

## CP under control\*

### 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 does not have any tense morphology.

The standard analysis of control structures from Chomsky and Lasnik (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, receiving null case from the defective T. Pro can be interpreted because it is controlled by an antecedent in the matrix clause.

- (1) [CP[TP *John*<sub>i</sub> [VP *hopes* [CP[TP PRO<sub>i</sub> *to* [VP *get the tickets*]]]]]]

Hornstein (1999, 2001) proposes an alternative analysis of control. He 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 identity of the phrase with the non-finite clause. He simply 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/strong phase as it is standardly assumed. Movements over a CP/strong phase are possible only with an intermediate stop in Spec-CP, but Spec-CP is an A'-position and movements out of A' into A-positions are a violation of the Chain Uniformity principle. Movement analysis therefore depends on a non-CP status of control clauses.

The goal of this paper is to open the door for a Hornstein/movement type of analysis of non-finite complementation, by showing that Slovenian non-finite clauses do not have the CP projection<sup>1</sup>. In section 2, I go over six major arguments to support my claim that non-finite clauses are not separated from the matrix clause by a strong phase (Chomsky 2001), that they do not have a CP: scrambling (2.1), clitic climbing (2.2), multiple *wh*-movement (2.3), partial *wh*-movement (2.4). In section 3, I extend the claim and relate it to other proposals in the field. In section 4, I discuss the division of verbs according to their complements. Section 5 is the conclusion.

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<sup>1</sup> The distinction between different classes of non-finite complements taking verbs will be introduced in the 3<sup>rd</sup> section. Until then I use the most trivial distinction between verbs taking finite and non-finite clauses, but, of course, avoid (for the most part) use of clearly restructuring and/or raising verbs since they have already been shown to exhibit typical monoclausal phenomena (Wurmbrand 2001, Cinque 2002) and thus lack CP.

## 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, which all point to a structural difference between finite and non-finite clauses. I will show that they all suggest that non-finite clausal complements do not have the CP projection or the corresponding strong phase.

### 2.1 Scrambling

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

Just like Serbo-Croatian, the language used by Bošković, Slovenian allows scrambling from both finite and non-finite clauses. Since finite clauses have a CP, the scrambled embedded DP *Janeza* in (3) has to go over the CP to its landing site in front of the matrix clause. The final landing site of such a long distance scrambling from the finite clause should be an A'-position, since movements from an A' to an A-position are not allowed under the Chain Uniformity principle, and movements over the CP/strong phase are not allowed without the intermediate step through the Spec.CP (Chomsky 2001). The final landing site of scrambling thus corresponds to the landing site of *wh*-movement. The prediction follows that the scrambled DP is subject to WCO. This is also what we see. The scrambled DP in (3a) patterns with *wh*-movement in (3b), *his* cannot co-refer with the fronted XP. But it can if the scrambled constituent does not cross over the pronoun as in (4).

- (3) a. *Janeza<sub>i</sub> je njegov<sub>j/\*i</sub> oče rekel, da se boji \_\_\_.*  
J-GEN<sub>i</sub> AUX his<sub>j/\*i</sub> father said COMP REFL fear  
"John<sub>i</sub>, his<sub>i</sub> father said he fears."  
b. *Koga<sub>i</sub> je njegov<sub>j/\*i</sub> oče rekel, da se boji \_\_\_?*  
whom<sub>i</sub> AUX his<sub>j/\*i</sub> father said COMP REFL fear  
"Whom<sub>i</sub> did his<sub>j/\*i</sub> father said that he fears?"
- (4) a. *Janeza<sub>i</sub> je Peter rekel, da se boji \_\_\_ na njegovem<sub>i</sub> žuru.*  
J-GEN<sub>i</sub> AUX Peter said COMP REFL fears at his<sub>i</sub> party  
"Peter said that he fears Janez<sub>i</sub> at his<sub>i</sub> party."  
b. *Koga<sub>i</sub> je Peter rekel, da se boji \_\_\_ na njegovem<sub>i</sub> žuru?*  
whom<sub>i</sub> AUX Peter said COMP REFL fears at is<sub>i</sub> party  
"Whom<sub>i</sub> did Peter said that he fears at his<sub>i</sub> party?"

