The syntax of infinitives in Czech

Jakub Dotlačil

Hovedoppgave i Lingvistikk
Vår 2004
Institutt for lingvistikk
Det Humanistiske fakultetet
Universitetet i Tromsø
Veileder: Knut Tarald Taraldsen

Acknowledgments

I am grateful to Peter Svenonius and Øystein Nilsen for discussing parts of my thesis with me. Thanks belong to all my language informants.

Most of all, I would like to thank my supervisor, Tarald Taraldsen. He exposed inconsistencies and problems of my analysis when I was afraid that nobody could even understand what I was trying to say.

Finally, I would like to thank everybody at the linguistic department of the University of Tromsø for incredibly good teaching and intellectually stimulating atmosphere. I hardly could have imagined two years ago what an outstanding place I was applying to. I know for sure that I will miss it.

Contents

Abbreviations:

acc - accusative
dat - dative
dft - default agreement (3rd singular neuter)
GB - Government and Binding
gen - genitive
inf - infinitive
inh - inherent reflexive
instr - instrumental
m,f,n - masculine, feminine, neuter
MP - Minimalist Program
mid - middle voice
nom - nominative
pass - passive
sg, pl - singular, plural

1 Introduction

The syntax of infinitival constructions has been one of the evergreens in linguistic theory since seventies. One of the best studied and most challenging issues is the mystery why behavior of some syntactic and semantic phenomena varies in compliance with a syntactic environment in which an infinitival clause appears. For instance, the infinitival clause in (1-a) allows for scrambling of its object into the matrix clause. On the other hand, scrambling of the object from the infinitival clause is disallowed in (1-b).

(1) a. dass [dieses Auto]$_i$ jemand [t$_i$ zu waschen] versuchte
that [this car]$_i$ someone [t$_i$ to wash] tried
'that someone tried to wash this car'

b. *dass [dieses Auto]$_i$ jemand [t$_i$ zu waschen] behauptete
that [this car]$_i$ someone [t$_i$ to wash] claimed
'that someone claimed to wash this car'

[Sabel, 1999, ex. 4b and 6b, p. 145 and 146]

The infinitival clauses in (1-a) and (1-b) are same. The only element that varies is the matrix verb that selects for the infinitival clause. When selected by the verb *behaupten* 'claim' the infinitival clause is opaque for scrambling of the object out, whereas the verb *versuchen* 'try' renders the infinitival clause transparent for scrambling.

Notice that scrambling out of a finite clause is impossible, too:

(2) *dass keiner Hygrometer$_i$ sagt [dass Antje t$_i$ mag]
that no-one hygrometers$_i$ says [that Antje t$_i$ likes]
'that nobody says that Antje likes hygrometers'

[Müller, 1995, ex. 64a, p. 126]

Thus, the infinitival complement of *behaupten* 'claim' behaves on a par with finite clauses. The infinitival complement of *versuchen* 'try' shows a different behavior.

The cases in which an infinitival clause appears to be transparent for clause-bound phenomena (as is scrambling in the example (1-a) above) are known as the phenomena of *restructuring*. The clause-bound phenomena that can span boundaries of an infinitival clause in these special cases (i.e.

scrambling in the case at hand) are called *transparency phenomena*.[1,2] Restructuring and the transparency phenomena in infinitival clauses are the main topic of this thesis. The language in which this topic is scrutinized, is Czech.

Restructuring has been extensively studied in generative grammar mostly on Romance and Germanic languages. The literature concerning this topic in Slavic languages is much sparser.[3] The aim of this thesis is twofold: the first is a more descriptive goal, to present and discuss transparency phenomena in Czech, one of Slavic languages. The second is to develop an account for these phenomena in the framework of the Minimalist Program (MP).

We will go through three transparency phenomena: the phenomena that are clause-bound but can span the boundaries of an infinitival clause in some cases. The transparency phenomena to be discussed are:

Chapter 2: long-distance Agree

Chapter 3: clitic climbing

Chapter 4: non-local binding of subject-oriented reflexives

The main question we want to address is: what exactly makes these phenomena possible in some cases and rules them out otherwise? In other words, what is it special about the syntax of infinitival clauses that they sometimes allow for these transparency phenomena?

In accounting for the distributional facts of the transparency phenomena at hand, we make use of Wurmbrand's (2001) approach to the phenomenon of restructuring.

[1]The term *restructuring* has its origin in Rizzi (1978/1982). Even though Rizzi connected it with the transformational rule he suggested for an explanation of the occurrence of transparency phenomena the term became standard and nowadays it is used without any reference to Rizzi's proposed analysis.

[2]Within the tradition of HPSG or Relational Grammar the terms *clause union effects* or *monoclausal effects* are used for restructuring and the *transparency phenomena* are called *clause union phenomena*.

[3]For Russian, see Comrie (1973/1980), for Polish Dyła (1983), Przepiorkowski and Kupść (1997), Dziwirek (1998), Przepiorkowski (2001), for Czech Rezac (1999), Medová (2000), for Serbian Progovac (1993). However, most of these papers are not directly concerned with restructuring in general but touch upon it when explaining one transparency phenomenon.

Two of her insights are of a great importance for the whole thesis: first, all transparency phenomena do not need to pick out one type of an infinitival clause. As Wurmbrand (2001) has convincingly argued transparency phenomena come at least in two sets: the phenomena from one set are very restricted; they can span the boundaries of an infinitival clause only when the infinitival clause appears in a very special context. The others enjoy more freedom. As Wurmbrand further shows, the types of infinitival clauses (in German) are divided (at least) into three groups with respect to the possibility/impossibility of particular transparency phenomena:

1. the infinitival clauses that are opaque for all transparency phenomena
2. the infinitival clauses that are transparent for some transparency phenomena, whereas for others they remain opaque
3. the infinitival clauses that are transparent for all transparency phenomena

In this thesis, we argue that it is true of transparency phenomena in Czech, too that they do not represent one homogenous set. Whereas only handful of verbs selects the infinitival complements that are transparent for long-distance Agree, the other two transparency phenomena enjoy much greater freedom. This is expected if the transparency phenomena are not treated as one homogenous class, but is obscure otherwise.

The second Wurmbrand's insight we make use of is the suggestion that the transparency/opaqueness of an infinitival clause to a particular transparency phenomenon can be easily captured in a tree structure. Normally, a clause projects a full clause structure. However, infinitival clauses can (in some context) not project fully.[4] As Wurmbrand (2001) argues at length the incomplete projection then allows a transparency phenomenon to span the boundaries of the infinitival clause. Concretely, she shows that the three types of infinitival clauses listed above, which are divided according to (im)possibility of transparency phenomena, correspond to 1. CP, 2. TP, 3. VP.

In this thesis, we argue that as is the case for German, infinitival clauses in Czech can appear in a variety of structures. These varying structures

[4]This is the fundamental claim of so-called *mono-clausal approaches to restructuring*, see, for example, Cremers (1983), Cinque (2000), Wurmbrand (2001) and discussion in Wurmbrand (2001, ch. 1.

represent cases in which a particular infinitival clause does not project a full clause structure.

The varying structures are responsible for the fact whether the infinitival clause becomes transparent for one of the transparency phenomena or not. In the thesis, we will try to show that a particular transparency phenomenon can cross the boundaries of an infinitival clause when the infinitival clause bears properties as summarized in Table 1.

Table 1: Czech transparency phenomena

Transparency phenomenon	Properties of infinitival clause
long-distance Agree	no structural case missing PRO missing CP
clitic climbing	missing CP
reflexives non-locally bound	missing PRO

As we will show the reason why a transparency phenomenon becomes possible when an infinitival clause lacks projections summarized in Table 1 follows from what we already know about each phenomenon. In this sense, the thesis will present an explanatory account for the questions why exactly these projections *must* be missing. However, the reason why these projections *can* be missing in the first place will remain unexplained (see for some suggestions Cinque, 2000, and Wurmbrand, 2001.)

2 Long-distance Agree

2.1 Introduction

In this chapter we concentrate on the infinitival constructions whose internal argument is valued Case by and triggers agreement on the functional projection of a higher verb. We call this phenomenon *long-distance Agree*. Table 2 below lists the verbs that make long-distance Agree possible: i.e., it lists the verbs whose functional projection can enter into Agree relation with the internal argument of the infinitival complement. We call the verbs that allow long-distance Agree *restructuring verbs* and the infinitives from which

long-distance Agree has taken place *restructuring infinitives*.[5]

Table 2: Restructuring verbs

chtít se (unacc.)	feel like doing sth	+
dařit se (unacc.)	succeed	+
dát se (unacc.)	be possible for someone	+
doporučovat	recommend	-
jít (unacc.)	be possible for someone	+
plánovat	plan, intend	-
podařit se (unacc.)	succeed	+
povést se (unacc.)	succeed	-
vyplatit se (unacc.)	pay off	-
zakazovat	forbid	-
zapomenout	forget	+
zvládnout	manage	+

The list in Table 2 is however by no means stable and there is some speaker variation.[6] To keep the discussion on the validity of this list to a minimum, only those verbs are included in Table 2 with which long-distance Agree is attested in Czech National Corpus (CNC henceforth) and/or Internet. The + sign in the third column serves as a reference point. It represents core cases of verbs allowing long-distance Agree; speakers accept long-distance Agree with these verbs more readily, with the remaining verbs the judgments varied. Some speakers accepted also other verbs for long-distance Agree not mentioned in Table 2 but since no attested examples were found, these verbs are not included.

What is meant by long-distance Agree will soon become obvious. After introducing a terminology (section 2.2.1 and 2.2.2), presenting and discussing examples of long-distance Agree (section 2.2.3), and scrutinizing cases which superficially resemble long-Agree instances but will be argued to represent different structure (section 2.3), we will turn out to analysis of long-distance

[5]The term *restructuring infinitives* refers in Italian to the infinitives from which long object preposing is possible. In German, it is used for labeling the infinitives from which long A-movement is possible. Both long object preposing and long A-movement is the same construction as long-distance Agree in Czech, modulo language-specific differences.

[6]This is true for restructuring verbs more generally, see for Italian similar comments by Rizzi (1978/1982), Napoli (1981), for Spanish by Aissen and Perlmutter (1983).

Agree. We will argue that the verbs listed in Table 2 can embed infinitival clauses that lack CP layer and all projections responsible for assigning (valuing) of structural Case (which can be understood as missing AgrOP and AgrSP or, following Chomsky, 1995, chapter 4, having defective v and T) and cannot realize PRO. The fact that these projections are absent will be argued to be crucial for the transparency phenomenon of long-distance Agree to take place (section 2.4). The absence of CP layer and PRO in the infinitival clause from which the internal argument entered into long-distance Agree will then be corroborated by data in section 2.5. In the section 2.6 we will compare recent approaches to restructuring with the account advocated here.

2.2 Agree and long-distance Agree

2.2.1 Agree and analysis of Case and agreement in MP

As said above, long-distance Agree is the case in which the internal argument of an infinitival clause is valued Case by and triggers agreement on a functional projection of a *higher* verb. In this section we briefly discuss how Case valuing (or assigning in Government and Binding (GB) terminology) and agreement is understood in GB and MP.

It is interesting to ask why in the English example (3-a), the internal argument of the passivized verb surfaces in the subject position and has nominative case, unlike in the active counterpart of the sentence (3-b). Furthermore, the internal argument triggers agreement on the auxiliary in (3-a).

(3) a. He was seen
b. I saw him

Since Vergnaud (1982) the explanation to this fact has been sought in Case filter, saying

> Every phonetically realized NP must be assigned (abstract) Case (from Chomsky and Lasnik, 1993, originally in Vergnaud, 1982)

In the example above, the standard GB story explained the surfacing of internal argument in the subject position by the fact that the passivized verb cannot assign Case to the object, therefore the NP[7] must move to the subject

[7]Throughout NP is used as a cover term for both NP and DP.

position where nominative is assigned. This basic insight has not changed since. However, technical details and vocabulary were worked out in MP and these are also used in the thesis. We discuss MP analysis in this subsection.

In MP (Chomsky, 1995, Chomsky, 2001), the lexical items consist of bundle of phonological, semantic and formal features. The phonological features are accessed and interpreted at PF (Phonological Form), the semantic features at LF (Logical Form) and the formal features are accessible during the syntactic computation. The set of semantic and the set of formal features are intersected and they are disjoint from the set of phonological features. The features in the intersection of the two sets (in the other words, the formal features interpretable at LF) are called *interpretable formal features*, the formal features that are not in the intersection and thus do not belong to the set of semantic features are called *uninterpretable formal features*. The set of un/interpretable features are not defined absolutely. Rather, whether a feature is interpretable or uninterpretable depends on a lexical item that bears it.

The uninterpretable formal features, being, as said right above, uninterpretable at LF, must be deleted during derivation before LF is reached, otherwise the derivation crashes. The deletion of an uninterpretable feature F on a lexical item X takes place only if F is valued. Valuing takes place only if X establishes syntactic relation with Y. The syntactic relation is called *Agree* (Chomsky, 2001) and for it to apply, both items X and Y must have the same feature F and both must bear some uninterpretable feature (Chomsky, 2001, p. 5 and 6).

The machinery of uninterpretable features and their necessary deletion is used for deriving Case valuing. The basic idea is that Case feature on N is uninterpretable and therefore must be valued. On the other hand, a functional head that values Case has other uninterpretable features. This allows the functional head to enter into Agree relation with N.

Let us look at the derivation more closely: N enters the syntactic derivation with a complete set of interpretable Φ-features (person, number, gender) and uninterpretable Case feature. The Case feature must be deleted. On the other hand, a functional head (the one that in GB was said to assign Case to N) enters the derivation with uninterpretable Φ-features and it seeks a syntactic item having interpretable Φ-features. Once it finds one it tries to get in Agree relation with it. If it is the N bearing uninterpretable Case feature, Agree can take place: matching Φ-features on "Case assigner" are valued by the interpretable Φ-features on N (and this process can be overtly manifested

in morphology as agreement) and, as suggested by Chomsky (2001), if the "Case assigner" is Φ-complete (has a complete set of Φ-features) it values uninterpretable Case feature on N.[8] The valued uninterpretable features are deleted, either immediately after valuing, or, as commonly assumed, at some stage of derivation (Chomsky, 2001, Pesetsky and Torrego, 2001).[9]

Agree is in some instances followed by pied-piping of phonological feature of NP and its merging to the specifier of the "Case assigner"-inducing the effect of so-called A-movement, i.e. overt movement of NP for Case reason. This is exactly what we observe in (3-a). However, for Czech, we assume Agree without movement (in the other words, Agree without subsequent pied-piping of phonological feature and merging in the specifier of "Case assigner") for our analysis, even though nothing hinges on this point here.

The last point: Agree can be any syntactic relation established for valuing a feature. It is not restricted to only Case-valuing. However, in this chapter, when we discuss Agree and long-distance Agree, we all time bear in mind Agree for reason of valuing Case and Φ-features.

In the next section we will see what long-distance Agree is.

2.2.2 Agree and difference between structural and inherent Case in Czech

As is well known, one must distinguish between two kinds of Cases: inherent and structural ones. In what follows we have nothing much to say about the former; presumably, they are valued Case by the verb directly in their Θ-positions. On the other hand, the latter enter into Agree with higher heads since they cannot be valued Case in their Θ-positions directly by the verb.

Two structural Cases are in Czech represented in morphology by nominative[10] and accusative.[11] Both structural Cases are present for example in

[8]Morphological case on noun is overt counterpart of Case feature, agreement on verb is overt realization of Φ-features. Thus, the case and agreement are both result of Agree relation, the only difference between them is on which head they are realized.

[9]In the following sections we will not take up the question whether uninterpretable features should be deleted immediately after valuing or later. We will barely show how two syntactic elements get in Agree relation which is prerequisite for deletion but we will stay vague about the precise moment when the deletion itself took place.

[10]Apart from nominative case assigned by (very few) prepositions which represents inherent Case.

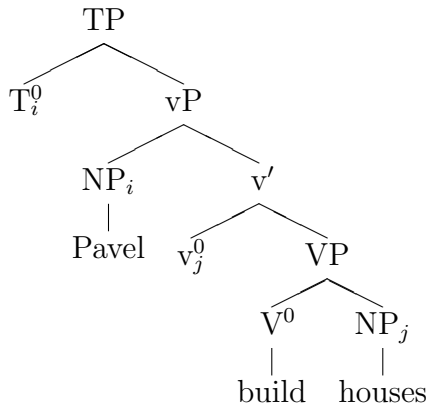
[11]Apart from accusative case assigned by prepositions and accusative case in temporal adjunct phrases which represents inherent Cases.

the sentence:

(4) Pavel staví domy.
Pavel$_{nom,sg,m}$ build$_{3sg}$ houses$_{acc}$
'Pavel builds houses.'

With the structure in Tree (1):[12,13]

Tree (1) Agree in sentence with verb in active voice



Both Case features are valued by functional projections. The internal argument which is merged as complement of V, enters into Agree with v. It values v's Φ-features and is subsequently valued Case feature. v values structural object Case which is manifested on N as accusative in Czech. The external argument which is merged in specifier of v, gets in Agree relation with T. It values T's Φ-features and is subsequently valued Case feature which is structural subject Case, manifested by nominative in Czech morphology.[14] Furthermore, in Czech morphology, only the Φ-features of T are overtly manifested as agreement on the verb. Thus, the verb overtly agrees only with the structural nominative.

[12]NP and functional head that got in Agree relation with each other are subscripted by the same variable.

[13]In all following tree structures only what concerns discussion is represented. Other elements (adjuncts, other arguments) are disregarded. We also disregard the question of verb movement and the exact position of the verb in Czech and for expository purposes, a particular verb is put under V.

[14]Following standard terminology, we call the argument which gets in Agree with T, the subject.

Before proceeding notice that we talked only about morphology when we tried to decide what got in Agree with T (and thus became subject) and what got in Agree with v (and thus became object). The word order is very free in Czech and is determined almost exclusively by topic-focus articulation. We can see that any permutation of lexical items of (4) is possible (5-a)-(5-d). The only degraded word order is the one starting with verb which is reserved for questions ((5-e)-(5-f)).[15] All permutations have the same meaning, modulo topic/focus differences.

(5) a. Pavel staví domy.
Pavel$_{sg,m,nom}$ build$_{3sg}$ houses$_{acc}$
'Pavel builds houses.'

b. Domy staví Pavel.

c. Pavel domy staví.

d. Domy Pavel staví.

e. ??Staví Pavel domy.

f. ??Staví domy Pavel.

Let us stress this point. In this chapter, we are interested in the question which NP entered into Agree with which functional projection of a verb. The word order is irrelevant for decision of it in Czech. We concentrate only on morphology of a noun (which case it manifests) and morphology of a verb (with which noun it agrees) to decide the issue.

The Case-valuing properties of the verb change when it is passivized. There are two ways to passivize a verb in Czech. Here we are concerned with only one of them. It is realized by using the clitic *se*[16] with a verb.

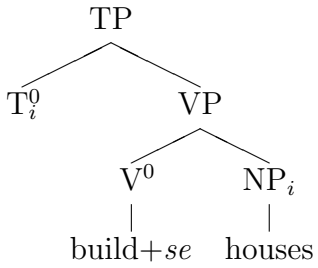
[15]Only some intransitive verbs are possible as the beginning of a declarative sentence. Both transitive and intransitive verbs are possible at the beginning when the subject is phonologically null (*pro*).

[16]The clitic *se* is many-way ambiguous in Czech. It is used as the marker of passive voice in *se*-passivization, as the marker of middle voice and reflexive and reciprocal marker. Furthermore, there is also so-called inherent *se*, which obligatorily appears with certain verbs. We will indicate in the glosses which use of *se* is intended in the example by subscripting *se*.

(6) Domy se stavějí.
House$_{pl,m,nom}$ se$_{pass}$ build$_{3pl}$
'The houses are being built.'

The difference in the realization of the arguments between active (4) and passive (6) is explained by change in the functional make-up of the clause: vP is missing in (6) which causes external argument not to be projected and inability of valuing accusative.[17] Therefore, the internal argument, which must delete its uninterpretable Case feature, enters into Agree with T where it values Φ-features (overtly realized as agreement on verb) and which in turn values N's structural Case feature. T values the structural subject Case, which, as said above is in Czech morphology represented by nominative. The whole derivation is represented by the tree structure (2):

Tree (2) Agree in sentence with verb in passive voice



Notice that this is the strongest argument for the assumption that structural Case is not valued directly by V and must be valued by some functional head. In (4) and (6) we have seen the same verb but the internal argument NP differed in the overt case realization in each case. To say that the verb exists as two independent items in lexicon with different case-valuing properties (realized in syntax as (4) and (6)) misses the generalization about passivization in Czech (and many other languages). The better way, usually followed, is to divorce structural Cases from Θ-roles. Whereas Θ-roles are assigned by the verb (with the only exception of the external argument which is assigned in Spec,vP) structural Cases are valued by functional heads: v, which values structural object Case (accusative in Czech morphology), and

The ambiguity of *se* can make some examples harder to read for native speakers. The reader must concentrate on the intended reading.

[17]Alternatively, v$_{pass}$ can be projected instead of v. The v$_{pass}$ differs from the v in inability to host external argument and value accusative. In the text, we stick to the first solution.

T, which values structural subject Case. Passivization of a verb is reflected in the syntactic structure by omitting v. Absence of v results in the fact that the internal argument enters into Agree with T. Therefore, it overtly realizes nominative and the verb shows overt agreement with it.

Recall our assumption that inherent Cases are not valued by the functional projections. As we have said above we assume that their Case is valued directly by a verb. This stems from the fact that inherent Case of N cannot be altered. As an example we can see that inherent Case remains same no matter whether the verb is in active or passive voice (example with inherent Case dative):

(7) a. Jirka pomáhal Pavlovi.
Jirka$_{nom,sg,m}$ helped$_{sg,m}$ Pavel$_{dat}$
'Jirka helped Pavel.'
b. Pomáhalo se Pavlovi.
Helped$_{dft}$ se$_{pass}$ Pavel$_{dat}$
c. *Pomáhal se Pavel.
Helped$_{sg,m}$ se$_{pass}$ Pavel$_{nom,sg,m}$
'Pavel was helped.'

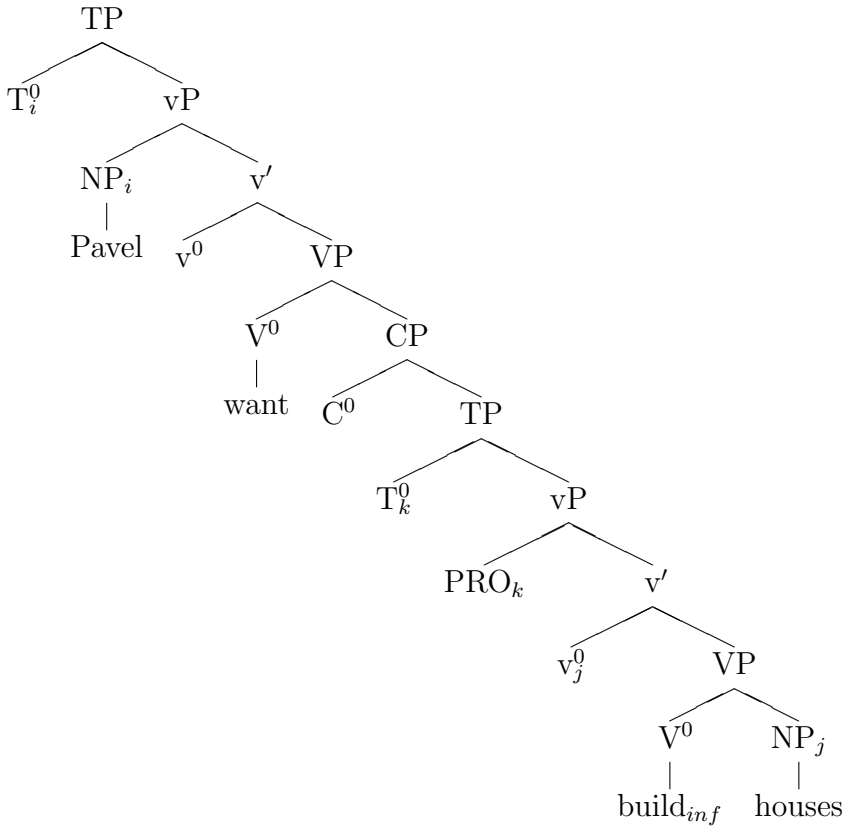
2.2.3 Agree and long-distance Agree in Czech

When one clause is embedded under another, each clause values Cases of its arguments. In the example below, the matrix verb is finite and it embeds the infinitival complement.

(8) Pavel chtěl stavět domy.
Pavel$_{nom,sg,m}$ wanted$_{sg,m}$ build$_{inf}$ houses$_{acc}$
'Pavel wanted to build houses.'

With the following structure:

Tree (3) Agree in two clauses (example (8))



The matrix verb *want* selects two arguments: the infinitival clause *to build houses* and the external argument *Pavel*. The external argument enters into Agree with the matrix T and is valued Case there. The infinitival clause presumably has no Case to be valued and thus does not enter into Agree relation.

The verb in the embedded clause selects two arguments: the internal argument *houses* and the external argument PRO.[18] The internal argument *houses* enters into Agree with the infinitival clause's v and is valued Case there. PRO enters into Agree with the infinitival clause's T.[19]

[18]PRO ensures the right interpretation of the subject of the infinitival clause. That is, it has no reference by itself but becomes co-referential (or overlapses in coreference in some special cases) with an argument. In the case at hand, it is co-referential with the argument *Pavel*. For discussion on PRO and why it is present in the syntax, see section 2.5.

[19]Whether PRO enters into Agree with T is not entirely clear issue. For some discussion see section 2.5.

There are two cases in which an argument does not enter into Agree in a clause where it originates. Instead, it enters into Agree with a functional projection of a higher verb.

The first case concerns the infinitival complement of the *raising verb*. There, the *subject* of the infinitival clause must enter into Agree with the functional projection of the raising verb.[20] The raising verbs and their structure will be more thoroughly discussed in section 2.3.

The second case concerns the infinitival complement of the *restructuring verb*. There, the *internal argument* of the infinitival clause can enter into long-distance Agree: it can enter into Agree with the functional projection of the restructuring verb. The long-distance Agree is what concerns us mostly in this chapter.

We argue in this section that the example (9) in which the restructuring verb embeds the infinitival clause, is ambiguous between two derivations: either the internal argument NP *green diet* enters into Agree with the functional projection of the verb in the infinitival clause or it enters into Agree with the functional projection of the verb in the matrix clause.

(9) Na Zelený čtvrtek vesničané doporučovali jíst
On green Thursday villagers$_{nom,pl,m}$ recommended$_{pl,m}$ eat$_{inf}$
zelenou stravu
green diet$_{acc}$
'Villagers recommended to eat green diet on 'green Thursday'.'

The obvious question is: do we have any reasons to assume that the object can enter into Agree relation with the functional projection of the matrix verb? In the example (9), both the matrix and the embedded verb are in active voice and therefore NP enters in both derivations into Agree relation with v valuing the structural object Case manifested by accusative morphology. For that reason we do not have a way to distinguish between the two tree structures. However if we passivize the matrix verb we should be able to differentiate between the two derivations: In one case the functional structure of the *embedded* verb values Case and the internal argument NP must be valued the structural *object* Case (represented as *accusative*) whereas if the functional projection of the *matrix* verb values Case, NP will

[20]If this verb is the infinitival complement of the raising verb, the subject tries to get in Agree with the higher verb-until it finds the raising verb which is not the infinitival complement of the raising verb.

be valued structural *subject* Case (represented as *nominative*) and the NP in nominative will trigger agreement on the matrix verb. With this in mind, look at the following two examples:

(10) Na Zelený čtvrtek se doporučovalo jíst zelenou stravu.
On green Thursday se_{pass} $recommended_{dft}$ eat_{inf} green $diet_{acc}$

(11) Na Zelený čtvrtek se doporučovala jíst **zelená** **strava**.
On green Thursday se_{pass} $recommended_{sg,f}$ eat_{inf} green $diet_{nom,sg,f}$
'It was recommended to eat green diet on 'green Thursday'.'

