-finite complementation where the entire sentence is most naturally pronounced as a single intonational phrase with only one main sentential stress, (70b,c).

(70) a. Peter je včeraj povedal **Meti**, da bo prišel na zabavo **sam**.
Peter AUX yesterday told Meta that will come to party alone
"Peter told Meta yesterday that he will come to the party alone."
b. Peter je učiri sklenil prit danes k nam na **zabavo**.
Peter AUX yesterday decided come$_{INF}$ today to us to party
"Peter yesterday decided to come today to us for a party."
c. Peter je Meti ukazal prit danes k nam na **zabavo**.
Peter AUX Meta ordered come$_{INF}$ today to us to party
"Peter yesterday decided to come today to us for a party."

If a phrase is a phase, then it should also have the freedom to be movable. In particular it should participate in various types of movements.[107] Matushansky (2003) concludes that according to this diagnostics, TP is not a PF phase. In particular, TP does not participate in "movement-like structures that may not involve purely syntactic movement" (Matushansky 2003, p.10). As shown in (71a), CP can be extraposed, but TP cannot (71b). Similarly, (71c) shows that TP cannot be topic left-dislocated, while CP and DP can be. The same is true of pseudo-clefting, as shown in (71d). ((71) from Matushansky 2003, (19), (20), (23))

(71) a. It surprised Ron [$_{CP}$ that Hermione was interested in someone else].
b.*It surprised Ron [$_{TP}$Hermione (to) be interested in someone else].
c.*[Hermione (to) be interested in Viktor], who could imagine **it**.
d.*What Goneril seemed was [$_{TP}$to fear King Lear].

Additionally, sentences with non-finite complement clauses allow the kind of multiple scrambling discussed in section 4.8.1.2. The kind of word reorderings shown in (72), are only allowed within a sentence/clause. Normally, only one element can scramble over a finite CP and in case more scramble, they have to form some sort of a constituent and appear leftmost. Thus, (73d), with the fronted constituent following the matrix subject and (73e) with two elements from the embedded clause with the intervening matrix subject, are both bad. No such restrictions hold for reorderings within a single clause.

(72) Medveda je že včeraj po gozdu brez puške iskal Peter.
Bear AUX already yesterday around forest without gun search Peter
"Peter looked for a bear around the forest with no gun already yesterday."

(73) a. Janez pravi, da je Meta pozabla it včeraj domov
Janez says that AUX Meta forgot go$_{INF}$ yesterday home
"Janez says that Meta forgot to go home yesterday."
b. Domov, pravi Janez, da je Meta pozabla it včeraj.
home says Janez that AUX Meta forgot go$_{INF}$ yesterday
c. Pozabla it domov pravi Janez, da je Meta včeraj.
forgot go$_{INF}$ home says Janez that AUX Meta yesterday

[107] Most obviously it should be allowed to be PF moved around the sentence, but since it is not entirely clear what PF movements are, I'll simply follow Matushansky and her findings.

d.*Janez pozabla it domov, pravi, da je Meta včeraj.
Janez forgot go$_{INF}$ home says that AUX Meta yesterday
e.*Domov Janez včeraj pravi, da je Meta pozabla.
home Janez yesterday says that AUX Meta forgot

What is obvious is that the kind of reordering from (72) is not available in (73). This reordering (multiple scrambling/"pluriscrambling") is available in non-finite complementation basically to the same degree as in simple monoclausal sentences – anything can appear anywhere.[108]

(74a) is the basic sentence with the neutral word order. The embedded clause (written in bold) follows the matrix verb. All the other examples in (74) have scrambled word order, but the difference between them is just stylistic.

(74) a. Peter je včeraj v gostilni pozabil **povabit Vida na žur**.
Peter AUX yesterday in pub forgot invite$_{INF}$ Vida to party
"Yesterday in the pub, Peter forgot to invite Vid to the party."
b. **Vida** je Peter **na žur** včeraj v gostilni **povabit** pozabil.
Vid AUX Peter to party yesterday in the pub invite$_{INF}$ forgot
c. **Na žur** je **Vida** Peter včeraj v gostilni **povabit** pozabil.
to party AUX Vid Peter yesterday in the pub invite$_{INF}$ forgot
d. **Na žur** je Peter **Vida** včeraj v gostilni **povabit** pozabil.
to party AUX Peter Vid yesterday in the pub invite$_{INF}$ forgot
e. **Vida** je **na žur** Peter včeraj v gostilni **povabit** pozabil.
Vid AUX to party Peter yesterday in the pub invite$_{INF}$ forgot
f. Peter je **povabit Vida na žur** včeraj v gostilni pozabil.
Peter AUX invite$_{INF}$ Vid to party yesterday in pub forget
g. **Povabit** je **Vida na žur** Peter včeraj v gostilni pozabil.
invite$_{INF}$ AUX Vid to party Peter yesterday in pub forget
h. **Povabit** je **Vida** Peter **na žur** včeraj v gostilni pozabil.
invite$_{INF}$ AUX Vid Peter to party yesterday in pub forget
i. **Povabit** je Peter **na žur** včeraj v gostilni pozabil **Vida**.
invite$_{INF}$ AUX Peter to party yesterday in pub forget Vid
j. **Povabit** je Peter včeraj v gostilni pozabil **Vida na žur**.
invite$_{INF}$ AUX Peter yesterday in pub forget Vid to party
…

This largely unconstrained reordering is semantically vacuous, as shown (75) (similar tests are given also in 4.8.1.2), where the pronoun can be bound by the originally c-commanding quantifier regardless of where the pronoun ends up being scrambled to, even if it is pronounced in a position that should in principle be c-commanding the quantifier (that is, if this reordering is syntactic).

[108] I am not using any adverbs in these cases, since they do have a more fixed order among themselves.

(75) a. [Vsak bolan otrok]$_i$ je ukazal sestri **prinest kosilo v njegovo$_i$ sobo**
Every sick child AUX convinced sister bring$_{INF}$ lunch in his room
"Every sick child ordered his sister to bring lunch to his room."
b. **Kosilo** je ukazal sestri **v njegovo$_i$ sobo prnest** [vsak bolan otrok]$_i$.
c. **V njegovo$_i$ sobo** je sestri **kosilo** ukazal **prnest** [vsak bolan otrok]$_i$.
d. **V njegovo$_i$ sobo** je [vsak bolan otrok]$_i$ sestri **kosilo prnest** ukazal.
…

This reordering is similarly insensitive to principle C as shown in comparable examples in section 4.8.1.2. This multiple scrambling/reordering couldn't be a simple syntactic left dislocation, since then we might expect this to be available out of non-finite clauses as well, in particular, we would expect sentences (73d,e) to be acceptable, just like the comparable (74d) and (74f). But this is not the case.