Given the pattern observed above, if the control constructions also have an intermediate CP on top of the embedded non-finite clause, we would expect long distance scrambling out of non-finite clauses to show similar kinds of WCO phenomena. As long as there is an intermediate CP, all movements have to go through the Spec.CP 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 born out in the observed Slovenian data. In contrast to scrambling out of finite clauses, scrambling out of non-finite clauses does not induce any WCO as shown in (5). Since scrambling does not trigger WCO, there is no CP node. There is no intermediate A'-projection between the two clauses, so that the DP from the lower clause

can move to an A-position inside the matrix clause – the final landing site does not have to be an A'-position and the context for WCO does not arise.

- (5) *Janeza<sub>i</sub> je njegov<sub>i</sub> oče sklenil poslati v semenišče.*  
 J-ACC<sub>i</sub> AUX his<sub>i</sub> father decided send<sub>INF</sub> to theological seminary  
 "His<sub>i</sub> father decided to send John<sub>i</sub> to the theological seminary."

As shown, the non-finite clausal complement behaves as if it does not have the CP.<sup>2</sup>

The lack of WCO is not a direct consequence of non-finiteness of the complement but it is rather the result of the type of scrambling and structure the scrambled element moves over. The landing site of the DP scrambling in (5) is not an A'-position<sup>3</sup>, but it is clearly in the clause. The only way over the supposed CP of the embedded non-finite clause is through its A'-specifier position, but movements from A' to A-positions are not licit. The conclusion is that there is no CP in between the two clauses in (5).

### 2.1.1 A further note on scrambling

Another difference between the two types of clauses that suggests that non-finite clauses have a less complete clausal structure is observed with scrambling. I have nothing to say on the different mechanism 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 am simply assuming that whatever theory of scrambling one accepts, the two types of scrambling will have two different landing sites. In this subsection I show this using quantifiers.

As shown in (6a) a universal quantifier inside the embedded finite clause cannot have wide scope interpretation over the existential quantifier in the matrix clause. Scope interpretation does not change when the universal quantifier undergoes scrambling to the beginning of the clause (6b). Since the fronting does not influence the scope interpretation, the scrambled DP apparently has to reconstruct. 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 (6b) moves through the intermediate Spec.CP and thus cannot land in an argument position inside the matrix clause.

- (6) a. *Nekdo je rekel, da so vse punce vredne greha.*  $\exists > \forall, * \forall > \exists$   
 somebody AUX said, COMP AUX all girls worthy sin-GEN  
 "Somebody said that all girls are worthy of sin."  
 b. *Vse punce, je rekel nekdo, da so \_\_ vredne greha.*  $\exists > \forall, * \forall > \exists$   
 all girls AUX said somebody, COMP AUX worthy sin-GEN

If control constructions have an intermediate CP, than 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 should not have scope over the existential quantifier in the matrix clause.

This is not what we find. Example (7a) with the scrambled universal quantifier is ambiguous. This means that the landing site of the scrambled universal quantifier is an A-

<sup>2</sup> Note that *wh*-extraction out of non-finite clauses, does not trigger WCO in Slovenian. Non-finite clauses again differ from finite clauses, since extraction from finite clauses is subject to WCO. WCO is also not triggered in simple monoclausal questions.

<sup>3</sup> This kind of explanation might not be valid within the current minimalism (e.g. Chomsky 2001), but the facts remain the same. Non-finite clauses are different from finite ones with respect to the presence/lack of WCO.

position from where 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.

