On the lack of a (PF) phase in non-finite clausal complements

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Slovenian non-finite complementation appears to be a good testing ground for determining the structural properties of non-finite complement clauses. In the first part of the paper, five arguments based on Slovenian data support the claim that non-finite complements do not have the CP node. Not having a CP means not constituting a phase, which is what the second part of the paper is about. In it, several arguments are used to show that the top projection of non-finite clausal complements spells-out to LF and thus constitutes an LF phase, while at the same time it does not spell-out to PF. That is, non-finite clausal complements lack PF independence but at the same time do not show any such phasal deficiency at the LF interface.

1. Introduction

Control constructions, or more generally non-finite clausal complements, differ from finite clauses in a number of ways. They typically do not have an overt subject, the embedded clause typically does not have a complementizer, and the embedded verb typically lacks tense morphology.[1]

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

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

In this paper I argue for a slightly impoverished structure of non-finite complement clauses. In particular, I claim that the complement clause does not have the CP

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[1] I say only "typically", rather than categorically, because of the supposed cases of backward control (e.g. in Tsez, Polinsky & Potsdam 2001), because of non-finite complementizers (e.g. in Dutch), and because of certain infinitives in various Latin tenses.

projection.[2] Without a CP projection to block A-movement out of the embedded clause, the door opens for a movement analysis of control ala Hornstein (1999, 2001). I further claim that the topmost projection of the embedded non-finite clause maps to a proposition at LF and is thus the projection that constitutes an LF phase. At the same time, the topmost projection does not behave as an independent unit at the PF interface and is thus not the projection that spells-out to PF.

In section 2, I go over five arguments supporting my claim: scrambling (2.1), clitic climbing (2.2), multiple *wh*-movement (2.3), partial *wh*-movement (2.4), and genitive of negation (2.5). In section 3, I discuss the phasal composition of Slovenian non-finite complements, with arguments for the presence of an LF phase and the lack of a PF phase.

2. Arguments against the CP in Slovenian non-finite clausal complementation

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 in addition suggest that non-finite clausal complements do not have the CP or the topmost phasal projection.

2.1 Scrambling

Bošković (1997) discusses scrambling from finite and non-finite clauses in Serbo-Croatian and concludes that unlike finite clauses, non-finite clausal complements do not have the CP projection since scrambling out of them does not trigger weak cross-over (WCO). Here I will present a similar argument based on Slovenian.

Like Serbo-Croatian, Slovenian allows scrambling from both finite and non-finite clauses. Since the embedded finite clause has a CP, the scrambled DP must cross the CP 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 movement over CP (i.e. over a strong phase node) 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 exactly what we find. The scrambled DP in (2a) patterns with the *wh*-movement in (2b); *njegov* 'his' in the matrix subject cannot co-refer with the fronted XP.

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[2] The distinction between different classes of non-finite clause taking verbs is largely ignored in this paper. The reader is directed to Marušič (2005) for some discussion. I assume a simple distinction between verbs taking finite and verbs taking non-finite clausal complements, avoiding (for the most part) the use of restructuring and/or raising verbs since these have already been shown to exhibit monoclausal phenomena (Wurmbrand 2001, Cinque 2004) and thus to lack CP. I restrict this discussion to Slovenian, though the main observation should in principle generalize at least to languages without a complementizer in obligatory control infinitives.

(2) a. Janeza$_i$ je 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 njegov$_{j/*i}$ oče reku, da se boji __ ?
   whom aux his father said that refl fear
   'Whom$_i$ did his$_{j/*i}$ father said that he fears?'

Given the pattern observed above, if non-finite clausal complements also have an intermediate CP, we would expect long distance scrambling out of non-finite clauses to show WCO effects. With an intermediate CP, all movements would have to go through its SpecCP. SpecCP is an A'-position and every movement through an intermediate A'-position should end in an A'-position. Therefore, with an intermediate CP projection, we would predict that just like scrambling out of embedded finite clauses, scrambling out of embedded non-finite clauses would also trigger WCO violations.

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 (3). Since scrambling does not trigger WCO, we can conclude that the final landing site is not an A'-position, and so the context for WCO does not arise. This further means there is no intermediate A'-projection between the two clauses that would prevent the DP from the lower clause to move to an A-position inside the matrix clause. No such position means no CP node.

(3)   Janeza$_i$ je njegov$_i$ oče sklenil odpeljati v šolo.
   Janez aux his dad decided drive$_{INF}$ to school
   'His$_i$ father decided to drive John$_i$ to school.'

In sum, the non-finite clausal complement behaves as if it contains no CP.[3,4]

The same test can be applied in other kinds of non-finite clauses. Restructuring constructions are claimed to involve a highly deficient clausal complement or even a monoclausal structure (Wurmbrand 2001, Cinque 2004), and should thus show the same behavior as 'decide' in (3). Examples (4) and (5) below show that this is indeed the case with complements to modals and aspectuals. The absence 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 'order'/'convice' as a functional verb (cf. Cinque 2004), (6).