[http://www.coop.cz/magazin/1 2002/velikonoce zblizka.html]

In the example (10), the internal argument has accusative although the matrix verb is passivized. This is exactly what we would expect if the internal argument NP entered into Agree with v of the embedded infinitival construction.

Let us look at the example (11). Here, the internal argument is valued the structural subject Case (represented as nominative) and it values Φ-features on T manifested by agreement on the matrix verb.[21] The morphology thus suggests that the internal argument really enters into Agree relation with the

[21] As expected agreement and nominative goes hand in hand. In the example (11) if we changed the agreeing form of verb for default one, the result would become ungrammatical:

(i) *Na Zelený čtvrtek se doporučovalo jíst **zelená strava**.
On green Thursday se_{pass} $recommended_{sg,f}$ eat_{inf} green $diet_{nom,sg,f}$
'It was recommended to eat green diet on 'green Thursday'.'

Notice further that as we have said above, Czech is free word order language. The word order is mostly relevant for information structure and is orthogonal to structural distinctions like the subject and object (see also (5-a)-(5-f)). NPs surfacing apparently in the same position in (10) and (11) crucially differ: the first entered into Agree with a functional head in the infinitival clause, the second entered into Agree with the functional head of the matrix clause (the phenomenon that we call long-distance Agree). Not surprisingly, both can surface in other positions, for example at the beginning of the sentence:

(ii) a. Zelenou stravu se doporučovalo jíst na Zelený čtvrtek
green $diet_{acc}$ se_{pass} $recommended_{dft}$ eat_{inf} on green Thursday
b. **Zelená strava** se doporučovala jíst na Zelený čtvrtek
green $diet_{nom,sg,f}$ se_{pass} $recommended_{sg,f}$ eat_{inf} on green Thursday
'It was recommended to eat green diet on 'green Thursday'.'

functional projection of the matrix verb in this case. That is, the internal argument exhibits what we call the long-distance Agree.[22]

The derivation we propose can be sketched as follows (as before, subscripts mean 'Agree relation"):

(12) [T_j recommended$_{pass}$ [to eat [green diet]$_j$]]

However, there is also a competing analysis: the overt NP *green diet* does not originate in the infinitival clause; instead it originates directly in the matrix clause. In the embedded infinitival clause, a null operator originates as the internal argument and moves to the Spec, CP of the infinitival clause. The overt NP in the matrix clause is co-referential with the null operator, therefore it is understood as the internal argument of the infinitive.[23] Following tradition, we call this construction *tough*-construction.

The two analyses make different predictions.

To see that, recall the distinction between structural and inherent Case introduced in section 2.2.2 above: inherent Case is valued directly be a verb; structural Case is valued by the functional head. Thus, if the analysis we suggest was right, only internal argument that is not valued Case directly by a verb should enter into Agree with the functional head of the matrix verb. That is, an argument with inherent Case should remain same no matter if its verb is the complement of the restructuring verb. It should not change to nominative when the restructuring verb is passivized.

On the other hand, if the *tough*-movement analysis was right, NP (which is in this analysis only co-referential with the null operator) should possibly bear nominative even in cases in which the internal argument of the embedded verb bears inherent Case. There is no reason to expect that the null operator should stay for the internal arguments bearing structural Cases but not for the internal arguments bearing inherent Cases.

Having this in mind, assess the example below. It shows that the internal argument cannot surface in nominative case when the embedded verb normally assigns it inherent case dative:[24]

As we have said above, only morphology can give us clue, which NP is in Agree with which functional projection.

[22]In all examples NP unambiguously getting in long-distance Agree is **boldfaced**.

[23]This analysis is usually assumed for English sentences of the type *The soup is ready to eat*. See Landau (2000, ch. 4).

[24]As we have said in the footnote 23 the English *tough*-constructions as *The soup is ready to read* are analyzed as involving A'-movement of the null operator, which is co-

(13) a. Původně se doporučovalo pomáhat jenom Jirkovi.
Originally se_{pass} $recommended_{dft}$ $help_{inf}$ only $Jirka_{dat}$
'Originally, it was recommended to help only Jirka.'

b. *Původně se doporučoval pomáhat jenom
Originally se_{pass} $recommended_{sg,m}$ $help_{inf}$ only
Jirka.
$Jirka_{nom,sg,m}$

If the construction at hand were *tough*-constructions, ungrammaticality of (13-b) would be unexpected. However, ungrammaticality of this example is accounted for in the analysis proposed here: the internal argument enters into long-distance Agree with the functional head of the matrix verb. Since it is valued Case directly by V in (13-a) it cannot enter into Agree with any functional head above.

Having established that what is going on in (11) is long-distance Agree, i.e. Agree between the internal argument and the functional head of the matrix clause we should take up the question how long-distance Agree is possible in the first place and further why it is possible only with the verbs listed in Table 2.

We do not want to assume that the structures of the sentences are same in (10) and (11) and the only difference concerns the issue which functional projection internal argument NP chose to enter into Agree with, i.e. it chose v of the infinitival clause in (10) and T of the matrix clause in (11). This approach would keep unclear why NP can choose the functional projection of the matrix clause *only* when the matrix verb is restructuring (one of the verbs from Table 2). Besides this approach would be at odds with MP where all functional projections valuing Case bear uninterpretable Φ-features and thus must get in Agree with NP that would value these features (see Section 2.4).

Instead we follow a standard analysis of long-distance Agree (starting with Rizzi, 1978) which suggests that the example in which long-distance Agree

---

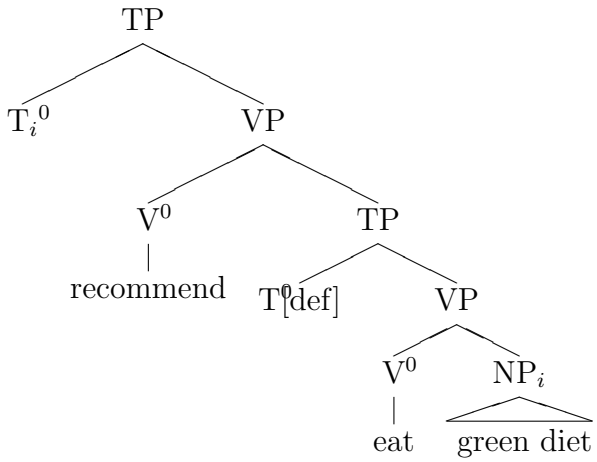
referential with NP argument in the matrix clause. Unlike in long-distance Agree in Czech we expect that NP should be realizable as the subject even though the internal argument where the null operator started should not be able to promote to the subject under passive. This is borne out:

a. This violin is ready to play sonatas on.
b. *This violin is played sonatas on.

takes place (11) represents a different *tree structure* than the example in which Agree is clause-bound (10). This is what is known as the phenomenon of *restructuring*.

In our account we understand restructuring as the case in which an infinitival clause does not fully project: does not project as a standard clause. Concretely for this case: the infinitival clause from which NP entered into Agree with the functional head of the matrix clause, is deprived of ability to value structural Case and it lacks CP and PRO. We will motivate this in sections 2.4 and 2.5.

Tree (4) Long-distance Agree with the matrix verb in passive (example (11))[25]

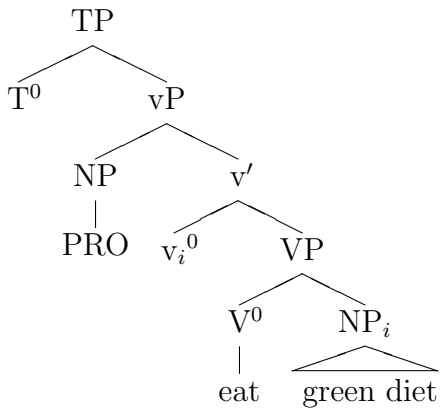


Thus, NP in the example (11) in fact enters into Agree with the first available functional head valuing Case. In this sense long-distance Agree is just taxonomical name: in fact NP exhibits as local Agree relation as possible.

When the infinitival clause is not impoverished and projects vP that can value structural object, the internal argument NP enters into Agree with v and does not undergo long-distance Agree. This is exactly what has happened in the example (10). Since NP there is valued by v of the *embedded* infinitival clause it manifests accusative even when the matrix verb is passivized:

[25]The [def] feature on T expresses that the projections cannot value Case (see section 2.4). For further discussion of the structure see section 2.4.

Tree (5) Agree with the functional head of the infinitival clause[26] (example (10))



Thus, the difference between (10) and (11) follows from the difference in the tree structures of the infinitival clauses. It is special property of the restructuring verbs listed in Table 2, we assume, that they *can* select for the infinitival complements which are impoverished enough not to block Agree relation of the internal argument with the functional head of the restructuring verb 4. However, all the restructuring verbs can also select for the non-impoverished infinitival clause as all other verbs taking infinitival complements. In the case when the restructuring verbs embed the infinitival complement which is not impoverished, long-distance Agree does not take place (10).

Furthermore, since there is a priori no reason why the restructuring verb should be able to select for the impoverished and non-impoverished infinitival clause in passive voice whereas it should not be able to when it is in active voice, we arrive to the conclusion that the example (9) must be ambiguous between the structures where the object agrees with the functional projection of the embedded verb and where it agrees with the functional projection of the matrix verb while the examples (10) and (11) are disambiguated.

2.2.4 Unaccusative restructuring verbs

Besides verbs following the pattern of the verb *to recommend* there is a group of the restructuring verbs with which long-distance Agree is detectable even though these verbs are not marked passive. In other words, the internal

[26]For the sake of space only the infinitival clause's TP is represented.

argument of an infinitival clause embedded under one of these restructuring verbs can be realized either with accusative (when NP enters into Agree with the functional head of the embedded verb) or with nominative (when NP enters into Agree with the functional projection of the restructuring verb), even though there is no morphological marking suggesting that the restructuring verb got passivized. We assume that these verbs are 'passives inherently', or, to take term which is widespread in MP and its ancestors, we call them *unaccusatives* (they are labeled as *(unacc.)* in Table 2). Therefore, when the internal argument of an infinitival complement enters into Agree with the functional head of one of these restructuring verbs, the only available head is T and the internal argument must become a subject.

All these verbs show similar structure: they realize the argument which controls an external argument of infinitival clause, in dative (we call the dative argument appearing with this class of verbs *experiencer*). The only exception is *dát se* 'be possible for someone' which cannot overtly realize experiencer. Besides, all the verbs apart from *jít* 'be possible for someone' have inherent reflexive *se*. Thus, apart from *jít* 'be possible for someone' and *dát se* 'be possible for someone', the whole construction is most commonly (abstracting away from word order):

$$\text{EXPERIENCER}_{dat}\text{+se}_{inh}\text{+V+INF+INTARG-NP}_{nom=long-Agree/acc=otherwise}$$

To see it in an example, we show behavior of verbs *jít* 'be possible for someone'[27] and *podařit se* 'succeed'.[28] The internal argument enters into Agree with the functional head of the embedded verb in the examples (14-a) and (15-a), whereas it enters into Agree with the functional head of the matrix clause in the examples ((14-b) and (15-b)).

(14) a. že mu nešlo na startu zařadit
that him_{dat} $\text{not-was-possible}_{dft}$ on start engage_{inf}
dvojku.
second-gear_{acc}

b. že mu nešla na startu zařadit
that him_{dat} $\text{not-was-possible}_{sg,f}$ on start engage_{inf}

[27] *jít* has irregular form *šlo* in past tense which occurs in the example.

[28] *podařit se* is prefixed variant of the verb *dařit se*. The prefix po- does not convey any meaning and serves only for changing the imperfective aspect of *dařit se* to the perfective aspect of *podařit se*.

dvojka.
second-gear$_{nom,sg,f}$
'that he was not able to engage the second gear at the start.'

[http://formule1.auto.cz/main.php?sekce=diskuse& ...& diskuska=D 407400726da6b]

(15) a. starosta kterému se podařilo najít mezeru v
mayor who$_{dat}$ se$_{inh}$ succeeded$_{dft}$ find$_{inf}$ loophole$_{acc}$ in
zákoně.
law

b. starosta kterému se podařila najít **mezera** v
mayor who$_{dat}$ se$_{inh}$ succeeded$_{sg,f}$ find$_{inf}$ loophole$_{nom,sg,f}$ in
zákoně.
law
'A mayor who succeeded in finding a loophole in law.'[29]

[CNC]

We should assure ourselves that the examples (14-b) and (15-b) are instances of long-distance Agree and not *tough*-constructions. We have seen the argument for long-distance Agree and against the *tough*-construction in the previous section: the internal argument cannot become the subject when it is assigned inherent Case directly by V in the infinitival clause (see discussion in 2.2.3). The same argument can be repeated for the discussed verbs. In other words the constructions show the same restrictions as a clause-bound Agree (7-c) or long-distance Agree (13-b):

(16) a. Mně se podařilo pomoct Jirkovi.
I$_{dat}$ se$_{inh}$ succeeded$_{dft}$ help$_{inf}$ Jirka$_{dat}$
'I managed to help Jirka.'

b. *Mně šel pomoct **Jirka**.
I$_{dat}$ was-possible$_{sg,m}$ help$_{inf}$ Jirka$_{nom,sg,m}$

[29] *se* in the example is inherent part of the verb since it can never be omitted, cf.:
starosta kterému *(se) podařilo najít mezeru v zákoně.
mayor who$_{dat}$ *(se$_{inh}$) succeeded$_{dft}$ find$_{inf}$ loophole$_{acc}$ in law
'A mayor who succeeded in finding a loophole in law.'

c. *Mně se podařil pomoct **Jirka**.
I$_{dat}$ se$_{inh}$ succeeded$_{sg,m}$ help$_{inf}$ Jirka$_{nom,sg,m}$

We conclude that sentences (14-b) and (15-b) are instances of long-distance Agree.

Another construction which we analyze as involving long-distance Agree to the functional projection of an unaccusative verb is *be+perception verb in infinitive*, which expresses possibility of perception of an object:

(17) a. Odtamtud bylo vidět Sněžku.
From-there was$_{dft}$ see$_{inf}$ Sněžka$_{acc}$
b. Odtamtud byla vidět **Sněžka**.
From-there was$_{sg,f}$ see$_{inf}$ Sněžka$_{nom,sg,f}$
'One could see Sněžka from there.'

The last verb that we discuss here is *chtít* 'want'. It disallows *se*-passivization (18). However, it exhibits another construction in which we can detect long-distance Agree ((19-a) and (19-b)). The construction consists of *want + se + dative experiencer* and it slightly differs from the meaning of the normal use of *want*.

(18) *Nechtělo se o tom mluvit.
Not-wanted$_{dft}$ se$_{pass}$ about it talk$_{inf}$

(19) a. Podnikatel kterému se nechce platit vysoké daně.
Businessman who$_{dat}$ se$_{inh?}$ not-want$_{dft}$ pay$_{inf}$ high tax$_{acc,pl}$

b. Podnikatel kterému se nechtějí platit **vysoké**
Businessman who$_{dat}$ se$_{inh?}$ not-want$_{3pl}$ pay$_{inf}$ high
daně.
tax$_{nom,pl,f}$
'A businessman who does not feel like paying high taxes.'
[CNC]

There are two constructions which the construction *want + se + dative experiencer* resembles. The first construction is the unaccusatives taking infinitival complement since they have inherent *se* and realize experiencer in dative (see above). If we collapsed want-construction with these, *se* would be

only inherent reflexive and the whole construction would exist as a separate lexical item independent of *want*.

The other construction which it resembles, is middle voice. The middle voice is created by using clitic *se* (which we will gloss se_{mid} henceforth) and realizing internal argument as the subject, which is similar to the construction of *se*-passive (see (6) and (20)). In what passive and middle voice differ is (im)possibility of overt realization of external argument as adjunct. Whereas passive cannot realize it, middle voice can, and the external argument then appears in dative (21):

(20) Domy se stavějí (*Jirkovi/ *Jirkou).
House$_{nom,pl,m}$ se$_{pass}$ build$_{3pl}$ (*Jirka$_{dat}$/ *Jirka$_{instr}$)
'The houses are being built (*by Jirka).'

(21) Domy se stavějí Jirkovi snadno.
House$_{nom,pl,m}$ se$_{mid}$ build$_{3pl}$ Jirka$_{dat}$ easily
'Houses build easily for Jirka.'

Notice however that the middle voice crucially differs in the fact that it demands presence of manner adverbials such as *easily* or *well*:[30]

(22) Domy se stavějí Jirkovi *(snadno).
House$_{nom,pl,m}$ se$_{mid}$ build$_{3pl}$ Jirka$_{dat}$ easily
'Houses build easily for Jirka.'

If one wanted to subsume *want + se + dative experiencer* under middle voice construction one would have to explain why the manner adverbial can be omitted in the former (19-b). The obvious way would be to say that volitional *want* in fact saves the sentence in (19-b) so no manner adverbial is needed. The problem with this solution lies in the fact that only manner adverbials can occur in the middle voice structure. Other adverbials are excluded from the middle:

(23) Domy se stavějí Jirkovi snadno (*úmyslně).
House$_{nom,pl,m}$ se$_{mid}$ build$_{3pl}$ Jirka$_{dat}$ easily (*on-purpose)

Volitionality does not express a manner of the event. Thus, volitional verb *want* not only seems to be helpless in the middle voice, it should be

[30] In some context, this requirement can be obviated but this does not need to concern us here. See Steinbach (2002) for discussion.

incompatible with it. This, in turn, suggests that the analysis, which does not understand *want + se + dative experiencer* as the construction derived from *want* by the middle rule but rather understands it as unaccusative (and *se* as the inherent reflexive), fares better and we will assume it to be right henceforth.

This concludes the discussion of the individual verbs that allow long-distance Agree of the internal argument of their infinitival complement. In the next section we will look at properties of *se*-passive in Czech and will see that deciding what is long-distance Agree is less straightforward than we so far pretended it to be. We will scrutinize verbs that superficially exhibit structures similar to ones we analyzed as long-distance Agree, but the structures will turn out to be different under closer scrutiny.

2.3 Raising and Control

In Table 2 we presented the list of verbs that allow long-distance Agree out of their infinitival complements. However, this list seems to be far from complete. There are other verbs that allow construction superficially indistinguishable from the previous ones. They are listed in Table 3. We will argue that that sentences in which these verbs occur, do not represent long-distance Agree in the sense discussed in the previous section. Rather, they represent structures in which not the matrix verb but the embedded one got passivized and the NP argument ended up as the subject of a whole sentence because the listed verbs are raising verbs. The suggestions that the verbs listed in Table 3 are raising verbs is in line with the analyses of other languages in which modal verbs (both in the epistemic and deontic reading) were argued to be raising verbs (for Italian, Radford, 1977, for Germanic languages, Bobaljik and Wurmbrand, 1999, and Wurmbrand, 2001) and aspectual verbs as ambiguous between control and raising (Wurmbrand, 2001) (they are unambiguously raising in Czech).

Let us start with the discussion of passive constructions in Czech. There are two ways to express passive in Czech. The first one has not been discussed so far. It is so-called periphrastic passive. It involves using the auxiliary *be* and passive morphology on a verb. An internal argument enters into Agree with T (becoming a subject) and an external argument (*Jirkou* in the example below) can be realized only in oblique Case-instrumental:

Table 3: Raising verbs

modal verbs:	moci	can
	smět	may
	muset	must
	mít	have to
Tahle kniha se mohla/směla/musela/měla prodat.		
This book$_{nom,sg,f}$ se$_{pass}$ can$_{sg,f}$/may$_{sg,f}$/had to$_{sg,f}$/should sell$_{inf}$		
'One could/might/had to sell the book.'		
aspectual verbs:	začít	start
	přestat	stop
Tahle kniha se začala/přestala prodávat.		
This book$_{nom,sg,f}$ se$_{pass}$ started$_{sg,f}$/stopped$_{sg,f}$ sell$_{inf}$		
'One started/stopped selling the book.'		
others:	stačit	manage (thanks to having enough time)
	stihnout	manage (thanks to having enough time)
Tahle kniha se nestačila/nestihla prodat.		
This book$_{nom,sg,f}$ se$_{pass}$ not-managed$_{sg,f}$ (not having enough time) sell$_{inf}$		
'One did not manage to sell the book for not having enough time.'		

(24) Domy jsou stavěny (Jirkou).
Houses$_{nom,pl,m}$ pass-aux$_{3pl}$ build$_{pass,pl,m}$ Jirka$_{Instr}$
'The house is being built by Jirka.'

The second way, we have already encountered in the examples (6) and others: it involves using the clitic *se*. An internal argument enters into Agree with T, and an external argument must be omitted (it cannot be realized even as adjunct, see also (20)):

(25) Domy se stavějí (*Jirkou).
Houses$_{nom,pl,m}$ se$_{pass}$ build$_{3pl}$ (*Jirka$_{instr}$)

We will be concerned with the second way of passivization in what follows. Notice that unlike in the first way, in the second one there is no special morphology on a verb that can tell that the verb was passivized. Since we assume that the passive morphology and changes in argument realization go hand in hand (uncontroversial assumption), we can put it differently: there

is no special morphology on a verb that can tell that the verb demoted its external argument and let its internal argument be promoted to the subject position. The only piece of evidence comes from the clitic *se*, which however does not need to be adjacent to the verb. As other clitics in Czech it must occupy so-called Wackernagel position in a clause (which is basically position after the first syntactic constituent; see Franks and King, 2000). What is crucial for the discussion, all clitics, *se* including, can (and sometimes even *must*) climb out of an infinitival clause in which they originate, up to a matrix clause.[31]

Notice further that even though *se*-passive cannot normally appear in infinitival constructions (26-b), unlike the periphrastic passive (26-a), the reasons for this (so far obscure, see Cinque, 1988 on some suggestions for Italian) definitely are not phonological or morphological, as one can see from the colloquial infinitival construction (with interpretation similar to *if*-clause) in Czech, which allows overt subject and *se*-passive (27). The point is that phonologically and morphologically the verb is in infinitive.

(26) a. Není možné být zkoušen třikrát v
Not-is possible pass-aux$_{inf}$ examine$_{pass,sg,m}$ three-times in
jednom týdnu.
one week
'It is not possible to be examined three times a week.'

b. *Není možné zkoušet se třikrát v jednom týdnu.
Not-is possible examine$_{inf}$ se$_{pass}$ three-times in one week

'It is not possible to be examined three times a week.' (intended)[32]

(27) Číst se ta kniha na semináři tak bych tu
Read$_{inf}$ se$_{pass}$ this book$_{nom,sg,f}$ at seminar then cond-aux$_{1sg}$ this

[31]For more thorough discussion on the phenomenon of clitic climbing, see chapter 3.

[32]The sentence in the example is possible only under here irrelevant reading with *se* understood as reflexive anaphor, i.e. '*It is not possible to examine oneself three times a week*'. When the verb is not in infinitive, the sentence is ambiguous:
Tenhle žák se zkoušel už třikrát.
This pupil$_{nom}$ se examined$_{sg,m}$ already three-times
'This pupil has already been examined three times.'
Or: 'This pupil has already examined himself three times.'

zkoušku udělal.
exam made$_{sg,m}$
'If we had read the book at the seminar I would have done the exam.'

Now, since the infinitive can in principle *se*-passivize and since the only sign that this took place is the clitic *se*, which can end up in the matrix clause, we cannot really say, to which verb the passive marker *se* belongs in sentences like (28), repeated from above:

(28) Tahle kniha se musela prodat.
This book$_{nom,sg,f}$ se$_{pass}$ had-to$_{sg,f}$ sell$_{inf}$

In other words: Since we assume that the passive morphology and changes in argument realization go hand in hand, we do not know which verb changed its argument realization in the example (28).

Summing up, we have two possibilities how to analyze the sentences like (28) (and of course the possibilities further grow under embedding of more infinitives):

- Matrix verb is passivized; the clitic *se* originated in the matrix clause
- Embedded infinitive is passivized; the clitic *se* climbed to the matrix clause

To understand the situation better, we must distinguish between two kinds of the verbs that select infinitival complements.

The first type is called a raising verb and is represented by the matrix verb in (29-a). The second type is called a control verb and is represented by the matrix verb in (29-b).

(29) a. John seemed to win.
b. John tried to win.

Since Rosenbaum (1967) the sentence (29-a) is analyzed as involving movement of *John* from the embedded infinitival clause, where it gets Θ-role, to the subject position of the sentence, where Case is valued (30-a). On the other hand, in the sentence (29-b) *John* originates in the matrix clause as the argument of the verb. The relation between *John* and the subject position in the infinitival clause is in this case mediated by a special element PRO in infinitival clause which is co-referential (or overlapses in reference in some special cases) with *John* (30-b).

(30) a. John$_i$ seemed [t$_i$ to win]
b. John$_i$ tried [PRO$_i$ to win]

In short, the different structures express the fact that raising verbs do not assign a Θ-role to the subject, whereas control verbs do. This captures the empirical observation that the former does not pose any restrictions on their subjects unlike the latter. Thus, quasi-arguments of weather predicates and expletives can be realized as subjects of raising verbs. This does not hold of control verbs ((31-a), (32-a) vs. (31-b), (32-b)).

(31) a. It seems to rain outside.
b. *It tried to rain outside.

(32) a. There seemed to be someone in the room.
b. *There tried to be someone in the room.

Returning to our discussion of infinitives in Czech, we are now aware that we should distinguish two situations: the embedded infinitive is the complement either of a raising verb or of a control verb. Theoretically, we have now four possibilities summarized in Table 4.

Table 4: Which verb got passivized?

	Passivized verb	Matrix verb is either control(C) or raising(R)
1st	matrix	C
2nd	matrix	R
3rd	embedded	C
4th	embedded	R

Recall from above the uncontroversial assumption that the verb to which the passive marker belongs, changes realization of its argument structure. Thus, the column 'which verb got passivized' also reads 'the argument structure of which verb was changed'.

Let us look at the first possibilities summarized in the table:

The first situation represents long-distance Agree in the case when the internal argument of the infinitival clause ends up as the subject of the sentence.

The second situation (the raising verb got passivized) is uninteresting for us since it represents non-existent situation in Czech, concretely the situation where the passivization would be totally vacuous, yielding the same

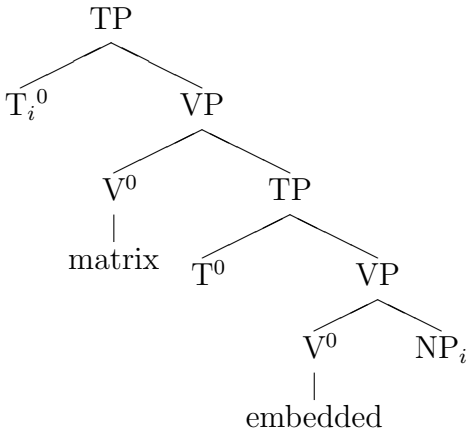
realization of arguments as its counterpart with active voice (i.e. as if both sentences *It seems to rain outside*, *It is seemed to rain outside* were possible). Inexistence of passivized raising verbs probably has reason in the fact that verbs lacking external argument cannot be passivized in Czech (cf. **Pršelo se* 'It was rained') (see Marantz, 1984, who explains it by ban on vacuous operation on an argument structure - since passivization demotes external argument and the discussed verb lacks an external argument from the beginning, the passivization cannot take place there.)

The third case represents the situation in which the internal argument of the infinitival clause is only apparently realized as the subject. In reality, the subject already starts as the external argument of the matrix verb and its relation to the internal argument is only mediated (by PRO). We should be able to recognize this construction because the subject is assigned Θ-role by the matrix verb and the matrix verb should therefore pose selectional restriction on it. Furthermore, as we will see later, this situation cannot arise under *se*-passive so we can put it aside.

The last situation is the one where the matrix verb is a raising verb and NP which needs to be valued structural Case, enters into Agree with its functional projection T.[33] The tree in 6 represents this scenario. The subject of the sentence is merged in the structure as the internal argument of the embedded verb, obtaining Θ-role there, and in need of being valued Case feature. The Agree relationship for valuing Case cannot be established by the functional projection of the infinitival clause because the verb is passivized and therefore does not project vP and since the infinitival clause is embedded under a raising verb it does not project position for valuing structural subject Case, either. Thus, the first position where NP can be valued Case is the functional projection of the matrix verb. It values structural subject Case.