- (7) a. *Vse punce se je nekdo odločil poklicati po telefonu* \_\_\_  $\exists > \forall, \forall > \exists$   
 all girls REFL AUX someone decided to call<sub>INF</sub> over phone  
 "Someone decided to call all girls"
- b. *Nekdo se je odločil poklicati po telefonu vse punce*  $\exists > \forall, ?\forall > \exists$   
 someone REFL AUX decided to call<sub>INF</sub> over phone all girls

The interpretation of the non-scrambled sentence (7b) is not entirely clear. For some speakers and with some degree of focus the universal quantifier can have wide scope interpretation, but this is not really important at the present point. In case (7b) is ambiguous, than non-finite clauses show greater transparency than finite clause. They allow embedded quantifiers to have wider QR domain than finite clauses. This would suggest that non-finite clauses lack some structure that prevents universal quantifiers inside embedded finite clauses to take wide scope reading. If on the other hand, (7b) is not ambiguous, than the only way to explain the ambiguity of (7a) is to posit that scrambling is an instance of A-movement. As mentioned before, A-movement means no CP projection.

## 2.2 Climbing of Pronominal Clitics

The previous section shows that scrambling facts argue for the lack of a CP projection in between the matrix predicate and the embedded non-finite clause. This section makes the same argument with pronominal clitic climbing facts.

As illustrated in (8), clitic climbing is also a long distance movement that does not trigger any WCO, again supporting the claim that non-finite complements lack CP.

- (8) *Čist zares ga<sub>i</sub> je njegov<sub>i</sub> oče sklenil poslati v semenišče.*<sup>4</sup>  
 Seriously him<sub>i</sub> AUX his<sub>i</sub> father decided send<sub>INF</sub> to seminary  
 "Seriously, his father decided to send him to a theological seminary."

Slovenian clitics are located in the second position in the clause (the 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 the embedded CP as shown in (9). They must remain in the finite embedded clause. In (9) 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.

- (9) *Res sem se (\*ji ga) naveličal, da \*(ji ga) nonstop hvalim.*  
 really AUX REFL her him got tired COMP her him constantly 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 inside the embedded clause. The clitics do not have to attach to the overt complementizer as shown in (10) where the clitics follow the *wh*-word in the Spec.CP.

<sup>4</sup> In this section and in other examples where clitics are relevant, they are written in **bold**.

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.

- (10) *Meta mu je povedala kaj so ji otroci kupili za razbito šipo.*  
 Meta him AUX told what AUX her kids buy for broke glass  
 "Meta told him what did the kids buy her because of the broken window."

Given the assumption, the prediction is clear. If the non-finite clauses were to have a CP projection, the clitics should adjoin to its head just like they do in embedded finite clauses.

This is not what we find. Clitics behave differently in non-finite clauses. They climb out to join the clitic cluster of the matrix clause as shown in (11). 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.<sup>5</sup>

- (11) *Res sem ji ga sklenil [ PRO opisati \_\_\_ ]*  
 really AUX her him decide describe<sub>INF</sub>  
 "I really decided to try to describe him to her."

### 2.2.1 An alternative account of clitic placement

Note that the validity of the preceding argument does not really depend on the kind of clitic placement analysis is used. Keeping the 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. This kind of analysis faces the problem that in some cases, clitics can remain inside the non-finite clause.

When the non-finite clause is fronted, clitics remain inside the non-finite clause, (12); therefore if they can adjoin to finite T in this case, they should also adjoin to it in (11). Other examples with a clitic inside non-finite clauses are cases of NOC, discussed in section 5.

- (12) [*Reči ji, da sem bolan*], *mi je ukazal že včeraj.*  
 say<sub>INF</sub> her COMP AUX sick, me AUX ordered already yesterday.  
 "Already yesterday, he ordered me to tell *her* that I am sick."

The alternative syntactic approach is thus not supported. We cannot claim that clitics adjoin only to finite T heads and use this to explain why they can climb out of non-finite clauses.

Example (12) represents a problem for the syntactic account presented in the preceding subsection. If clitics indeed adjoin to C head, how do they stay inside the non-finite clause if it has no C head (it cannot have the C head because then, clitics should always adjoin to it)? How could movement of the non-finite clause create the CP projection and allow clitics to adjoin to its head?

In Marušič (in preparation) 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

<sup>5</sup> See Golden 2003 for an extended discussion and multitude of clitic climbing data in Slovenian.