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[3] Note that *wh*-extraction out of non-finite clauses does not trigger WCO in Slovenian. In this respect nonfinite complementation parallels non-embedded *wh*-movement — there is no WCO with *wh*-movement in monoclausal sentences.

[4] The difference between finite and non-finite clauses with respect to WCO is even clearer if the pronominal possessor is a *pro*.

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

(5)   Janeza$_i$ je   njegov$_i$ oče   začel   pošiljat po   čike.
        J$_{ACC}$ aux   his   father   began   send$_{INF}$ for   cigarettes
        'His father began to send Janez for cigarettes.'

(6) a. Janeza$_i$ je   njegova$_i$ mama   ukazala Meti pripeljati   nazaj čistega.
        J$_{ACC}$ aux   his   mother ordered M$_{DAT}$ bring$_{INF}$ back clean
        'His mother ordered Meta to bring Janez back clean.'

     b. Petru$_i$ je   njegov$_i$ oče   prepričal Meto dati darilo.
        P$_{DAT}$ aux   his   father   convince   M$_{ACC}$ give   gift
        'His$_i$ father convinced Meta to give a gift to Peter.'

The absence of WCO effects is not a direct consequence of non-finiteness of the
complement but rather the result of the type of scrambling, and of the type of the
structure that the scrambled element moves over. The landing site of the scrambled DP in
(3)-(6) is not an A'-position,[5] as shown by 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
across the putative CP is through its A'-specifier position; however, movements from A'-
to A-positions are not allowed. Therefore I conclude that there is no CP between the two
clauses in (3)-(6).

2.2 Climbing of Pronominal Clitics

Above I have used different versions of scrambling from embedded clauses to argue for
the lack of a CP projection between the matrix predicate and the embedded non-finite
clause. This section makes the same argument based on the behaviour of pronominal
clitic climbing.
    Slovenian clitics are located in the second position (so-called "Wackernagel
position"), following the first (syntactic) constituent of the clause. Slovenian second
position clitics are typically analyzed as heads adjoining to the clause initial functional
head – C (Golden & Sheppard 2000). As shown in (7), clitics cannot leave a finite
embedded CP. They adjoin to the complementizer, which can also be seen as the first
constituent (element) of the embedded clause, satisfying the requirement for the clitics to
be in the second position.

(7)   Res   **sem se** (***ji ga**) navelíčal, da *(**ji ga**)   nonstop hvalim.[6]
        really   aux refl her him got tired   that her him   nonstop praise
        'I got really tired of constantly praising him to her.'

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[5] 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.

[6] In this section clitics are written in ***boldface***.

It is important to note that the presence of the complementizer is not decisive for the positioning of the clitics in the embedded clause. That clitics need not attach to the overt complementizer is shown in (8), 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 either case, they remain inside the CP, adjoined to C.

(8)   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 the kids bought him because of the broken window.'

Given these points, the prediction is clear. If non-finite clauses contained a CP projection, we would expect the pronominal clitics to adjoin to its C head just as they do in embedded finite clauses. This is not what we find. In non-finite clauses, clitics behave differently; they can (though need not) freely climb out of the embedded clause to join the clitic cluster of the matrix clause, as shown in (9). 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 in non-finite clauses, we maintain the generalization that clitics cluster within the first CP phrase/phase available.[7]

(9)   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.'

If non-finite clause do lack the CP, we have to explain how come clitics can stay inside the non-finite clause. The fact that climbing is optional could suggest that there is a CP in non-finite clauses and that sometimes a clitic can climb over it. This kind of option is actually unavailable, since the clitic inside the embedded clause does not have to adjoin to the edge projection of the embedded clause. There is actually no single position inside the embedded clause where the pronominal clitic has to stay. As shown in (10), the pronominal clitics from inside the embedded non-finite clause can be placed between any two syntactic elements between their base and their final landing position.

(10) 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.

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[7] See Golden (2003) for an extended discussion and a multitude of clitic climbing data in Slovenian.

The data in (10) actually represent a problem for the syntactic account adopted here. If clitics indeed adjoin to C^0 in finite clauses, how can they remain inside a non-finite clause? The clitics in (10) do not seem to be forced to attach to any specific syntactic position. But if there is no specific syntactic position, where are they?[8]

In Marušič (2002, 2007), I argue for a prosodic analysis of Slovenian clitic placement. Following that 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 kind of "phonological" analysis, clitics can climb out of 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.

As I have shown, the specific clitic analysis adopted in the initial part of this section was not crucial for the argument. Whichever analysis one assumes, the data point consistently to the lack of a CP projection or, more to the point, the lack of a (PF) phase.