These kind of movements are acceptable only with special intonation and are subject to total reconstruction. Following Sauerland & Elbourne (2002) (also Aoun & Benmamoun 1998), who claim that only PF movements totally reconstruct, I conclude that this multiple scrambling is not syntactic but rather an instance of PF movement. If it is PF movement, it is most reasonably limited to a PF unit, and since PF units are created by PF phases, we can conclude that there is no PF phase in between the two clauses. If that is the case, then Slovenian non-finite clauses do not spell-out to PF where they spell-out to LF.

Matushansky (2003) also discusses isolability as a potential diagnostics for PF phases. If a certain phrase can be pronounced alone, outside of its proper place in a sentence, then it is a good candidate for PF phasehood. Following this diagnostics, non-finite clausal complements would be PF phases. As shown in (76), non-finite clausal complement can be pronounced in isolation (both in English and Slovenian). But as shown in (77) (from Matushansky 2003), this diagnostic doesn't always shows PF phases. What is pronounced in isolation in (77) is neither *v*P nor TP, the two potential phases in the relevant region.

(76) a. (Peter ti je ukazal oditi v cerkev.) – oditi v cerkev?
go$_{INF}$ in church
"(Peter ordered you to go to church.) – to go to church?"
b. (Peter se je odločil kupit avto.) – kupit avto?
buy$_{INF}$ car
"(Peter decided to buy a car.) – to buy a car?"

(77) Alice didn't leave. – Didn't leave? What do you mean, didn't leave?

5.6.1.3 Reevaluation of the arguments Here I take a second look at the arguments against the CP projection/string phase from section 5.2 and explain how they could be understood. Note that this section is not meant to restate the arguments in terms of non-simultaneous phases, but rather explain why arguing for a lack of a phase and making parallels between biclausal and monoclausal structures and on the other hand positing an LF-only phase do not necessarily contradict each other and destroy the arguments.

Scrambling

As it was observed in section 5.2.1, scrambling out of non-finite clauses doesn't effect the interpretation of the sentence. Scrambled quantifiers are able to take scope over the matrix subject, which makes the particular scrambling look like the familiar Japanese type A-scrambling, which doesn't reconstruct, and therefore must occur in syntax proper. But it was also noted that the embedded object can take scope over the matrix subject even when the object does not scramble to a position higher than the subject. Thus the particular type of scrambling does not have an effect on interpretation and need not happen in syntax. Actually, in the absence of any better theory of Slovenian scrambling, one might try to associate the observed scrambling with the type of multiple scrambling/reordering observed above, which was argued not to be syntactic, but rather a PF phenomenon. If scrambling turns out to be just some form of PF movement, then it is not surprising that the existence of an LF phase has no effect on its availability. As for the QR-ed quantifiers, I argued in chapter 3 that quantifiers can QR out from non-finite clauses as long as there is a scope marking feature in the relevant phase edges that let's them climb out. Since there is no CP projection in between, quantifiers can QR all the way up. Thus, an LF phase cannot stop the type of scrambling observed in 5.2.1.

Clitic climbing

Assuming phonological positioning of clitics, argument 5.2.2 is very straightforward. Because there is no PF boundary in between the two clauses, clitics can climb to the matrix clause. Clitics front because they are in search of a prosodic host at the beginning of the relevant prosodic unit. If there is no intermediate PF spell-out between the embedded and the matrix clause, clitics can search for a relevant host all the way up to the matrix second position.

If clitic climbing turns out to be a syntactic process, it clearly should involve modifying the LF spell-out. But clitic climbing (actually even clitic fronting within a single clause) has absolutely no effect on interpretation (reflexives get bound regardless of their relative position with respect to the subject, pronouns get bound by a quantifier as soon as a quantifier c-commands their original position). Thus if clitic climbing is really syntactic, it should be operating with PF related features. If this is the case, it doesn't matter how many LF phases occur in between their original position and their final landing site. What matters is that there is no PF boundary, i.e. no PF phase.

As mentioned in 5.2.2, clitic climbing out of non-finite clauses is optional in Slovenian. Clitics can but needn’t climb. An example was given in that section, others are given in (78-80). In addition to being optional, clitic climbing doesn't have any fixed landing site in non-finite clausal complementation. Clitics can remain inside the original clause or they can come in between nearly any two words between the original and the final position, whether inside the matrix or inside the complement clause. If clitic climbing is really prosodic, then this clearly shows there is no clear single prosodic break between the matrix and the embedded clause. The position of the clitics has effects on the intonation: clitics have to follow a prosodic break. This prosodic break can be placed anywhere. If there is no clear prosodic break, there are no clear prosodic units, which means there are no PF spell-out positions. (# in (78b) signifies a longer pause after the auxiliary clitic, without which the sentence is really weird.)

(78) a. Peter **jo** **je** spet sklenil [jutri začet [pisat]].
Peter her AUX again decide tomorrow begin [write
"Peter again decided to start writing it tomorrow."
b.?Peter **je** # **jo** spet sklenil [jutri začet [pisat]].
c. Peter **je** spet **jo** sklenil [jutri začet [pisat]].
d. Peter **je** spet sklenil [**jo** jutri začet [pisat]].
e. Peter **je** spet sklenil [jutri **jo** začet [pisat]].
f. Peter **je** spet sklenil [jutri začet [**jo** pisat]].
g.?*Peter **je** spet sklenil [jutri začet [pisat **jo**]].

(79) a. On **jo** **je** hotel nehati hoteti videvati vsak dan.
he her AUX want stop$_{INF}$ want$_{INF}$ see$_{INF}$ every day
"He wanted to stop wanting to see her every day." (Golden 2003)
b. On **je** hotel **jo** nehati hoteti videvati vsak dan.
c. On **je** hotel nehati **jo** hoteti videvati vsak dan.
d. On **je** hotel nehati hoteti **jo** videvati vsak dan.
e. On **je** hotel nehati hoteti videvati **jo** vsak dan.

(80) a. Včeraj **jo** **je** sklenil jutri počasi odpeljati proti domu.
yesterday her AUX decide tomorrow slowly drive$_{INF}$ towards home
"Yesterday, he decided to slowly take her home tomorrow."
b. *Včeraj **je** sklenil **jo** jutri počasi odpeljati proti domu.*
c. *Včeraj **je** sklenil jutri **jo** počasi odpeljati proti domu.*
d.?*Včeraj **je** sklenil jutri počasi **jo** odpeljati proti domu.*
e. *Včeraj **je** sklenil jutri počasi odpeljati **jo** proti domu.*

Multiple *wh*-movement

Multiple *wh*-movement is not obligatory in Slovenian, and the fronted *wh*-words don't form a syntactic unit. One might speculate, therefore, that it does not occur for any specific syntactic reason. Since it is optional, it also doesn't have any effect on interpretation. Assuming all *wh*-words eventually must front to their scope position, an LF phase cannot block them, since they can always covertly move over it. But a PF phase could block their overt movement. Optionality and lack of any interpretative effect already suggests that multiple *wh*-movement is an instance of PF movement. If it indeed is an instance of PF movement, the fact that it is allowed from non-finite complement clauses suggests there is no PF phase that would prevent it. But regardless of its movement-type, the existence of an intervening LF phase doesn't play any role, so the argument from the section 5.2.3 still stands.