(2001, 2002), 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 climb out 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. Example (12) represents a case that is not spelled out because of the CP. Rather, it shows a phase created by movement. Following Uriagereka (1999) I assume a moved constituent also represents a phase. The clitics in (13), a case of NOC (see below), remain inside the non-finite clause, because they are closed off with 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.

- (13) *Ukazal mi je [kaj ji reči ]*  
 Ordered me AUX WH *her* say<sub>INF</sub>  
 "He ordered me what to say."

As I have shown, the specific clitic analysis opted for in the previous subsection was not crucial for the argument since even assuming a completely opposing view on clitic movement, i.e. as the prosodic account just offered, the data still argue for the lack of the CP projection.

### 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. It, however, differs from Bulgarian (Rudin 1988) in that it does not respect any superiority. That is, any *wh*-word can be placed in the first position. Like Serbo-Croatian, Slovenian also allows the *wh*-word cluster to be broken up with clitics. The *wh*-word that follows the two clitics in (14) is thus also taken to be fronted.

- (14) a. *Kdo koga toži?*  
 who whom sue  
 "Who is suing whom?"  
 b. *Kdo mu je kaj povedal?*  
 who him is what told  
 "Who told him what?"

Like Serbo-Croatian (and unlike Bulgarian), Slovenian does not allow multiple long distance *wh*-movements. Only one *wh*-word can move out of an embedded finite clause (15). 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 Spec.CP, which is why only one *wh*-word can move from the embedded CP to the matrix CP.

- (15) *Kaj je (\*komu) rekel Janez, (\*komu) da je Peter dal \*(komu)?*  
 What is whom said Janez, whom COMP is Peter give whom  
 "What did Janez say that Peter gave whom?"

If non-finite clauses have a CP projection just like finite clauses, we would predict that they would show the same phenomena we observe in (15) – 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 it shows that non-finite clauses do not have the CP projection, which banned multiple *wh*-movement out of finite clauses. Multiple *wh*-movement is not obligatory in Slovenian, which is why (16) is also good. Although the judgements are actually not as clear for all types of non-finite clauses, sentences like (16) are acceptable while multiple long distance *wh*-movement out of finite clauses is simply out, as shown in (15).

- (16) a. *Komu si kaj pozabil dati?*  
 Whom AUX what forgot give<sub>INF</sub>  
 "Whom did you forget to give what?"  
 b. *Komu si koga sklenil predstaviti?*  
 Whom AUX who decide introduce<sub>INF</sub>  
 "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. The reason why judgements are not always as clear might be related to other factors like the distinction between finite and non-finite T, which I do not address.

Again an immediate question comes to mind: can be *wh*-words in between the matrix and the embedded non-finite clause? If so, in what position could they be? I leave this question aside for now and will return to it in section 5, since embedded sentences with a *wh*-word in front do not involve obligatory control (Hornstein 1999).

## 2.4 Partial *wh*-movement

Slovenian exhibits the so-called Partial *wh*-movement shown in (17). As extensively discussed by Fanselow (2001), 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. In Slovenian this is *kaj* "what". One possible analysis of these constructions says that the *wh*-expletive shows up because of the [+*wh*] feature movement (Cheng 2000). Only the [+*wh*] feature of the *wh*-word moves to the highest CP, while the other features of the *wh*-word, including its phonological features, remain in the Spec of a lower CP. The highest CP with the [+Q] feature ends up with the *wh*-expletive, while the original *wh*-word is realized lower. The complementizer following the *wh*-word is optional in Slovenian.

- (17) *Kaj praviš, kdo (da) je prišel?*  
 What say, who COMP 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 (18). This again shows that the lower clause does not have a CP projection where the *wh*-word could be located and from where its [+Q] feature

could move out. Only "full" *wh*-movement is possible out of non-finite embedded clauses, (19).