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: as shown in (11), any *wh*-word can be placed in first position. Like Serbo-Croatian, Slovenian also allows the *wh*-word cluster to be split up by clitics. The *wh*-word that follows the two clitics in (12a) is thus also taken to be fronted. Also worth noting is that multiple *wh*-fronting is not obligatory in Slovenian, (12b).

(11) a. Koga   kdo   toži?
        whom   who   sues
        'Who is suing whom?'

(12) a. Kdo **mu je**   kaj   povedal?
        who him aux   what told
        'Who told him what?'
     b. 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

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[8] Bošković (2001) actually concludes the same and proposes a syntactic answer to this question. Though I do not think that his solution is on the right track, I cannot go into this issue here.

(13). This restriction is supposedly correlated with the fact that *wh*-words can be separated by 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.

(13)   * Kaj je   komu   silil   Vid Petra, da   naj da   ___ ?
         what aux whom   forced Vid Peter   that ptcl give
         'What did Vid forced Peter to give to whom?'

If non-finite clauses have a CP projection just like finite clauses, we would predict that just like finite clauses, non-finites will also disallow multiple long distance *wh*-movement. This is not what we find: multiple *wh*-movement out of Slovenian non-finite clauses is clearly available, (14). This suggests that non-finite clauses do not have the same structure as finite clauses do. In particular, assuming Rudin's analysis of multiple *wh*-movement, this shows that non-finite clauses do not have the CP projection, i.e., the node that prevents multiple *wh*-movement out of finite clauses. Although the judgments are not clear for every non-finite clausal complement selecting verb, the sentences in (14) are nevertheless certainly grammatical.

(14) a. Komu   si   kaj   pozabil dati?
         Whom$_{DAT}$ aux what$_{ACC}$ forgot   give
         'Whom did you forget to give what?'
      b. Komu   si   koga   sklenil predstaviti?
         Whom$_{DAT}$ aux who$_{ACC}$ decide   introduce
         'Who did you decide to introduce to whom?'
      c.?Kaj   si   kdaj Petri včeraj   ukazal [prinesti __ na mizo __]?
         what$_{ACC}$ aux when Petra yesterday order   bring$_{INF}$ to table
         'What did you order Petra to bring to the table when?'

From the observation that multiple *wh*-movement is impossible out of finite clauses but possible (to some degree) in non-finite clauses, one can naturally 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.[9]

2.4 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), (15).

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[9] An immediate question comes to mind: can there be *wh*-words between the matrix and the embedded nonfinite clause? If so, in what position could they be, especially if there is really no CP between the two clauses. I put this question aside for now and return to it in section 2.5.

(15) a. Slavko je   kupil   Meti   bicikel.
        S$_{NOM}$ aux   bought M$_{DAT}$ bike$_{ACC}$
        'Slavko bought Meta a bike.'
     b. Slavko ni   kupil   Meti   bicikla.
        S$_{NOM}$ aux$_{Neg}$ bought M$_{DAT}$ bike$_{GEN}$
        'Slavko didn't buy Meta a bike.'

Objects inside finite clausal complements with matrix-clause negation, however, cannot appear in genitive case, (16). Regardless of the exact mechanism of genitive case assignment, for which many analyses have been proposed (e.g. Kim 2003, Bailyn 2004) 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. Being a phase, the CP blocks agree, and without this long distance relation, genitive cannot be licensed inside the embedded clause.[10]

(16) Slavko ni   sklenil, da bo   Meti   kupil bicikel / * bicikla
      S$_{NOM}$ aux$_{NEG}$ decided that will M$_{DAT}$ bought bike$_{ACC}$ bike$_{GEN}$
      'Slavko didn't decide that he will buy Meta 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 a CP, they should also block the licensing of genitive of negation. This is not what we find. As shown in (17), genitive of negation *is* licensed in non-finite clauses embedded under a matrix clause with sentential negation.

(17) a. Slavko še   ni   sklenil kupiti Meti   bicikla.
        S$_{NOM}$ yet aux$_{NEG}$ decide buy$_{INF}$ M$_{DAT}$ bike$_{GEN}$
        'Stane hasn't decided yet to buy Meta a bike.'
     b. Petra Meti   ni   zapovedala kupiti avtomobila.
        Petra Meta$_{DAT}$ aux$_{NEG}$ order   buy$_{INF}$ car$_{GEN}$
        'Petra didn't order Meta to buy a car.'

Again, we can reason from the absence of an effect predicted to exist in the presence of a CP. Since this effect is missing, non-finite complementation must lack a CP node.[11]

2.5 Partial wh-movement

Slovenian exhibits the so-called partial *wh*-movement, as shown in (18). As extensively discussed by Fanselow (2003), in these constructions the base generated *wh*-word only

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[10] Assuming that the negative feature of the Slovenian C (or Laka's 1990 Σ) cannot be licensed by the upper negation, or cannot license the lower genitive of negation.

