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# English particles compared to Czech adverbs and prefixes

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prefixes

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# 1 Introduction

In this thesis, I compare English particles to Czech spatial adverbs and prefixes. I discuss three aspects of the particles, adverbs and prefixes – word order, aspect and readings. The properties of the English particles are divided between the spatial adverbs and prefixes in Czech. There are structural similarities between the particles and the adverbs, but the adverbs cannot have other than spatial readings. The prefixes clearly lack the possibility of particle shift, but they give rise to idiomatic and other systematic readings and have a telicizing effect like the particles.

In the first part of the thesis, I compare English particles to Czech spatial adverbs. The particles and the adverbs seem at first sight to behave in a similar way with regard to word order. English particles undergo particle shift, a movement of the particle that is only possible when the particle is not modified, a modified particle cannot undergo the particle shift. Czech spatial adverbs show a similar word order pattern as the particles and thus seem to undergo the same movement. I argue in this thesis that the movement of the spatial adverbs is not of the same sort as the particle shift. While discussing the movements of the particle and the adverb, I am not going to discuss word orders that result from noun phrases containing a particle or adverb, such as ‘a spider from the bathroom’.

In the second part of the thesis, I compare English particles to Czech spatial prefixes. The prefixes are attached to verbs in Czech, so it is impossible to compare structural behaviour of the particles and prefixes. There are however other similarities between the particles and the prefixes. Both particles and prefixes give rise to various readings – spatial readings though limited in the case of the prefixes, idiomatic readings and other systematic readings. I also compare the behaviour of the particle and the prefix with respect to telicity. I argue that the prefixes have a telicizing effect on the verb whereas the particles can have a telicizing effect, but do not always have one.





## 2 Word order

### 2.1 Word order of English Particles

#### 2.1.1 Particle shift

In English, particles can precede or follow the object DP in a sentence. Consider the following two sentences.

- (1) He threw the toy (right) out.
- (2) He threw (\*right) out the toy.

The position of the particle preceding the object DP is assumed to involve movement of the particle to a position that is higher than the position of the object DP, as in Ramchand and Svenonius (2002), or Johnson (1991). This is called Particle shift. An unshifted particle - particle in a position following the object DP- can be modified, but Particle shift is not possible for a modified particle. This is illustrated by examples (1) and (2). In sentence (1) the particle is modified and it is not shifted and the sentence is grammatical. In sentence (2) the particle is modified and shifted and the sentence is ungrammatical.

#### 2.1.2 Additional word order facts

English particles cannot follow a Source PP when they are not followed by a Goal PP. Notice the difference between sentences (3), (4) and (5).

- (3) \* He took the ball from the house out.
- (4) He took the ball out from the house.
- (5) He took the ball from the house out into the garden.

A PP can be preceded by a particle. This is illustrated by examples (4) - (10). In sentence (4), the particle precedes the Source PP and the sentence is grammatical, while in sentence (5), the particle follows the Source PP and the sentence is ungrammatical. Sentences (6) and (7) illustrate the same behavior with regard to goal PPs.

- (6) He carried the toy out into the garden.
- (7) \* He carried the toy into the garden out.

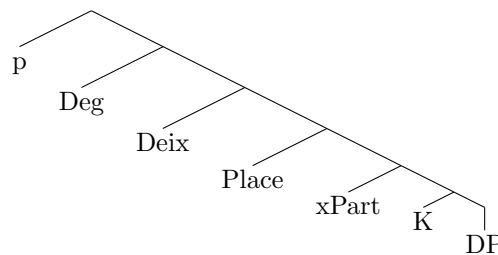
In sentence (8), the particle precedes a Source PP and a Goal PP and the sentence is grammatical. In sentence (5) repeated as (9), the particle follows the Source PP and precedes the Goal PP and the sentence is also grammatical. Notice that the particle follows the Source PP in sentence (9) as well as in sentence (3). Only in sentence (9) is the particle followed by a Goal PP and only this

sentence of the two is grammatical. In sentence (10), the particle follows both the Source PP and the Goal PP and the sentence is not grammatical. The situation in English is very similar to the situation with spatial adverbs in Czech, as will be shown in the next section. The only difference between English and Czech is that Czech spatial adverbs can follow Source PPs even when they are not followed by a Goal PP. While sentence (3) is ungrammatical in English the same sentence is grammatical in Czech.

- (8) He took the ball out from the house into the garden.  
 (9) He took the ball from the house out into the garden.  
 (10) \* He took the ball from the house into the garden out.

Svenonius (2010) proposes a decomposed structure of PPs that can account for these word order facts. This proposal is similar to the proposal by Ramchand and Svenonius (2002) in the sense that Svenonius (2010) argues that a PP consists of different subparts that are smaller than lexical items. Every subpart of a PP is related to a feature that is lexicalized when the subpart is lexicalized. P-elements lexicalize certain features and thus show the properties of the features. Svenonius (2010) claims that the spatial particles originate in the specifier of the DeixP, which is a layer of features expressing deixis, distal or proximal information. When this layer contains an element, it is lexicalized and thus the relevant information is expressed.