- (18) a. \***Kaj** ti Janez ukazuje, **koga** udariti?  
 What you Janez order who hit<sub>INF</sub>  
 "Who did Janez order you to hit?"  
 b. \***Kaj** je Janez pozabil, **koga** pozdraviti?  
 What AUX Janez forget, whom salute<sub>INF</sub>  
 "Whom did Janez forget to say hello to?"

- (19) **Koga** ti Janez ukazuje udariti?  
 Who you Janez order hit<sub>INF</sub>  
 "Who did Janez order you to hit?"

Examples (18) 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 (20).

- (20) a. Janez ukazuje, **koga** moramo udariti?  
 Janez order who must hit<sub>INF</sub>  
 "Janez is ordering whom we have to hit?"  
 b. Janez je pozabil, **koga** je hotel pozdraviti?  
 Janez AUX forget, whom AUX want salute<sub>INF</sub>  
 "Janez forgot whom he wanted to say hello to."

According to this analysis, (18) is out because OC non-finite clauses do not have a CP projection. An even more illustrative example pointing out to the structural difference between finite and non-finite clauses is observed in examples with multiple embedding, (21). When both, the embedded and the double embedded clause, are finite, the *wh*-expletive shows up in the upper two Spec.CP positions. As shown in (21) the intermediate Spec.CP between the *wh*-word and the CP where it takes scope cannot be empty (cf. Fanselow 2001).

- (21) **Kaj** nam je Vid ukazal, **kaj** moremo reči, **koga** je Marija poljubila \_\_?  
 what us AUX V ordered what must say<sub>INF</sub> whom AUX M kissed  
 "Who did Vid order us that we must say that Mary kissed?"

- (22) ?\***Kaj** je Vid mislil, da je Peter rekel, **koga** da je Marija poljubila \_\_?  
 what AUX V thought that AUX P say whom that AUX M kissed  
 "Who did Vid order us to say that Mary kissed?"

In case the first embedded clause is non-finite and the lowest one finite, partial *wh*-movement leaves the *wh*-word in the Spec.CP of the finite clause, but there is no intermediate *wh*-expletive between the matrix and the non-finite clause, (29). Since partial *wh*-movement cannot skip an intermediate Spec.CP, as shown in (28), the lack of the intermediate *wh*-expletive in non-finite clauses again suggests the lack of CP projection.

- (23) **Kaj** nam je Vid ukazal (\***kaj**) reči, **koga** da je Marija poljubila \_\_?  
 what us AUX V ordered what say<sub>INF</sub> whom that AUX M kissed  
 "Who did Vid order us to say that Mary kissed?"

Fanselow observes the same restrictions also in German and Hungarian. His explanation of non-availability of partial *wh*-movement in German relates to the fact, that German does not allow *wh*-headed infinitival clauses, (30). Fanselow makes the following generalization: (2001, p19) "[W7] *A CP related to W[hat]P[hrase] must be a syntactically legal indirect question.*"

- (24) a. \**Was glaubst du [wen eingeladen zu haben]?*  
 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."

*Wh*-phrases have to move to some operator position. Fanselow's [W7] can be violated only if there are intermediate landing sites for *wh*-phrases that are never filled by overt *wh*-phrases in constituent questions. In infinitives such positions do not exist. Non-finite clauses lack a certain structure that finite clauses do not.

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 (31).

- (25) a. *Pozabil sem, kaj reči.*  
 I forgot what to say.  
 b. *Odločil sem se, kje zgraditi hišo.*  
 I decided where to build a house.

I discuss these kind of examples in section 4. Following Hornstein (1999, 2001) I claim these sentences do not involve obligatory control. 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 (31) cannot participate in partial *wh*-movement constructions. I propose that NOC sentences, as in (31), 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.

In this section it was shown, that OC infinitives do not have the CP. Non-finite clauses in general do not allow partial *wh*-movement. OC constructions cannot exhibit partial *wh*-movement because they do not have the intermediate CP, where the *wh*-word would land and from where the [+*wh*] would move out. While NOC constructions, which have a CP, crucially involve a [+Q] marked C, which prevents the [+*wh*] feature to undergo further movement.