Tree (6) Agree of the internal argument of the infinitival clause with T of the matrix clause in the case the verb in the matrix clause is a raising verb

[33]Recall from section 2.2.1 our assumption that Agree for Case- and Φ-features valuing is not followed by pied-piping. I.e. we do not observe overt movement of NP. However, we call the operation in which the subject of an infinitival clause becomes an argument of a matrix clause 'raising of an argument'.



Notice that this analysis is indistinguishable from long-distance Agree (see Tree 4). In both analyses the infinitive poses selectional restriction on internal argument NP, whereas the functional head of the matrix verb values its Case.

Thus, out of four combinations in Table 4 we are left with only two possible candidates, which are very alike, for the sentence like (28), repeated here as (33).

(33) Tahle kniha se musela prodat.
This book$_{nom,sg,f}$ se$_{pass}$ had-to$_{sg,f}$ sell$_{inf}$

These are:

- the matrix verb got passivized and the internal argument of the infinitival clause got in long-distance Agree with the matrix T; the matrix verb is a control verb
- the embedded verb got passivized and its internal argument got in Agree with the matrix T; the matrix verb is a raising verb

We will now show that the verbs in Table 3 represent the second case whereas the verbs in Table 2 represent the first case.

From Table 3 we take one representative for each group: the modal verb *muset* 'must', the aspectual verb *začít* 'begin' and the verb *stihnout* 'manage'.

Concerning Table 2, the situation is little bit more complicated. There, only three verbs can either be raising or control verbs and thus only these are of interest for us here. These are *plánovat* 'plan', *zapomenout* 'forget',

zvládnout 'manage'. All others must be control verbs which in the examples where long-distance Agree is perceptible, got passivized or were unaccusatives. This follows from the fact that these verbs have a non-subject (dative) argument that is interpreted as the subject of an embedded clause. Now, both raising and control analyses of these verbs have the following problem in common:

A common problem: How is it possible that the non-subject matrix argument is interpreted as the external argument of the embedded clause in the case of long-distance Agree? **In raising analysis:** Coreference arises via Agree but it is internal argument NP that enters into Agree with the matrix verb (internal argument raised). **In control analysis:** PRO is missing (see Section 2.5)

However, there is a further problem for raising analysis which does not arise for the control analysis:

The problem for raising analysis: The argument of the embedded clause raises to the subject position of the matrix clause when the embedded clause is *se*-passivized (what we assume to be the case of long-distance Agree in our analysis) but it raises to the non-subject (dative) position otherwise

We show the problem for raising analysis more concretely on examples with restructuring unaccusatives ((34-a) and (34-b)) and later on restructuring object-control verbs (37).

(34) a. Jirkovi nešla číst **tahle kniha**.
Jirka$_{dat}$ not-was-possible$_{sg,f}$ read$_{inf}$ this book$_{nom,sg,f}$
'Jirka was not able to read this book.'

b. starosta kterému se podařila najít
mayor who$_{dat}$ se$_{inherent}$ succeeded$_{sg,f}$ find$_{inf}$
mezera v zákoně.
loophole$_{nom,sg,f}$ in law
'A mayor who succeeded in finding a loophole in law.'

[CNC]

We can dismiss the first example as a possible candidate for *raising verb+passivized infinitive* since no passive marking (no *se*) is present there.

The second example is more complicated because *se* appears there. Recall that *se* in this example is inherent (see footnote 29). However, in Czech there is an operative rule that deletes two occurrences of clitic *se* when they appear adjacent to each other in the same clitic cluster. Thus, it could be the case that the example (34-b) represents the structure *raising verb+passivized infinitive* where the passive marker *se* climbed to the matrix clause and collapsed with the inherent *se*. Let us assume that this is really what happens in (34-b). Then, however, one would expect that the external argument of the embedded infinitival clause should be able to raise to the subject position when the embedded verb is not passivized. Of course, this is not possible. In the example below, we assume that *se* is only inherent, does not comprise of *inherent se+passive se*.

(35) *starosta se (Jirkovi) podařil najít mezeru v
mayor$_{nom}$ se$_{inh}$ Jirka$_{dat}$ succeeded$_{sg,m}$ find$_{inf}$ loophole$_{acc,sg,f}$ in
zákoně.
law

The sentence has no interpretation, no matter whether the dative argument is present or not. The reason for this is obvious: *only* the dative experiencer of the matrix clause can serve for the interpretation of the external argument in the embedded clause. This is easy to capture if the matrix verb is understood as the controller: dative argument controls PRO in the embedded clause. However, it represents a problem for the raising analysis . This analysis would have to assume that the subject of the embedded clause raises to the nominative position when the embedded verb is passivized (34-b), whereas when the embedded verb is in active voice the subject of the embedded verb (i.e. the external argument) raises for dative. However, even this would not work since the embedded verb can be passivized (as one can see when we use periphrastic passive) and the subject of the embedded clause is still coreferential with the dative argument in the matrix clause:

(36) a. Jirkovi se podařilo nebýt znovu
Jirka$_{dat}$ se$_{inh}$ suceeded$_{dft}$ not-pass-aux$_{inf}$ again
vyhozen z práce.
throw-away$_{pass,sg,m}$ from job
'Jirka managed not to be fired from the job again.'

b. *Jirka se podařil nebýt znovu
Jirka$_{nom,sg,m}$ se$_{inh}$ suceeded$_{sg,m}$ not-pass-aux$_{inf}$ again

vyhozen z práce.
throw-away$_{pass,sg,m}$ from job
'Jirka managed not to be fired from the job again.'

Thus, the raising analysis is forced to say that when the embedded verb is *se*-passivized the subject of the embedded clause (i.e. internal argument NP) becomes the subject of the matrix one, but in all other cases the subject of the embedded clause is realized in dative.

Let us repeat what is the crucial problem for the raising analysis of the examples like (34-b): raising analysis assumes that the subject of the infinitival clause must raise to the matrix clause to be valued Case. However, then, it is unclear why the subject of the infinitival clause becomes the dative argument of the matrix clause in some cases and the subject of the matrix clause in other cases.

The problem does not arise under the control analysis. There, the dative argument is understood as the controller of PRO in the infinitival clause. The realization of the internal argument of the infinitival clause in the subject position is a case of long-distance Agree. Long-distance Agree of the internal argument and controlling of PRO by the dative argument are two distinct operations. There is no expectation that they should be same.

The last example concerns restructuring transitive verbs not exhibiting the subject control:

(37) Na Zelený čtvrtek se doporučovala jíst **zelená**
On green Thursday se$_{pass}$ recommended$_{sg,f}$ eat$_{inf}$ green
strava.
diet$_{nom,sg,f}$
'It was recommended to eat green diet on 'green Thursday'.'

[http://www.coop.cz/magazin/1 2002/velikonoce zblizka.html]

Let us again assume that this represents the structure where the embedded verb is *se*-passivized and the argument *zelená strava* 'green diet' raises to the subject position. Again, the problem arises in the active clause:

(38) Vesničané doporučovali jíst zelenou stravu.
Villagers$_{nom,pl,m}$ recommended$_{pl,m}$ eat$_{inf}$ green diet$_{acc}$
'Villagers recommended to eat green diet.'

Of course, the subject *villagers* is not understood as the external argu-

ment of the embedded clause. Thus, the raising analysis would again have to say that the subject of the embedded clause raises to the subject position of the matrix clause at one case, but not in the other. Notice also that the 'recommender' is demoted from the subject position in (37) which follows quite naturally when one says that the matrix verb was passivized but is a miracle otherwise.

Concluding, from Table 2 only the three verbs can potentially be raising verbs since only with these the subject argument is interpreted as the subject of embedded clause in non-long-distance Agree cases. Let us take the verb *plánovat* 'plan' as a candidate. Now, let us look how the chosen verbs from Table 3 and 2 behave in tests distinguishing raising and control.

First, the former verbs (from Table 3) can embed weather verbs, unlike the latter ones (from Table 2).

(39) a. Muselo pršet.
Had-to$_{dft}$ rain$_{inf}$

b. Začalo pršet.
Started$_{dft}$ rain$_{inf}$
'It had to/started to rain.'

c. Nestihlo se rozpršet.
Not-managed$_{dft}$ se$_{inh}$ rain$_{inf}$
'It did not manage to start raining (because of having not enough time).'[34]

(40) *Plánovalo pršet.
Planed$_{dft}$ rain$_{inf}$
'It planned to rain.'

The example (40) shows that the latter group of verbs poses some selectional restrictions on subject (which, assuming for the sake of convenience here, is realized in this case as quasi-argumental *pro*). This can be explained if we assume that the verbs from this group assigns Θ-role to subject. The verbs from the former group can embed weather predicates (39-a)-(39-c), posing no selectional restriction on the subject, thus behaving as raising verbs.

[34]The infinitive *rain* differs in this example in having the prefix *roz-* and inherent clitic *se* and it means 'to start to rain' and is in perfective aspect. The reason for the change is that the infinitive expressing the change of state sounds more natural with the verb *stihnout* 'manage (because of having enough time)'.

Notice next that the verbs from Table 3 can embed impersonal constructions, unlike the verbs from Table 2.

(41) a. Muselo se mi stýskat.
Had-to$_{dft}$ se$_{inh}$ I$_{dat}$ feel-homesick
b. Začalo se mi stýskat.
Started$_{dft}$ se$_{inh}$ I$_{dat}$ feel-homesick
'I had to/started to feel homesick.'
c. Nestihlo se mi ani zastesknout.
Not-managed$_{dft}$ se$_{inh}$ I$_{dat}$ even feel-homesick
'Feeling of being homesick did not manage to reach me at all.'

(42) *Plánovalo se mi stýskat.
Planned$_{dft}$ se$_{inh}$ I$_{dat}$ feel-homesick
'I planned to feel homesick.'

The sentence (42) is deviant for two reasons. First, the subject (non-existent or, as we can assume again for the sake of convenience, being expletive *pro*) does not meet selectional restrictions of the verb. In fact, as suggested for example by Chomsky (1995, 4.10), the expletive cannot appear in theta-position at all. Second, the expletive cannot be co-refferential with PRO (see, for example, Chomsky and Lasnik, 1993). Thus, (41-a)-(41-c) represent the sentences with raising verbs and (42) represents the sentence with a control verb.

As for the third argument, recall that we said that besides *se*-passive there is also periphrastic passive where the passivized verb takes passive morphology so one can directly see which verb is passivized. Now, notice that the verbs in former group can embed infinitive in periphrastic passive but they cannot get passivized. The situation is other way round with the latter group.

(43) a. Muselo být o tom jednáno ve čtvrtek.
Had-to$_{dft}$ pass-aux$_{inf}$ about it negotiate$_{pass,dft}$ on Thursday

'One had to discuss it on Thursday.'
b. *Bylo museto/museno o tom jednat ve
Pass-aux$_{dft}$ must$_{pass,dft}$ about it negotiate$_{inf}$ on

čtvrtek.
Thursday

(44) a. Začalo být o tom jednáno ve čtvrtek.
Started$_{dft}$ pass-aux$_{inf}$ about it negotiate$_{pass,dft}$ on Thursday

'One started to discuss it on Thursday.'

b. *Bylo začato o tom jednat ve čtvrtek.
Pass-aux$_{dft}$ start$_{pass,dft}$ about it negotiate$_{inf}$ on Thursday

(45) a. Nestihlo být o tom jednáno ve
Not-managed$_{dft}$ pass-aux$_{inf}$ about it negotiate$_{pass,dft}$ on
čtvrtek.
Thursday
'One did not manage to discuss it on Thursday.'

b. *Bylo stihnuto o tom jednat ve čtvrtek.
Pass-aux$_{dft}$ manage$_{pass,dft}$ about it negotiate$_{inf}$ on Thursday

(46) a. *Původně plánovalo být o tom jednáno ve
Initially planned$_{dft}$ pass-aux$_{inf}$ about it negotiate$_{pass,dft}$ on
čtvrtek.
Thursday

b. Původně bylo plánováno jednat o tom ve
Initially pass-aux$_{dft}$ plan$_{pass,dft}$ negotiate$_{inf}$ about it on
čtvrtek.
Thursday
'One initially planned to discuss it on Thursday.'

The reason for grammaticality of (43-a), (44-a) and (45-a) on the one hand and ungrammaticality of (46-a) on the other hand is the same as for grammaticality of (41-a)-(41-c) and ungrammaticality of (42). In both cases we deal with impersonal infinitival clauses, in one case arisen in passive, in other in active voice. The ungrammaticality of (43-b), (44-b) and (45-b) follows from the fact that the raising verb cannot be passivized since it lacks argumental structure (see also discussion under Table 4). The grammaticality of (46-b), on the other hand, is obvious: The verb was passivized, the

subject was demoted but this does not preclude it from controlling PRO in the infinitival clause which is still in active voice.

We expect the pattern shown in periphrastic passives to appear with *se*-passives, too. Recall from above that *se* can climb out of its infinitival clause but usually does not need to. We would expect that if *se* stayed low, there should be a difference between the infinitival complement of verbs from the first group and from the second. But this is not borne out:

(47) a. *Bohužel muselo jednat se o tom ve
Unfortunately had-to$_{dft}$ negotiate$_{inf}$ se$_{pass}$ about it on
čtvrtek.
Thursday

b. *Bohužel začalo jednat se o tom ve
Unfortunately started$_{dft}$ negotiate$_{inf}$ se$_{pass}$ about it on
čtvrtek.
Thursday

c. *Bohužel nestihlo jednat se o tom
Unfortunately not-managed$_{dft}$ negotiate$_{inf}$ se$_{pass}$ about it
ve čtvrtek.
on Thursday
'One had to/started/did not manage to discuss it on Thursday.'

(48) *Původně plánovalo jednat se o tom ve čtvrtek.
Initially planned$_{dft}$ negotiate$_{inf}$ se$_{pass}$ about it on Thursday
'One initially planned to discuss it on Thursday.'

However, it seems that the first three sentences are bad for independent reason: the verbs listed in Table 3 strongly prefer climbing of clitics. In the following example, *se* has to originate in the infinitival clause since it is the argument of the infinitive. Nevertheless, it cannot stay low (the sentence with *se* that climbed up is grammatical).

(49) a. ?*Pavel musel mýt se studenou vodou.
Pavel had-to wash$_{inf}$ himself cold water$_{instr}$

b. ?*Pavel začal mýt se studenou vodou.
Pavel started wash$_{inf}$ himself cold water$_{instr}$

c. ?*Pavel stihl umýt se studenou vodou.
Pavel managed wash$_{inf}$ himself cold water$_{instr}$
'Pavel had-to/started/managed washing himself with cold wa-

ter.'

Notice that the verb from the other group allows clitics to stay in the infinitival clause.

(50) Pavel plánoval mýt se studenou vodou pravidelně.
Pavel planned wash$_{inf}$ himself cold water$_{instr}$ regularly
'Pavel planned to wash himself with cold water regularly.'

This suggests that ungrammaticality of the example (48) cannot be explained pursuing the line of obligatory climbing. The obvious answer is that in the case above (48), the sentence is odd exactly because *se* is misplaced in the infinitival clause where it does not originate.[35]

In sum, the verbs in Table 3 are raising verbs and their apparent long-distance Agree is in fact passivization of embedded verb and subsequent Agree of the internal argument with the matrix T. On the other hand, the verbs in Table 2 are control verbs and the examples like (51) below really are instances of long-distance Agree.

(51) **Horký plyn** se plánoval využít k otopu
hot gas$_{nom,sg,m}$ se$_{pass}$ planned$_{3sg,m}$ use$_{inf}$ for heating
skleníku.
glasshouse$_{gen}$

[35]There is another explanation for the ungrammaticality of (48): the example (48) represents a case of restructuring; in restructuring, clitic climbing becomes obligatory (see also section 3.1). We see one potential problem for this analysis. The other clitics that undoubtedly originate in the infinitival clause can stay there.

Assess the example below. Two clitics occur there, *mu* 'him' and *se* (the passive marker). Now, when both of them stay in the lower clause, the sentence is ungrammatical. When *se* climbs, the sentence radically improves.

(i) a. *Zatím neplánovalo se mu pomáhat.
So-far not-planned$_{dft}$ se$_{pass}$ him$_{dat}$ help$_{inf}$
b. ?Zatím se neplánovalo mu pomáhat.
So-far se$_{pass}$ not-planned$_{dft}$ him$_{dat}$ help$_{inf}$
'It wasn't planned to help him so far.'

Now, if the reason for ungrammaticality of (i-a) lay in the fact that this is the case of restructuring (long-distance Agree) in which clitics must climb, the drastic improvement of (i-b) would remain unclear. It seems that the only clitic that cannot stay in the infinitival clause is the passive marker *se*. Thus, the analysis in which *se* cannot stay in the lower clause since it does not originate there fares better with respect to the data (i-a) and (i-b).

'It was planned to use hot gas to heat the glasshouse.'

[http://www.ceu.cz/ODPADY/StredniCechy.html, adapted]

At the end, let us return to the situation from Table 4 which we have left aside: that is, when the matrix verb is a control verb and the embedded verb is passivized (the 3rd scenario in Table 4). We have said above that this situation cannot arise with *se*-passive. To examine this, we need a control verb that does not allow long-distance Agree. The following verb *toužit* 'wish' is suitable. It does not exhibit long-distance Agree (52) and it is a control verb as one see from the fact that it cannot embed weather verbs and impersonal infinitives ((53-a) and (53-b)):

(52) *__Horký plyn__ se toužil využít k otopu
hot gas$_{nom,sg,m}$ se$_{pass}$ wished$_{sg,m}$ use$_{inf}$ for heating
skleníku.
glasshouse$_{gen}$
'One wished to use hot gas to heat the glasshouse.' (intended)[36]

(53) a. *Toužilo pršet.
Wished$_{dft}$ rain$_{inf}$
'It wished to rain.'
b. *Toužilo se mi stýskat.
Wished$_{dft}$ se$_{inh}$ I$_{dat}$ feel-homesick
'Feeling of being homesick wished to reach me.'

Now, we can clearly show that it can embed passive when we use the periphrastic one:

(54) Pavel toužil být zkoušen znovu.
Pavel$_{nom,sg,m}$ wished$_{sg,m}$ aux$_{inf}$ examine$_{pass,sg,m}$ again
'Pavel wished to be re-examined.'

However, embedding of the *se*-passivized infinitive is ungrammatical (no matter whether the clitic *se* ends up in the embedded (55-a) or the matrix clause (55-b)). The infinitival clause with *se* can only have reflexive reading (recall that both readings are possible when the verb is not in infinitive, see footnote (32)):

[36]The sentence is possible under irrelevant reading 'Hot gas wished to use himself for heating of glasshouse'.

(55) a. Pavel toužil zkoušet se znovu.
Pavel wished examine$_{inf}$ self/*se$_{pass}$ again
b. Pavel se toužil zkoušet znovu.
Pavel self/*se$_{pass}$ wished examine$_{inf}$ again
'Pavel wished to examine himself again.'
Not: 'Pavel wished to be re-examined.'

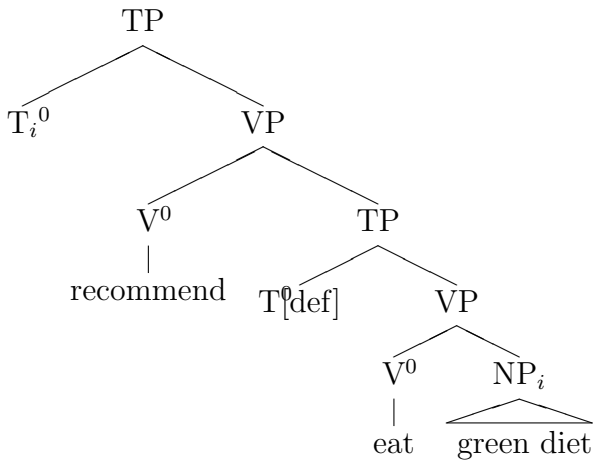
Thus, the infinitive in *se*-passive cannot be embedded under a control verb at all.

In conclusion, the cases where the internal argument NP of the infinitival clause ends up as the subject under occurrence of *se*-passivization in the sentence must be cases of (1) or (4) in Table 4. We have argued that the sentences with the verbs from Table 2 can only represent the first case, whereas the sentences with the verbs from Table 3 can only represent the second case.

2.4 Analysis of long-distance Agree

When discussing the instance of long-distance Agree (11) we assumed that the tree structure is as the one presented in 4 repeated here as 7.

Tree (7) Long-distance Agree with the matrix verb in passive



Notice that we are trying to account for one sole fact: long-distance Agree, i.e. Agree of the internal argument with the functional head of the matrix verb. If we accept that this is really right description of cases like (11) does

this commit us to any particular structure? Concretely, the infinitival clause in 7 differs from a standard clause projection in

- lacking vP
- having defective T (being not Φ-complete, which precludes it from valuing Case feature, see section 2.2.1)
- lacking CP
- lacking PRO

Missing v and defective T causes that the infinitival clause cannot value any structural Case. Thus, NP showing long-distance Agree gets actually in strictly local Agree relation; that is, it agrees with the first possible functional head that can value Case feature. Missing CP can be understood as inability of infinitival clause to host a complementizer or to be interpreted as wh-infinitival clause. Besides, we assume that the infinitival clause lacks PRO.

In this section we motivate our assumptions. We will show that these elements are expected to be missing when we take into considerations what we already know about Agree. In section 2.5 we will discuss empirical arguments that corroborate the incomplete clause structure suggested here.

Concerning strictly local Agree relation between NP and a functional head, one can come up with two other analyses under which functional heads which must value Case, can be present:

- NP "skips" these projections and enters into Agree with the highest one which values its structural Case
- NP enters into agreement relation "successive-cyclically" with every of these projections and at the end it ends up in Agree with the highest one

The both analyses are highly problematic from the empirical point of view: concerning the first one, it is an *empirical* fact that the verbal functional projections valuing Case bear uninterpretable Φ-features (see Chomsky, 1995, 4.2). Thus, these projections cannot be just "skipped"; they need N that values their uninterpretable features. The second analysis runs against one of main observations of Case theory: every N bears exactly one Case.

There is only one situation under which the latter analysis seems empirically plausible: N enters into more than one Agree relation only if all Agree relations value the same Case. We will return to this situation immediately.

The second analysis is disqualified by basic assumption of MP (from Chomsky, 2001, p. 6, adapted):

- For Agree to apply, both N and a functional head *must* have an uninterpretable feature.

This precludes N from entering into Agree after it has been deleted valued Case. The exact analysis of course depends on timing of deletion of valued features. If deletion was delayed enough, we would be able to get the derivation discussed above: NP in long-distance Agree would enter into Agree with two distinct head valuing the same Case feature: either two Ts or two vs. However, empirical merits of this derivation are, as far as I know, null if we compare this derivation to the one in which NP enters into Agree with only one T or one v. Therefore, we do not pursue it any further and stick to the simpler one (which does not require any special delay of deletion but is compatible with it): that is, NP enters into Agree with only one functional head valuing its Case; no other functional heads with ability to value structural Case intervenes between NP and the valuing functional head.

There is still a third analysis under which functional head valuing Case could intervene:

- The Case-valuing functional head is present but it is satisfied by another NP. Therefore, NP undergoing long-distance Agree agrees with the higher head, which is the first available.

There is however a broad empirical evidence showing that a functional head can get in Agree with only the closest NP.[37] When the closest NP cannot enter into Agree any longer (for the reasons discussed above) it behaves as an intervener precluding Agree relation between functional head valuing Case and NP lower down which is in need of Case. Anagnostopoulou (2003) discusses rich data in Germanic, Romance and Greek showing the intervention effect of Case-bearing NP which still precludes Agree to cross over it.

Ban on intervening NP between functional head valuing Case and N which needs its Case to be valued, is implemented into notion of locality, discussed

[37]See Chomsky (1995, ch. 3 and 4.5.5) for elaborating on the notion of closeness and the footnote (38).

in Chomsky (1995), Rizzi (1990) and elsewhere. The formulation of it is known in MP as Minimal Link Condition, saying (for movement) that

(56) α can raise to target K only if there is no legitimate operation Move β targeting K, where β is closer to K (Chomsky, 1995, p. 296).[38]

Translating older MP approach to the one using Agree as the cornerstone of valuing features, we are getting following: when α and β match target K's all uninterpretable Φ-features and β is closer to target K than α, K can get in Agree only with β. When β is inactive (having no uninterpretable feature to be valued) K still cannot skip it and look for other element lower and since inactive syntactic object cannot get in Agree (it can only be in Match), K's uninterpretable features cannot get valued and the derivation crashes.

We assume that the absence of PRO is possibly a way to circumvent the intervention effect of Φ-complete element in long-distance Agree. We will thoroughly discuss this issue in the next section.

Let us turn now from absence of functional heads valuing structural Case to absence of CP layer.

The necessity of absence of CP layer when Agree takes place was suggested for explanation why raising can take place from infinitival clauses (57-a) but not from finite clauses (57-b). Recall that in the English examples, Agree is accompanied by pied piping of phonological features of the phrase to Spec position of the head which NP enterd into Agree with (Section 2.2.1).

(57) a. There$_i$ seems [t$_i$ to be someone in the room]
b. *There$_i$ seems [that t$_i$ was someone in the room]

To accommodate the facts, Bresnan (1972) suggested operation S'-deletion (S' equaling CP nowadays) of infinitival clauses that are complements of raising verbs. The absence of CP layer in the infinitival complements of raising verbs is generally followed even though it is not at all clear that the data in (57-b) really point to this conclusion. For the sentence to be grammatical *there* would have to bear two Cases. This is banned in MP, see also discussion on page 42. More promising are data showing that infinitival clauses can-

[38]Legitimate operation is one where moved element contains feature which can get in relation with target K. In our case, any Φ-features of N can do the job. Definition of closeness is quite intricate issue (see Chomsky (1995, ch. 3 and 4.5.5)). For our analysis here it suffices if we simplify closeness to terms of c-command: β is closer to K than α if K c-commands both and β asymmetrically c-commands α.

not be introduced by complementizers when they are complements of raising verbs. Example of this sort can be shown in Hebrew:

(58) a. Rina xadla (me-)le'acben et Gil.
Rina stopped (from-)irritate$_{inf}$ acc Gil
'Rina stopped irritating Gil.'
b. Ha-muzika ha-ro'ešet xadla (*me-)le'acben et Gil.
the-music the-noisy stopped (from-)irritate$_{inf}$ acc Gil
'The loud music stopped irritating Gil.'

[from Landau, 2003, ex. 34 a, b]

The verb *xadal* 'stop' is ambiguous between raising and control in Hebrew. When the subject is animate NP which can control PRO in the infinitival clause, the complementizer *me* is possible (58-a). However, when the subject is inanimate which forces raising analysis of the sentence, the complementizer is precluded (58-b).

Based on these data we assume that CP-layer is impassable obstacle for Agree. Therefore, it cannot be present when long-distance Agree takes place (Tree 7).

As in the case of missing positions for valuing of structural Case, ban on Agree crossing CP layer is derived from more basic assumptions. This is Phase Impenetrability Condition (PIC) in Chomsky (2001) combined with Ban on Improper Movement (BOIM). PIC says that (from Chomsky, 2001, p. 13, first version, adapted)

(59) If HP is a strong phase, the domain of H is not accesible to operations outside HP, only H and its *edge* (edge=specifiers and adjuncts to HP) are accessible to such operations.

Following standard line, we assume strong phases to be CP and vP. Now, it follows from PIC that NP which needs to get in Agree with functional head outside of CP must get to the edge of C. However, one it moves to the edge of C, it is effectively prevented from getting in Agree with any functional head in matrix clause which is lower than C because of BOIM, saying (from Williams, 2003, adapted):

(60) Assuming clause structrure $X_1 > ... > X_n$; no element in X_iP can be accessible for X_j in the higher clause, if $X_i > X_j$ in the clause hierarchy

In conclusion, we have seen that there are reasons why the infinitival clause from which long-distance Agree took place lacks vP and CP layers and has defective TP which cannot assign position for valuing structural Case. These reasons are independent of long-distance Agree itself in the sense that they were not introduced into GB/MP in any connection with it. We assume that they are both necessary and sufficient for long-distance Agree in Czech. Let us see what this predicts.

2.5 Predictions

The presence of CP-layer is easy to test. It must be present in the structure for hosting wh-words and complementizers. The complementizers cannot appear in infinitival constructions in Czech at all but the wh-words can (61-c). However, they are banned from all infinitival clauses selected by the restructuring verbs ((61-a) as an example) even though the same verbs can allow wh-embedded finite clause (61-b).