[11] See Witkoś (2003) for a more developed argument against the CP using similar facts in Polish.

moves part of the way towards its scope position, while in the specifiers of CPs in between the *wh*-word and the highest [+Q]-marked CP, the default *wh*-word is inserted, i.e., the *wh*-expletive. The Slovenian default *wh*-word is *kaj* 'what'. The complementizer following the *wh*-word is optional in Slovenian.

(18)　Kaj praviš, kdo (da) je　prišel?
　　　What say$_{2P,Sg}$ who (that) aux　came?
　　　'Who do you say came?'

If non-finite clauses really had a CP projection, we would also expect them to allow partial *wh*-movement. This is not observed, though. As shown in (19), partial *wh*-movement is not available with embedded non-finite clauses. 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, (20).[12]

(19) 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?'
(20)　Koga　ti　Janez　ukazuje udariti?
　　　Whom you Janez　order　hit$_{INF}$
　　　'Who did Janez order you to hit?'

Examples (19) 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 (21).

(21) 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 who he wanted to say hello to.'

According to this analysis, (19) are out because obligatory control 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, (21). When both the embedded and the doubly embedded clause are finite, the *wh*-expletive shows up in the upper two SpecCP positions. As shown in (22), the intermediate SpecCP

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[12] There seem to be certain disagreement among speakers with respect to the judgements in this section. This is not surprising since partial movement is in itself a very marginal construction.

between the *wh*-word and the CP where the *wh*-word takes scope cannot be empty (cf. Fanselow 2003 for similar facts in German).

(21) Kaj nam je   Vid ukazal, kaj moramo reči, koga   je   Meta ljubila?
     what us   aux Vid ordered what must   say_{INF}whom   aux   Meta loved
     'Who did Vid order us that we must say that Meta loved?'

(22) *Kaj   je Vid mislil, da je Črt rekel, koga   da   je   Meta ljubila?
      what   aux Vid thought that aux Črt   say   whom   that aux   Meta 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, (23). Since partial *wh*-movement cannot skip an intermediate SpecCP, as shown in (22), the lack of the intermediate *wh*-expletive in non-finite clauses again suggests the lack of a CP projection.

(23) Kaj nam je   Vid ukazal(*kaj) reči,   koga   da   je   Meta ljubila?
     what us   aux Vid ordered what say_{INF}   whom   that aux   Meta loved
     'Who did Vid order us to say that Meta loved?'

The same restrictions on partial *wh*-movement out of non-finite clausal complements exists also in German and Hungarian, as observed by Fanselow (2003). Fanselow relates this restriction to the fact that German does not allow *wh*-headed infinitival clauses, (24). Fanselow makes the following generalization: (p19, [W7]) "The CP related to a WP [= *wh*P] must be a syntactically legal indirect question."

(24) a.*Was glaubst Du   [wen   eingeladen zu haben]? (Fanselow 2003, (66))
        what believe you   whom   invited   to have
     b. Wen glaubst du   eingeladen zu haben?
        what believe you   invited   to have
        'Who do you believe to have invited?'
     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 (25).

(25) 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 the house.'

These kinds of examples are very different from ordinary non-finite complements. Following Hornstein (1999, 2001), I claim these sentences do not involve obligatory control and are therefore substantially different. Only obligatory control constructions are a result of movement (according to Hornstein 2001) and only for those the existence of a CP represents a problem.
The Slovenian *wh*-initial infinitives, given in (26), all involve non-obligatory control. These sentences crucially involve an embedded [+Q] CP. They also differ in that they appear with verbs that do not select for (non-*wh*-initial) non-finite clauses.

(26) a. Pokazal sem mu kje   (mora)   pristati. vs.   *Pokazal sem mu   pristati
       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

These apparent non-finite clauses behave differently from true non-finite clauses in several respects. Unlike non-*wh*-initial non-finite clauses, these examples with apparent, *wh*-initial non-finites do not exhibit the properties that suggest a lack of the CP projection. Clitics cannot climb out of such clauses, (27), and matrix negation cannot license genitive of negation in them, (28).

(27) a.*Ukazal   mi ji   je   [kaj reči __].
       ordered   <u>me</u> her aux   what say$_{INF}$
       'He ordered <u>me</u> what to tell her.'[13]

(28)   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.'

These kinds of sentences behave differently also with respect to scrambling. Scrambling out of apparent, *wh*-initial non-finite clauses is impossible, (29a). The explanation here does not have to do only with the presence of a CP since scrambling out of finite clauses is available in Slovenian as shown in (29c). Unlike scrambling from an embedded finite clause, scrambling out of an embedded question is bad, (29b). The unavailability of scrambling in (29a) is therefore probably due to its SpecCP being filled (with a *wh*-word), not simply to its presence.