Partial *wh*-movement

As analyzed by Cheng (2000), partial *wh*-movement is phonological spell-out of the WH feature that moved through the CP. As claimed in this chapter, there is no CP in between the matrix ant the embedded clause, so there shouldn't be any WH feature. Again the presence of an LF phase shouldn't affect the *wh*-movement since *wh*-words can move over multiple LF phases (in fact they have to move to their scope position regardless of their actual location). So even though the WH-feature plausibly moves though the intermediate LF-phase edge position, nothing forces it to be spelled out as the *wh*-expletive, no more than it's compelled to be spelled-out in the *v*P phase edge when it

moves through. *Wh*-expletives seem to be restricted to CPs, and since there is no CP in between the two clauses, there cannot be a *wh*-expletive. The actual phasal composition does not affect the validity of the argument.

Genitive of negation

At this point, it is still not clear what exactly licenses the genitive of negation, so one can only speculate as to what goes on in this case of long distance licensing. Earlier in the thesis, most explicitly in chapter 3, it was suggested case is a purely PF condition. Case is not important for LF, but it is read by the PF interface. If case (in particular NOM and ACC) is further assigned by (PF) phase edges, it can only be assigned to an element within the same phase. Genitive case is of course different from both NOM and ACC in that it is not assigned by any phase edge. But genitive case is still a case, and as such important for PF and unimportant for the LF interface. If it works only partially like other cases, then it is important that what licenses it not be separated from the nominal bearing it by a PF phase. Genitive of negation is licensed by negation and if negation is located in the matrix clause while the nominal is in the embedded clause, following our logic, there shouldn't be any PF phase intervening, while LF phases do not appear to be important. Thus the proposed phasal composition is consistent with the argument.

Case on depictives

The crucial piece of data arguing for the lack of a phase in this instance was the acceptability of a depictive in a case form that happened to match the case required by the matrix object and the one required by the embedded subject. Case syncretism is clearly a PF phenomenon, therefore the fact that it indeed plays a role here suggests a PF transparency between the two clauses.

Although I have been brief, I have tried to explain why the proposed phasal composition does not affect the arguments presented, and in addition, how some of the same arguments can be viewed as arguments for non-simultaneous phases.

Chapter
6. Conclusion

The aim of this thesis is twofold. On the one hand, it aims at explaining certain facts of Slovenian clausal complementation. With the FEEL-LIKE construction, the goal was to show that there is more structure than usually thought. Counter the standard analysis, the chapter argues that what seems like a simple monoclausal construction is really biclausal sentence with a hidden matrix predicate. With the Slovenian non-finite complementation, the chapter argues that these constructions involve less structure than originally thought-- in particular, it argues there is no CP in Slovenian control construction. In both cases, the top projection of the lower clause, a deficient TP, appears to exemplify a non-simultaneous phase. Semantically it expresses a proposition and thus corresponds to an LF phase, but it is much less independent phonetically. In the FEEL-LIKE construction, the only verb of the construction consists of morphemes from two clauses. Tense morphology refers to the time of the disposition (associated with the null verb of the matrix clause), while the aspectual morphology and the root belong to the lower embedded clause and are interpreted there. Having a single word, a single prosodic unit, composed of parts coming from two different clauses understood at two different times strongly argues for the existence of non-simultaneous phases. In both cases the middle TP projection was argued to be a phase that spells-out to LF but not to PF, that it is an LF-only phase.

The other main goal of the thesis was to show that having non-simultaneous phases can connect otherwise disparate phenomena. Specifically I have attempted to analyze Reconstruction and Covert Movement as consequences of non-simultaneous phases—the "tool", which was given independent evidence for existence in chapter 4 and 5. At various points in the thesis other projections are also argued to be instances of non-simultaneous spell-out. In particular, Total Reconstruction was derived in raising constructions with the help of two LF-only phases, non-finite TP and raising *v*P. Covert movement, more specifically, Quantifier Raising was argued to be a consequence of a PF-only phase that closes of the DP. The basic idea of this analysis is simple. If a syntactic object is spelled-out to PF before it is spelled-out to LF, whatever was meant to end up in LF can participate in the further derivation and also move away from the locus of the PF spell-out. If this LF part of the object (in effect these are both semantic and formal features that haven't been checked yet) indeed moves higher, we get what can be called covert movement, an object that is interpreted higher than where it is pronounced. On the other hand, if we spell-out to LF earlier than to PF, what hasn't been spelled-out yet (that would be formal features and those relevant for the PF interface) can move higher and ends up being pronounced in a higher position. As a result we get a syntactic object that is pronounced high in the structure but ends up getting interpreted low inside the original LF-only phase. This setting is exactly what we usually call Reconstruction.

Let me now briefly point to some possible extensions I avoided so well. Not much was said about partial reconstruction that is most commonly observed in *wh*-movement. A possible way of understanding those would be to split up the *wh*-phrase into smaller

units and devise some way of determining where which part of the DP gets interpreted. Nothing was said about covert *wh*-movement in *wh*-in-situ languages although the principles and mechanisms of that covert movement should in principle be the same as in quantifier raising. The main difference would probably in the feature that drives the movement and marks the scope of the quantifier and the *wh*-word—in one case [+quant] in the other case [+wh]. Nothing was said about other kinds of possibly existing covert movement and I also have nothing to add about that here.

The thesis seems to make certain sense. At least the idea of making the parallel between covert movement and PF movement seems reasonable. If the two interfaces are really parallel in their importance for syntax, then not making long faces when we talk about covert movement in syntax should mean we are also willing to accept a similar operation on the other side, that is, movement that is nothing but overt, movement that has no effect on interpretation. Such movement is the movement of an object previously spelled-out to LF resulting in Total reconstruction. Filling this architectural gap and putting both movements in syntax is the point of this thesis.

The thesis definitely gives many opportunities for further research since it leaves so many things open. I take this to be a quality of the thesis.

References

Alexiadou, Artemis. 1997. *Adverb Placement: A Case Study in Antisymmetric Syntax*. Amsterdam: John Benjamins.

Alexiadou, Artemis. 2001. *Functional Structure in Nominals: Nominalization and Ergativity*. Amsterdam: John Benjamins.

Anderson, Stephen. 2000. Toward an Optimal Account of Second-Position Phenomena. In Dekkers, J., F. van der Leeuw & J. van de Weijer (eds.) *Optimality Theory: Phonology, Syntax, and Acquisition*. Ofxord, OUP. pp. 302-333.

Aoun, Joseph. 1985. *The Grammar of Anaphora*. Cambridge, Mass.: MIT Press.

Aoun, Joseph & Elabbas Benmamoun. 1998. Minimality, Reconstruction, and PF Movement. *Linguistic Inquiry* 29.4: 569-597.

Atkinson, Martin. 2000. Uninterpretable feature deletion and phases. *Essex Research Reports in Linguistics* 34: 91-122.