(61) a. *Pavel plánoval kde potkat Marii.
Pavel planned where meet$_{inf}$ Marie$_{acc}$
b. Pavel plánoval kde potká Marii.
Pavel planned where will-meet$_{3sg}$ Marie$_{acc}$
c. Pavel nevěděl kam jít.
Pavel not-knew where go$_{inf}$

There is one interesting exception which however corroborates our analysis under closer scrutiny. This is the verb *zapomenout* 'forget' that allows long-distance Agree but can embed wh-infinitives:

(62) Aby se nezapomněla nastavit **šířka** **záběru**
So-that se$_{pass}$ would-not-forget$_{sg,f}$ set$_{inf}$ width$_{nom,sg,f}$ shot$_{gen}$
zpět.
back
'So that one would not forget to set the camera aperture back.'

[from http://www.trv-kocab.cz/vyrobky/pocitac.htm]

(63) Pavel zapomněl jak nastavit šířku záběru.
Pavel$_{nom,sg,m}$ forgot$_{sg,m}$ how set$_{inf}$ width$_{acc}$ shot$_{gen}$
'Pavel forgot how to set the camera aperture shot.'

What is crucial, these two properties are mutually exclusive. When the embedded infinitival clause of the verb *forget* hosts wh-word, long-distance Agree cannot occur (no matter whether the subject is realized in the embedded or the matrix clause):

(64) a. *Aby se nezapomněla jak nastavit **šířka** **záběru**.
So-that se_{pass} would-not-forget$_{sg,f}$ how set_{inf} $width_{nom,sg,f}$ $shot_{gen}$
'so that one would not forget to set the camera aperture back.' (intended)

b. ***Šířka** **záběru** se zapomněla jak nastavit.
$Width_{nom,sg,f}$ $shot_{gen}$ se_{pass} $forgot_{sg,f}$ how set_{inf}
'One forgot how to set the camera aperture.' (intended)

Thus, the absence of CP-layer in the functional projection of an infinitival clause is necessary for long-distance Agree.

The second prediction that our analysis makes is the absence of PRO. Firstly we will discuss the data suggesting missing PRO. Then we will turn to the question why this should follow from our analysis. We will see that the necessary absence of PRO is predicted by Burzio's generalization (discussed below) or by the intervention effect of a Φ-complete element in Agree relation discussed above.

As we have already said above, PRO is a syntactic element ensuring that external argument of infinitival clause, resulting as subject when its verb is finite, co-refers (or overlapses in reference) with controller in matrix clause. As one could object the co-reference of two elements can be fixed in semantics. The main reasons why PRO is postulated as an element present in syntax are:

- PRO binds subject-oriented reflexives
- PRO licenses secondary predicates

We will look at these properties in turn.

In simple clauses, reflexives can be only bound by nominative subject in Czech as demonstrated for the possessive reflexive *svůj* and pronominal reflexive *sebe* (but see further for more careful discussion):

(65) a. Pavel$_i$ vyprávěl Jirkovi$_j$ o své$_{i,*j}$ ženě.
Pavel$_{nom,sg,m}$ told$_{sg,m}$ Jirka$_{dat}$ about self's wife
'Pavel told Jirka about his(=Pavel's) wife.'
b. Pavel$_i$ vyprávěl Jirkovi$_j$ o sobě$_{i,*j}$.
Pavel$_{nom,sg,m}$ told$_{sg,m}$ Jirka$_{dat}$ about self
'Pavel told Jirka about himself(=Pavel).'

Notice that it is the subject that binds reflexives, not the external argument. If the verb is passivized, the internal argument that gets in Agree with T (thus, becomes the subject of the sentence) binds reflexives:. This fact becomes important immediately when we turn to discussion of binding by PRO.

(66) Chlapec$_i$ byl zbit svými$_i$ nejlepšími kamarády.
Boy pass-aux$_{sg,m}$ beat$_{pass,sg,m}$ self's best friends$_{instr}$
'The boy has been beaten up by his best friends.'

When the reflexive appears in the infinitival clause it can become co-referential with controller even though the controller is object in non-nominative case (therefore it cannot be the controller that binds the reflexive):

(67) a. Pavel$_i$ Jirkovi$_j$ zakázal vyprávět o své$_{?i,j}$ ženě.
Pavel$_{nom,sg,m}$ Jirka$_{dat}$ forbade$_{sg,m}$ tell$_{inf}$ about self's wife
'Pavel forbade Jirka to tell about his(=Pavel's, Jirka's) wife.'
b. Pavel$_i$ Jirkovi$_j$ zakázal vyprávět o sobě$_{i,j}$.
Pavel$_{nom,sg,m}$ Jirka$_{dat}$ forbade$_{sg,m}$ tell$_{inf}$ about self
'Pavel forbade Jirka to tell about himself(=Pavel, Jirka).'

As we have said above, it is the subject that binds the reflexive, not the external argument. Thus, we need the subject in the infinitival clause which could satisfy the binding. PRO in the subject position of the infinitival clause can do that.

The second phenomenon which demands the presence of PRO in syntax, is licensing of secondary predicates. Notice that these agree in case and Φ-features with the noun they modify:

(68) a. Jirka se smál Pavlíně opilý.
Jirka$_{nom,sg,m}$ se$_{inh}$ laughed$_{sg,m}$ Pavlína$_{dat,sg,f}$ drunk$_{nom,sg,m}$
'Jirka laughed at Pavlina being drunk.'

b. Jirka se smál Pavlíně (opilé / Jirka$_{nom,sg,m}$ se$_{inh}$ laughed$_{sg,m}$ Pavlína$_{dat,sg,f}$ (drunk$_{dat,sg,f}$ / *opilá). *drunk$_{nom,sg,f}$)
'Jirka laughed at Pavlina while she was drunk.'

When the secondary predicate modifies the subject of the embedded infinitival clause, it can agree in case with the overt NP that controls PRO.

(69) Mladá mi tam zakázala samotnému chodit
young$_{nom,sg,f}$ me$_{dat}$ there forbade$_{sg,f}$ alone$_{dat,sg,m}$ go$_{inf}$
'My girlfriend forbade me to go there alone.'

What however concerns us here, the secondary predicate can also result in nominative, even though the controller of PRO is in different case:

(70) ?Pavlína Jirkovi zakázala lézt na střechu
Pavlína$_{nom,sg,f}$ Jirka$_{dat,sg,m}$ forbade$_{sg,f}$ climb$_{inf}$ on roof
opilý.
drunk$_{nom,sg,m}$
'Pavlina forbade Jirka to climb up on the roof while being drunk.'
Not: 'Pavlina forbade Jirka to climb up on the roof and in the time she told it Jirka was drunk.'

The case and the interpretation correlation strongly suggests presence of PRO that can license secondary predicates in nominative in embedded infinitival clause when the controller appears in a different case.

Let us now move to the question what happens with the two phenomena that require presence of PRO when the infinitival clause exhibits long-distance Agree.[39]

The binding of the reflexives:

(71) a. Ten pokoj se mi$_i$ nechtělo po sobě$_i$ uklízet .
this room$_{acc}$ se$_{inh}$ I$_{dat}$ not-wanted$_{dft}$ after self clean$_{inf}$
'I did not feel like cleaning the room after myself.'
b. ?**Ten pokoj** se mi$_i$ nechtěl po sobě$_i$ uklízet.
This room$_{nom,sg,m}$ se$_{inh}$ I$_{dat}$ not-wanted$_{sg,m}$ after self clean$_{inf}$

[39]To present clear judgments as much as possible we will stick to the verbs that native speakers generally find unproblematic with long-distance Agree out of their infinitival complements (see Table 2).

(72) a. Tu povídku mi nešlo psát ve svém
This short-story$_{acc}$ I$_{dat}$ not-was-possible$_{dft}$ write$_{inf}$ in self's
pokoji.
room
'I was not able to write the short story in my room.'

b. ??**Ta povídka** mi nešla psát ve
This short-story$_{nom,sg,f}$ I$_{dat}$ not-was-possible$_{sg,f}$ write$_{inf}$ in
svém pokoji.
self's room

The examples (71-a) and (72-a) represent the cases of embedding of an infinitival clause with reflexive included, the examples (71-b) and (72-b) differ from the previous ones only in the fact that long-distance Agree took place out of the infinitival clause.

The data are somewhat surprising. It seems that PRO is missing in cases of long-distance Agree of an internal argument; however, it is unclear why the degradation is only mild.

We suggest the following explanation: the reflexive in the examples (71-b) and (72-b) has not been bound by PRO but by the overt dative argument directly. Recall that we have said above that only nominative subjects are possible antecedents for reflexives in Czech. This was oversimplifying. The reflexive can be also bound by dative arguments which appear in small set of stative predicates and are typically labeled as *experiencers* in theta-theory. The binding by dative argument is only slightly degraded (73-a).

(73) a. ?Pavlovi$_i$ se na svých$_i$ příbuzných líbilo jak
Pavel$_{dat}$ se$_{inh}$ on his(=Pavel's) relatives liked$_{dft}$ how
dokázali reagovat na každou nepříjemnost.
managed$_{3pl}$ react$_{inf}$ on every trouble
'Pavel appreciated on his relatives how they managed to react on every trouble.'

Binding of reflexives by dative arguments is also discussed in Franks (1995) for Polish (p. 71-72) and Russian (p. 253-254).

Notice that all verbs allowing long-distance Agree have either dative arguments which can in principle bind the reflexive, or have only implicit argu-

ments which makes binding problematic even in the case when PRO should be present in the infinitival clause:

(74) *Plánovalo se uklidit po sobě.
Planned$_{dft}$ se$_{dft}$ clean$_{inf}$ after self
'It was planned to clean after oneself' (intended)

Thus, reflexive-test points to the conclusion that PRO is missing even though the data are not as conclusive as one would like to have them.

Fortunately we still have the other litmus test for examining presence of PRO: the licensing of secondary predicates in nominative. Before testing it notice that the depictive adjective *must* agree with the noun every time, i.e. the set of stative verbs whose dative arguments can bind subject-oriented reflexive, does not create any exception:

(75) Pavlovi se líbilo v Praze (opilému / *opilý).
Pavel$_{dat,sg,m}$ se$_{inh}$ liked$_{dft}$ in Prague (drunk$_{dat,sg,m}$ / *drunk$_{nom,sg,m}$)

'Pavel liked Prague while being drunk.'

Now, let us finally proceed to combining long-distance Agree with secondary predicates:

(76) a. ?Jirkovi se nechtělo číst tuhle knihu
Jirka$_{dat}$ se$_{inh}$ not-wanted$_{dft}$ read$_{inf}$ this book$_{acc}$
neholený a nemytý.
not-shaved$_{sg,masc,nom}$ and not-washed$_{sg,masc,nom}$
'Jirka did not feel like reading this book unshaved and unwashed.'

b. Jirkovi se nechtěla číst **tahle kniha**
Jirka$_{dat}$ se$_{inh}$ not-wanted$_{sg,f}$ read$_{inf}$ this book$_{sg,f,nom}$
(*neholený a nemytý).
(*not-shaved$_{sg,masc,nom}$ and not-washed$_{sg,masc,nom}$)

c. ?Tu knihu se mi nechtělo číst takhle
this book$_{acc}$ se$_{inh}$ I$_{dat}$ not-wanted$_{dft}$ read$_{inf}$ this
ospalý.
sleepy$_{nom,sg,m}$
'I did not feel like reading this book sleepy like this.'

d. **Ta kniha** se mi nechtěla číst (*takhle
this book$_{sg,f,nom}$ se$_{inh}$ I$_{dat}$ not-wanted$_{sg,f}$ read$_{inf}$ (*this
ospalý).
sleepy$_{nom,sg,m}$)

(77) a. ?Jirkovi se nepodařilo dočíst tuhle
Jirka$_{sg,masc,dat}$ se$_{inh}$ not-succeeded$_{dft}$ finish-reading$_{inf}$ this
knihu střízlivý.
book$_{acc}$ sober$_{sg,masc,nom}$
'Jirka did not succeed in finishing reading this book while staying sober.'

b. Jirkovi se nepodařila dočíst **tahle**
Jirka$_{sg,masc,dat}$ se$_{inh}$ not-succeeded$_{sg,f}$ finish-reading$_{inf}$ this
kniha (*střízlivý).
book$_{sg,f,nom}$ (*sober$_{sg,masc,nom}$)

The examples (76-a), (76-c) and (77-a) represent cases of secondary predicates in the infinitival clauses. The secondary predicates can appear in nominative even though the controller is in dative, as is expected under PRO analysis. The examples (76-b), (76-d) and (77-b) are cases of long-distance Agree. The secondary predicates agreeing with PRO are excluded in these cases. Notice that when the secondary predicate agrees with the overt argument, it is still possible:

(78) a. ?Tu knihu se mi samotnému nechtělo číst.
this book$_{acc}$ se$_{inh}$ I$_{dat}$ alone$_{dat,sg,m}$ not-wanted$_{dft}$ read$_{inf}$

b. ?**Ta kniha** se mi samotnému nechtěla číst.
this book$_{sg,f,nom}$ se$_{inh}$ I$_{dat}$ alone$_{dat,sg,m}$ not-wanted$_{sg,f}$ read$_{inf}$
'I did not feel like reading this book alone.'

The last point: notice that the (im)possibility of the secondary predicate in nominative has nothing to do with surface word order but only with morphological differences which, we argue, are manifestation of syntactic Agree relation.

One could make the objection that the impossibility of secondary predicates arises from the fact that in the relevant examples there is an overt subject in nominative which overrides the ability of PRO to license the secondary predicates. This however does not seem to be on the right track. Recall that in the example (70) PRO could have licensed the secondary pred-

icate no matter that there was an overt noun in nominative in the matrix clause. Thus, the other explanation of the data ((76-a)-(77-b)) should be at the stake. We suggest that the absence of PRO is the trigger which causes ungrammaticality of secondary predicates here.[40]

Let us turn now to the second question: How can missing PRO be explained?

We suggest that either of the possibilities below can work for the explanation:

- PRO as an external argument is merged in Spec,vP. An infinitival clause does not value structural object Case when its internal argument NP exhibits long-distance Agree. If we understand the inability to value structural object Case as absence of v in the functional projections, absence of PRO follows.

- PRO has a complete set of Φ-features and counts as an intervener for Agree relation between functional head valuing Case and NP which needs the Case to be valued.

The first explanation holds only when absence of structural object Case valuing is closely tied in with absence of external argument. Linking up these two properties is based on empirical observation known as Burzio's generalization (Burzio 1986, p. 178) saying that the verb assigns accusative if it assigns external argument and it assigns external argument if it assigns accusative (Acc $\leftrightarrow$ ExternalArgument).

Unlike Burzio (1986), we assume only one-way implication: ExternalArgument $\rightarrow$ Acc. In this section, we present arguments against the other way of implication (Acc $\rightarrow$ ExternalArgument) based on Ukrainian and Russian. Another argument will be presented in chapter 4. We will show there that PRO as an external argument can be absent even though an infinitival clause can still license an accusative object.

The implication Acc $\rightarrow$ ExternalArgument has been called in question for Ukrainian in Lavine (2000) and for Russian in Markman (2003).

The counterexample is straightforward: an internal argument appears in accusative even though no external argument is present in the syntax. This

[40]One can wonder how the right interpretation of the subject of an infinitival clause is achieved in the case PRO is missing. We will address this issue in section 4.4.

concerns *adversity impersonal* in Russian (79-a) and -no/-to passive (formed by -no or -to participle[41]+optional auxiliary) in Ukrainian (79-b).

(79) a. Berezu svalilo.
Birch$_{acc}$ make-fall$_{dft}$
'The birch was caused to fall.' [Markman, 2003, ex. 1c]

b. Cerkvu bulo zbudovano v 1640 roce.
Church$_{acc}$ Aux$_{dft}$ built$_{-no-participle}$ in 1640 year
'The church was built in the year 1640.'
[Lavine, 2000, ex. 2b]

That an external argument is missing in the syntax is suggested from the fact that it cannot control into purpose clause ((80-a) for adversity impersonal) or it cannot control into adverbial gerunds ((80-b) for -no/-to passive).

(80) a. Dom sožgl-o (*čtob polučit' strahovku)
House$_{acc}$ burnt$_{dft}$ (*to receive insurance)
'The house got burned down (*to collect the insurance).'
[Markman, 2003, ex. 2]

b. (*Povernuvšys' dodomu,) hroši bulo
Having-returned$_{ger}$ home money$_{acc}$ aux$_{dft}$
znajdeno.
found$_{-no-participle}$
'(*Having returned home,) the money was found.'
[Lavine, 2000, ex. 63b]

It can further be shown that accusative on noun represents structural Case. When the verb is negated the accusative on noun changes to genitive ((81-a) for adversity impersonal and (81-b) for -no/-to passive). So-called genitive of negation holds in Russian and Ukrainian for NPs with structural Case only.

(81) a. Vo vremja prošloj grozy ne povalilo ni odnoj berëzy
In time past storm NEG make-fall$_{dft}$ not one birch$_{gen}$
'No birch fell in time of the past storm.'
[Ženya Romanova, p.c.]

[41]-No/-to participle is default form of passive participle.

b. Na druhyj den' ne bulo znajdeno jeho čovna.
On following day NEG aux$_{dft}$ found$_{-no-participle}$ his boat$_{gen}$
'On the following day his boat wasn't found.'

[Lavine, 2000, ex. 79]

Now, the data militate against the implication Acc → ExternalArgument. However, the other way, that is: ExternalArgument → Acc can still hold. This is exactly the implication we need for explaining absence of PRO. Since the infinitival clause whose internal argument enters into long-distance Agree, lacks ability to value structural Case, PRO as the external argument must be missing, too.

Let us turn to the other explanation why PRO must be absent: PRO bears a complete set of Φ-features and therefore counts as an intervener between Case-valuing head and NP. In other words, PRO is equipped enough to enter into Agree relation valuing Case. This also makes it enough strong intervener in Case-valuing Agree relation. Therefore, it must be missing when NP undergoes long-distance Agree.

If we can show that PRO can bear Case, it would follow that having no evidence in contrary, PRO can also block Case-valuing. That PRO bears Case (structural or inherent) was suggested for example for Icelandic (Thráinsson (1979, p. 282 ff.) or Sigurdsson (1989 sec. 5.5.2, 1991)). The argument is based on quantifiers and predicative adjectives that must agree in case and Φ-features with a subject when the subject is in nominative and they appear in the default form when the subject is in other case (the default form being nominative or accusative neuter singular):[42]

(82) a. Mennirnir voru veikir.
the-men$_{pl,m,nom}$ were$_{3pl}$ sick$_{pl,m,nom}$
'The men were sick.'
b. Mönnunum var illt.
the-men$_{pl,m,dat}$ was$_{dft\ dft}$
'The men were nauseated.'

[Sigurdsson, 1991, p. 185, ex. 7a and 8a]

Both nominative and non-nominative subjects can be realized as PRO in embedded infinitival clauses. Predicative agreement is as in the corresponding finite clauses:

[42]We illustrate the argument with predicative adjectives only.

(83) a. ta langaði ekki til að vera veikir.
they$_{pl,m,acc}$ longed not for to be$_{inf}$ sick$_{pl,m,nom}$
'The men did not want to be sick.'

[Sigurdsson, 1991, p. 189, ex. 17a]

b. teir vonuðust til að verða ekki illt.
they$_{pl,m,nom}$ hoped for to become$_{inf}$ not ill$_{dft}$
'They hoped not to be nauseated.'

[Sigurdsson, 1991, p. 188, ex. 16a]

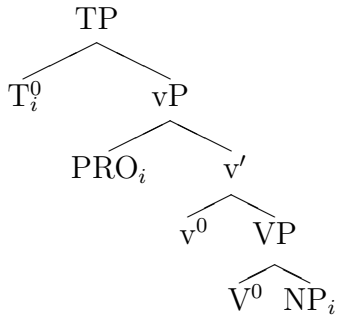
In the example (83-a) the predicative adjective appears in the agreeing nominative form even though the overt argument which the adjective predicates over, is in accusative. In the example (83-b) the predicative adjective is in the default form even though the overt argument which the adjective predicates over, is in nominative. To explain agreement and nonagreement pattern of predicative adjectives in the infinitival clauses one is forced to assume that PRO bears Case in Icelandic. PRO is nominative in (83-a) and dative in (83-b), as the overt subject when the respective clauses are finite.

We do not push any further the question whether PRO in Czech is a bearer of Case, too. What suffices for our analysis now and what we must say is that PRO bears a complete set of Φ-features. With this in mind, let us now look at the derivation of long-distance Agree.

At the beginning, an internal argument NP is merged as a complement of V. After merging of v, PRO is merged in specifier of v. We assume that v is defective, i.e. it is unable to value Case. We leave aside the fact that when v is defective it cannot host PRO (the fact that follows from Burzio's generalization discussed above) to show that the derivation crashes anyway.

Since v is defective, the internal argument is not valued Case feature there. Then, T is merged, which, depending on the preferred analysis, either values or does not value Case on PRO. We assume that PRO is valued Case and will return to the other alternative below. Now, the whole infinitival clause is following:

Tree (8) Infinitival clause with defective v



The derivation continues by merging the infinitival clause as the complement of matrix verb. The matrix verb has functional projection which can value Case on NP and it has no NP that could be valued this Case. The valuing projection is either v (if the matrix verb is in active voice) or T (if it is in passive voice). Now, internal argument NP in the infinitival clause needs its Case feature to be valued. However, internal argument N and functional head of the matrix verb (T or v) cannot get in Agree since PRO intervenes in between and is closer to the Case-valuing functional head than the internal argument. Thus, the Case on N and the Φ-features on v or T of the matrix clause cannot be valued and deleted and the derivation crashes.

If we assumed that PRO bears a complete set of Φ-features but does not bear any Case feature which needs to be valued, the derivation would crash anyway, for the same reasons: the matrix functional head T or v would end up with unvalued Φ-features (PRO would not be able to get in Agree because it would not have any uninterpretable Case feature to begin with) and the internal argument of the infinitival clause would again end up without valued Case (PRO would still count as an intervener for the necessary Agree relation).

PRO must therefore be missing no matter whether it bears Case or not because in both cases it counts as an intervener.

Thus, we have arrived to two explanations why PRO must be missing in the case of long-distance Agree of an internal argument. We leave for a further research the question whether one is superior to the other.

Before concluding this section, we turn to a last problem: the fact that other NP seems to intervene in long-distance Agree apart from PRO. This is the dative argument which we have called experiencer, as presented by *Jirkovi* in the example below:

(84) **Ten chlapec** Jirkovi nešel namalovat.
This $\text{boy}_{nom,sg,m}$ Jirka_{dat} $\text{not-was-possible}_{sg,m}$ paint_{inf}
'Jirka was not able to paint the boy.'

The problems with intervening experiencers in Agree is broader and not particular to the discussed construction. For example, it is well-known problem for raising constructions in English:

(85) They_i seem to him [t_i to like John]

However, it is not that clear that the dative experiencer really is an intervener in Agree relation between the functional head and the internal argument in long-distance Agree, as in the example (84).

Firstly, the sentence is degraded when the subject should bind the reflexive that appears in the dative experiencer:

(86) ?***Ten chlapec**$_i$ svému$_i$ kamarádovi nešel
This $\text{boy}_{nom,sg,m}$ self's friend_{dat} $\text{not-was-possible}_{sg,m}$
namalovat.
paint_{inf}
'The boy was not able to paint himself.'

The reason why binding is degraded in the example (86) hardly lies in the fact that only subjects that started as external arguments can bind the subject-oriented reflexive. As we have said above the internal argument becoming the subject can bind subject-oriented reflexives, as in the case of Agree in passive:

(87) Chlapec$_i$ byl zbit svými$_i$ nejlepšími kamarády.
Boy $\text{pass-aux}_{sg,m}$ $\text{beat}_{pass,sg,m}$ self's best friends_{instr}
'The boy has been beaten up by his best friends.'

Secondly, the subject in long-distance Agree cannot bind reciprocal in experiencer:[43]

(88) ?***Chlapci**$_i$ nešli sobě$_i$ navzájem namalovat.
$\text{Boys}_{nom,pl,m}$ $\text{not-be-possible}_{sg,m}$ self_{dat} reciprocally paint_{inf}

[43]In Czech there is only personal reciprocal (no possessive reciprocal) and it is homonymous to reflexive. In the example we force reciprocal reading by using adverb *navzájem* 'reciprocally'.

'The boys were not able to paint each other.'

If we assume that anaphors (reflexive and reciprocal ones) are bound by the subject that must c-command them (the most natural assumption), the binding facts seem to point to the fact that the dative experiencer is higher in the tree structure than the subject and does not block Agree relation between the internal argument and the functional head, T for that matter.[44]

In sum we have presented the properties of the infinitival clauses that go hand in hand with long-distance Agree (absence of wh-words and PRO) and we have accounted for them using assumption that were suggested for explanation of phenomena connected with other instances of Agree and are needed anyway.

2.6 Cinque (2000) and Wurmbrand (2001)

In the final section we will discuss two novel approaches to restructuring and will see whether they are acceptable for instances of long-distance Agree in Czech.

2.6.1 Restructuring verbs ≠ functional heads

Cinque (2000) takes restructuring verbs not as lexical categories; instead he understands them as functional categories of the functional hierarchy that he proposes in Cinque (1999). From their classification as functional categories it follows that they cannot assign any Θ-role. In other words, Cinque (2000) is led to the conclusions that

- restructuring verbs lack internal arguments
- restructuring verbs lack external argument; i.e. they are raising verbs

Both claims are untenable for Czech restructuring verbs. Concerning the first one, recall that almost all unaccusative verbs that allow long-distance

[44]However, one would then expect that the dative argument can bind the reflexive that appears in the subject. This is not a case, though:

(i) *__Svůj__$_i$ __kamarád__$_i$ mi$_i$ nešel namalovat.
Self's boy$_{nom,sg,m}$ me$_{dat}$ not-was-possible$_{sg,m}$ paint$_{inf}$
'I was not able to paint my friend.' (intended)

We do not have any explanation for these facts.

Agree select for internal dative argument (concretely, these are *chtít se* 'feel like doing sth', *jít* 'be possible for someone', *(po)dařit se* 'succeed', *povést se* 'succeed'). The examples like (89-a) and (89-b) repeated from the section (2.2.3) falsify the first claim.

(89) a. Podnikatel kterému se nechtějí platit **vysoké daně**.
Businessman who$_{dat}$ se$_{inh}$ not-want$_{3pl}$ pay$_{inf}$ high
tax$_{nom,pl,f}$
'A businessman who does not feel like paying high taxes.'
[CNC]

b. starosta kterému se podařila najít
mayor who$_{dat}$ se$_{inherent}$ succeeded$_{3sg,f}$ find$_{inf}$
mezera v zákoně.
loophole$_{nom,sg,f}$ in law
'A mayor who succeeded in finding a loophole in law.'
[CNC]

The second claim runs against the whole discussion in the section 2.3. The claim would nullify any distinction between verbs in Table 2 and Table 3.

First, it is untenable when the argument of the matrix verb co-referring with the subject of the embedded clause, is not the subject[45] since then two types of raising must be assumed, one for active and periphrastic passive embedded clause (so subject of the embedded clause becomes the non-subject argument of the matrix clause) and one for *se*-passive clause (so the subject of the embedded clause becomes the subject of the matrix clause) (see discussion in section 2.3).

But the claim that the restructuring verbs are raising is also problematic for the subject-control verbs from Table 2. Thus, under this claim it becomes obscure why the verbs from Table 2 cannot have weather-quasi argument and expletive as subject ((90-a) and (91-a)) unlike the verbs from Table 3 ((90-b) and (91-b)) (all examples repeated from the section 2.3).

(90) a. *Plánovalo pršet.
Planed$_{dft}$ rain$_{inf}$
'It planned to rain.'

[45] As is case for example in (89-a) and (89-b).

b. Začalo pršet.
Started$_{dft}$ rain$_{inf}$
'It started raining.'