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[13] (27) is good on an irrelevant reading where the *wh*-word is read as an indefinite pronoun ('something').

(29) a.*Janeza   se   je   Peter odločil, kdaj naučiti   manir.
         Janez$_{ACC}$ refl   aux   Peter decided when teach$_{INF}$ manners
     b.*Janeza   se   je   Peter odločil, kdaj mora naučiti   manir.
         Janez$_{ACC}$ refl   aux   Peter decided when must teach$_{INF}$ manners
     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.'

This section has again 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, obligatory control constructions cannot exhibit partial *wh*-movement because they do not have the intermediate CP where the *wh*-word would land. By contrast, non-obligatory control constructions, which have a CP, crucially involve a [+Q]-marked C, which prevents the [+wh] feature to undergo further movement.

3. Phasal Composition of non-finite complementation

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 non-finite clausal complements nevertheless constitute a phase, but that this is not a complete phase at which structure is simultaneously spelled-out to both interfaces. In particular, I will show that this phase only spells-out to the LF interface and that it is thus an instance of an LF-only phase. I will show that this chunk of structure constitutes a semantic unit but at the same time does not form a prosodic unit, and was therefore not spelled-out to PF at the same time. I will also go over the arguments from section 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, PF-and-LF strong phase. Thus it will be shown that the data in this paper argue for the existence of non-simultaneous phases.

3.1 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 a non-specific interpretation, a non-denoting term in such structure 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 that Vid decided to marry for (30a) to be true — Vid simply decided that he will marry a Finn, but does not yet know whom—and (30b), with a non-denoting term in its complement, is not

necessarily false. Similar examples can be given for every other type of non-finite complementation.

(30) 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 that there is an LF phase under the matrix verb if we check the interpretation of universal quantifiers inside the embedded non-finite clause. The scope position of a (universal) quantifier is commonly taken to indicate the edge of an (LF) phase. If quantifier raising is a syntactic movement, and if it can indeed cross phase boundaries, then it has to go through phase edges; so if a quantifier can be interpreted in a specific position, this position is a phase edge to which the quantifier moved in order to be accessible for future movements (for a discussion of quantifier raising see Marušič 2005). In order to see whether a projection is a phase, we should thus check if quantifiers can be understood inside the scope of the matrix verb (cf. Legate 2001, 2003, Sauerland 2003, among others).

    As shown in (31a), the universal quantifier can be understood inside the scope of the matrix verb, since the sentence (also) has the interpretation under which Vid forgot to close all the windows, but did remember to close some. And even more revealingly, (31b) (also) 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).

(31) a. Vid je pozabil zapret vsa okna.   *forgot > ∀*
      Vid aux forgot close_{INF} all windows
      'Vid forgot to close all windows.'
    b. 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.'

The interpretation with the universal quantifier of (31b) is inside the scope of the matrix verb but outside the scope of negation shows that the quantifier can be interpreted in the embedded SpecTP, the phase edge of the lower non-finite clause. We get similar results when we take a look at the inverse scope linking cases in (32).

(32)   Odloču se je neupoštevat vse s tremi vrstami težav
      decide refl aux disregard_{INF} all with three kinds problems
      'He decided to disregard everyone with three kinds of problems.'

(32) can be understood in the following way: he decided that for three kinds of problems,

he will disregard everyone who has them. The quantifier from inside the object DP is thus interpreted higher than negation but still lower than the matrix verb. The fact that the two quantifiers from the object DP ('all', 'three') are not interpreted one next to the other is not surprising following Sauerland's (2005) analysis.

More facts like this can be added. 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 (33). 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.

(33) Meta je   ukazala Petru priti   na   vse   koncerte.
      Meta aux   ordered Peter arrive$_{INF}$ on   all   concerts
      'Meta ordered Peter to arrive to all concerts.'   *order* > $\forall$

In addition, if the lower clause consists of more than just the embedded VP and *v*P (as it must be the case since it can contain negation, as in (31b) 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 above, the entire complement clause expresses a proposition regardless of the type of verb inside the complement clause. Even if the latter contains an unaccusative verb, which does not have a *v*P phase, the complement semantically still corresponds to a proposition, and is as such a perfect candidate for an LF spell-out unit. This means that some projection bigger then the embedded *v*P and smaller then the matrix verb is spelled-out to LF.