Bailyn, John. 2004. The Case of Q. Arnaudova O. et al. (eds.) *Proceedings of FASL 12*. *The Ottawa Meeting 2003*. University of Michigan Press, Ann Arbor, MI. pp. 1-36.

Bajec, Anton et al. (eds.) 1994. *Slovar slovenskega knjižnega jezika*. Ljubljana: DZS. [Standard Slovenian Dictionary].

Baker, Mark & Osamuyimen T. Stewart. 1999. On Double-Headedness and the Anatomy of the Clause. Ms. Rutgers University. http://equinox.rutgers.edu/people/faculty/baker.html

Barbiers, Sjef & Rint Sybesma. 2004. On the different verbal behavior of auxiliaries. *Lingua* 114: 389-398.

Barrie, Michael and Christine M. Pittman. 2003. Partial control and the movement towards movement. to appear in *Toronto Working Papers in Linguistics* 22, University of Toronto.

Barss, Andrew. 1986. Chains and anaphoric dependence: On reconstruction and its implications. PhD dissertation, MIT, Cambridge Mass.

Bejar, Susana & Diane Massam. 1999. Multiple Case Checking. *Syntax* 2.2: 65-79.

Belletti Adriana & Luigi Rizzi. 1988. Psych-verbs and θ-theory. *Natural Language and Linguistic Theory* 6: 291-352.

Benedicto, Elena E. 1995. Mne ne čitaetsja: (Relativized) Modality, Datives and Reflexive Suffixes. *Penn Working Papers in Linguistics* 2.2: 1-16.

Bhatt, Rajesh. 2000. Covert Modality in Non-finite Contexts. PhD dissertation, University of Pennsylvania, Philadelphia.

Bittner, Maria & Ken Hale. 1996. The Structural Determination of Case and Agreement. *Linguistic Inquiry* 27:1-68

Bobaljik, Jonathan. 1995. Morphosyntax: the syntax of verbal inflection. PhD dissertation, MIT, Cambridge Mass.

Bobaljik, Jonathan D. & Susi Wurmbrand. 1999. Modals, raising and A-reconstruction. Talk given at Leiden University (October 1999) & University of Salzburg (December 1999) Available: http://wurmbrand.uconn.edu/research/papers.html

Bobaljik, Jonathan D. & Susi Wurmbrand. 2004. The Domain of Agreement. To appear in *Natural Language and Linguistic Theory* 23.4: 809 – 865.

Boeckx, Cedric. 2000. Quirky agreement. *Studia Linguistica* 53: 451-480.

Boeckx, Cedric. 2001. Scope reconstruction and A-movement. *Natural Language and Linguistic Theory* 19: 503-548.
Boeckx, Cedric. 2003. Intricacies of Icelandic Agreement. Ms. University of Maryland/Harvard University.
Boeckx, Cedric & Kleanthes K. Grohmann. 2004. Barriers and Phases: Forward to the Past? Handout of a paper presented at *Tools in Linguistic Theory 2004 (TiLT)*. Budapest, May 16-18, 2004.
Boeckx, Cedric & Norbert Hornstein. 2003a. Reply to "Control Is Not Movement". *Linguistic Inquiry* 34.2: 269-280.
Boeckx, Cedric & Norbert Hornstein. 2003b. Remarks on Control in Icelandic. Ms. University of Maryland.
Boeckx, Cedric & Norbert Hornstein. 2004. Movement under Control. *Linguistic Inquiry* 35.3: 431-452.
Bošković, Željko. 1997. *The syntax of nonfinite complementation: An economy approach. Cambridge*, Mass.: MIT Press
Bošković, Željko. 2001. *On the nature of syntax-phonology interface, cliticization and related phenomena*. Amsterdam: Elsevier.
Bošković, Željko. 2002. Expletives don't move. *Proceedings of the North East Linguistic Society* 32. Amherst: University of Massachusetts, GLSA. pp. 21-40.
Broadwell, George Aaron. 2000. On the phonological conditioning of clitic placement in Zapotec. Ms. University at Albany.
Butler, Jonny. 2003a. A minimalist treatment of modality. *Lingua* 113: 967-996.
Butler, Jonny. 2003b. Phase structure is event structure. To appear in: Martha Mcginnis and Norvin Richards (eds.): *Proceedings of the MIT Workshop on Phases*, January 2003. MIT Working Papers in Linguistics 47.
Carlson, Greg. 2005. “Mismatches” of form and interpretation. Volume of the Semantics Meets Acquisition Workshop, Nijmegen.
Cecchetto, Carlo. 2004. Explaining the locality condition of QR: consequences for the theory of phases. *Natural Language Semantics* 12. 345-397.
Cheng, Lisa. 2000. Moving just the feature. In Ulrich Lutz, Gereon Müller, & Arnim von Stechow (eds.). *Wh-scope Marking*. Amsterdam: Benjamins. pp. 77-99.
Chierchia, Gennaro. 1995. Individual-level predicates as inherent generics. in Gregory Carlson & Francis J. Pelletier (eds.) *The Generic Book*. Chicago, IL: University of Chicago Press.
Chomsky, Noam. 1986. *Knowledge of language: its nature, origin and use*. New York: Praeger.
Chomsky, Noam. 1993. A minimalist program for linguistic theory. In Kenneth Hale and Samuel Jay Keyser (eds.) *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*. Cambridge, Mass.: MIT Press. pp. 1-52.
Chomsky, Noam. 1995a. *The Minimalist Program*. Cambridge, Mass.: MIT Press.
Chomsky, Noam. 1995b. Bare Phrase Structure. In Gert Webelhuth (ed.) *The Government and Binding Theory and the Minimalist Program*. Oxford: Blackwell. pp. 383-439.
Chomsky, Noam. 2000. Minimalist Inquiries: The framework. In Roger Martin, David Michaels, and Juan Uriagereka (eds.) *Step by step: Essays on minimalism in honor of Howard Lasnik*. Cambridge, Mass.: MIT Press. pp. 89-155.
Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.) *Ken Hale: A life in language*. Cambridge, Mass.: MIT Press. pp. 1-52.