(91) a. *Plánovalo se mi stýskat.
Planned$_{dft}$ se$_{inh}$ I$_{dat}$ feel homesick
'I planned to feel homesick.'

b. Začalo se mi stýskat.
Began$_{dft}$ se$_{inh}$ I$_{dat}$ feel homesick
'I began to feel homesick.'

As Cinque (2000) points out the fact that some verbs cannot have weather-quasi arguments and expletives as subjects do not necessarily entail that these verbs are control verbs. They behave for that matter just like volitional adverbs *úmyslně* 'intentionally' or *dobrovolně* 'voluntarily' (cf. **Dobrovolně pršelo* '*It voluntarily rained', **Dobrovolně se mi stýskalo* lit. '*Something voluntarily felt homesick inside me'). Cinque suggests that selectional requirements of these verbs (and adverbs) are not expressed in Θ-roles but are a consequence of their semantics (Cinque, following Zubizarreta, 1982, ch. 3, assumes that these selectional requirements are listed in adjunct Θ-roles). This can well be the right explanation but until the "consequence of semantics" and "adjunct Θ-roles" vs. "Θ-roles and their selectional requirements" are better clarified, we do not follow this line.

For the next argument, recall that if we assumed that restructuring verbs were raising verbs the example (92) would have to be reanalyzed. It could not be the matrix verb that was *se*-passivized, but the embedded one[46] (recall the discussion under Table 4 that raising verbs cannot be passivized in Czech).

(92) **Horký plyn** se plánoval využít k otopu
hot gas$_{nom,sg,m}$ se$_{pass}$ planned$_{3sg,m}$ use$_{inf}$ for heating
skleníku.
glasshouse$_{gen}$
'It was planned to use hot gas to heat the glasshouse.'

[http://www.ceu.cz/ODPADY/StredniCechy.html, adapted]

[46]This is exactly what Cinque (2000) shows to be true for the restructuring verbs in Italian.

However, this runs to the problem noticed above. If the embedded verb was passivized the clitic *se* could stay in the infinitival clause since clitic climbing is optional with the verb *plánovat* 'to plan' (93-a). But the sentence with the passive clitic *se* staying in the infinitival clause is clearly ungrammatical (94-a). Notice that other clitics can stay there, as *mu* in the example (94-b).

(93) a. Pavel plánoval mýt se studenou vodou pravidelně.
Pavel planned wash$_{inf}$ himself cold water$_{instr}$ regularly

'Pavel planned to wash himself with cold water regularly.'

(94) a. *Zatím neplánovalo se mu pomáhat.
So-far not-planned$_{dft}$ help$_{inf}$ se$_{pass}$ him$_{dat}$

b. ?Zatím se neplánovalo mu pomáhat.
So-far se$_{pass}$ not-planned$_{dft}$ him$_{dat}$ help$_{inf}$
'It wasn't planned to help him so far.'

Concluding, since both claims made in Cinque (2000) are untenable for Czech, we do not any further pursue analysis where restructuring verbs in Czech would be taken as functional categories.

2.6.2 Wurmbrand (2001)

Wurmbrand's (2001) analysis of restructuring verbs is based on the assumption that restructuring is not a single phenomenon but falls into groups. The groups differ according to how big structure of the infinitival clause they take as their complement. In her thorough analysis of the infinitives in German, Wurmbrand (2001) concludes that the infinitival complement clauses can appear at least in three variants: as VPs, TPs or CPs, depending on the verb that selects for the particular infinitival clause. This is very similar to our account of long-distance Agree in Czech, which was explained by the fact that the infinitival clause did not project complete functional structure as a standard infinitival clause does. There are also some differencies, though. The main one is the fact that whereas in Wurmbrand's account the infinitival clauses are deprived of the projections by peeling of from top to bottom, in our account we relaxed the way how projection can be missing. Thus, in the analysis of long-distance Agree (section 2.4), we have assumed that

for instance vP is missing even though T (albeit defective) has still been projected.

The approach where not the highest projection can be one which are missing requires some non-trivial ways of c-selection for arguments.[47] Concretely, we cannot simply state in the lexicon that some verbs take CP-infinitival clause as the complement, whereas others take VP-infinitival clause. We need more fine-grained information of the possible complement. In the case of the restructuring verbs, these could for example be (informally): TP-complemenents with defective T and missing vP.

Of course, one needs empirical reasons to abandon simpler, more elegant approach represented by Wurmbrand (2001). Do we have any? Or, more concretely, why do we assume that the infinitival clause that cannot value structural Case and lacks CP still projects T?

2.6.3 Tense properties of infinitival clauses

Stowell (1982) divided infinitival clauses into two classes, depending on whether they have tense or not. Tense on infinitives, as understood by Stowell (1982), expresses that the event denoted by the infinitive is unrealized at the time of the matrix event. Thus, in the example (95-a) John did not succeed in locking the door in the time when he tried and in the example (95-b) Jenny did not bring the wine at the point when she remembered to do so.

(95) a. Jim tried to lock the door.
b. Jenny remembered to bring the wine.

[Stowell, 1982, ex. 9a and 8a]

The verbs that select for the infinitivies refferringg to the event unrealized at the the time of the matrix event are called *irrealis* verbs. As pointed out by Wurmbrand (2001) the status of the verb *try* as irrealis verb is more complicated. Unlike complements of other irrealis verbs, its infinitival complement cannot express the event taking place after the matrix event as one can see when the matrix verb is realized in past tense and temporal modifier

[47] C-selection is selection for syntactic categories and is listed in the lexical entries of predicates in addition to s-selection (selection for semantic type) and l-selection (selection for terminal nodes). Some attempts tried to dispense with c-selection (see Bošković, 1996, and references therein, and Wurmbrand, 2001, who presents arguments against Bošković, 1996).

refers to future (96-a). Compare this with the behavior of the verb *decide* (96-b) which also is irrealis.

(96) a. *John tried to go on a trip tomorrow.
b. John decided to go on a trip tomorrow.

There are two possible ways to understand the data: either *try* was misanalyzed as irrealis verb or so-called "unrealization" of an event and its future realization are two separate issues. Wurmbrand (2001) argues against the first possibility. She shows that in German complements of irrealis vers cannot have past modifiers (97-a). The verb *try* behaves same in this respect (97-b).

(97) a. *Hans hatte beschlossen gestern zu verreisen.
Hans had decided yesterday to go-on-a-trip
'John had decided to go on a trip yesterday.'
b. *Hans hat(te) versucht gestern zu verreisen.
Hans has/had tried yesterday to go-on-a-trip
'John has/had tried to go on a trip yesterday.'
[Wurmbrand, 2001, ex. 60 a,b]

Thus, under the one test, *try* behaves with irrealis verbs but it falls outside under the other test. What Wurmbrand (2001) suggests is splitting up the irrealis property and the property that lets the event expressed by the infinitival complement be realized after the matrix event. As she further claims, irrealis property cannot be, strictly speaking, paraphrased as "unrealization" at the time of the matrix event. Instead, it is understood as being simultaneous between the real and a possible world. Thus, the sentence (98-a) is true iff in all worlds w∈W such that John's believes are compatible with W, what John did in the real world at 5 pm switched the light on in w. Similarly, the sentence (98-b) is true iff in all worlds w∈W such that John's decisions are compatible with W, John switched the light on in w tomorrow. Notice that the sentence (98-a) does not introduce any after-relation between the matrix and embedded event. Both matrix and embedded event are simultaneous but the simultaneity is counted between the real world and a possible world.

(98) a. John tried at 5 pm to switch on the light.
b. John decided to switch on the light tomorrow.

As Wurmbrand (2001) suggests, the after relation of the infinitival complement to the matrix event corresponds to the tense of infinitive and the tense in turn is realized on T in the infinitival clause. Thus, the infinitival clause projects T only when its event can be realized in the future from the point of view of the matrix event.

Now, if restructuring verbs could only embed the infinitival clause smaller than TP, the future realization of the embedded event should be impossible. This is exactly what happens in German, as Wurmbrand shows. Assess the examples below. In the example (99-a) one can see that future modifier can occur in the infinitival complement of the verb *erlauben* 'allow'. However, it becomes impossible when the internal argument NP of the infinitival clause undergoes long A-movement[48] (99-b).

(99) a. Dem Kind wurde erlaubt (?morgen) Kekse zu essen
the child$_{dat}$ was$_{dft}$ allowed (?tomorrow) cookies$_{acc,pl}$ to eat

'The child was allowed to eat cookies tomorrow.'

b. Dem Kind wurden nur **Kekse** (*morgen) zu essen
the child$_{dat}$ were$_{pl}$ only cookies$_{nom,pl}$ (*tomorrow) to eat
erlaubt.
allowed
'The child was only allowed to eat cookies tomorrow.'

[Wurmbrand, 2001, ex. 64 d,a]

If the whole discussion is on the right track, one would expect that infinitival clauses in Czech could express the event realized after the matrix event even when long-distance Agree took place since we assumed that T is still present there. This seems to be true.

Before turning to examples, let us clarify another point. So far we have only talked about the irrealis verbs whose infinitival complements describe "non-objective" reality. There are other verbs taking infinitival complements that do not describe "non-objective" reality in the sense as the complements of irrealis verbs do. These are:

Implicative: John managed to switch on the light.

[48]Long A-movement is long-distance Agree followed by pied piping of phonological matrices of NP to the specifier of the agreeing functional head.

Factive: John hated to switch on the light.

Propositional: John claimed to have switched on the light.

Implicative verbs are the ones that assert or deny the truth of their infinitival complements. Thus, the truth of the entire sentence entails the truth or falsity of the infinitival complement (Karttunen 1971). In our example, the truth of *John managed to switch on the light* entails that *John switched on the light* and the falsity of the first one entails the falsity of the second one.

Factive verbs presupposes the truth of the infinitival complements, thus, both *John hated to switch on the light* and its negation presupposes that *John switched on the light.*

Propositional verbs are verbs of saying and beliefs. They differ from all the other infinitive-taking verbs by the possibility of predicating truth/falsity of their infinitival complements (*John claimed to have switched on the light, which was true/false*). Unlike implicative and factive complements the propositional ones are neither entailed by the truth/falsity of the entire sentence nor presupposed. Unlike irrealis complements the propositional complements are not counted truth values only by considering possible worlds (see Heim and Kratzer (1998) and literature therein for discussion of intriguing issue of complements of *believe*-type verbs).

Besides the discussed types, there are two other types of verbs taking infinitival complements, which are traditionally listed separately. These are modal verbs and aspectual verbs. The modal verbs are like irrealis in having intensional complements. The aspectual verbs are used to specify the course of the event. In Czech, the aspectual verb *přestat* 'stop' is factive since it presupposes the truth of the complement whereas *začít* 'start' is implicative. This can be different in other languages, thus, for example, *start* and *begin* is irrealis in English.

Propositional infinitival complements do not exist in Czech and do not concern us here. On the other hand, modal, aspectual, implicative and factive ones do.

What is crucial, both aspectual and implicative infinitival complements differ in tense properties from irrealis verbs like *decide.* The embedded event must be realized simultaneously with the matrix one:

(100) a. *Pavel začal číst tuhle knihu zítra.
Pavel began read$_{inf}$ this book tomorrow
'Pavel began to read this book tomorrow.'

b. *Pavel nezvládl zítra rozsvítit.
Pavel not-managed tomorrow switch-on$_{inf}$
'Pavel did not manage to switch on the light tomorrow.'

The modal verbs *moci* 'can', *muset* 'must', *smět* 'may' cannot either embed the event with after relation to the matrix one. On the other hand, the modals *mít* 'should' and *chtít* 'want' allow the after relation of the embedded event:

(101) a. Pavel měl původně odevzdat diplomku zítra.
Pavel had-to initially hand-in$_{inf}$ thesis tomorrow
'Initially, Pavel had to hand in the thesis tomorrow.'
b. Pavel chtěl odevzdat diplomku už zítra.
Pavel wanted hand-in$_{inf}$ thesis already tomorrow
'Pavel wanted to hand in the thesis as early as tomorrow.'

Let us return now to the main question: do restructuring verbs allow that the event expressed by the infinitival complement be non-simultaneous?

From restructuring verbs in Czech (Table 2) *(po)dařit se* 'succeed', *povést se* 'succeed', *zapomenout* 'forget' and *zvládnout* 'manage' are implicative verbs and thus can only embed the infinitival clause with the simultaneous interpretation. *Vyplatit se* 'pay off' is factive with simultaneous interpretation of the complement, too and verbs *dát se* 'be possible for someone', *jít* 'be possible for someone' and *chtít se* 'feel like doing sth' are irrealis but nevertheless also require their complements to have simultaneous interpretation.

Concluding, the only verbs we are left with are *doporučovat* 'recommend', *plánovat* 'plan, intend' and *zakazovat* 'forbid'. They all allow after-relation of an infinitival complement ((102-a)-(102-c)).

(102) a. Pavel mi doporučoval odevzdat diplomku nejpozději
Pavel I$_{dat}$ recommended hand-in$_{inf}$ thesis latest
zítra.
tomorrow
'Pavel recommended me to hand in the thesis tomorrow at the latest.'
b. Pavel plánoval odevzdat diplomku už zítra.
Pavel planned hand-in$_{inf}$ thesis already tomorrow
'Pavel planned to hand in the thesis as early as tomorrow.'

c. Pavel mi zakazoval odevzdávat diplomku zítra.
Pavel I_{dat} forbade hand-in$_{inf}$ thesis tomorrow
'Pavel forbade me to hand in the thesis tomorrow.'

What is more important, the infinitival clause does not lose the ability to express the event which takes place after the matrix event, as the example (103) shows. If the sentence is degraded for some native speakers, it is only because of long-distance Agree. Thus, when speakers accept long-distance Agree of the internal argument NP with this particular verb, they do not have any problems with embedding future modifier.

(103) **Tahle kniha** se plánovala vydat už zítra.
this book$_{nom,sg,f}$ se$_{pass}$ planned$_{3sg,f}$ publish$_{inf}$ already tomorrow
'One planned to publish this book as early as tomorrow.'

The same can be shown for the verbs *doporučovat* 'recommend' and *zakazovat* 'forbid'. Notice that we have so far tested (non-)simultaneity of two events in one very special construction. That is, when the matrix verb is in the past tense and future modifier is present. However, simultaneity of two events preclude any temporal modifier to modify exclusively the event expressed by an infinitival clause. Thus, in the sentence like (104-a) there is no way to understand *manage* and *go to work* as two temporally independent events. On the other hand, in the example (104-b) there is no problem with the interpretation under which *want* and *go to work* are separate. Thus, for example, the sentence is possible with the interpretation under which *Pavel* wanted to go to work one week after the disease in the time when he was still sick.

(104) a. Pavel zvládl jít do práce už týden po nemoci.
Pavel managed go$_{inf}$ to work already week after disease
'Pavel managed to go to work as early as one week after the disease.'

b. Pavel chtěl jít do práce už týden po nemoci.
Pavel wanted go$_{inf}$ to work already week after disease
'Pavel wanted to go to work as early as one week after the disease.'

Now, assess the examples below:

(105) a. **Živá vakcína** se doporučuje podávat po dvou
Live vaccine$_{nom,sg,f}$ se$_{pass}$ recommend$_{3sg}$ serve$_{inf}$ after two
týdnech po imunizaci perorální vakcínou.
weeks after imunization peroral vaccine
'It is recommended to serve the live vaccine two weeks after serving the peroral vaccine.'

[http://www.vakciny.net/principy ockovani/pr 08.html]

b. Na Zelený čtvrtek se doporučovala jíst **zelená**
On green Thursday se$_{pass}$ recommended$_{sg,f}$ eat$_{inf}$ green
strava.
diet$_{nom,sg,f}$
'It was recommended to eat green diet on 'green Thursday'.'

[http://www.coop.cz/magazin/1 2002/velikonoce zblizka.html]

In both examples the most natural interpretation is the one in which the temporal modifier modifies *only* the embedded event. The example (105-a) is *not* understood as 'It is recommended to serve the live vaccine two weeks after serving the peroral vaccine and the recommendation is suggested two weeks after the peroral vaccine.' Similarly, the example (105-b) is *not* understood as 'On 'green Thursday', it was recommended to eat green diet on 'green Thursday'.' In both examples, the recommendation itself is general and the temporal modification modifies only the recommended event. Thus, the two events are not understood as being simultaneous.

The same holds for long-distance Agree with the verb *zakazovat* 'forbid'. In the example below, the temporal modification modifies only the embedded event.

(106) **Práce** se zakazují provádět za deště, mlhy.
Work$_{nom,pl,f}$ se$_{pass}$ forbid$_{3pl}$ carry-on$_{inf}$ during rain, fog
'It is forbidden to work during the rain or fog.'

[http://www.stomix.cz/barvy/kap1.htm]

The temporal modification of the matrix event in the example would yield (somewhat funny) reading 'It is forbidden during the rain or fog to work in that time (but during the sunny days, it is not forbidden to work during the

rain).' The most natural interpretation is generical reading of prohibition: 'It is generally forbidden to work during the rain or fog.'

In conclusion, we have no reasons to assume that long-distance Agree requires that the event expressed by an infinitival clause be simultaneous with a matrix event. If Wurmbrand's suggestion is on the right track, this means that T can be projected in the case of long-distance Agree. The infinitival clause from which long-distance Agree took place is therefore bigger than bare VP.

2.7 Conclusion

We have discussed two cases in which an argument does not enter into Agree in the clause where it originates. One arises when an infinitival clause is embedded under a raising verb. In this case, it is the subject of the infinitival clause that enters into Agree with the functional head of the raising verb, T. This type of a construction has been discussed in section 2.3. The other arises when an infinitival clause is embedded under a restructuring verb. In this case, it is the internal argument of the infinitival clause that enters into Agree with the functional head of the restructuring verb. This phenomenon (which we called long-distance Agree) has been the main topic of the whole chapter.

To explain its properties we have made use of Wurmbrand's analysis of restructuring in German. She argues that restructuring involves the case in which an infinitival clause does not project a full structure. In this chapter we have presented empirical arguments showing that long-distance Agree of an internal argument is possible only in cases in which an infinitival clause lacks PRO and CP (section 2.5). We have shown that both PRO and CP are expected to be missing from the facts we already know about the phenomenon of Agree (and A-movement) (section 2.4 and 2.5). Besides, we have suggested that the infinitival clause whose internal argument enters into long-distance Agree, lacks ability to value structural Case. This has followed from the analysis of Case-valuing and agreement at MP (section 2.4).

3 Clitic climbing

3.1 Introduction

Clitic climbing (realization of a clitic in a clause higher than the one in which the clitic originates) is the phenomenon which was connected to restructuring in Italian since Rizzi (1978) and in Spanish since Aissen and Perlmutter (1983). As Rizzi shows for Italian, clitic climbing occurs in the same context as long object preposing.[49] In other words, long object preposing of the internal argument of an infinitival clause is possible only when the infinitival clause is selected by one of the restructuring verbs. Similarly, clitic climbing out of an infinitival clause is possible only when the infinitival clause is selected by one of the restructuring verbs. Cf. (107-a) and (107-b) where the matrix verb allows both clitic climbing and long object preposing on the one hand and (108-a) and (108-b) where the matrix verb does not allow either of these phenomena:[50]

(107) a. Mario **lo**$_i$ vuole leggere t$_i$.
Mario it$_i$ wants read$_{inf}$ t$_i$
'Mario wants to read it.'

b. **Questi libri** si volevano proprio leggere.
These books si$_{pass}$ wanted$_{pl}$ really read$_{inf}$
'We really wanted to read these books.'

(108) a. *Mario **lo**$_i$ odia leggere t$_i$.
Mario it$_i$ hates read$_{inf}$ t$_i$
'Mario hates to read it.' (intended)

b. ***Questi libri** si odiavano proprio leggere.
these books si$_{pass}$ hated$_{pl}$ read$_{inf}$
'We really hated to read these books.' (intended)

Furthermore clitic climbing and long object preposing interact with each other. Whereas clitic climbing is never obligatory (109-a) it becomes when

[49] Long object preposing is the same phenomenon as long-distance Agree in Czech.

[50] In the whole chapter the relevant clitics are typed **boldfaced** in examples. In the examples where clitic climbing takes place the launching position of the clitic is marked by t coindexed with the climbed clitic. When examples with and without clitic climbing are compared clitics appear on both positions in brackets.

long object preposing takes place in the sentence ((110-a) vs. (110-b)).[51]

(109) a. Mario vuole legger**lo**.
Mario wants read$_{inf}$-it
'Mario wants to read it.'

(110) a. *__Questi libri__ si vorrebbero proprio dar__gli__.
These books si$_{pass}$ would-want really give$_{inf}$-him
b. __Questi libri gli__ si vorrebbero proprio dare.
these books him si$_{pass}$ would-want really give$_{inf}$
'We would really want to give these books to him.'

Solution, Rizzi proposes, is that both phenomena have common trigger. Once the trigger appears in the sentence the phenomena become obligatory.[52] In her analysis of restructuring, Wurmbrand (2001) understands the trigger as the size of the complement that the matrix verb selects for. Whereas normally the matrix verbs select for CPs, the restructuring verbs can select for VPs (see also chapter 1 and section 2.6.2). When the infinitival clause is bare VP long-distance Agree of the internal argument occurs.

Rezac (1999) pursues Wurmbrand's (2001) analysis for explaining clitic climbing in Czech. He assumes that clitics move for reasons of Case. When an infinitival clause is bare VP clitics cannot be valued Case in the clause and must climb into a higher clause. Under Rezac's account, clitic climbing occurs for the same reason as long-distance Agree (need of Case-valuing) and it has the same trigger (VP-size of an infinitival complement). In Medová (2000) clitic climbing in Czech is assumed to be allowed by the same set of verbs that allow long-distance Agree (i.e. by the restructuring verbs), as is the case in Italian.

These analyses are highly attractive for us. If they could be maintained we would see two instances of the same phenomenon of restructuring: both clitic climbing and long-distance Agree would be the transparency phenomena that are possible only in cases where an infinitival clause lacks ability to value structural case, PRO and CP.

[51] On the other hand, clitic climbing does not cause long object preposing to become obligatory. However, this is an orthogonal issue since in Italian object preposing is never obligatory (Burzio, 1986, 1.5 and 5.0).

[52] Recall that we have employed the same strategy for explanation of long-distance Agree in Czech.

Unfortunately, as we will see none of these analyses of clitic climbing in Czech (and presumably in Slavic generaly) can stand closer scrutiny. In section 3.3 and 3.4 we will see that clitic climbing is not restricted to the same set of verbs as long-distance Agree is. In section 3.4 we will show that clitic climbing is not triggered for reason of Case, unlike long-distance Agree. However, we will suggest that the previous accounts are on the right track. They correctly propose that clitics cannot climb out of a complete clause (CP), unlike phrases. Thus, clitic climbing appears after all in cases that we understand as the phenomenon of restructuring in this thesis: the clause being incomplete, i.e. being deprived of some of its projections.

Two main empirical observations we are going to present in this chapter are:

- the infinitival clause from which clitic climbing takes place must be smaller than CP
- other locality phenomena do not concern all clitics but only a subset of them

The main theoretical goal of this chapter is to explain why clitics require the clause they climb out of to be smaller than CP.

This chapter is organized as follows: in section 3.2 the inventory of clitics and their placement in the clause is discussed. In section 3.3 the data concerning clitic climbing are presented. The last section 3.4 first presents two accounts to clitic climbing and empirical problems that these accounts face. Thereafter we try to explain the restriction on clitic climbing. Since, as we will see, only ban on moving out of CP concerns all clitics (and make them different from phrases, which *can* move out of CP), we will concentrate only on this issue. The explanation of this restriction is provided in the last section.

3.2 Inventory of clitics and clitic placement

Clitics are lexical items that cannot bear stress by themselves and prosodically become part of adjacent domain. Following Zwicky (1977), we distinguish two types of clitics:

1. simple clitics: lexical items that do not bear stress and therefore must become part of the adjacent prosodic word for the stress assignment

purposes. We distinguish between enclitics that attach to a preceding prosodic word and proclitics that attach to a following prosodic word.

2. special clitics: simple clitics that have different syntactic distribution than their non-clitic counterparts.

In what follows, only the special clitics are discussed and throughout the whole chapter, they are simply called clitics.

3.2.1 Clitic placement in finite clauses

Full phrases (NPs, PPs, etc.) can be very freely ordered in Czech. We have seen this in the examples (5-a)-(5-d) in chapter 2. Unlike the full phrases, (special) clitics are strictly restricted in their distribution.

When clitics surface in the same clause they must cluster together. The result clitic cluster (which, of course, can be trivial in the case there is only one clitic in the clause) occupies so-called Wackernagel position in the clause: that is, a position after the first syntactic constituent in the clause,[53] no matter what category the first constituent is ((111-a)-(111-c)). When a clitic cluster surfaces in the other positions than after the first syntactic constituent the sentence is sharply degraded ((111-d)-(111-f)):

(111) a. Já **jsem** **mu** včera dal knížku
I$_{nom}$ past-aux$_{1sg}$ him$_{dat}$ yesterday gave$_{sg,m}$ book$_{acc}$

b. Včera **jsem mu** já dal knížku

c. Knížku **jsem mu** včera dal já
'I gave him a book yesterday.'

d. *__Jsem mu__ knížku já dal

e. *Knížku já **jsem mu** dal

f. *Knížku já dal **jsem mu**

[53]This is an oversimplification. The clitic cluster can occupy the first position in colloquial Czech (see Toman, 1996) and in embedded clauses it can appear in the third position (Lenertová, in prep.). We have nothing to say about these special constructions.

3.2.2 Inventory of clitics

The clitic inventory consists of two sets: auxiliary clitics and pronominal clitics. Auxiliary clitics are presented in Table 5.[54]

Table 5: Auxiliary clitics

	past auxiliary	conditional clitic (literal/colloquial form)
1sg	jsem	bych/bysem
2sg	jsi	bys/bysi
3sg	-	by
1pl	jsme	bychom/bysme
2pl	jste	byste
3pl	-	by

The past auxiliary is homophonous in the 1st and 2nd person with the copula verb *be* and the passive auxiliary.[55] However, the last two differ from the past auxiliary in many respects (see Toman, 1980, and Veselovská, 2004). What is important for the present discussion, only the past auxiliary is a genuine clitic, the other two are ambiguous between a clitic and a non-clitic. That the latter ones do not need to be clitics follow from the fact that whereas the past auxiliary is banned from other than the second position (112-a) vs. (112-b)-(112-d),[56] the copula verb (113-a) and the passive auxiliary (113-b) are not:

(112) a. ***Jsem** pozval Petra na pondělí.
past-aux$_{1sg}$ invited$_{sg,m}$ Petr$_{acc}$ on Monday
'I invited Petr for Monday.'

b. Pozval **jsem** Petra na pondělí.

c. Petra **jsem** pozval na pondělí.

[54]From Franks and King (2000, p. 92). See there for discussion of properties of the auxiliary clitics.

[55]In the 3rd person, the past auxiliary is null, whereas the copula verb and the passive auxiliary are realized as *je* for singular and *jsou* for plural.

[56]Sentences with clitics in the first position are possible in special constructions in colloquial Czech (Toman, 1996). We disregard this use in the examples below.

d. Na pondělí **jsem** pozval Petra.

(113) a. Jsem doma / smutný / právník.
am home / sad / lawyer
'I am at home/sad/a lawyer.'
b. Jsem pozván na pondělí.
passive-aux$_{1sg}$ invite$_{pass,sg,m}$ on Monday
'I am invited for Monday.'

[all examples from Fried, 1994, 17a-18d]

However, both copula verb *be* and passive auxiliaries *can* become clitics since they can appear at the beginning of the clitic cluster:

(114) a. Já **jsem mu** věrný.
I am him$_{dat}$ loyal
'I am loyal to him.'
b. Já **jsem** **mu** doporučen.
I pasive-aux$_{1sg}$ him$_{dat}$ recommended
'I am recommended to him.'

The copula verb in (114-a) and the passive auxiliary in (114-b) must be clitics. If they were understood as non-clitics the (indubitable) clitic following them (*mu* in both cases) would have to be realized in the third position which should lead to degradation, contrary to the facts (compare this with ungrammaticality of the example (111-e) where the clitics surface in the third position). On the other hand, if the copula verb and the passive auxiliary are understood as clitics in these examples, they become part of the clitic cluster, which as whole must surface in the second position. This requirement is fulfilled.