An additional argument for the presence of an LF phase can be constructed. If, following Urribe-Excebarria (1994), negative polarity items (NPIs) are licensed at LF, then the presence of the negative operator in the main clause could license a NPI that is in the embedded clause if there is no LF spell-out in between the two clauses. If, on the other hand, the lower clause is spelled-out to LF, then the NPI could not be licensed by the matrix negative operator, since its trigger is not transferred to LF in the same phase.[14] As shown in (34), *počenega groša* 'broken grosh' is an NPI licensed by a local negative operator. It is ok in (34b) and (34d), where the negation appears within the same clause. It is out in (34a) and (34c) where there is no negation within the same clause.

(34) a. *Imam (tudi)   počen   groš.
         have   also   broken grosh$_{ACC}$
        'I don't have a red cent.'
     b. Janez   mu   ni   dal   (tudi) počenega   groša.
        Janez   him   not   gave also   broken   grosh$_{GEN}$
        'Janez hasn't given him a red cent.'
     c. *Peter ni   vedu, da   ima   (tudi) počen   groš.
        Peter not   knew   that has   also   broken grosh$_{ACC}$

---

[14] This argument was suggested to me by the reviewer.

    d. Peter ni   vedu,   da   Metka nima   (tudi)   počenega groša.
       Peter not   knew   that   Metka not-has   also   broken   grosh$_{GEN}$
       'Peter didn't know that Metka doesn't even have a red cent.'

Just like this NPI is not allowed in the finite clausal complements, when they do not contain a clausal negation, it is also out in non-finite clauses without a negative operator, as shown in (35).

(35) a.*Peter   mu   ni   branil   plačati   (tudi)   počenega groša.
        Peter   him   not   forbid   pay   also   broken   grosh$_{GEN}$
        'Peter didn't forbid him to pay even a broken grosh.'
    b.*Peter ni   prepričal   Metke   plačat taksistu   (tudi) počenega groša.
        Peter not   conviced   Metka   pay   taxi-driver also   broken   grosh$_{GEN}$
        'Peter didn't convince Metka to pay the taxi driver even a red cent.'

Genitive of negation is licensed in non-finite clauses under matrix negation, as discussed in section 2.5, yet as seen in (35b) genitive of negation is not enough to license NPI. Obviously, genitive of negation is not an NPI.

    Although we showed in section 2 that we do not have a CP projection in between the two clauses, and would thus not expect any phase separating the two clauses, we now found LF evidence for a phase. Bobaljik & Wurmbrand (2005) claim that 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'). Regardless of where the phasehood comes from (whether phases are induced as in Bobaljik and Wurmbrand 2005, slided as in Gallego 2006, or derived by some other mechanism), the crucial question now is whether we can find also PF evidence for a phase in this area; in principle, one could pursue the idea that (some) structures smaller than CPs and larger than vPs should be included among (complete) strong phases. In the next subsection I will look at PF phase diagnostics and try to show that these LF phases do not have the properties of PF phases.

    I am assuming a structure with more then just the core projections CP-TP-*v*P. Thus, when I say that the top projection of non-finite clauses is TP I am not claiming that the complement of T in non-finite clauses gets spelled-out to LF, but rather that there is some projection in that area which servers as the edge and whose complement gets spelled-out to LF. Vagueness serves the purpose of simplicity of explanation.

3.2 PF phasehood

As was shown in section 2, 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 that there is an LF phase in between the two clauses, I will now turn to the phonological properties of non-finite complements and try to present evidence for the lack of a PF phase.

Assuming a phonological positioning of clitics, clitics move to the second position inside the relevant prosodic unit. Since clitics can climb out of non-finite clauses, there can be 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), proposes 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 nuclear stress to the rightmost lexical element in the structure. It is reasonable to assume that it applies to structure when it is shipped to PF, that is, at every phase. Every PF phase would thus bring in another application of the nuclear stress rule. The combination of a matrix clause and a finite clausal complement seems to have two intonational phrases, with a pause in between the two clauses and two main stresses on the rightmost lexical word of every clause, as shown in (36a) (the 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, (36b,c).

(36) a. Peter je   včeraj   rekel, da bo   prišel na zabavo **sam**.
         Peter aux yesterday said   that will come to party   alone
         'Peter said yesterday that he will come to the party alone.'
    b. Peter je   včeraj   sklenil prit   na zabavo **sam**.
         Peter aux yesterday decided come$_{INF}$ to party   alone
         'Peter yesterday decided to come to the party alone.'
    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.[15] Matushansky (2003) concludes that according to this diagnostic, 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 (37a), CP can be extraposed, but TP cannot (37b). Similarly, (37c) shows that TP cannot be topic left-dislocated, while CP and DP can be. The same is true of pseudo-clefting, as shown in (37d). ((37) from Matushansky 2003, her (19), (20), (23))

(37) 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].

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[15] 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.