### 3. Consequences and extension

If non-finite clauses do not have a CP node on top, and therefore no boundary for A-movement, a movement analysis of control structures like the one proposed by Hornstein (1999, 2001) becomes available.

Standard analysis of control sentences involves 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 it is crucially not governed, which is assured by the CP projection. The standard analysis is given in (26) (from Chomsky and Lasnik 1995).

(26)  $[_{TP} John_i [_{VP} hopes [_{CP}[_{TP} PRO_i to [_{VP} get the tickets]]]]]$

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 any complementizer lack the CP projection. He extends his claim also to all clauses without any complementizer – null-operator relatives and finite declaratives like *John believes Mary saw Peter*.

His claims seem to be a bit too strong and class of non-CP infinitives not as precisely defined. In particular, *wh*-initial non-finite clauses (as discussed in section 5) seem to have a CP projection since none of them passes the tests given in section 2. As mentioned before, 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. I claim the class of non-CP clauses is much smaller.

Wurmbrand (2001) makes a more detailed proposal. She gives 4 classes of restructuring verbs that take 4 different kinds of clausal complements (*lexical restructuring verbs, functional restructuring verbs, reduced non-restructuring verbs* and *non-restructuring verbs*). The least complete embedded clauses – complements to lexical restructuring predicates – lack in addition to the CP also all functional categories and *vP*. They do not even have their own subject position, since they only consist of the VP projection. This position is again very strong. All non-finite clauses seem to allow at least some adverbs that are usually positioned in between TP and *vP*. If these functional projections do not exist, as claimed by Wurmbrand, these adverbs shouldn't really be possible.

The class of restructuring verbs seems to coincide with Obligatory Control verbs – those that following Hornstein (1999) involve movement. As seen so far, Wurmbrand's approach is compatible with the Slovenian data. According to her, restructuring verbs do not lack only the strong phase/CP, but in some cases also the other strong phase *vP*. But as said, if restructuring verbs lack all the projections dominating VP, than we would not expect any kind of adverbs in between the restructuring verb and the embedded verb. At first sight this prediction seems to be correct. The adverb in (27a) cannot have the sentential meaning with respect to the lower predicate, although *wisely* can have it as in (27b), here with respect to the matrix predicate. In (27a) *wisely* can only have the lower VP internal manner interpretation.

- (27) a. *Njegov oče je sklenil pametno poskusiti opisati Petra Meti.*  
 His father has decided wisely to try to describe Peter to Meta
- b. *Njegov oče je pametno sklenil poskusiti opisat Petra Meti.*  
 His father has wisely decided to try to describe Peter to Meta

But some other adverbs that are typically positioned in between *vP* and TP are possible. Assuming, following Cinque (1999), that adverbs are placed into the specifier position of strictly ordered functional projections, every such adverb would represent a problem for Wurmbrand's analysis. If these restructuring verbs are biclausal in the sense of having two main verbs, we can imagine the lower clause to be composed of certain but not all functional projections. Such "deficient" sentences lacking certain functional heads could only lack the top most projections, so that all adverbs up to a certain head would be possible, but not others that are located above that particular head.

The example in (28) is constructed so that the position of the adverbs cannot be associated with the upper clause. *Spet* "again" is a fairly low adverb and is used in the upper clause to eliminate confusion as for which clause the second adverb belongs to. I do not give the whole list of sentences, due to the lack of space.

- (28) *frankly* – \*Peter je spet poskusil iskreno pisati nalogo  
 Peter AUX again begun frankly write assignment  
 'Peter again begun ADV to write the assignment.'  
*fortunately* – \*Peter je spet poskusil k sreči pisati nalogo  
*allegedly* – \*Peter je spet poskusil baje pisati nalogo  
*perhaps* – \*Peter je spet poskusil mogoče pisati nalogo  
*necessarily* – \*Peter je spet poskusil gotovo pisati nalogo  
*usually* – ??Peter je spet poskusil ponavadi pisati nalogo  
*again* – ?Peter je spet poskusil znova pisati nalogo  
*often* – Peter je spet poskusil pogosto pisati nalogo  
 ...