Pronominal clitics and their full counterparts are presented in Table 6.[57,58]

Difference between forms that are unambiguously clitics (like *mu* 'him$_{dat}$') and forms that are ambiguous between a clitic and a non-clitic (like *jí* 'her$_{dat}$')

[57]Table is based on Franks and King (2000, p. 98).

[58]Abbreviations *cl* and *full* in the Table stay for the clitic form and full (=non-clitic) form, respectively. When only one form is shown it can function as both the clitic and full form.

Notice that some forms in Table 6 bear "accute accent marking". In Czech orthography, the "accute accent marking" only represents lengthening of vowel, which is orthogonal to bearing the stress.

Table 6: Pronominal clitics and their full counterparts

	1sg		2sg		3sgm		3sgf	1pl	2pl	3pl
	cl	full	cl	full	cl	full				
DAT	mi	mně	ti	tobě	mu	jemu	jí	nám	vám	jim
ACC	mě mne	mě mne	tě	tě	ho jej	jeho jej	ji	nás	vás	je
GEN	=ACC						=DAT	=ACC		

is similar to difference, discussed above, between past auxiliary on one hand and copula *be* and passive auxiliary on the other hand. That is, unambiguous clitics are banned from other than the second position (115-a),[59] whereas ambiguous forms are not (115-b):

(115) a. *__Mu__ neposlali nic.
him$_{dat}$ not-sent nothing
'They did not send him anything.'
b. Jí neposlali nic.
her$_{dat}$ not-sent nothing
'They did not send her anything.'

However, the ambiguous forms can also behave as clitics and become part of the clitic cluster (the ambiguous form is italicized):

(116) Já **jsem** ***jí*** **ho** nedal.
I past-aux$_{1sg}$ her$_{dat}$ him$_{acc}$ not-gave
'I did not give it to her.'

For the sake of convenience, we assume that the forms that can only serve as clitics are specified as clitics in lexicon. Following Junghanns (2002a) we call them *lexical clitics* henceforth. The question concerning forms ambiguous between clitic and full-form is less clear. The first approximation seems to be that they represent two lexical items.[60]

[59] Again disregarding colloquial Czech's clitic-first phenomenon for assessing the examples below.

[60] Junghanns (2002a) treats the ambiguous forms as phonological clitics that bear optional feature [+phonological clitic]. This feature allows them to become phonological clitics (i.e. they can form prosodic word with adjacent prosodic word) when necessary-when they appear in a clitic cluster. This however makes it unclear why when becoming

The last lexical clitics we consider are reflexive clitics:

Table 7: Reflexive clitics

	reflexive	
	cl	full
DAT	si	sobě
ACC	se	sebe
GEN	=ACC	

Apart from the reflexive use, both *si* and *se* can serve as reciprocals. Furthermore, the form *se* serves as marker of passivization, middle voice and with some verbs *se* is obligatory. In all these uses *se* behaves as a clitic.

3.3 Clitic climbing-data

As we have said in section 3.2.1, clitics surface after the first syntactic constituent in a finite clause. In the infinitival clause that does not stay at the beginning of a sentence, clitics can surface either in the first position (at the very beginning of the infinitival clause, see (117-a)) or in the second position, i.e. after the first syntactic constituent (117-b). Other positions are ungrammatical (117-c):

(117) a. Nejlepší je [**se** nikomu nesmát]
Best is [se$_{inh}$ nobody not-laugh$_{inf}$]
b. Nejlepší je [nikomu **se** nesmát]
Best is [nobody se$_{inh}$ not-laugh$_{inf}$]
c. *Nejlepší je [nesmát nikomu **se**]
Best is [not-laugh$_{inf}$ nobody se$_{inh}$]

part of the clitic cluster the ambiguous forms must appear in the particular position. Compare the example (116) with the example below. The only difference is in the different position of the item *jí* 'her' in the clitic cluster.

(i) *Já ***jí** **jsem** **ho** nedal.
I her$_{dat}$ past-aux$_{1sg}$ him$_{acc}$ not-gave
'I did not give it to her.'

We do not follow Junghanns' suggestion and assume that the ambiguous forms are ambiguous between being lexical clitics and full forms.

'It is best not to laugh anybody.'

However, in some special cases the clitics that originate in the infinitival clause can surface in a higher clause. The phenomenon is known as clitic climbing and is exemplified in (118).

(118) Jirka **mu**$_i$ toužil [pomoct t$_i$]
Jirka$_{nom}$ him$_{dat,i}$ wished [help$_{inf}$ t$_i$]
'Jirka wished to help him.'

The rest of the chapter is devoted to this phenomenon and to the restrictions clitic climbing must obey.

Table 8 summarizes the syntactic restrictions on clitic climbing. In Table only pronominal clitics are presented[61] in the order as they appear in the clitic cluster.[62]

[61] Auxiliary clitics are disregarded since they cannot appear with infinitives and thus are intestable in clitic climbing.

[62] The auxiliary clitics (see Table 5) that are omitted from Table 8 mostly occupy the position preceding *si/se* clitics. There are two exceptions: 3rd sg copula clitic and 2nd sg past auxiliary *jsi* reduced to *s* follow *si/se*. Whereas the latter fact is well-known (see Franks and King, 2000) the former, as far as I know, went unnoticed. To examine the data we must be aware that the copula is ambiguous between a clitic and a full form. However, when it appears at the beginning of a clitic cluster, it must retreat to its clitichood otherwise the next clitic would get to the 3rd position and a sentence would be ungrammatical. Now, the first example shows that copula *is* can appear at the beginning of the clitic cluster and behave as a clitic. However, it cannot precede clitic *si*. Notice also that *am* can precede *si* (i-c):

(i) a. Pavel **je mu** věrný.
Pavel is him$_{dat}$ loyal
'Pavel is loyal to him.'
b. Pavel (***je**) **si** (**je**) tím jistý.
Pavel (*is) si$_{inh}$ (is) this$_{instr}$ certain
'Pavel is certain about it.'
c. Já **jsem si** tím jistý.
I am si$_{inh}$ this$_{instr}$ certain
'I am certain about it.'

Thus, as copula, *is* must be positioned between the clitics *si* and dative clitic *mu*, unlike other copula clitics which appear before *si* (shown here only on behavior of *am*).

The reason why these facts were not observed so far lies, I suppose, in the fact that the copula is ambiguous between a clitic and non-clitic behavior and one must ensure it becoming a clitic for testing its position.

Table 8: Locality phenomena in clitic climbing

Intervener	si/se	$acc_{1,2nd}$	dat	acc_{3rd}
An object in matrix clause	*	*	*	OK
climbing out of subject	*	OK	OK	OK
climbing out of CP	*	*	*	*

In the following three subsections we will present the syntactic restrictions summarized in Table 8.

3.3.1 An object in a matrix clause

When the infinitival clause is smaller than CP, any clitic can climb out of it into the matrix one:

(119) a. Jirka **se** **mu**$_i$ rozhodl pomoct t$_i$
Jirka$_{nom}$ se$_{inh}$ him$_{dat,i}$ decided help$_{inf}$ t$_i$
'Jirka decided to help him.'

b. Jirka **se** **ho**$_i$ rozhodl sníst t$_i$
Jirka$_{nom}$ se$_{inh}$ him$_{acc,i}$ decided eat-up$_{inf}$ t$_i$
'Jirka decided to eat it up.'

However, if the matrix clause has an object the only clitic that can climb is the 3rd person accusative. We show this comparing climbing of dative and accusative clitics on cases where the matrix clause has a dative object ((120-a) and (120-b)) and when the matrix clause has an accusative object ((121-a) and (121-b)). Notice that in almost none of the examples a clitic literary crosses the object-i.e. the object does not surface between landing and base position of clitics. Pretheoretically, let us just say that the non-3rd person accusative clitics cannot climb into a matrix clause if the matrix clause has an object, no matter where the object surfaces.[63]

(120) a. nikomu (**ho**/ **ji**/ **je**) nedoporučuji
nobody$_{dat}$ (him$_{acc}$/ her$_{acc}$/ them$_{acc}$) not-recommend$_{1,sg}$
[kupovat (**ho**/ **ji**/ **je**)]
[buy$_{inf}$ (him$_{acc}$/ her$_{acc}$/ them$_{acc}$)]
'I do not recommend anybody to buy it/them.'

[63]In following examples the sentences with and without clitic climbing are compared. Climbing is optional in all cases.

[ex. with climbed him_{acc} from http://www.pretaktovani.cz/asp/react.asp?article=smallcooler]

b. Jirkovi (*__mu__/ *__jí__/ *__jim__) nedoporučuji
Jirka$_{dat}$ (*him$_{dat}$/ *her$_{dat}$/ *them$_{dat}$) not-recommend$_{1,sg}$
[pomáhat (__mu__/ __jí__/ __jim__)]
[help$_{inf}$ (him$_{dat}$/ her$_{dat}$/ them$_{dat}$)]
'I do not recommend Jirka to help him/her/them.'[64]

(121) a. aby mě (__ho__/ __ji__/ __je__) před ní nenutili
so me$_{acc}$ (him$_{acc}$/ her$_{acc}$/ them$_{acc}$) before her not-forced$_{pl,m}$
[přeříkávat (__ho__/ __ji__/ __je__)]
[recite$_{inf}$ (him$_{acc}$/ her$_{acc}$/ them$_{acc}$)]
'So they would not force me to recite it/them in front of her.'
[ex. with climbed $them_{acc}$ from CNC]

b. Jirku (*__mu__/ *__jí__/ *__jim__) nenutili
Jirka$_{acc}$ (*him$_{dat}$/ *her$_{dat}$/ *them$_{dat}$) not-forced$_{pl,m}$
[porozumět (__mu__/ __jí__/ __jim__)]
[understand$_{inf}$ (him$_{dat}$/ her$_{dat}$/ them$_{dat}$)]
'They did not force Jirka to understand it/them.'

Notice that ungrammaticality of dative clitic-climbing cannot be explained just on the fact of parsing difficulties. That would explain impossibility of a dative clitic with a dative object in the clause (120-b) but would leave unclear why a dative clitic cannot appear with an accusative object (121-b) but an accusative clitic can (121-a).

Next examples show that 1st and 2nd person clitics and reflexive clitics cannot climb into the clause with an object:

(122) a. Doktoři (__ho__/ __ji__/ __je__) Jirkovi zakázali
Doctors (him$_{acc}$/ her$_{acc}$/ them$_{acc}$) Jirka$_{dat}$ forbade
[navštěvovat (__ho__/ __ji__/ __je__)]
[visit$_{inf}$ (him$_{acc}$/ her$_{acc}$/ them$_{acc}$)]
'The doctors forbade Jirka to visit him/her/them.'

[64] The sentence is more plausible under reading 'I do not recommend him/her/them to help Jirka', i.e. where clitics originate in the matrix clause and do not undergo climbing and instead the dative NP *Jirka* is topicalized in front. However, even this reading is quite marginal.

b. Doktoři (***mě**/ *__tě__/ *__nás__/ *__vás__) Jirkovi
Doctors (*me$_{acc}$/ *you$_{acc,sg}$/ *us$_{acc}$/ *you$_{acc,pl}$) Jirka$_{dat}$
zakázali [navštěvovat (**mě**/ **tě**/ **nás**/ **vás**)]
forbade [visit$_{inf}$ (me$_{acc}$/ you$_{acc,sg}$/ us$_{acc}$/ you$_{acc,pl}$)]
'The doctors forbade Jirka to visit me/you(sg.)/us/you(pl.).'

c. Jirkovi (***se***) doporučuju [učit (**se**) pravidelně]
Jirka$_{dat}$ (*self) recommended$_{1,sg}$ [teach$_{inf}$ (self) regularly]
'I recommend Jirka to learn regularly.'

Two facts are in order: First, only *arguments* block clitic climbing. In the following example, an adjunct in inherent accusative appears in the matrix clause. It is clear that it modifies the matrix clause and not the lower one because it is compatible with only verbs in imperfective aspect (thus, when the adjunct has to modify the verb in perfective aspect the sentence is ungrammatical (123-b)) and only the matrix verb is imperfective. Even though the dative clitic climbs into the clause with the adjunct the sentence is grammatical:

(123) a. Pavel **se** **mu**$_i$ několik měsíců snažil [pomoct
Pavel$_{nom}$ se$_{inh}$ him$_{dat}$ couple$_{acc}$ months$_{gen}$ tried$_{sg,m}$ [help$_{inf}$
t$_i$]
t$_i$]
'Pavel tried for several months to help him.'

b. Pavel (*několik měsíců) pomohl Jirkovi
Pavel (*several$_{acc}$ months$_{gen}$) helped$_{sg,m}$ Jirka$_{dat}$
'Pavel helped Jirka for several months.' (intended)

Secondly, it is only *objects* that block clitic climbing. Recall that in examples (121-a) and (121-b) an accusative object blocked clitic climbing of all clitics other than accusative 3rd person. The similar kind of the example is repeated in (124-a) where *se* and a dative clitic must stay in the embedded clause and cannot climb. Now, notice that once the matrix verb is passivized and the argument becomes the subject, climbing of *se* and dative *mu* becomes all of sudden unproblematic:

(124) a. aniž **by** (***se** **mu**) Jirku nutili
without aux-cond (*se$_{inh}$ him$_{dat}$) Jirka$_{acc}$ forced$_{pl,m}$
[podřizovat (**se** **mu**)]
[subordinate$_{inf}$ (se$_{inh}$ him$_{dat}$)]

'without forcing Jirka to be under them.'

b. aniž **by** **se**$_i$ **mu**$_j$ byl nucen
without aux-cond se$_{inh,i}$ him$_{dat,j}$ aux-pass$_{sg,m}$ forced$_{pass,sg,m}$
[podřizovat t$_i$ t$_j$]
[subordinate$_{inf}$ t$_i$ t$_j$]
'without being forced to be under him.'
[http://fk.lbc.cz/fdb/detfilm.asp?filmid=540]

3.3.2 An infinitival clause being a subject

As follows from Table 8, only *si/se* cannot climb out of the subject infinitival clause. The following data show this point, comparing impossible climbing of *se* (125-a) with readily possible climbing of dative (125-b), 2sg accusative (125-c) and 3sg accusative (125-d). In all examples the sentence is grammatical when the clitic stays in the infinitival clause.

(125) a. Myslím že (*__se__) není možné [(__se__) touhle zbraní
Think$_{1sg}$ that (*self) is-not possible [(self) this weapon$_{instr}$
zabít]
kill$_{inf}$]
'I think that it is not easy to kill oneself with this weapon.'

b. Myslím že (__mu__) není možné [(__mu__) pomoct]
Think$_{1sg}$ that (him$_{dat}$) is-not possible [help$_{inf}$ (him$_{dat}$)]
'I think that it is not possible to help him.'

c. Myslím že (__tě__) není možné [(__tě__) touhle zbraní
Think$_{1sg}$ that (you) is-not possible [(you) this weapon$_{instr}$
zabít]
kill$_{inf}$]
'I think that it is not possible to kill you.'

d. Myslím že (__ho__) není možné [(__ho__) touhle
Think$_{1sg}$ that (him$_{acc}$) is-not possible [(him$_{acc}$) this
zbraní zabít]
weapon$_{instr}$ kill$_{inf}$]
'I think that it is not possible to kill him with this weapon.'

As in the previous section, the data presented here have never been systematically described, as far as I know. I suspect that the reason lies in the fact that all clitics were treated as one homogenous class and were expected

to behave same.[65] The point of both subsections is precisely against this treatment of clitic climbing.

3.3.3 CP

So far, it seems that there is nothing like an uniform behavior of clitic climbing. In the last section, we will show that there is one intervener that rules out clitic climbing of *all* clitics without an exception: CP layer.

That the clitics cannot climb out of CP can be presented on two phenomena: ban on clitic climbing from finite clauses and from wh-infinitives.

Since clitics cannot evacuate CP, we propose that in cases clitics climb out of an infinitival clause, the clause does not fully project: it lacks CP layer.

The impossibility of clitic climbing out of finite clause is shown in (126-b) vs. (126-a), the impossibility of clitic climbing out of wh-infinitives in (127-b) vs. (127-a).

(126) a. Řekl [že **mi** **ho** můžete ukázat]
said$_{sg,m}$ [that me$_{dat}$ him$_{acc}$ can$_{2pl}$ show$_{inf}$]
'He said that you can show him to me.'

b. *Řekl **mi**$_i$ **ho**$_j$ [že t$_i$ t$_j$ můžete ukázat]
said$_{sg,m}$ me$_{dat,i}$ him$_{acc,j}$ [that t$_i$ t$_j$ can$_{2pl}$ show$_{inf}$]

[Junghanns 2002b, ex. 21 and 22]

(127) a. Ale nevím opravdu [jak **ho** zapisovat]
But not-know$_{1sg}$ really [how him$_{acc}$ record$_{inf}$]
'But I really don't know how to record it.'

b. *Ale nevím **ho**$_i$ opravdu [jak t$_i$ zapisovat]
But not-know$_{1sg}$ him$_{acc,i}$ really [how t$_i$ record$_{inf}$]

[Junghanns 2002b, ex. 50 and 51]

On the other hand, phrases or full (non-clitic) pronouns can move out of CPs. Also the forms ambiguous between clitichood and non-clitichood can move out of CP, provided they surface in a position which points to their non-clitic behavior (the first position in the two examples below).

[65] Junghanns's (2002b) (as far as I know) most complete and thorough discussion of clitic climbing in Czech suffers exactly from this shortage. Thus, for instance, it is claimed there that clitic climbing is impossible out of the subjects, however, all presented examples represent only climbing of *se*.

(128) a. [S tak krásnou ženou]$_i$ bych se moc
[With such beatiful girl]$_i$ would se$_{inh}$ much
nerozmýšlel [co dělat t$_i$]
not-thought-over$_{sg,m}$ [what do$_{inf}$ t$_i$]
'I would not give much careful consideration what to do with such a beatiful woman.'

b. [Jeho]$_i$ bych moc nevěděl [jak potěšit t$_i$]
[Him$_{acc}$]$_i$ would much not-knew$_{sg,m}$ [how please$_{inf}$ t$_i$]
'HIM I would not know how to please.'

c. [Vás]$_i$ bych moc nevěděl [jak potěšit t$_i$]
[You$_{acc}$]$_i$ would much not-knew$_{sg,m}$ [how please$_{inf}$ t$_i$]
'YOU I would not know how to please.'

This concludes the presentation of the clitic-climbing data. In the following section, we present two analyses which try to deal with the clitic climbing phenomenon. Rejecting them, we will turn to the question what makes clitics different from phrases with respect to movement out of a clause.

3.4 Analyses of clitic climbing

3.4.1 Clitic climbing exists: Against a phonological approach

Before turning to the syntactic analysis, let us briefly discuss and reject an approach that suggests that nothing like syntactic clitic climbing exists. This idea appears in a phonological approach to clitic placement, best elaborated probably by Radanović-Kocić (see Radanović-Kocić, 1996). In this approach, it is assumed that the clitics are placed after a first *prosodic word* in the *intonational phrase*. Assuming that the infinitival clause can incorporate in the same intonational phrase with the rest of the clause, its placement follows.

The approach has some empirical drawbacks. Concerning the clitic placement, it has been extensively shown on Serbian/Croatian that clitics must follow a first syntactic phrase, not a prosodic word (see, for example, Bošković, 2000). This conclusion holds of Czech, too.

In fact, data in Czech militate against a phonological approach more directly. *Any* approach that tries to recast clitic placement as a phonological requirement must run into problems in Czech.[66] This is independent of the

[66]Probably most elaborated approach of this kind is presented in Bošković (1995) and

question whether the category that clitics follow is a syntactic constituent or a prosodic word. Recall that in Czech, clitics are phonologically enclitics or proclitics. We can see that they can become proclitics since they can follow a clause and phonologically become a part of the word to its right:

(129) Že nikdo neprotestoval, **ho** nepřekvapilo.
That nobody not-protested$_{sg,m}$ him$_{acc}$ not-surprised
'It didn't surprise him that nobody spoke up against it.'
(129) *Že nikdo neprotestoval, nepřekvapilo **ho**.

[ex. a from Fried, 1994, p. 168]

However, they cannot follow just any clause. When the first clause is adverbial, the sentence with a clitic following it is ungrammatical (see Lenertová (in prep) who grants Trávníček (1959) for the first observation):

(130) a. *Když jsem se vrátil, **mu** bylo do pláče.
When past-aux$_{1sg}$ se$_{inh}$ returned$_{sg,m}$ him$_{dat}$ was$_{dft}$ to crying
'When I returned he was on the verge of tears.'
b. cf. Když jsem se vrátil, bylo **mu** do pláče.

How can a phonological approach to clitic placement explain these facts? First, it runs into problems with the fact that clitics in Czech can be either proclitics or enclitics. This makes one wonder why they should follow a first syntactic constituent in any case. Let us assume that the phonological approach can explain this: for example by saying that the clitics are preferably enclitics and retreat to proclitic behavior only in special cases.

Now, in the cases above, the phonological approach would have to say that the clitics retreat to proclitic behavior when following an argument clause but must be enclitics when following an adverbial clause. However, the adverbial and argument clauses do not seem to differ in any phonological aspect. Therefore it is unclear how the difference between the adverbial and

Bošković (2000) for Serbian/Croatian. He suggests that clitics move independently in syntax and PF plays a role as a filter. It filters out all sentences where

1. clitics are not encliticized to a prosodic word
2. the prosodic word to which clitics attach does not head a phrase that is initial in the intonational phrase

argument clause could influence placement of clitics. In the other words, it is unclear how phonology could lay different requirements on the clitic placement when the clitics follow an argument clause and when they follow an adverbial clause.

On the other hand, the syntax has no problems to capture these facts (of course, that does not mean that it has no problems to explain them). The adverbial and argument clauses are clearly distinguished in the syntax and the only thing one needs to say, is that the adverbial clause is not counted for the clitic placement.[67]

What is more important for the present discussion: clitic climbing is a syntactic operation. Recall that in the section 3.3 we have seen restrictions on clitic climbing. First, these restrictions were purely *syntactic*. To maintain a phonological approach to clitic climbing, one would have to explain, for example, how a presence of an object in the clause influences the phonology of the matrix clause, so the *subset* of clitics cannot "climb" into it. Second, notice that restrictions on appearance of some clitics in a clause with an object concerns *only* clitic climbing. For example, *se* clitic, which cannot climb into a clause that realizes an object, can of course surfaces in a clause that has an object, provided that the clitic originates there:

(131) Pavel **se** Jirkovi omluvil.
Pavel$_{nom,sg,m}$ self Jirka$_{dat}$ apologized$_{sg,m}$
'Pavel apologized to Jirka.'

To maintain a phonological approach to clitic climbing that treats the climbing as nothing else than clitic placement, one would have to explain

[67]Lenertová (in prep.) following Junghanns (2002a) suggests that the explanation can lie in the fact that adverbial clauses are in a position external to CP and the clitics are placed after a first syntactic constituent in CP. However, this cannot work as following data show:

(i) A právě tuhle knihu, jakmile začla zima, **si** Pavel vytáhl z
And exactly this book, when began winter, si Pavel$_{nom}$ pulled-out from
poličky.
shelf
'And when the winter started, this particular book Pavel pulled out from the shelf.'

Here, the adverbial clause appears after the first constituent and the clitic follows the clause. The clitic is in the third position, which should lead to degradation, contrary to facts. It seems that adverbial clauses behave as a parenthetical, "not being counted" for the clitic position.

why clitics are sensitive to objects in a higher clause but not in a clause in which they originate.

We do not see how these problems can be avoided; therefore we do not pursue a phonological approach any further and turn to the syntactic one.

3.4.2 Clitic climbing is not for reason of Case

In section 3.3, we have discussed the locality phenomena concerning clitic climbing. Notice that we have not suggested that clitic climbing into a higher clause should in any sense vary with respect to the fact whether the verb in the higher clause is restructuring (i.e. one of the verbs listed in Table 3 in chapter 2) or not.

The issue whether the verb is restructuring or not (i.e. whether it allows long-distance Agree or not) is orthogonal to clitic climbing. There are examples of verbs that do not allow long-distance Agree of the internal argument of the infinitival complement but still allow clitic climbing out of their infinitival complements. In (132-a) a dative clitic climbs into the matrix clause. Long-distance Agree is impossible with the same verb (132-b). On the other hand, clitic climbing can lead to ungrammaticality even though the verb of the matrix clause, which a clitic climbs into, allows long-distance Agree, i.e. restructuring. The verb *jít* 'be possible for someone' allows long-distance Agree, as shown in (133-a).[68] However, climbing of the dative clitic *mu* into the clause is ungrammatical (133-b). The ungrammaticality of climbing of *mu* is not surprising once one notices that the verb *jít* 'be possible for someone' realizes the object. As we have discussed above, the presence of an object disallows climbing of all clitics apart from the 3sg accusative clitic (Table 8).

(132) a. Jirka **mu**$_i$ toužil [pomoct t$_i$]
Jirka$_{nom}$ him$_{dat,i}$ wished [help$_{inf}$ t$_i$]
'Jirka wished to help him.'

b. *__Horký plyn__ se toužil využít k otopu
hot gas$_{nom,sg,m}$ se$_{pass}$ wished$_{sg,m}$ use$_{inf}$ for heating
skleníku.
glasshouse$_{gen}$
'One wished to use hot gas to heat the glasshouse.' (intended)[69]

[68] *jít* has irregular form *šlo* for past tense which occurs in the example.

[69] The sentence is possible under irrelevant reading 'Hot gas wished to use himself for

(133) a. že mu nešla na startu zařadit
that him$_{dat}$ not-was-possible$_{sg,f}$ on start engage$_{inf}$
dvojka.
second-gear$_{nom,sg,f}$
'that he was not able to engage the second gear at the start.'

[http://formule1.auto.cz/main.php?sekce=diskuse& ...&
diskuska=D 407400726da6b]

b. Jirkovi (***mu**) nešlo [pomáhat (**mu**)].
Jirka$_{dat}$ (*him$_{dat}$) not-was-possible$_{dft}$ [help$_{inf}$ (him$_{dat}$]
'Jirka was not able to help him.'

That clitic climbing is orthogonal to the issue whether the matrix verb is restructuring or not, becomes less surprising once we realize that clitic climbing is not triggered for the reason of Case-valuing, unlike long-distance Agree.

This can be shown followingly: a clitic can climb into a clause that cannot value clitic's Case feature. From this it immediately follows that the clitic does not climb to be valued Case. In the example below, the matrix verb is passivized. Therefore, it cannot value structural object Case manifested as accusative in morphology (see sections 2.2.2 and 2.3). However, climbing of accusative clitic into the matrix clause is unproblematic:

(134) Pavel **ho**$_i$ byl nucen [zničit t$_i$]
Pavel$_{nom,sg,m}$ it$_{acc,i}$ pass-aux$_{sg,m}$ forced$_{pass,sg,m}$ [destroy$_{inf}$ t$_i$]
'Pavel was forced to destroy it.'

The fact that clitic climbing is not triggered for Case-valuing reason, unlike long-distance Agree, explains other properties: clitics can cross Φ-complete element when climbing. Recall that we have argued in section 2.5 that long-distance Agree cannot enter into Agree across Φ-complete element.

We will show now that clitics can climb across Φ-complete elements. More specifically, they can cross PRO (which has been argued to be Φ-complete in section 2.6) or NP.

In section 2.5 we have shown that PRO should be present in the syntactic derivation for two reasons:

heating of glasshouse'.

- PRO binds subject-oriented reflexives when controller is not the subject
- PRO licenses secondary predicates in nominative when the controller is not in nominative

As we have further shown, the secondary predicates licensed by PRO in an infinitival clause became ungrammatical when the internal argument of the infinitival clause entered into long-distance Agree. We have argued that these facts point to absence of PRO.