Additionally, the Slovenian sentences with non-finite complement clauses allow a kind of multiple scrambling. The kind of word reordering shown in (38) is only allowed within a sentence/clause. Normally, only one element can scramble over a finite CP, and in case more than one element scrambles, they have to form some sort of a constituent and appear leftmost. Thus, (39d), with the fronted constituent following the matrix subject, (39e), with two elements from the embedded clause with the intervening matrix subject, and (39f) with a fronted non-constituent are all bad. No such restrictions hold for reorderings within a single clause.

(38) Medota je   že   včeraj   po   gozdu   brez   puške iskal Vid.
     Bear   aux already yesterday around forest without gun   search Vid
     'Vid looked for a bear around the forest with no gun already yesterday.'

(39) 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
     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 it.
        home   Janez   yesterday says that aux Meta   forgot go$_{INF}$
     f.*Meta domov   Janez   pravi, da je   včeraj   pozabla it.
        Meta home   Janez   says that aux yesterday forgot go$_{INF}$

What is obvious is that the kind of reordering from (38) is not available in (39). This reordering (multiple scrambling) is, on the other hand, available in non-finite complementation basically to the same degree as in simple monoclausal sentences – anything can appear anywhere.[16]

(40a) is the basic sentence with the neutral word order. The embedded clause (written in bold) follows the matrix verb. All the other examples in (40) have scrambled word order, but the difference between them is just stylistic.

(40) a. Peter je   včeraj   v gostilni pozabil **povabit Vida   na žur**.
        P$_{NOM}$ aux yesterday in pub   forgot invite$_{INF}$ V$_{ACC}$ 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.
        V$_{ACC}$ aux P$_{NOM}$ to party yesterday in pub   invite$_{INF}$ forgot
     c. **Na žur** je   **Vida** Peter včeraj   v gostilni **povabit** pozabil.
        to party aux V$_{ACC}$ P$_{NOM}$ yesterday in pub   invite$_{INF}$ forgot

---

[16] I am not using any adverbs in these cases, since these have a more fixed ordering among themselves.

    d. **Na žur** je Peter **Vida** včeraj v gostilni **povabit** pozabil.
       to part aux P_{NOM} V_{ACC} yesterday in pub invite$_{INF}$ forgot
    e. **Vida** je **na žur** Peter včeraj v gostilni **povabit** pozabil.
       V_{ACC} aux to party P_{NOM} yesterday in pub invite$_{INF}$ forgot
    f. Peter je **povabit Vida na žur** včeraj v gostilni pozabil.
       P_{NOM} aux invite$_{INF}$ V_{ACC} to party yesterday in pub forget
    g. **Povabit** je **Vida na žur** Peter včeraj v gostilni pozabil.
       invite$_{INF}$ aux V_{ACC} to party P_{NOM} yesterday in pub forget
    h. **Povabit** je **Vida** Peter **na žur** včeraj v gostilni pozabil.
       invite$_{INF}$ aux V_{ACC} P_{NOM} to party yesterday in pub forget
    i. **Povabit** je Peter **na žur** včeraj v gostilni pozabil **Vida**.
       invite$_{INF}$ aux P_{NOM} to party yesterday in pub forget V_{ACC}
    j. **Povabit** je Peter včeraj v gostilni pozabil **Vida na žur**.
       invite$_{INF}$ aux P_{NOM} yesterday in pub forget V_{ACC} to party
    …

This largely unconstrained reordering is semantically (=truth-conditionally) vacuous, as shown in (41) (more about this multiple scrambling is said in Marušič 2005), 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). This multiple scrambling is similarly insensitive to principle C (as shown in Marušič 2005).

(41) 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 prinest** [vsak bolan otrok]$_i$.
    c. **V njegovo$_i$ sobo** je sestri **kosilo** ukazal **prinest** [vsak bolan otrok]$_i$.
    d. **V njegovo$_i$ sobo** je [vsak bolan otrok]$_i$ sestri **kosilo prinest** ukazal.
    …

This multiple scrambling/reordering cannot be a case of simple syntactic left dislocation, or else we would expect this to be available out of non-finite clauses as well, in particular, we would expect sentences (39d,e) to be acceptable, on a par with the comparable (40d) and (40f). But this is not the case.

    These kinds 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 in non-finite complementation. If that is the case, then Slovenian non-finite clauses do not spell-out to PF at the same point where they spell-out to LF.

    Finally, Matushansky (2003) also discusses isolability as a potential diagnostic for PF phases. If a certain phrase can be pronounced alone, outside of its proper place in the

sentence, then it is a good candidate for PF phasehood. Following this diagnostic, non-finite clausal complements would, contrary to what I just argued for, constitute PF phases. As shown in (42), non-finite clausal complement can be pronounced in isolation (both in English and Slovenian). But as shown in (43) (from Matushansky 2003), what this diagnostic singles out is not always a PF phase. What is pronounced in isolation in (43) is neither *v*P nor TP, the two potential phases in the relevant region. Since this diagnostics turns out to be questionable, it does not contradict the claim made earlier that non-finite clausal complements are not a PF phase.