Chomsky, Noam. 2004. Beyond Explanatory Adequacy. In Adriana Belletti (ed.) *Structure and Beyond. The Cartography of Syntactic Structures*. Oxford: Oxford University Press. pp. 104-131.
Chomsky, Noam. 2005a. Three Factors in Language Design. *Linguistic Inquiry* 36.1: 1-22.
Chomsky, Noam. 2005b. On Phases. Ms. MIT, Cambridge, Mass.
Cinque, Guglielmo. 1993. A null theory of phrase and compound stress. *Linguistic Inquiry* 24: 239-297.
Cinque, Guglielmo. 1999. *Adverbs and Functional Heads*. Oxford: Oxford University Press.
Cinque, Guglielmo. 2003. Passive, causative, and "restructuring". In Cristina Tortora (ed.) *The Syntax of Italian Dialects*. New York: Oxford University Press. pp. 50-66.
Cinque, Guglielmo. 2004a. "Restructuring" and functional structure. In Adriana Belletti (ed.) *Structure and Beyond. The Cartography of Syntactic Structures*. Oxford: Oxford University Press. pp. 45-127.
Cinque, Guglielmo. 2004b. Issues in adverbial syntax. *Lingua* 114: 683-710.
Citko, Barbara. 2000. Parallel merge and the syntax of free-relatives. PhD dissertation, SUNY Stony Brook.
van Craenenbroeck, Jeroen & Marcel den Dikken. 2005. Ellipsis and EPP repair. Ms Catholic University of Brussels & CUNY Graduate Center.
Cuervo, María Cristina. 2003. Datives at large. PhD dissertation, MIT, Cambridge Mass.
Dąbrowska, Ewa. 1994. Dative and nominative experiencers: two folk theories of the mind. *Linguistics* 32: 1029-1054.
Demirdache, Hamida & Myriam Uribe-Etxebarria. 2000. The Primitives of Temporal Relations. in R. Martin et al. (eds) *Step by Step: Essays on minimalist syntax in honor of Howard Lasnik*. Cambridge, Mass.: MIT Press. pp. 157-186.
Demirdache, Hamida & Myriam Uribe-Etxebarria. 2004. The Syntax of Time Adverbs. in J. Guéron & J. Lecarme (eds) *The Syntax of Time*. Cambridge, Mass.: MIT Press.
den Dikken, Marcel. 2001. "Pluringals", pronouns and quirky agreement. *The Linguistic Review* 18: 19-41.
den Dikken, Marcel. forthcoming. *Relators and Linkers*. Cambridge, Mass.: MIT Press.
den Dikken, Marcel, Richard Larson & Peter Ludlow. 1996. Intensional transitive verbs and Concealed Complement Clauses. *Rivista di Linguistica* 8: 29-46.
Dimitrova-Vulchanova, Mila. 1999. *Verb Semantics, Diathesis and Aspect*. München/Newcastle: LINCOM EUROPA.
Dobrovie-Sorin, Carmen. 1998. Impersonal se Constructions in Romance and the Passivization of Unergatives. *Linguistic Inquiry* 29.3: 399-437.
Dowty, David. 1979. *Word Meaning and Montague Grammar*. The Semantics of Verbs and Times in Generative Semantics and in Motague's PTQ. Dordrecht: D. Reidel.
Epstein, Samuel D., Erich M. Groat, Ruriko Kawashima, and Hisatsugu Kitahara. 1998. *A Derivational Approach to Syntactic Relations*. Oxford: Oxford University Press.
Ernst, Thomas. 2002. *The Syntax of Adjuncts*. Cambridge: Cambridge University Press.
Fanselow, Gisbert. 2003. Partial Movement. in Everaert, M. & H. van Riemsdijk (eds.) *SYNCOM (The Syntax Companion): An electronic encyclopaedia of syntactic case studies*. The LingComp Foundation. (http://www-uilots.let.uu.nl/syncom).
Felser, Claudia. 2004. Wh-copying, phases, and successive cyclicity. *Lingua* 114: 543-574

Filip, Hana. 1994. Aspect and the semantics of noun phrases. in C. Vet & C. Vetters (eds) *Tense & Aspect in Discourse*. Berlin/New York: Mouton de Gruyter. pp. 227-255.
Filip, Hana. 2000. The Quantization Puzzle. in C. Tenny & J. Pustejovsky (eds) *Events as Grammatical Objects*. Stanford: CSLI. pp. 39-93.
von Fintel, Kai. 2000. Singleton indefinites (re. Schwarzschild 2000). Ms. MIT.
Forbes, Graeme. 1997. How much substitutivity? *Analysis* 57.2: 109-113.
Forbes, Graeme. 1999. Enlightened semantics for simple sentences. *Analysis* 59.2: 86-91.
Forbes, Graeme. 2000. Objectual attitudes. *Linguistics and Philosophy* 23: 141-183.
Forbes, Graeme. forthcoming. *Attitude problems*. (Ch. 4, Propositionalism). http://www.tulane.edu/~forbes/
Fox, Danny. 1999. Reconstruction, Binding Theory, and the Interpretation of Chains. *Linguistic Inquiry* 30.2: 157-196
Fox, Danny and Jon Nissenbaum. 1999. Extraposition and scope: a case for overt QR. In *Proceedings of WCCFL* 18, eds. S. Bird, A. Carnie, J. D. Haugen, and P. Norquest. Somerville: Cascadilla Press.
Franks, Steven. 1995. *Parameters of Slavic Morphosyntax.* New York: OUP.
Frege, Gottlob. 1892. Sinn und Bedeutung. Zeitschrift für Philosophie und Philosophische Kritik 100: 25-50 (Trans.: 1952. Sense and Reference. in P. Geach & M. Black (eds) *Translations from the Philosophical writings of Gottlob Frege*. Oxford: Blackwell. pp. 56-78.).
Fujii, Tomohiro. 2004. Copy-Raising and A-chain pronunciation. Handout. ConSOLE 2004.
Giorgi, Alessandra & Fabio Pianesi. 1997. *Tense and aspect: from semantics to morphosyntax*. New York: Oxford University Press.
Golden, Marija. 2003. Clitic placement and clitic climbing in Slovenian. *Sprachtypologie und Unifersalienforschung* 56.3: 208-233.
Golden Marija and Milena Milojević-Sheppard. 2000. Slovene Pronominal Clitics. F. Beukema & M. den Dikken (eds) *The Clitic Phenomena in European Languages*. Amsterdam: John Benjamins. pp. 191-207.
Golden, Marija and Milena Milojević-Sheppard. 2003. 2nd Position Clitic Climbing and Restructuring. Paper presented at *FDSL* 5, November 2003. Leipzig, Germany.
Gràcia, Lluïsa & Laura Riera. 2003. A propos des noms déverbaux avec le suffixe -era du catalan. *Cahiers de Grammaire* 28: 153-161.
Grahek, Sabina. 2003. Slovene morpheme se. Ms. University of Leeds.
Grohmann, Kleanthes K. 2000. Prolific Peripheries: A Radical View from the Left. PhD dissertation University of Maryland.
Hagstrom, Paul. 1998. Decomposing Questions. PhD dissertation MIT. Cambridge, Mass.
Harris, Alice. 1981. *Georgian Syntax: A Study in Relational Grammar*. Cambridge: CUP
Heim, Irene. 1992. Presupposition projection and the semantics of attitude verbs. *Journal of Semantics* 9: 183-221.
Heim, Irene, and Angelika Kratzer. 1998. *Semantics in generative grammar.* Oxford: Blackwell.
Hornstein, Norbert. 1995. *Logical Form, From GB to Minimalism*. Oxford. Blackwell.
Hornstein, Norbert. 1999. Movement and Control. *Linguistic Inquiry* 30.1: 69-96.
Hornstein, Norbert. 2001. *Move! A minimalist theory of Construal*. Oxford. Blackwell.
Hubbard, Philip L. 1985. *The syntax of the Albanian verb complex*. New York, London: Garland.