Now, notice that the secondary predicates licensed by PRO are not disabled in the case of clitic climbing. In the example below, the matrix verb has a dative object that controls PRO in the infinitival clause. Thus, the secondary predicate in the infinitival clause must be licensed by PRO, not by the overt argument, since, as we have seen in 2.5, the secondary predicates agree in case with their arguments. Now, notice that the secondary predicate in the infinitival clause is grammatical even when clitic climbing takes place from the infinitival clause (135-b):

(135) a. ?Jirkovi se nechtělo [líbat **ji**
Jirka$_{dat}$ se$_{inh}$ not-wanted$_{dft}$ [kiss$_{inf}$ her$_{acc}$
neholený a nemytý].
not-shaved$_{sg,masc,nom}$ and not-washed$_{sg,masc,nom}$]

b. ?Jirkovi se **ji**$_i$ nechtělo [líbat t$_i$
Jirka$_{dat}$ se$_{inh}$ her$_{acc,i}$ not-wanted$_{dft}$ [kiss$_{inf}$ t$_i$
neholený a nemytý].
not-shaved$_{sg,masc,nom}$ and not-washed$_{sg,masc,nom}$]
'Jirka did not feel like kissing her unshaved and unwashed.'

Furthermore, PRO can be argued to be present since it can bind reflexives even when clitic climbing takes place (136-b):

(136) a. Pavlína mi$_k$ nedoporučila [číst **ho** své$_k$
Pavlína$_{nom,sg,f}$ me$_{dat}$ not-recommended$_{sg,f}$ [read$_{inf}$ it$_{acc}$ my
manželce]
wife$_{dat}$]
'Pavlina did not recommend me to read it to my wife.'

b. Pavlína mi$_k$ **ho**$_i$ nedoporučila [číst t$_i$
Pavlína$_{nom,sg,f}$ me$_{dat}$ it$_{acc,i}$ not-recommended$_{sg,f}$ [read$_{inf}$ t$_i$
své$_k$ manželce]
my wife$_{dat}$]

'Pavlina did not recommend me to read it to my wife.'

The subject-oriented reflexives in the infinitival clauses can be either bound locally by the closest PRO or by the subject in the higher clause.[70] In the examples above, binding by the higher subject is pragmatically excluded. Thus, the sentence should be pragmatically odd if PRO was missing and could not bind the reflexive. However, this is not the case.[71]

One could object that it is not that clear that PRO is not missing in (136-b) since, as we have said in section 2.5, some dative arguments can bind reflexives, too. Thus, it could be the dative object that bound the reflexive in the case of clitic climbing in (136-b).

That the dative argument of the verb *recommend* cannot bind a reflexive can be shown when the infinitival clause is missing:

(137) Pavlína$_i$ mi$_j$ doporučila ke čtení svoji$_{i,*j}$ vlastní knížku
Pavlína$_{nom,sg,f}$ me$_{dat}$ recommended$_{sg,f}$ to reading self's own book$_{acc}$
'Pavlína recommended me her own book for reading.'

Notice that it is not a pragmatic reason which rules out binding of the reflexive by the dative argument in the example above. One could easily imagine that *Pavlina* recommended someone his own book without being aware of it. However, this reading is plainly impossible in the case of (137).

The third reason for which we assume existence of PRO in infinitival

[70] We will take up the issue why reflexives can be bound by the subject in a higher clause, in chapter 4.

[71] Lenertová (in prep.) discusses the following example which should show that PRO is missing in the case of clitic climbing (and as she claims, it also points to the fact that PRO is missing in the case of scrambling out of the infinitival clause):

(i) a. Matka mu zakázala [dát **ho** / ten dopis své ženě].
Mother him$_{dat}$ forbidden [give$_{inf}$ it$_{acc}$ / the letter$_{acc}$ his wife$_{dat}$]
'Mother forbade him to give it/the letter to his wife.'
b. *Matka mu **ho**$_i$ / ten dopis$_i$ zakázala [dát t$_i$ své ženě].
Mother him$_{dat}$ it$_{acc,i}$ / the letter$_{acc,i}$ forbidden [give$_{inf}$ t$_i$ his wife$_{dat}$]
[Lenertová, in prep., 61 a, c, her judgments]

The data are very similar to the ones presented here. If PRO was missing, the example (i-b) would be bad for pragmatic reasons. However, I (and three speakers I consulted the examples with) do not feel contrast between the sentences (i-a) and (i-b).

clauses but which has not been discussed so far, is the phenomenon of partial control. In some cases of control, reference of PRO is not exhausted by reference of a controller (PRO_{1+} indicates reference to the group where one of members is the controller):

(138) a. $John_1$ wanted [PRO_{1+} to meet at 6].
b. The $chair_1$ was afraid [PRO_{1+} to gather during the strike].
[Landau, 2001, ex. 4a, b, p. 28]

In the infinitival clauses, the collective predicates are used. These are incompatible with the singular objects, as one see from the examples below:

(139) a. *John met at 6.
b. *The chair gathered during the strike.
[Landau, 2001, ex. 1a, b, p. 27]

Thus, in the examples (138-a) and (138-b) above an element with its own value of semantic number must occupy the subject position of the infinitival clause. We assume that this is PRO.

Data concerning the partial control are quite unclear. Among other things, it is unclear which verbs allow partial control of their infinitival complement. However, there is at least one verb with which the partial control is readily available. That is the verb *chtít* 'want'.[72] Now, notice that the partial control is still possible when a clitic climbed out of the infinitival clause:[73]

[72]In English, the partial control is possible with factive, propositional, desiderative and interrogative complements. See for discussion and thorough analysis Landau (2000, ch. 2).

[73]Concerning this case, Czech minimally differs from Italian, where clitic climbing is incompatible with partial control. In the example below, *prefer* allows clitic climbing (i-a). However, when the infinitival clause requires partial control, clitic climbing becomes impossible (i-c):

(i) a. Gianni ha detto a Maria che **si**$_i$ preferiva [lavare t_i di mattina].
Gianni has told to Maria that **si**$_i$ preferred [wash$_{inf}$ t_i in morning]
'Gianni told Mary that he preferred to wash in the morning.'
b. Gianni ha detto a Maria che preferiva [incontrar**si** di mattina].
Gianni has told to Maria that preferred [meet$_{inf}$**si** in morning]
'Gianni told Mary that he preferred to meet in the morning.'
c. *Gianni ha detto a Maria che **si** preferiva [incontrar t_i di mattina].
Gianni has told to Maria that **si**$_i$ preferred [meet$_{inf}$ t_i in morning]
[Landau, 2000, ex. 127a-c, p. 80]

(140) a. ?Pavel samozřejmě nechtěl [líbat **se** v knihovně].
Pavel of-course not-wanted [kiss_{inf} se_{recipr} in library]
b. Pavel **se** nechtěl [líbat t_i v knihovně].
Pavel $\text{se}_{recipr,i}$ not-wanted [kiss_{inf} t_i in library]
'Pavel did not want to kiss in the library.'

Finally, clitic climbing is insensitive to other Φ-complete interveners. It can skip NPs. This can be shown only on climbing of 3sg clitic. Recall that this clitic can climb into the clause with realized objects. However, if the clause with an object is infinitival, the clitic can climb even into a higher clause (141).

(141) Jirka **ho**$_i$ chtěl Pavlovi zakázat [číst t_i]
$\text{Jirka}_{nom,sg,m}$ $\text{it}_{acc,i}$ $\text{wanted}_{sg,m}$ Pavel_{dat} forbid_{inf} [read_{inf} t_i]
'Jirka wanted to forbid Pavel to read it.'

In the example above, the clitic originates in the clause embedded under the clause with the object *Pavel* and it surfaces in the clause that embeds the clause with the object *Pavel*. Thus, it has to skip NP *Pavel* on its way up.

Concluding, clitic climbing is insensitive to Φ-complete interveners. This is surprising if one assumes that clitics climb for reason of Case but is expected otherwise. We have shown two other arguments for the claim that clitic climbing is not triggered for the reason of Case-valuing:

- Clitics can climb into the clause that cannot value their Case (example (134))
- Clitics can climb into the clause with a non-restructuring verb (example (132-a) and (132-b))

This is not much surprising. Recall that clitic climbing in Italian occurs with the same set of verbs as long object preposing (which is cognate of what we call long-distance Agree for Czech). It seems that the both phenomena are sensitive to the same interveners in Italian, unlike in Czech. Among others, they are both excluded when PRO occurs in the infinitival clause.

Of course, it still remains unclear why clitic climbing is different in the two languages. As we have seen, clitic climbing in Czech is not triggered for reasons of Case. Speculating somewhat, clitic climbing can take place for reasons of Case in Italian.

3.5 Accounting for restriction on clitic climbing

In the previous section we have argued that clitic climbing is a syntactic operation and that clitics do not climb to be valued Case in a higher clause. In the latter respect, clitic climbing differs from long-distance Agree. NP enters in long-distance Agree since this is the only way how it can be valued the Case.

The question still remains how to account for the restrictions on clitic climbing discussed in section 3.3. What concerns us here is the question why clitic climbing should differ from the phrasal movement in the first place. The only difference between clitics and phrases that targets all clitics without exception is the ban on clitic climbing out of CP (see section 3.3.3). We will try to show that there is an (already known) difference between phrases and clitics from which the ban stems. The other facts, as the restriction on climbing into a clause with an object or climbing from a subject infinitival clause, do not affect all clitics. We do not have any answer for these and leave them for further research.

To account for the ban on clitic climbing out of CP, we propose the following: the elements that move out of CP, must be focus or topics. Clitics cannot bear any of these discourse functions and therefore they cannot be extracted out of CP.[74]

The terminology: (Based on Büring, 1997) We assume that a sentence can be divided into three parts: background, topic and focus. The focus is the part of a sentence that provides new information in the discourse. The topic and background represents an old, already given information in the discourse. However, the topic and background differ. The background only "recapitulates" the old information. The topic serves for expressing one of the three functions:

Contrastive topic: It moves the conversation away from an entity given in the previous discourse

Partial topic: It narrows down a given discourse topic (the discourse topic = what the discourse is about)

Purely implication topic: It indicates that there are some alternatives to discuss

[74] I am thankful to Janneke Ter Beek for suggesting this idea.

As is the standard, we use questions to indicate the context in which the scrutinized sentence (i.e. the answer) is appearing. The focus corresponds to the part that answers wh-phrase. The focus is exemplified by the $[]_F$ bracketed phrase in the example (142-b). The example (143-b) shows the contrastive topic, (144-b) the partial topic, (145-b) the purely implicational topic. What appears neither in the $[]_T$ nor $[]_F$ in the examples is the background.[75]

(142) a. What did John throw?
b. John threw [the BASEball]$_F$

(143) a. Do you think that Fritz would buy this suit?
b. Well, [I]$_T$ certainly [WOULDN'T]$_F$.

(144) a. What did the pop starts wear?
b. The [FEMALE]$_T$ pop stars wore [CAFTANS]$_F$.

(145) a. Did your wife kiss other men?
b. [MY]$_T$ wife [DIDN'T]$_f$ kiss other men.

[all examples from Büring, 1997, p. 41 and 56]

We do not want to go into details here. The reader is referred to Büring (1997) for the thorough analysis. We only intend to show that clitics can bear neither the focus nor the topic. By the fact that they cannot bear these discourse functions we mean that they cannot be the sole exponents of these. As we will see at the end of this section they can be embedded in the phrase that is itself topic/focus.

The fact that clitics cannot bear the focus, is quite uncontroversial. First, clitics cannot stand for an answer to a question (147-a).[76] Notice that this has nothing to do with the fact that the clitic is pronominal and should refer back to the discourse. The full (non-clitic) pronoun can serve as an answer (147-b) to the question, when accompanied by ostension (marked as O in front of the pronominal). The ostension cannot save the example with the clitic.

(146) Komu jsi vynadal?
'Who have you scolded?'

[75]Capital letters mark a special intonation pattern. See Büring (1997) for details.
[76]The mark '#' stands for 'inapplicable in the context'.

(147) a. #Vynadal jsem (O) **mu**.
Scolded$_{sg,m}$ past-aux$_{1,sg}$ him$_{dat}$
b. Vynadal jsem (O) [jemu]$_F$.
Scolded$_{sg,m}$ past-aux$_{1,sg}$ him$_{dat}$
'I have scolded HIM.'

One can wonder whether in the previous example, it is not only incompatibility of a clitic with ostension that makes the (147-a) ungrammatical. We think that this is a wrong interpretation. Instead, we suggest that ostension mostly accompanies the focus, therefore it cannot appear with the clitics.[77] The following example makes the point probably clearer since it dispenses with need of ostension. In the example, the first or second person clitic/full pronoun appear. In this case, no ostension is necessary for picking up a referent. Still, only the full pronoun can occur in the focus (149-b).

(148) Komu Pavel vynadal?
'Who has Pavel scolded?'

(149) a. #Vynadal **mi**.
Scolded$_{sg,m}$ me$_{dat}$
b. Vynadal [mně]$_F$.
Scolded$_{sg,m}$ me$_{dat}$
'He has scolded ME.'

Second, the clitics cannot occur in the scope of focus sensitive operators (for the focus sensitive operators, see, for instance, Jackendoff, 1972), as is for example *pouze* 'only'. In the example (150-a) the sentence has a possible reading where *pouze* 'only' does not scope over the sole clitic. When we force the reading in which only the clitic occurs in the scope, the sentence is ungrammatical. The full pronouns can occur in the scope of *pouze* 'only' (150-b).

(150) a. *Pouze [**mu**]$_F$ vynadal, nikomu jinému.
Only him$_{dat}$ scolded$_{sg,m}$, nobody$_{dat}$ else
b. Pouze [jemu]$_F$ vynadal, nikomu jinému.
Only him$_{dat}$ scolded$_{sg,m}$, nobody$_{dat}$ else
'He has scolded only him, nobody else.'

[77] See Cardinaletti and Starke, 2000, for examples where clitics can be accompanied by ostension when this does not introduce new referents in the discourse.

Let us turn to combining topic with clitics. Recall that topic serves for expressing three discourse functions. We suggest that a clitic cannot stand for any of them.

The following example shows that the clitic cannot be the purely implicational topic. Recall that the purely implicational topic induces that there are alternatives in the discourse to be discussed. In the example below, the context is set with the question: 'Does Jirka's wife cheat on him?' Now, to answer with the clitic (152-a) the speaker means only that his wife does not cheat on him. However, when one uses the full-pronoun, one suggests that there is someone else who is cheated on by his wife (presumably the person that addressed the previous alarming question). This interpretation is impossible in the example with the clitic.

(151) Podvádí Jirku manželka?
'Does Jirka's wife cheat on him?'

(152) a. Nepodvádí **ho**.
Not-cheat$_{3sg}$ him$_{acc}$
b. [Jeho]$_T$ nepodvádí.
Him$_{acc}$ not-cheat$_{3sg}$
'She does not cheat on him.'

The next example shows that clitics cannot serve for expressing the contrastive topic. As we have said above, the contrastive topic moves the conversation away from an entity given in the previous discourse. In other words, it shifts the discourse topic, the "attention" from an entity to the other. Let us assess the example below. The discourse starts with introducing two entities: *Pavel* and *Honza*. In the second sentence, *Honza* becomes the discourse topic. Every clause describes his activities. Now, the examples (154-a) and (154-b) represent continuation of the text. In the example (154-b), the full pronoun appears. This pronoun can refer back to *Honza* or *Pavel*. Thus, it can move the discourse away from the most salient entity, the discourse topic (*Honza*) to the other one. This suggests that the pronoun can serve as the contrastive topic. On the other hand, the clitic can only continue in referring to the discourse topic (*Honza*) (see (154-a)). This can be explained by the fact that clitics cannot be the contrastive topic.

(153) Pavel potkal Honzu. Honza říkal, že viděl reklamu na nového Rumcajse a že si myslí

'Pavel met Honza. Honza said that he had seen a commercial of the new Rumcajs and that he thinks'

(154) a. že **ho** ten film nebude bavit.
that him_{acc} this movie will-not $enjoy_{inf}$
'That he(=Honza) will not enjoy the movie.'
b. že [jeho]$_T$ ten film nebude bavit.
that him_{acc} this movie will-not $enjoy_{inf}$
'That he(=Honza, Pavel) will not enjoy the movie.'[78]

The last function of the topic is its ability to narrow down the discourse topic. The narrowing down proceeds via modifying the discourse topic. Clitics cannot be modified by noun-phrase internal modifiers (adjectives) or adverbs that modify the whole noun phrase (focus sensitive operators).[79] Therefore they cannot appear in this function of the topic either.

Let us turn to the other half of the question: do all phrases that move out of CP-domain bear the focus/ the topic?

There is some corroborating evidence for this conclusion from German. Büring (1997) suggests that SpecC[80] can be occupied only by the topic/ focus elements in the case of the marked word order.[81]

Now, as is well-known for German, when a phrase moves from CP to a higher clause, it must end up in SpecC, not lower (see, for example, Müller, 1995, ch. 3). Since realizing the phrase in a higher clause cannot represent the unmarked word order, the phrase must be either the topic or the focus.

Having no evidence in contrary, we assume that the phrase that moves out of CP, must be the topic or focus phrase in Czech, too. Since clitics cannot bear any of these discourse roles, the ban on clitic climbing out of CP follows.

One fact corroborates this view. Some other categories apart from clitics cannot become the topic or focus. This concerns some high adverbs, for example *naštěstí* 'fortunately', *možná* 'maybe' and others. They cannot be

[78]The example describes a hypothetical situation since *Rumcajs* exists only as a TV bedtime story and not as a movie.

[79]See also Cardinaletti and Starke (2000). For the incompatibility of the clitics with the focus sensitive operators, see also the example (150-a) above.

[80]We understand SpecC pre-theoretically as the position in front of the verb in verb-second clauses, i.e. the position known as 'Vorfeld' in traditional German literature.

[81]Sometimes, a bigger chunk can be pied-piped along with the topic phrase, when the topic itself cannot extact out of it.

in a scope of focus sensitive operators:

(155) *Pouze naštěstí / možná Pavel přišel.
Only fortuntately / maybe Pavel came
'Only fortunately / maybe Pavel came.'

They cannot be the topic either (they cannot refer back).

We predict now that they should not be able to move out of CP. This is borne out. In the example below, *fortunately* and *maybe* can be interpreted only as the adverbs in the matrix clause:

(156) Naštěstí / Možná mi Pavel řekl že nikoho
Fortunately / maybe me*dat* Pavel$_{nom,sg,m}$ said$_{sg,m}$ that nobody$_{acc}$
nepotkal.
not-met$_{sg,m}$
'Fortunately / maybe Pavel told me that he met nobody.'
Not: 'Pavel told me that he fortunately / maybe met nobody.'

Notice that other adverbs that can bear the topic/focus can be extracted out of CP:

(157) V Praze mi Pavel řekl že nikoho nepotkal.
In Prague me$_{dat}$ Pavel$_{nom,sg,m}$ said that nobody$_{acc}$ not-met$_{sg,m}$
'In Prague Pavel told me that he met nobody.'
Or: 'Pavel told me that he met nobody in Prague.'

Last point: As we have said above although clitics cannot bear the topic/focus function they can be part of a phrase that bears it. In the example below, the whole infinitival clause is focus. The clitic can stay in it.

(158) Co se s ním Jirka rozhodl udělat?
'What did Jirka decide to do with it?'

(159) Jirka se rozhodl [vyhodit ho]
Jirka se$_{inh}$ decided [throw-away him$_{acc}$]
'Jirka decided to throw it away.'

This suggests that the clitic can move out of CP as a part of a bigger phrase. The example (160-b) shows that.

(160) a. [Číst ten román]$_j$ jsem říkal že nebudu t$_j$
[Read$_{inf}$ that novel]$_j$ aux-past$_{1sg}$ said$_{sg,m}$ that will-not t$_j$
'I said that I would not read the novel.'

b. [Číst **ho**]$_j$ jsem říkal že nebudu t$_j$
[Read$_{inf}$ him$_{acc}$]$_j$ aux-past$_{1sg}$ said$_{sg,m}$ that will-not t$_j$
'I said that I would not read it.'

3.6 Conclusion

In chapter 3 we have discussed the second transparency phenomenon: clitic climbing. We have seen that clitic climbing is clause-bound (as we have seen in section 3.3.3) but it can evacuate an infinitival clause provided the clause is smaller than CP. We have discussed two approaches to clitic climbing and their empirical drawbacks. Thereafter we have suggested an explanation for the ban on clitic climbing out of CP (section 3.5. Crucially, the explanation does not make use of any syntactic properties of clitics; the properties that are far from being uncontroversial (for instance, a phrasal status of clitics, a trigger of clitic placement / clitic climbing, a landing position of clitics in the tree structure etc.). Instead we have suggested that the explanation of the ban on clitic climbing lies in the fact that clitics are incapable of bearing some discourse roles (a well-known and widely accepted fact).

4 Non-local binding of subject-oriented reflexives

4.1 Introduction

The last chapter deals with the phenomenon of non-local binding of subject-oriented reflexives in Slavic languages. The example (161) shows the non-local binding for Russian:

(161) Professor$_i$ poprosil assistenta$_j$ [PRO$_j$ čitat́ svoj$_{i,j}$ doklad]
Professor asked assistant [PRO read$_{inf}$ self's report]
'The professor asked the assistant to read his(=professor's, assistant's) report.'

[Rappaport, 1986]

The reflexive *svoj* 'self's' is subject-oriented (see Franks, 1995, and for its Czech cognate *svůj*, section 2.5). When it is embedded in a infinitival clause, it can be bound by PRO (i.e. the subject of the infinitival clause) or by the subject of the matrix verb.

The same fact is shown in the example (162) for Czech. The example is repeated from section 2.5.

(162) Pavel$_i$ Jirkovi$_j$ zakázal [PRO$_j$ vyprávět o své$_{?i,j}$
Pavel$_{nom,sg,m}$ Jirka$_{dat}$ forbade$_{sg,m}$ [PRO tell$_{inf}$ about self's
ženě].
wife]
'Pavel forbade Jirka to tell about his (=Pavel's, Jirka's) wife.'

We will suggest that the binding by the non-local subject is another instance of the phenomenon of restructuring: in this case, an infinitival clause lacks PRO.

In section 4.2, we discuss Progovac's approach to the non-local binding. In section 4.3, we present our analysis. In section 4.4 we address the issue how co-referentiality between an argument in the matrix clause and the subject in the embedded infinitival clause is resolved in the case PRO is missing.

4.2 Progovac (1992, 1994)

In this section, we mostly talk about Russian since this is the language that Progovac discusses. However, the Russian data and analysis are directly transportable to Czech (and probably to other Slavic languages). The languages do not seem to differ in the phenomenon under discussion.

What is crucial for Progovac's explanation of the non-local binding data is the fact that reflexives cannot be freely bound by any of non-local subjects. They cannot be bound out of a finite clause. In the example below, we show that *self's* can refer back to only the embedded subject.

(163) Vanja znaet [čto Volodja ljubit svoju$_{i/*j}$ ženu].
Vanja knows [that Volodja loves self's wife
'Vanja knows that Volodja loves his(=Volodja's) wife.'

[Progovac, 1994, ex. 64]

To capture this fact, Progovac (1992, 1994) proposes *Relativized Principle*

A:

Relativized Principle A: A reflexive R must be bound in the domain D containing R and an X-bar compatible SUBJECT;

If R is an X^0 (morphologically simple) reflexive, then its SUBJECTS are X^0 categories only, i.e., AGR (as the only salient (c-commanding) head with pronominal features).

If R is an X^{max} (morphologically complex) reflexive, its SUBJECTS are X^{max} specifiers with pronominal features, thus [NP,IP] and [NP,NP].

Russian reflexive is of a category X^0, therefore its SUBJECT is AGR. Now, the verb in infinitive has no overt AGR. Progovac proposes that it means that AGR is anaphoric. Being anaphoric, it must be bound by a higher AGR. If it is bound to the higher AGR, the reflexive can be coindexed with either of AGRs. Since AGRs are coindexed with subjects, by transmission the reflexive can be coindexed (and co-referential) with any of the subjects. Thus, we derive both interpretations in (161).[82] In the example (163) the embedded clause is finite and the verb shows overt agreement. Progovac assumes that in this case, AGR cannot be anaphoric. The impossibility of co-reference of the reflexive with the subject of the matrix clause thus follows.

There is one empirical problem in Progovac's analysis. Progovac assumes that feature co-indexation does not mean actual co-reference. The only claim she makes is that features must bear the same value to be coindexed. But this is clearly wrong. We assume that AGR is a bundle of Φ-features which is valued by the subject (which Progovac seems to have in mind). However, then, AGRs can be coindexed even when having different values of Φ-features. In the example below the AGR of the higher clause is *(3sg,f)*, the AGR of the infinitival clause is *(1sg,m/f)*. Notice that the reflexive can be bound by the higher subject, which suggests AGR coindexation for expansion of the binding domain.

(164) Pavlína$_i$ AGR$_i$ mi$_i$ zakázala [PRO$_i$ AGR$_i$ zpívat svou$_i$
Pavlina$_{nom,sg,f}$ AGR me$_{dat}$ forbade$_{sg,f}$ [PRO AGR sing$_{inf}$ self's
písničku].
song]

[82]Progovac assumes that AGR can function as a binder and can transmit the index of its subject even when it is itself anaphoric and coindexed with AGR of the higher clause. We do not want to go into details how this system works. The interested reader is referred to her work.

'Pavlina forbade me to sing my/her song.'

Of course, Progovac can give up her suggestion that two AGRs must bear the same values to be coindexed. That would derive the right result for (164). Notice, however, that then her coindexation becoms rather suspicious. As we have said above, the coindexation does not mean co-reference. Now, the coindexation does not even mean the feature compatibility. We think that it is fair to say that the pursued coindexation is nothing more than a technical device without any real content.

In the following section, we present our account which dispenses with AGR coindexation. Furthermore, we discuss empiricial facts which corroborate our account but are highly problematic for Progovac's analysis.

4.3 Accounting for non-local binding

As a starting point we take unmodified formulation of the binding principle from Chomsky (1981):

(165) a. Principle A: An anaphor must be bound in its governing category.
b. The governing category for an anaphor is the smallest maximal projection containing the anaphor, the governor for the anaphor, and a SUBJECT accessible to the anaphor. SUBJECTS for reflexives are [NP, IP],[83] [NP, NP], or AGR.

Progovac (1994) argues that the choice of SUBJECTS in (165-b) is essentially arbitrary. It collapses functional heads and specifiers. To circumvent this drawback, we can assume Chomsky's version of the binding principle while exempting AGR from the set of SUBJECTs. It does not change the point in the following discussion.

What is more important, we need to define the set of SUBJECTs differently. Recall from section 2.2.1 our assumption that NP enters into Agree with a functional head but it does not move to its Spec. Therefore, we must restate the definition of SUBJECThood in Agree relation rather than position. The following can work (we write subject from now on to distinguish it from Chomsky's notion of SUBJECT):[84]

[83]Simplifying somewhat, IP equals TP nowadays.

[84]In the definition, we leave aside the SUBJECT [NP, NP] since it seems irrelevant for the present discussion

(166) The governing category for an anaphor is the smallest maximal projection containing the anaphor, the governor for the anaphor, and a subject accessible to the anaphor. The subject for reflexives is NP that entered into Agree with T in a clause.

To the binding principle in (166) we need to add following to capture binding facts in Czech (and presumably other Slavic languages):

(167) The reflexive is bound only by the subject.

That the reflexive can be bound only by the subject seems to be a minimal assumption for capturing the basic binding facts.[85] Every theory needs something similar to this assumption.

The suggestion (166) trivially explains why the reflexives cannot be bound out of CP.

(168) Vanja znaet [čto Volodja ljubit svoju$_{i/*j}$ ženu].
Vanja knows [that Volodja loves self's wife
'Vanja knows that Volodja loves his(=Volodja's) wife.'

[85]This assumption does not cover all cases, though. It probably cannot cover the cases where a dative experiencer binds the reflexive. We have shown this in section 2.5 and repeat it below:

(i) ?Pavlovi$_i$ se na svých$_i$ příbuzných líbilo jak dokázali reagovat na každou
Pavel$_{dat}$ se$_{inh}$ on self's relatives liked$_{dft}$ how managed$_{3pl}$ react$_{inf}$ on every
nepříjemnost.
trouble
'Pavel appreciated on his relatives how they managed to react on every trouble.'

The problem is that the dative experiencer does not display other properties which define the nominative subjects as opposed to other arguments. These are:

- Nominative subject controls PRO in gerundive clauses; other arguments, including the dative experiencer, cannot
- Nominative subject becomes PRO (in the infinitival clauses); other arguments, including the dative experiencer, cannot
- Nominative subject can be *pro*; other arguments, including the dative experiencer, cannot

Thus, it does not follow from our definition of the binding that the dative experiencers should be possible binders of the reflexives. More must be said about them. We leave this issue aside now since it is orthogonal to the binding of reflexives in infinitival clauses.