(42) a. Peter ti je ukazal iti ven. – Iti   ven? Kaj si pa misli, iti ven?
                                          go$_{INF}$ out
          'Peter ordered you to go out. – to go out? What does he thinks, to go out?'
      b. Peter se je odločil kupit avto. – kupit   avto? Kako kupit avto?
                                             buy$_{INF}$ car
          'Peter decided to buy a car. –   to buy a car? How to buy a car?'

(43)   Alice didn't leave. – Didn't leave? What do you mean, didn't leave?

3.3 Reevaluation of the arguments against the CP

I will now take a second look at some of the arguments against the CP projection/strong phase from section 2 and explain how they could be understood, or revised, to argue for the lack of a PF phase. Note that this section is not meant to restate the arguments in terms of non-simultaneous phases, but rather to explain why arguing for a lack of a phase and drawing parallels between biclausal and monoclausal structures, and at the same time positing an LF-only phase, do not necessarily contradict each other and destroy the arguments.

3.3.1 Scrambling

As was observed in section 2.1, scrambling out of non-finite clauses appears to have A-properties and is thus comparable to the familiar Japanese-type A-scrambling, which does not reconstruct and must therefore occur in syntax proper. Note, though, that this "A-scrambling" in Slovenian *does* reconstruct, and the same holds for the special multiple scrambling from section 3.2. Multiple scrambling was argued not to be a syntactic but rather a PF phenomenon. If scrambling turns out to be just some sort of PF movement, then it is not surprising that the existence of an LF phase has no effect on its availability.

3.3.2 Clitic climbing

Assuming a phonological positioning of clitics, the argument from 2.2 is very straightforward. Because there is no PF boundary 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 should clearly 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 does not 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 2.2, clitic climbing out of non-finite clauses is optional in Slovenian. Clitics can but need not climb. An example was given in that section, more are given in (44-45). In addition to being optional, clitic climbing does not have a 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 clause or the complement clause. If clitic climbing is really prosodic, then this clearly shows that 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 that there are no PF spell-out positions. (# in (44b) signifies a longer pause after the auxiliary clitic, without which the sentence is ungrammatical.)

(44) 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**]].

(45) 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.

3.3.3 Multiple wh-movement

Multiple *wh*-movement is not obligatory in Slovenian, and the fronted *wh*-words do not form a syntactic unit. One might speculate, therefore, that it does not occur for a syntactic reason. Since it is optional, it also does not have any effect on the interpretation. Assuming all *wh*-words eventually must front to their scope position, an LF-only phase cannot block them, since they can always covertly move over it. But a PF phase could block their overt movement. Optionality and the lack of interpretative effects already suggest that multiple *wh*-movement is an instance of PF movement. If this is indeed the case, the fact that multiple *wh*-movement is allowed from non-finite complement clauses suggests that there is no PF phase that would prevent it. But regardless of its movement-type, the existence of an intervening LF phase does not play any role, so the argument from section 2.3 still stands.

3.3.4 Genitive of negation

At this point, it is not yet 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. As shown earlier, NPIs are not licensed in embedded non-finite clauses, so that the fact that genitive of negation is licensed suggests that genitive of negation is not an NPI, and that it is not licensed at LF. Case can be naturally seen as a PF condition, it 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 at least partially like other cases, then it is important that case does not get separated from its licensor 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, then following our logic, there should not be any PF phase intervening, while LF phases do not appear to be important. The proposed phasal composition is thus consistent with the argument.

3.3.5 Partial wh-movement

As analyzed by Cheng (2000), partial *wh*-movement is the phonological spell-out of the WH-feature that moved through the CP. As claimed in this chapter, there is no CP between the matrix ant the embedded clause, so there should not be any WH-feature. Again, the presence of an LF phase should not 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 is forced to be spelled-out in the *v*P phase edge when it moves through it. *Wh*-expletives seem to be restricted to CPs, and since there is no CP

between the two clauses, there cannot be any *wh*-expletive. The actual phasal composition does not affect the validity of the argument.

4. Conclusion

Although I was 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.

Allowing non-simultaneous spell-out means that we can explain both Total Reconstruction and Quantifier Raising in purely derivational terms without any backsteps such as delition of a higher or lower copy. Total Reconstruction turns out to be a case of syntactic movement of an item that has been previously spelled out to Logical Form (LF), while Quantifier Raising involves syntactic movement of an item that has been previously spelled out to Phonetic Form (PF). That is, of a situation just contrary to the one observed in non-finite complementation. As explained in Marušič (2005), DP is a phase spelling-out only to PF. All this and more is explained in all relevant detail in Marušič (2005).

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