Ilc, Gašper, and Milena Milojević-Sheppard. 2003. Verb movement in Slovene: a comparative perspective. *Sprachtypologie und Unifersalienforschung* 56.3 266-286.
Inkelas, Sharon. 1993. Nimboran Position Class Morphology. *Natural Language and Linguistic Theory* 11: 559-624.
Izvorski, Rumyana. 1997. Subject free relatives in null-subject languages: evidence from Slavic. In Wayles Browne *et al. Formal approaches to Slavic languages, the Cornell Meeting*. Ann Arbor: Michigan Slavic Publications. pp. 267-288.
Johnson, Kyle. 2000. How Far will Quantifiers Go? In Roger Martin, David Michaels, and Juan Uriagereka (eds.) *Step by step: Essays on minimalism in honor of Howard Lasnik*. Cambridge, Mass.: MIT Press. pp. 187-210
Kallulli, Dalina. 1999. Non-active morphology in Albanian and event (de)composition. in I. Kenesei (ed.) *Crossing Boundaries*. Amsterdam: John Benjamins. pp. 263-292.
Kallulli, Dalina. 2004. Unaccusatives with dative causers and experiencers: a unified account. Ms. University of Vienna.
Kayne, Richard. 2002. Pronouns and their antecedents. In *Derivation and Explanation in the Minimalist Program* Samuel David Epstein and T. Daniel Seely (eds). pp. 133-166. Oxford: Blackwell.
Kearns, Kate. 2000. Semantics. London: Macmillan.
Kennedy, Christopher. 1997. Antecedent Contained Deletion and the Syntax of Quantification. *Linguistic Inquiry* 28.4: 662-688.
Kim, M.-J. (2003). The Genitive of Negation in Russian: a Relativized Minimality Account. In W. Browne *et al*. (eds.), *Proceedings of FASL 11*. pp. 295-314.
Kratzer, Angelika. 1981. The Notional Category of Modality. in H.-J. Eikmeyer & H. Rieser (eds.) *Words, Worlds, and Contexts*. Berlin: Walter de Guyter. pp. 38-74.
Kratzer, Angelika. 1991. Modality. in A. von Stechow & D. Wunderlich (eds) *Semantik: ein internationales handbuch der zeitgenössischen forschung*. Berlin/New York: Walter de Gruyter. pp. 825-834
Kratzer, Angelika. 1996. Severing the External Argument from Its Verb. in J. Rooryck & L. Zaring (eds.) *Phrase Structure and the Lexicon*. Dordrecht/Boston/London: Kluwer. pp. 109-137.
Kratzer, Angelika. 1997. Scope or Pseudoscope? Are there Wide-Scope Indefinites? Ms. UMass Amherst. Obtained from http://www.semanticsarchive.net/ Aug. 2004.
Kuroda, S.-Y. (1965). Generative Grammatical Studies in the Japanese Language. Ph.D. dissertation, MIT.
Laka, Itziar. 1990. Negation in Syntax: On the Nature of Functional Categories and Projections Ph. D. dissertation, MIT, Cambridge Mass.
Lakoff, Robin. 1986. *Abstract Syntax and Latin Complementation*. MIT Press.
Larson, Richard. 1985. Quantifying into NP. Ms. MIT, Cambridge, Mass.
Larson, Richard. 1988. On the Double Object Construction. *Linguistic Inquiry* 19.3: 335-391.
Larson, Richard. 1991. The Projection of DP (and DegP). In Richard Larson (to appear) *Essays in Shell Structure*. New York: Routledge.
Larson, Richard. 2002. The Grammar of Intensionality. in G. Preyer and G. Peter (eds.) *Logical Form and Language*. Oxford: OUP. pp. 228-262.
Larson, Richard & Peter Ludlow. 1993. Interpreted Logical Forms. *Synthese* 95: 305-355.

Larson, Richard, Marcel den Dikken & Peter Ludlow. 1997. Intensional Transitive Verbs and Abstract Clausal Complementation. Ms. Stony Brook University and CUNY. http://semlab5.sbs.sunysb.edu/~rlarson/

Lasnik, Howard. 1998. Some Reconstruction Riddles. in *Penn Working Papers in Linguistics* 5: 83-98.

Lasnik, Howard, and Mamoru Saito. 1992. Move α. MIT Press Cambridge, Mass.

Lebeaux, David. 1990. Relative clauses, licensing, and the nature of the derivation. *Proceedings of NELS* 20: 318-332. GLSA, University of Massachusetts, Amherst.

Lees, Robert. 1960. *The Grammar of English Nominalizations*. The Hague: Mouton & Co.

Legate, Julie Anne. 2001. Some interface Properties of the Phase. Ms MIT/Harvard.

Legate, Julie Anne. 2003. Identifying Phases. Ms. Harvard. To appear in: Martha Mcginnis and Norvin Richards (eds.): *Proceedings of the MIT Workshop on Phases*, January 2003. MIT Working Papers in Linguistics 47.

Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-movement in syntax and Logical Form. *Linguistic Inquiry* 25.4: 609–665.

Mahajan, Anoop. 2004. On the Origin of Non-Nominative Subjects. in P. Bhaskararao & K. V. Subbarao (eds) *Non-Nominative Subjects*. Amsterdam: John Benjamins. pp. 151-168.

Marantz, Alec. 1997. No escape from syntax. Don't try morphological analysis in the privacy of your own lexicon. *Penn Working Papers in Linguistics* 4.2: 201-225.

Marušič, Franc - Lanko. 2001. The placement and scope (f-projections) of sentence accent in Slovenian. Ms. Stony Brook University.

Marušič, Franc. 2002. Slovenian clitics revisited. Ms Stony Brook University.

Marušič, Franc. 2003. CP under Control. Ms. Stony Brook University. Presented at *FDSL* 5.

Marušič, Franc. 2005. What Happens When Phases get Individualistic: On LF-only & PF-only Phases. *International Journal of Basque Linguistics and Philology*, ASJU Special volume of the Proceedings of the Bilbao Deusto Student Conference in Linguistics. A. Alcazar, I. Barberia, R. Campos, and S. Huidobro, Eds. San Sebastian, Spain: University of the Basque Country Press, Euskal Herria.

Marušič, Franc. In prep A. Two classes of non-finite clausal complement taking verbs DAT & ACC

Marušič, Franc - Lanko. In prep B. A prosodic account of clitic placement.

Marušič, Franc & Rok Žaucer. 2004. A Reanalysis of the Slovenian Dative-Reflexive Construction. in O. Arnaudova et al. (eds) *Formal Approaches to Slavic Linguistics* 12 (The Ottawa Meeting, 2003). Ann Arbor: Michigan Slavic Publications. pp. 293-312.