The prediction was made that if an adverb was unavailable so would be all upper ones and that the division between the two sets of adverbs would be sharp. The results are not as clear as the prediction, although a cut between adverbs is still observed. But this is not really important at the present moment. It seems, therefore, that there are some functional projections present between vP and TP. This suggests that a restructuring analysis with a VP complement to vP (Wurmbrand 2001) does not seem available for the present set of cases.

Cinque (2002) 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, than only adverbs in the specifiers of the lower projections would be allowed in the complement and all adverbs associated with higher projections would be unavailable.

But there seem to be also some problems with Cinque's analysis. Functional heads should not take any internal arguments, therefore no object control verbs should be restructuring. But Slovenian object control constructions do seem to exhibit some transparency phenomena comparable to those of plain restructuring verbs like clitic climbing, (29) (cf. Golden 2003).

- (29) 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.'

Hornstein (1999, 2001) claims that all cases of OC PRO are really only traces of the moved argument. NOC 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 Spec.CP, 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.

(30) [TP *John*<sub>i</sub> [VP ~~*John*~~ [VP *hopes* [TP ~~*John*~~ to [VP ~~*John*~~ [VP *get the tickets*]]]]]]]

Barrie and Pittnam (2003) given 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 again a very strong position.

The crucial question remained unanswered, what is the actual division of verbs that take non-finite complements. For Cinque they divide into **non-restructuring** taking a CP complement and **restructuring**, which are all monoclausal. For Wurmbrand only **factive** and prepositional verbs take a CP complement, while **others (non factive)** take various non-CP clauses. Hornstein 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. It seems that all non-*wh*-initial infinitival clauses show transparency and therefore probably also lack CP.

As shown by Landau (1999), non-obligatory or partial control is much more spread than originally thought. For example English verb *decide* is actually not an obligatory control verb since it allows sentences like (31a). This does not seem to be the case for the Slovenian equivalent of "decide" – *skleniti* – as shown in (31b). *Decide* seems to be an OC verb and as such was also used in section 2.

- (31) a. *John decided to meet at 9*  
 b. *Črt se je sklenil srečati v parku*  
     Črt REFL AUX decided hug in the park  
     "Črt decided to hug in the park."

A more complicated set of cases is observed with *convince*, a partial control verb that takes an accusative object on top of the clausal complement. As shown in (32) *convince* doesn't allow clitic climbing out of the embedded non-finite clause.<sup>6</sup>

- (32) a. \**Zvone ji je Micko prepričal dati \_\_\_ darilo*  
     Zvone her AUX M<sub>ACC</sub> convinced give gift  
     "Zvone convinced Micka to give her a gift."  
 b. \**Metko sem mu prepričal predstaviti Slavca*  
     M<sub>ACC</sub> AUX him<sub>DAT</sub> convinced introduce Slavc<sub>ACC</sub>  
     "I convinced Metka to introduce Slave to him."  
 c. \**Metko sem ga prepričal predstaviti Petru*  
     M<sub>ACC</sub> AUX him<sub>ACC</sub> convinced introduce Peter<sub>DAT</sub>  
     "I convinced Metka to introduce him to Peter."

But otherwise it behaves on a par with other control Vs: it doesn't exhibit WCO, (33), it doesn't allow partial *wh*-movement, (34), and it allows multiple *wh*-movement, (35).

<sup>6</sup> For some speakers, clitic climbing out of complements to *convince* type verbs is allowed when the matrix clause argument is also a clitic (cf. Golden and Milojević-Sheppard 2003).

- (33) *Slavka<sub>i</sub> je Petro njegov<sub>i</sub> oče prepričal brcniti \_\_ v piščal*  
 S<sub>ACC</sub> AUX P<sub>ACC</sub> his father convinced kick in fibula  
 "His father convinced her to kick Slavko in his fibula."
- (34) \**Kaj je Jože Zdenka prepričal komu dati fičota?*  
 What AUX Jože Zdenka convinced whom give Fiat 600  
 "Whom did Jože convince Zdenka to give Fiat 600."
- (35) *Komu je kaj Marko prepričal Meto dati za rojstni dan?*  
 whom AUX what Marko convinced M<sub>ACC</sub> give for birthday  
 "Whom did Marko convince Meta to give what for birthday?"