[Progovac, 1994, ex. 64]

In this case the subject is *Volodja*. It closes off the binding domain and the reflexive cannot be bound outside.

In this case the subject is null, we follow standard analysis of the null subject, i.e. we assume that *pro* is present in the syntax. As before, it is the closest subject and precludes the reflexive to be bound out of CP.

Let us turn to the problematic case: where the reflexive can be bound non-locally, i.e. by the subject of a higher clause.

(169) Pavlína$_i$ mi$_j$ zakázala [PRO$_j$ zpívat svou$_{i,j}$ písničku].
Pavlina$_{nom,sg,f}$ me$_{dat}$ forbade$_{sg,f}$ [PRO sing$_{inf}$ self's song]
'Pavlina forbade me to sing my/her song.'

To capture these facts, we suggest following: PRO enters into Agree with T. Therefore it closes off the binding domain of reflexives and bind them. However, PRO can be missing. When it is, a reflexive is bound by the subject of the higher clause.

Thus, we assume that there are two structures behind the sentence like (169), as exempflified in (170-a) and (170-b). The chosen structure decides what binds the reflexive because of (166).

(170) a. Pavlína mi$_j$ zakázala [PRO$_j$ zpívat svou$_j$
Pavlina$_{nom,sg,f}$ me$_{dat}$ forbade$_{sg,f}$ [PRO sing$_{inf}$ self's
písničku].
song]
'Pavlina forbade me to sing my song.'

b. Pavlína$_i$ mi zakázala [zpívat svou$_i$ písničku].
Pavlina$_{nom,sg,f}$ me$_{dat}$ forbade$_{sg,f}$ [sing$_{inf}$ self's song]
'Pavlina forbade me to sing her song.'

Recall that we have argued for absence of PRO in the infinitival clause in the case of long-distance Agree (see section 2.5. Thus, we independently need some mechanism that interprets an infinitival clause without PRO.[86] What we suggest now is that once we have this mechanism, we can make use of it for so far problematic cases of apparent non-local binding, assuming that PRO is not present in these cases.

[86]We will take up the issue of interpreting an infinitival clause without PRO in the final section.

The analysis pursued here predicts one fact which is borne out: once PRO is present in the infinitival clause for independent reasons, the reflexive must be bound by it and cannot be bound by the subject of a higher clause. Notice that in Progovac's analysis this is not expected. We will return to her analysis after discussing the data.

Recall (for the last time) that we have argued PRO to be present in a tree structure for two reasons:

- PRO binds subject-oriented reflexives when controller is not the subject
- PRO licenses secondary predicates in nominative when the controller is not in nominative

Let us start with the first point. This predicts that if we have two reflexives in an infinitival clause, once one subject-oriented reflexive is bound by PRO the other one is, too.

Assess the example below which minimally differs from the example (169). The infinitival clause has *si* reflexive. It is understood as a benefactor of the event *singing*. For obscure reasons, the *si* reflexive must be bound by the subject of the predicate which it is an argument of, i.e. it cannot be bound by the subject of a higher clause. We assume that PRO is present to bind it. Now, notice that presence of *si* makes the reflexive *svou* 'self's' becoming unambiguous. It can be only interpreted as referring back to the subject of the infinitival clause.

(171) Pavlína$_i$ mi$_j$ zakázala [PRO$_j$ zpívat si$_j$ svou$_{*i,j}$
Pavlina$_{nom,sg,f}$ me$_{dat}$ forbade$_{sg,f}$ [PRO sing$_{inf}$ self's song]
písničku].

'Pavlina forbade me to sing my song.'

The same argument is repeated below for a verb *číst* 'read'.

(172) a. Pavlína$_i$ mi$_j$ nedovolila [číst svou$_{i,j}$ knížku].
Pavlina$_{nom,sg,f}$ me$_{dat}$ not-allowed$_{sg,f}$ [sing$_{inf}$ self's song]
'Pavlina did not allow me to read my/her book.'

b. Pavlína$_i$ mi$_j$ nedovolila [PRO$_j$ číst si$_j$
Pavlina$_{nom,sg,f}$ me$_{dat}$ not-allowed$_{sg,f}$ [PRO read$_{inf}$ self's
svou$_{*i,j}$ knížku].
book]

'Pavlina did not allow me to read my book.'

In other words, once PRO must be present to bind one reflexive, the other reflexive must be bound by it, too.

The second point predicts that once a predicative adjective requires presence of PRO, the subject-oriented reflexive can no longer be bound by the subject of a higher clause and must be bound by PRO. The example below shows this:

(173) Pavlína$_i$ mi$_j$ nedovolila [PRO$_j$ zpívat svou$_{*i,j}$
Pavlina$_{nom,sg,f}$ me$_{dat}$ not-allowed$_{sg,f}$ [PRO sing$_{inf}$ self's
písničku opilý].
song drunk$_{nom,sg,m}$]
'Pavlina didn't allow me to sing my song drunk.'

Of course, when the secondary predicate is licensed by the argument that controls PRO and not by PRO itself, the reflexive in the infinitival clause keeps its ambiguity. In the example below, *drunk* is licensed by the argument since it agrees with it in a case, i.e. it is realized in dative. The reflexive remains ambiguous.

(174) Zakázal jsem mu opilému [PRO$_j$ zpívat svou$_{i,j}$
Forbade $_{sg,m}$ aux-past$_{1,sg}$ him$_{dat}$ drunk$_{dat,sg,m}$ [PRO sing$_{inf}$
písničku]
self's song]
'While he was drunk, I forbade him to sing my/his song.'

Let us return to Progovac's analysis of the non-local binding of reflexives. The presented facts are problematic for her analysis: what she predicts is that the reflexive should stay ambiguous in the cases at hand. However, her analysis can be adjusted. Instead of assuming that AGR of the infinitival clause becomes coindexed with AGR of the matrix clause which allows the reflexive to be coindexed with either of them, she can claim that it is AGR that can either be coindexed with the higher AGR or not. The reflexive cannot choose and must be coindexed with AGR of the clause where it appears (of the infinitival clause in the case under discussion). That would take care of the fact that reflexives must be bound by the same subject (examples (171) and (172-b)).

That still leaves unclear under her account why the reflexive must be bound by the subject of an infinitival clause once a predicative adjective requires presence of the subject. Progovac would have to claim that secondary predicates are licensed by AGR nodes, not by arguments. However, secondary predicates can modify any argument, not only the subject, as exemplified below:

(175) Pavlína mi (opilá) (opilému) dala knihu
Pavlina me$_{dat}$ (drunk$_{nom,sg,f}$) (drunk$_{dat,sg,m}$) gave$_{sg,f}$ book
(zničenou)
(destroyed$_{acc,sg,f}$)
'Pavlina gave me a book (while she was drunk) (while I was drunk) (and the book was destroyed).'

Of course, it can be the case that every argument has its own AGR (which we can call indirect object AGR, direct object AGR and subject AGR from now on) which each secondary predicate is controlled by. However, once Progovac assumes this, her explanation of non-local binding falls apart. Recall that she claims that non-local binding is obtained by coindexing anaphoric AGR with the matrix AGR. It is not at all clear now why AGR of the infinitival clause would have to be coindexed with the subject AGR in the matrix clause and not with AGR of the other arguments. If AGR of the infinitival clause is not coindexed with the subject AGR, it is not clear how it can expand the binding domain of the reflexives to the subject of the matrix clause.

Thus, we assume that our account is preferable to Progovac's. Notice that we have not employed any new device for it. We have argued in section 2.5 that an infinitival clause can lack PRO in the case of long-distance Agree. We have just assumed that long-distance Agree is not the only case in which PRO must be missing. The only difference between the two cases is that here, PRO is missing even though the infinitival clause still has ability to value structural Case (as one can see from the examples like (169) in which there is an argument bearing structural object Case manifested as accusative, in the infinitival clause and the reflexive can still be bound by the subject of the matrix clause).[87] Thus, we encounter the third (and last) case of the

[87]Notice that this goes against one way of Burzio's generalization: Acc → ExternalArgument. We have already seen in section 2.5 that this way of implication is problematic for other constructions.

phenomenon of restructuring: the third case where the infinitival clause is incomplete, which makes some phenomenon to span the infinitival clause's boundaries.

In the last section we briefly sketch how the interpretation of an infinitival clause is ensured when PRO is missing.

4.4 Interpretation of a subject in a clause with no subject

In this section we only follow Chierchia's work on control (Chierchia, 1989, and references therein) elaborated by Wurmbrand (Wurmbrand, 2001, 2002), adding nothing new to it.

Chierchia assumes that control infinitives are properties (they lack a subject). The control relation between the argument of the matrix predicate and the subject of the control infinitive is an entailment relation which is part of the lexical meaning of the matrix predicate. Thus, even though the subject of the control infinitive is not present during syntactic derivation, it is "recovered" in semantics by application of the entailment relation as the one in (176-a) for the verb *try* (P is the embedded property, MO_j is a context dependent modal operator).

(176) a. *try'* (P) (x) $\rightarrow$ MO_j P (x)
b. whenever x tries to bring about P, then in all the contextually dependent relevant situations (namely those where what x tries actually succeeds) x does P

[Wurmbrand, 2001, p. 248, 204 a, b]

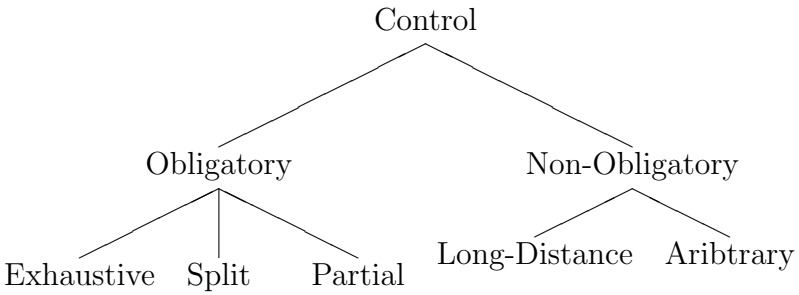
The entailment relation suggested in (176-a) has some empirical restrictions. It is applicable *only* when

(177) a. the property is "controlled" by one of its coarguments (i.e. by one of the argument of the matrix predicate)
b. the property is "controlled" by the coargument exhaustively

We will briefly outline a typology of control to see what the two statements above really say.

We assume the following distinctions (based on Landau, 2000) with the discussion and examples below the tree:

Tree (9) The typology of control



1. **Obligatory:** the controller and the infinitive must be clausemates.

2. Exhaustive: The subject of the infinitive refers exhaustively to the controller:
   John tried to leave.

3. Split: The subject of the infinitive refers to two matrix arguments:
   John persuaded Mary to leave together.

4. Partial: The subject refers to a set which includes the controller:
   The chair decided to convene during the strike.

5. **Non-Obligatory:** the controlled and the infinitive do not need to be clausemates.

6. Long-Distance: The controller and the infinitive are not clausemates:
   Mary knows that it would help Bill to behave herself in public.

7. Arbitrary: The subject of the infinitive has no argumental controller:
   The soup will be ready to serve in 5 minutes. [88]

The non-obligatory control goes against (177-a), the partial and split control goes against (177-b).

[88]The arbitrary control must be distinguished from what is known in the literature as the implicit control. The implicit control is the obligatory control where, however, the controller is missing in the syntax:
It was decided to leave.
See Landau (2000, ch. 5).

Concluding, since Chierchia's *entailment relation* must fulfill the two requirements listed above, it is applicable only to the *exhaustive control*. What is crucial for us: we assume PRO to be possibly missing only when the entailment relation is applicable. Therefore, we expect that the two cases where PRO is absent, i.e.

- long-distance Agree
- the non-local binding

must be instances of the *exhaustive control*.

This, indeed, seems to be the case. Let us start with the control typology generally.

For unclear reasons, the typology is much more impoverished in Czech.

The non-obligatory control is absent. Compare the English examples of the long-distance and arbitrary control above with the Czech ones below. Notice also that the reason why the examples are ungrammatical does not lie in a fact that these verbs cannot embed the infinitival clause. When the controller is clausemate the embedded infinitival clauses become grammatical.

(178) a. Marie$_i$ ví že by Jirkovi$_j$ pomohlo mluvit o
Marie knows that cond-aux Jirka$_{dat}$ help talk$_{inf}$ about
sobě$_{*i,j}$
self
'Marie knows that it would help Jirka to talk about himself/ *herself.'

b. *Polívka je připravená jíst.
Soup is ready eat$_{inf}$
'The soup is ready to eat.'

c. cf. Pavel je připravený jíst.
. Pavel is ready eat$_{inf}$
'Pavel is ready to eat.'

Thus, we are left with only obligatory control.

Let us start with the partial control. As we have said in the previous chapter, this type of control is quite restricted in Czech. Again, compare the English example above with the Czech one:

(179) *Mysleli jsme si že se předseda rozhodl sejít se v
We thought si_{inh} that se_{inh} chair decided meet se_{recipr} in
šest.
six
'We thought that the chair decided to gather at 6.'

The data concerning the partial control are quite murky and controversial. Recall, however, that it is not our main task to describe the partial control. We only want to know if the partial control is incompatible with the cases where we assume PRO to be missing. This seems on the right track.

Recall that one verb which quite uncontroversially allows partial control, is the verb *want*:

(180) Já se chci sejít dneska odpoledne.
I se_{recipr} want $meet_{inf}$ today afternoon
'I want to meet today in the afternoon.'

This verb is not the restructuring verb, i.e. it does not allow long-distance Agree. We only need to decide the issue how the partial control and non-local binding are connected. Notice that the partial control excludes the binding by the subject of *want*.

(181) *Já se chci sejít u svého kamaráda.
I se_{recipr} want $meet_{inf}$ at self's friend
'I want to meet at my friend.' (intended)

In our analysis, the partial control requires presence of PRO. In turn, PRO blocks binding by the matrix subject.

The last type is the split control. We have seen the English example above, the Czech one is here:

(182) ?Pavlína mě přinutila jít do Prahy společně.
Pavlina me forced go_{inf} into Prague together
'Pavlina forced me to go to Prague together.'

As is the case with the partial control, the split control is a marked option and the data are quite murky. However, we do not need to go into details of the split control here. The only thing we need to answer is whether the split control is incompatible with the cases where we assume PRO to be missing. This seems to be so.

First, the split control is impossible with any of the restructuring verb. The only possible candidates are verbs having both the subject and object (trivially, the verb must have two arguments to show anything like "split" between them). Thus, the only possible candidates for the split control are *zakazovat* 'forbid' and *doporučovat* 'recommend'. Neither of them seems available with split control:

(183) a. *Pavlína mi zakazovala chodit tam společně.
Pavlina me forbade go$_{inf}$ there together
'Pavlina forbade me to go there together.' (intended)
b. *Pavlína mi nedoporučovala chodit tam společně.
Pavlina me not-recommended go$_{inf}$ there together
'Pavlina did not recommend me to go there together.' (intended)

We can safely conclude that long-distance Agree cannot occur with the split control.

Similarly, it seems that the split control does not allow the non-local binding. Even though the non-local binding is possible with the verb that allows the split control (184-a), once the split control appears, the non-local binding ceases.

(184) a. Pavlína$_i$ mě$_j$ přinutila jít do svého$_{?i,j}$ pokoje.
Pavlina me forced go$_{inf}$ into self's room
'Pavlina forced me to go into my/her room.'
b. Pavlína$_i$ mě$_j$ přinutila [PRO$_{i+j}$ jít společně do
Pavlina me forced go$_{inf}$ into self's room
svého$_{*i,?i+j}$ pokoje].

'Pavlina forced me to go into (?our) room.'

Concluding, we have argued that PRO is missing in two contexts. One is the long-distance Agree, which was discussed in chapter 2, the other one is the non-local binding of reflexives, which was discussed in this chapter.

To ensure that even though PRO is not present the subject of the infinitival clause is still interpreted in the semantics we made use of Chierchia's *entailment relation*. As we have seen the entailment relation is applicable only in one case of control, the exhaustive control. That is, only in this case PRO can be missing, and, following the reasoning, only the exhaustive con-

trol is possible in the case of long-distance Agree and the non-local binding of the reflexives. As we have seen in this section, this conclusion seems to be right.

5 Summary

In the thesis we have discussed three transparency phenomena in Czech: the phenomena that are clause-bound but can span the boundaries of an infinitival clause in some cases. The fact that an infinitival clause can cease blocking one of these phenomena has been taken to reveal something about the infinitival clause's structure.

We assumed that infinitival clauses do not need to uniformly project full clausal structure. When they do not, transparency phenomena can span the boundaries of the clause. Table 9 comprises the discussed transparency phenomena and the structure of an infinitival clause that makes them possible. Furthermore, Table 9 lists empirical arguments for the suggested tree structure and it points to sections in which the missing part in the clause projection has been independently motivated by the known properties of a particular transparency phenomenon.

Table 9: Transparency phenomena and the structure of inf. clauses in Czech

Long-distance Agree		
Structure of clause	Empirical arguments	Section
No structural case		2.4
No PRO	secondary predicates ungrammatical reflexives degraded	2.4 and 2.5
No CP	wh-infinitives ungrammatical	2.4

Clitic climbing		
Structure of clause	Empirical arguments	Section
No CP	wh-infinitives ungrammatical	3.5

Non-local binding of subject-oriented reflexives		
Structure of clause	Empirical arguments	Section
No PRO	secondary predicate ungrammatical reflexives bound by the subject of an inf. clause ungrammatical	4.3

6 References

Aissen, Judith and David Perlmutter (1983) Clause reduction in Spanish+postscript. In: D. Perlmutter (ed.), *Studies in Relational Grammar*, 1. Chicago, University of Chicago Press, 360-405.

Anagnostopoulou, Elena (2003) *The Syntax of Ditransitives. Evidence from Clitics*. Berlin, New York: Mouton de Gruyter.

Bobaljik, Jonathan and Susi Wurmbrand (1999) Modals, raising and A-reconstruction. Talk given at Leiden University, The Netherlands, and University of Salzburg, Austria [http://web.mit.edu/susi/www/Leiden.pdf]

Bošković, Željko (1995) Participle movement and second position cliticization in Serbo-Croatian. *Lingua*, 96, 245-266.

Bošković, Željko (1996) Selection and the categorical status of infinitival complements. *Natural Language and Linguistic Theory*, 14, 269-304.

Bošković, Željko (2000) Second position cliticization: Syntax and/or phonology?. In: M. den Dikken and F. Beukema (eds.), *Clitic Phenomena in European Languages*. Amsterdam: John Benjamins.

Bresnan, Joan (1972) *Theory of Complementation in English Syntax*. Doctoral dissertation, MIT.

Burzio, Luigi (1986) *Italian Syntax*. Dordrecht: Reidel.

Büring, Daniel (1997) *The Meaning of Topic and Focus. The 59th Street Bridge Accent*. London: Routledge.

Cardinaletti, Anna and Michal Starke (1996) The typology of structural deficiency: on the three grammatical classes. In: H. van Riemsdijk (ed.), *Clitics in the Languages of Europe*. Berlin: Mouton de Gruyter.

Chierchia, Gennaro (1989) Structured meanings, thematic roles and control. In: G. Chierchia, B. Partee and R. Turner (eds.), *Properties, Types and Meanings II*. Dordrecht: Kluwer, 131-166.

Chomsky, Noam (1981) *Lectures on Government and Binding*. Dordrecht: Foris.

Chomsky, Noam (1995) *The Minimalist Program*. Cambridge: MIT Press.

Chomsky, Noam (2001) Derivation by Phase. In: Michael Kenstowicz (ed.), *Ken Hale: a Life in Language*. Cambridge: MIT Press, 1-53.

Chomsky, Noam and Howard Lasnik (1993) The Theory of Principles and Parameters. In: Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld, Theo Vennemann (eds.), *Syntax: An International Handbook of Contemporary Research*. Berlin: Mouton de Gruyter, 506-569. Republished In: Chomsky (1995)

Cinque, Guglielmo (1988) On si Constructions and the theory of Arb. *Linguistic Inquiry*, 19, 521-581.

Cinque, Guglielmo (1999) *Adverbs and Functional Heads: A Cross-linguistic Perspective*. Oxford, UK: Oxford University Press.

Cinque, Guglielmo (2000) "Restructuring" and Functional Structure. ms., University of Venice.

Comrie, Bernard (1973/1980) Clause Structure and movement constraints in Russian. In: Catherine V. Chvany, Richard D. Brecht (eds.), *Papers from the Comparative Syntax Festival*. CLS. Reprinted In: *Morphosyntax in Slavic*. Columbus, Ohio: Slavica Publishers, 98-113.

Cremers, C. (1983) On two types of infinitival complementation. In: F. Heny and B. Richards (eds.), *Linguistic Categories: Auxiliaries and Related Puzzles*. Dordrecht: Reidel, 169-221.

Dyła, Stefan (1983) Evidence for S'-Deletion in Polish. *Folia Linguistica*, 17, 327-337.

Dziwirek, Katarzyna (1998) Reduced construction in universal grammar: Evidence from the Polish Object Control Construction. *Natural Language and*

Linguistic Theory, 16, 53-99.

Franks, Steven (1995) *Parameters of Slavic Morphosyntax*. New York: Oxford University Press.

Franks, Steven and Tracy Holloway King (2000) *A Handbook of Slavic Clitics*. New York/Oxford: Oxford University Press.

Fried, Mirjam (1994) Second-position clitics in Czech: Syntactic or phonological?. *Lingua*, 94, 155-175.

Heim, Irene and Angelika Kratzer (1998) *Semantics in Generative Grammar*. Blackwell Publishers.

Jackendoff, Ray (1972) *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.

Junghanns, Uwe (2002a) Klitische Elemente im Tschechischen: eine kritische Bestandsaufnahme. In: T. Daiber (ed.), *Linguistische Beiträge zur Slavistik. IX JungslavistInnen Treffen, Halle/Wittenberg 2000*. München: Sagner, 117-150.

Junghanns, Uwe (2002b) *Untersuchungen zur Syntax und Informationsstruktur slavischer Deklarativstze*. Linguistische Arbeitsberichte, 80.

Karttunen, Lauri (1971) Implicative verbs. *Language*, 47, 340-358.

Lavine, James E. (2000) *Topics in the Syntax of Nonagreeing Predicates in Slavic*. PhD dissertation, Princeton University.

Landau, Idan (2000) *Elements of Control: Structure and Meaning in Infinitival Constructions*. Studies in Natural Language and Linguistic Theory, 51, Dordrecht/Boston/London: Kluwer Academic Publishers.

Landau, Idan (2003) Remarks and replies: Movement out of control. *Linguistic Inquiry*, 34, 471-498.

Lenertová, Denisa (in prep.) Czech pronominal clitics. In: S. Franks (ed.)

Marantz, Alec (1984) *On the Nature of Grammatical Relations*. Cambridge, Mass.: MIT Press.

Markman, Vita G. (2003) *Causatives without Causers and Burzio's Generalization*. Poster at CASTL Kick-Off Conference, University of Tromsø.

Medová, Lucie (2000) *Transparency Phenomena in Czech Syntax*. master thesis, University of Tromsø.

Müller, Gereon (1995) *A-bar Syntax. A Study in Movement Types*. Berlin / New York: Mouton de Gruyter.

Napoli, Donna (1981) Semantic interpretation vs. lexical governance: clitic climbing in Italian. *Language*, 57, 841-887.

Pesetsky, David and Esther Torrego (2001) T-to-C movement. In: Michael Kenstowicz (ed.), *Ken Hale: a Life in Language*. Cambridge: MIT Press, 355-426.

Progovac, Ljiljana (1992) Relativized SUBJECT: Long-distance reflexives without movement. *Linguistic Inquiry*, 23, 671-680.

Progovac, Ljiljana (1993) Locality and subjunctive-like complements in Serbo-Croatian. *Journal of Slavic Linguistics*, 1, 116-144.

Progovac, Ljiljana (1994) *Negative and Positive Polarity: A Binding Approach*. Cambridge: Cambridge University Press.

Przepiorkowski, Adam (1999) *Case Assignment and the Complement-Adjunct Dichotomy: A Non-configurational Constraint-based Approach*. PhD dissertation, Tübingen.

Przepiorkowski, Adam and Anna Kupšć (1997) Verbal negation and complex predicate formation in Polish. *Texas Linguistic Forum*, 38, 247-261.

Radanović-Kocić, Vesna (1996) The placement of Serbo-Croatian clitics: a prosodic approach. In: A. Halpern and A. Zwicky (eds.), *Approaching Sec-*

ond: Second position Clitics and Related Phenomena. Stanford: CSLI Publications. 429-446.

Radford, Andrew (1977) *Italian Syntax: Transformational and Relational Grammar*. Cambridge: Cambridge University Press.

Rappaport G. C. (1986) On anaphor binding in Russian. *Natural Language and Linguistic Theory*, 4, 97-120.

Rezac, Milan (1999) The Syntactic implementation of clitic movement. ms., University of Toronto.

Rizzi, Luigi (1978) A Restructuring rule in Italian syntax. In: Samuel Keyser (ed.), *Recent Transformational Studies in European Languages*. Cambridge, Massachusetts: MIT Press, 113-158.

Rizzi, Luigi (1982) *Issues in Italian Syntax*. Studies in Generative Grammar 11, Foris, Dordrecht.

Rizzi, Luigi (1990) *Relativized Minimality*. Cambridge, Mass: MIT Press.

Rosenbaum, Peter (1967) *The Grammar of English Predicate Complement Sentential Complementation*. Cambridge, Mass: MIT Press.

Sabel, Joachim (1996) *Restrukturierung und Lokalität: Universelle Beschränkungen für Wortstellungsvariationen*. Studia Grammatica: 42. Berlin: Akademie Verlag.

Sigurdsson, Halldor Armann (1989) *Verbal Syntax and Case in Icelandic in a Comparative GB Approach*. PhD dissertation, Lund.

Sigurdsson, Halldor Armann (1991) Icelandic case-marked PRO and the licensing of lexical arguments. *Natural Language and Linguistic Theory*, 9, 327-364.

Steinbach, Markus (2002) *Middle voice: A Comparative Study in the Syntax-Semantics Interface of German*. Amsterdam/Philadelphia: John Benjamins.

Stowell, Tim (1982) The Tense of infinitives. *Linguistic Inquiry*, 13, 561-570.

Thrainsson, Hoskuldur (1979) *On Complementation in Icelandic*. Garland Publishing, New York.

Toman, Jindřich (1980) Weak and strong: notes on *be* in Czech. In: G. Brettschneider and C. Lehmann (eds.), *Wege zur Universalienforschung*. Tübingen: Narr. 305-310.

Toman, Jindřich (1996) A note on clitics and prosody. In: A. Halpern and A. Zwicky (eds.), *Approaching Second: Second Position Clitics and Related Phenomena*. Stanford: CSLI Publications. 505-510.

Trávníček, František (1959) K postavení stálých příklonek po přestávce uvnitř věty [On placement of clitics after a pause in a sentence]. *Naše Řeč*, 42, 65-67.

Vergnaud, J.-R (1982) *Dépendances et Niveaux de Representation en Syntaxe*. Thése de doctorat d'état, Universit de Paris VII.

Veselovská, Ludmila (2004) Talk at FDSL 5, November 26-28 (2003), University of Leipzig.

Williams, Edwin (2003) *Representation Theory*. Cambridge: MIT Press.

Wurmbrand, Susi (2001) *Infinitives: Restructuring and Clause Structure*. Berlin/New York: Mouton de Gruyter.

Wurmbrand, Susi (2002) Syntactic vs. semantic control. In: C. Jan-Wouter Zwart and Werner Abraham (eds.), *Studies in Comparative Germanic Syntax: Proceedings from the 15th Workshop on Comparative Germanic Syntax, Groningen, May 26-27, 2000*. Amsterdam, Benjamins, 95-129.

Zubizarreta, Maria-Luisa (1982) *On the Relationship of the Lexicon to Syntax*. PhD dissertation, MIT.

Zwicky, Arnold (1977) *On Clitics*. Bloomington: Indiana University Linguistics Club.