Marušič, Franc & Rok Žaucer. 2005. On phonologically null verbs: GO and beyond. To appear in S. Blaho et al. (eds) Proceedings of ConSOLE XIII. http://www.sole.leidenuniv.nl

Marušič, Franc & Rok Žaucer. To appear. On the intensional feel-like construction in Slovenian. to appear in *Natural Language & Linguistic Theory*.

Marušič, Franc, Rok Žaucer & Tatjana Marvin. 2002. Secondary predication in control sentences. *Snippets* 6. http://www.ledonline.it/snippets/

Marušič, Franc, Tatjana Marvin, & Rok Žaucer. 2003a. Depictive secondary predication in Slovenian. in W. Browne et al. (eds) *Formal Approaches to Slavic Linguistics* 11

(The Amherst Meeting, 2002). Ann Arbor: Michigan Slavic Publications. pp. 373-392.
Marušič, Franc, Tatjana Marvin, & Rok Žaucer. 2003b. Depictive secondary predication with no PRO. Paper presented at *Formal Descriptions of Slavic Languages* 6. Leipzig, November 2003. http://www2.arnes.si/~lmarus/pub/
Marvin, Tatjana. 2002. Topics in the stress and syntax of words. PhD dissertation, MIT, Cambridge Mass.
Matushansky, Ora. 2003. DPs and Phase theory. Handout UiL OTS, January 30, 2003.
May, Robert. 1985. *Logical Form: Its structure and derivation*. Cambridge, Mass: MIT Press.
McCawley, James. 1970. Where do Noun Phrases come from. in R. Jacobs & P. Rosenbaum (eds) *Readings in English Transformational Grammar*. Waltham, Mass.: Ginn & Co. pp. 166-183.
McCawley, James. 1979. On Identifying the Remains of Deceased Clauses. in J. D. McCawley *Adverbs, Vowels, and Other Objects of Wonder*. Chicago: University of Chicago Press. pp. 74-85.
McIntyre, Andrew. 2002. Idiosyncrasy in particle verbs. in N. Dehé et al. (eds) *Verb-Particle Explorations*. Berlin: Mouton de Gruyter. pp. 95-118.
McIntyre, Andrew. 2004. Event paths, conflation, argument structure and VP shells. *Linguistics* 42-3: 523-571.
Megerdoomian, Karine. 2003. Asymmetries in Form and Meaning: Surface Realization and the Interface Conditions. Presented at *Approaching Asymmetry at the Interfaces*, UQaM, Motreal, Oct. 24-25, 2003.
Merchant, Jason. 2001. *The syntax of silence*. Oxford: Oxford University Press.
Moltmann, Friederike. 1997. Intensional verbs and quantifiers. *Natural Language Semantics* 5: 1-52.
Montague, Richard. 1974. *Selected papers of Richard Montague*. Edited and with an introducton by R. H. Thomason. New Haven: Yale University Press.
Moore, Joseph G. 1999. Saving substitutivity in simple sentences. *Analysis* 59.2: 91-105.
Nelson, Diane. 2000. Linking causatives and experiencers. *Leeds Working papers in Linguistics* 8: 149-177.
Nissenbaum, Jonathan. 2000. Investigations of Covert Phrase Movement. PhD Thesis. MIT, Cambridge Mass.
O'Connor, Rob. 2002. The placement of enclitics in Bosnian, Croatian and Serbian. Ms U of Manchester. [ROA 521-0502].
Orešnik, Janez. 1994. *Slovenski glagolski vid in univerzalna slovnica* [Slovene verbal aspect and universal grammar]. Ljubljana: SAZU.
Orešnik, Janez. 2001. *A Predictable Aspect of (Morpho)Syntactic Variants*. Ljubljana: SAZU.
Parsons, Terence. 1990. *Events in the Semantics of English. A Study of Subatomic Semantics*. Cambridge, Mass: MIT Press.
Parsons, Terence. 1997. Meaning sensitivity and grammatical structure. In M.L. Dalla Chiara et al. (eds), *Structures and Norms in Science*. Amsterdam: Kluwer. pp. 369-383.
Parsons, Terence. 2000. Underlying States and Time Travel. In J. Higginbotham, F. Pianesi, A. C. Varzi (eds) *Speaking of Events*. New York/Oxford: Oxford University Press. pp. 81-93.

Partee, Barbara. 1974. Opacity and Scope. In M. K. Munitz & P. K. Unger (eds). *Semantics and Philosophy*. NewYork: NYU Press. pp. 81-101.

Pesetsky, David. 1998. Some optimality principles of sentence pronunciation. in P. Barbosa *et al*. (eds) *Is the Best Good Enough? Optimality and Competition in Syntax,* Cambridge: MIT Press and MITWPL.

Potsdam, Eric and Jeffrey Runner. 2001. Richard returns: Copy Raising and its implications. *Proceedings of CLS* 37. Chicago, Illinois: Chicago Linguistics Society. pp. 453-468.

Predelli, Stefano. 1999. Saul, Salmon and Superman. *Analysis* 59.2: 113-116.

Prince, Ellen. 1974. English aspectual constructions. PhD dissertation, University of Pennsylvania.

Progovac, Ljiljana. 1994. *Negative and Positive Polarity: A Binding Approach*. Cambridge: Cambridge University Press.

Pylkkänen, Liina. 2002. Introducing Arguments. PhD dissertation, MIT, Cambridge, Mass.

Reinhart, Tanya. 2000. The Theta system: Syntactic realization of verbal concepts. *OTS Working Papers in Linguistics* (00,01/TL).

Richard, Mark. 1990. *Propositional Attitudes*. Cambridge: Cambridge University Press.

van Riemsdijk, Henk. 2002. The unbearable lightness of GOing. The Projection Parameter as a Pure Parameter Governing the Distribution of Elliptic Motion Verbs in Germanic. *Journal of Comparative Germanic Linguistics* 5:143-196

Rivero, María-Luisa. 1990. The Location of Nonactive Voice in Albanian and Modern Greek. *Linguistic Inquiry* 21.1: 135-146.

Rivero, María-Luisa. 2001. On Impersonal Reflexives in Romance and Slavic and Semantic Variation. In J. Camps & C. R. Wiltshire (eds) *Romance Syntax, Semantics and L2 Acquisition*. Amsterdam: Benjamins. pp. 169-195.

Rivero, María-Luisa. 2003. Reflexive clitic constructions with datives: syntax and semantics. In W. Browne et al. (eds) *Formal Approaches to Slavic Linguistics* 11 (The Amherst Meeting, 2002). Ann Arbor: Michigan Slavic Publications. pp. 469-494.

Rivero, María-Luisa. 2004. Datives and the non-active voice. Reflexive clitics in Balkan languages. In O. Mišeska Tomić (ed.) *Balkan Syntax and Semantics* (Linguistik Aktuell / Linguistics Today 67). Amsterdam/Philadephia: Benjamins. pp. 237-267.

Rivero, María-Luisa & Milena Milojević Sheppard. 2003. Indefinite Reflexive Clitics in Slavic: Polish and Slovenian. *Natural Language and Linguistic Theory* 21.1: 89-155.