Although *decide* and *convince* are no OC verbs, they still exhibit transparency. The claim made in this paper is with these data not rejected but it is weakened. 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. We can also not make the strong claim in the other direction, that actually all non-finite clauses lack CP, because of the *wh*-initial non-finite clauses that I am saving for section 5.

## 5 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 suggested they lack a CP projection when they have a *wh*-word in the supposed Spec.CP.

In section 3.2, I showed that clitics front out of non-finite clauses (36a). When the non-finite clause is a constituent question, the clitic cannot climb out of it, (36b,c).

- (36) a. *Ukazal mi ji je [reči \_\_, da sem bolan].*  
 ordered me her AUX say that I am ill  
 "He ordered me to tell *her* that I am sick."
- b. *Ukazal mi je [kaj ji reči].*  
 ordered me AUX WH *her* to say
- c. \**Ukazal mi ji je [kaj \_\_ reči].*<sup>7</sup>

Similar facts hold for other phenomena presented. 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. Scrambling out of finite clauses is possible in Slovenian (37c), but not out of an embedded question (37b). Therefore (37a) has a CP projection, but the unavailability of scrambling is probably due to the fact that the Spec.CP is already filled with a *wh*-word.

- (37) a. \**??Janeza se je Peter odločil, kdaj naučiti manir.*  
 Janez<sub>ACC</sub> Peter decided when to teach how to behave
- b. \**??Janeza se je Peter odločil, kdaj mora naučiti manir.*  
 Janez<sub>ACC</sub> Peter decided when has to teach how to behave
- c. *Janeza se je Peter odločil, da mora naučiti manir.*  
 Janez<sub>ACC</sub> Peter decided that has to teach how to behave  
 "Peter decided (that he has) to teach Janez how to behave."

<sup>7</sup> Available readings where the *wh* word is understood as an indefinite pronoun or a *wh*-in-situ constructions are ignored, since they are not relevant.

## 5.1 Non-Obligatory Control

What do these facts mean for the claim made, 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, (38). If NOC constructions are really just non-finite clauses with a *pro*, we wouldn't necessarily expect them to be structurally deficient – lacking the CP projection.

- (38) *Vid<sub>i</sub> je svetoval Mariji<sub>j</sub> kje si<sub>i+j</sub> postavit šotor za oba.*  
V.NOM AUX advised M.ACC where REFL put<sub>INF</sub> tent for both  
"Vid advised to Marija where to place the tent"

That these cases involve NOC 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.

- (39) *He showed me how to fly a plane.*

The interpretation in (39) 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. This points out to the second major difference between control constructions and *wh*-initial non-finite clauses. As discussed by Bhatt (2000), all *wh*-initial non-finite clauses involve some form of hidden modality. This modality is not found in simple non-finite complements.

The third major difference is that *wh*-initial non-finite clauses can be complement to verbs, which do not take infinitival clausal complements, as shown in (40). 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.

- (40) 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  
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 we are dealing with a different construction altogether here, and that maybe we don't even want to make it parallel to other non-finite clauses.

## 6. Conclusion

In this paper I argue for a three way structural distinction between clausal complements:

- **finite clauses** with a complete functional structure and a top CP >
- ***wh*-initial non-finite clauses** (possibly less complete, but with a CP/strong phase) >
- **simple "control" non-finite clauses** (lack at least the CP projection).

Supporting evidence comes from scrambling, clitic climbing, *wh*-movement. With respect to these phenomena, control (in particular OC) constructions behaved differently from finite clauses and *wh*-initial non-finite clauses. 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 sort of open the door for a movement analysis of control ala Hornstein's (1999, 2001) and Barrie and Putnam (2003). Restructuring on the other hand might probably be best treated in a monoclausal structure following Cinque (2002).

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