Rizzi, Luigi. 1982. *Issues in Italian Syntax*. Dordrecht: Foris Publications.

Roberts, Taylor. 1997. The optimal second position in Pashto. Ms MIT. [ROA 174-0297].

Romero, Maribel. 1998. 'The Correlation between Scope Reconstruction and Connectivity', in *Proceedings of WCCFL 16*, CSLI, Stanford, CA, pp. 351–366.

Ross, John Robert. 1969. Auxiliaries as main verbs. in W. Todd (ed.) *Studies in Philosophical Linguistics, series one*. Great Expectations Press, Evanston, Ill, pp. 77-102.

Ross, John Robert. 1970. On Declarative Sentences. in R. A. Jacobs & P. S. Rosenbaum (eds) *Readings in English Transformational Grammar*. Waltham, Mass.: Ginn & Co. pp. 222-272.

Ross, John Robert. 1976. To have have and not to have have. In M. A. Jazayery et al. (eds) *Linguistic and Literary Studies in Honor of Archibald A. Hill*. Lisse: Peter de Ridder Press. pp. 265-270.
Rothstein, Susan. 2000. Secondary predication and aspectual structure. *ZAS Papers in Linguistics* 17: 241- 264.
Rudin, Catherine. 1988. On Multiple Questions and Multiple WH Fronting. *Natural Language and Linguistics Theory* 6:445-501
Ruys, E. G. 1997. On Quantifier Raising and 'Move-F'. in J. Don & F. Sanders (eds.), *OTS Yearbook* 1997 pp. 83-104.
Saito, Mamoru. 1989. Scrambling as semantically vacuous A'-movement. In *Alternative conceptions of phrase structure*, ed. by Mark Baltin and Anthony Kroch, 182–200. Chicago: University of Chicago Press.
Sauerland, Uli. 2003. Intermediate Adjunction with A-movement. *Linguistics Inquiry* 34.2: 308-314.
Sauerland, Uli. 2005. DP is Not a Scope Island. *Linguistic Inquiry* 36.2: 303-314.
Sauerland, Uli & Paul Elbourne. 2002. Total Reconstruction, PF Movement, and Derivational Order. *Linguistics Inquiry* 33.2:283-319.
Saul, Jennifer M. 1997a. Substitution and simple sentences. *Analysis* 57.2: 102-108
Saul, Jennifer M. 1997b. Reply to Forbes. *Analysis* 57.2: 114-118.
Saul, Jennifer M. 1999. Substitution, simple sentences and sex scandals. *Analysis* 59.2: 106-112.
Schoorlemmer, Maaike. 1994a. Dative Subjects in Russian. In J. Toman (ed.). *Formal Approaches to Slavic Linguistics* 1 (The Ann Arbor Meeting). Ann Arbor: Michigan Slavic Publications. pp. 129-172.
Schoorlemmer, Maaike. 1994b. Aspects and Verbal Complementation in Russian. In S. Avrutin et al. (eds) *Formal Approaches to Slavic Linguistics* 2 (The MIT Meeting). Ann Arbor: Michigan Slavic Publications.
Schütze, Carson T. 2001. On the nature of default case. *Syntax* 4.3:205-238.
Schwarzschild, Roger. 2002. Singleton Indefinites. *Journal of Semantics*, 19.3
Sigurðsson, Halldór Árman. 1991. Icelandic Case-marked PRO and the Licensing of Lexical Arguments. *Natural Language and Linguistic Theory* 9:327-363.
Smith, Carlota. 1997. *The Parameter of Aspect* (2nd edition). Dordrecht: Kluwer.
Spencer, Andrew & Marina Zaretskaya. 1998. Verb prefixation in Russian as lexical subordination. *Linguistics* 36: 1-39.
Sportiche, Dominique. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19: 425-449.
Sportiche, Dominique. 1997. Reconstruction & Constituent Structure. Handout of an MIT talk, downloadable from his website.
Sportiche, Dominique. 2003. Reconstruction, Binding and Scope, ms. UCLA, downloadable from his website.
Svenonius, Peter. 2002. Subject Positions and the Placement of Adverbials. In P. Svenonius (ed.) *Subject, Expletives, and the EPP*. Oxford, New York: Oxford University Press. pp. 201-242.
Svenonius, Peter. 2004. On the Edge. in D. Adger, C. de Cat, & G. Tsoulas (eds) *Peripheries: Syntactic Edges and their Effects*. Dordrecht: Kluwer. pp. 259-287.
de Swart, Henriëtte. 1998. Aspect shift and coercion. *Natural Language and Linguistic Theory* 16: 347-385.

Travis, Lisa. 2000. Event Structure in Syntax. In C. Tenny & J. Pustejovsky (eds.) *Events as Grammatical Objects*. Stanford, CA: CSLI Publications. pp. 145-185.

Truckenbrodt, Hubert. 1999. On the Relation between Syntactic Phrases and Phonological Phrases. *Linguistics Inquiry* 30.2: 219-255

Uriagereka, Juan. 1999. Multiple Spell-Out. In Samuel D. Epstein and Norbert Hornstein (eds.) *Working Minimalism*. Cambridge, Mass. MIT Press. pp. 251-282

Uriagereka, Juan & Roger Martin. 1999. Lectures on Dynamic Syntax. Manuscript, University of Maryland, College Park & Kanda University of International Studies. (reported in Grohmann 2000).

Vetter, David. 1973. Someone solves this problem tomorrow. *Linguistic Inquiry* 4.1: 104-8.

Wagner, Michael. 2003. Asymmetries in Prosodic Domain Formation. Ms. MIT. to appear in: Martha Mcginnis and Norvin Richards (eds.): *Proceedings of the MIT Workshop on Phases*, January 2003. MIT Working Papers in Linguistics 47.

Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11: 203-238.

Wurmbrand, Susi. 1999. Modal Verbs Must Be Raising Verbs. *WCCFL 18 Proceedings*, S. Bird, A. Carnie, J. Haugen, P. Norquest (eds). Somerville, MA: Cascadilla Press. pp. 599-612.

Wurmbrand, Susanne. 2001. *Infinitives*. Mouton de Gruyter, Berlin.

Wurmbrand, Susi & Jonathan D. Bobaljik. 2003. Relativized Phases. Ms. McGill University and University of Connecticut.

Yoon, J-M. 1999. Decomposing wh-questions: wh-marking and wh-scoping movement. In *Studies in Generative Grammar* 9:153-198, Seoul, Korea

Zanuttini, Rafaella. 1997. *Negation and Clausal Structure: A Comparative Study of Romance Languages.* Oxford: Oxford University Press.

Zepeda, Ofelia. 1987. Desiderative-Causatives in Tohonno O'odham. *International Journal of American Linguistics* 53.3: 348-361.

Zimmermann, Thomas Ede. 2005. What's in Two Names? *Journal of Semantics* 22.1: 53-96.