- (11) The PP



According to Svenonius (2010) there are four classes of P-elements. He calls them Place, Bounded, Extended and Particle. Elements in the class Place (eg. behind, inside or above) head a PlaceP. Elements in the class Place can be the complement of stative verbs that express location. Elements in the class Bounded cannot be combined with anaphoric identified Ground. Elements in the class Extended, also called PathPlaces by Svenonius (2010) combine the properties of Places with the properties of Paths (to and from). The Extended elements (eg. around, across or over) cannot be paraphrased with to in contrast to the Place elements that can be paraphrased with 'to'. Particles can combine with Place elements.

This proposal accounts for the word order facts discussed above. Particles can only precede the PP they modify, because the position of the features they lexicalize is higher than the position of the features that the preposition and the DP lexicalize. Thus a particle can only follow a PP if it modifies another PP that is lower in the structure. This is the case in sentence (9). In this sentence the particle modifies the Goal PP that is lower in the structure than the Source PP, thus the particle follows the Source PP.

English particles can precede the Object DP even if there is a Source or a Goal PP in the clause. This is shown by examples (12) and (13). In sentence (12) the particle is not adjacent to the Source PP, the particle precedes the Object DP, while the Source PP follows the Object DP. In sentence (13) the particle is not adjacent to the Goal PP, the particle precedes the Object DP, while the Goal PP follows the Object DP.

(12) He carried out the toy from the room.

(13) He carried out the toy into the garden.

This word order is predicted to be possible in English by parallel to Particle shift. Svenonius (2010) and Ramchand and Svenonius (2002) claim that either the Object DP or the Particle moves to RP, a subpart of the Verb Phrase related to resultative reading - discussed more closely in section 2.1.4, and thus he accounts for the word order variation of Particle shift. The word order in sentences (12) and (13) is the word order with a shifted particle. This means that in sentences (12) and (13) the particle moved to RP and the Object DP didn't move overtly. Svenonius claims that either the Object DP or the particle can move covertly if the other moves overtly.

There is however a problem with the analysis of English particles. In sentences without any PP the particle can lexicalize a phrase on its own, as in sentence (14). But when there is a PP in the sentence the particle cannot follow the PP, as in sentence (3) repeated here as (15). The particle can follow a Source PP when it is modified, like in sentence (16).

(14) He took the ball out.

(15) \*He took the ball from the house out.

(16) He took the ball from the house all the way out.

There are some exceptional cases when the particle can follow a Source PP, but this word order has a reading of an interval. This is illustrated in sentences

(17), (18) and (19). The reading of sentences (17) and (18) is that the climbing up begins on the ground, not higher. The reading of sentence (19) is that the house was painted red from the second floor to the top but not below the second floor.

- (17) You climb from the ground up.  
From: [www.ukclimbing.com/articles/page.php?id=1499](http://www.ukclimbing.com/articles/page.php?id=1499)  
Date: 22.5.2009
- (18) Over the last week, several climbers including Brits Ben Bransby and Pete Robins, as well as the American team have been trying to climb Parthian Shot from the ground up.  
From: <http://news.climbing.de/kevin-jorgeson-grounds-up-partian-shot-e9-6c-1/>  
Date: 22.5. 2009
- (19) We painted the house red from the second floor up.

However this word order seems to be possible when the Ground is known from a context, consider the difference between sentences (20) and (21). I disregard the reading with ‘a spider from the bathroom’ as a NP. I will not discuss this word order any further in this thesis.

- (20) This morning I woke up early and before I could even brush my teeth I had to carry a spider (\*from the bathroom) out.
- (21) Yesterday I broke down deep in the tunnel, and I had to run from my car \*out / all the way out.

### 2.1.3 Constituency

The constituency of the particle construction needs to be examined in order to account for the word order facts of the particle construction and in order to be able to compare the English particle construction with Czech spatial adverbs.

There are several ways of testing constituency. I am going to consider substitution behavior of particles in addition to the coordination and modification behavior described by Farrell (2005). Topicalization and clefting are not going to be considered, because it is difficult to distinguish the two possible word orders of the particle construction under topicalization and clefting. As Farrell (2005) already shows the two word order of the particle construction differ in their behavior with respect to constituency tests and thus need to be distin-

guished.

Svenonius (1992) observes that constructions with the unshifted particle and a DP can be coordinated, consider Svenonius' sentence (22), while constructions with the shifted particle and a DP cannot be coordinated, consider Svenonius' sentence (23).

(22) Pauline turned the acetylene on and the oxygen off.

(23) \*Pauline turned on the acetylene and off the oxygen.

The unshifted particle can be modified, while the shifted particle cannot be modified. As observed by ?, Svenonius (1992) or Farrell (2005). Consider Farrell's (24) and (25) and Svenonius' (26) and (27).

(24) They messed the song all up.

(25) \*They messed all up the song.

(26) Horsa bit his nose right off.

(27) \*Horsa bit right off his nose.

The possibility of coordination of the unshifted particle and the DP shows that these two elements are both a part of a phrase. The possibility of modification of the unshifted particle shows that the particle is a phrase when it is not shifted. The impossibility of coordination of the shifted particle and the DP shows that these two elements are not a part of one phrase. The impossibility of modification of the shifted particle shows that the particle is not a phrase when it is shifted or that there are some factors that prevent the particle from being modified when it shifted.

The coordination and modification behavior in particles indicates that there is a phrase that consists of the DP and the particle but at the same time there is a phrase that consists only of the particle.

Let us now examine the constituency properties of particles with spatial readings for the sake of completeness. Spatial particles show the same behavior with regard to modification and coordination as particles with idiomatic readings, as sentences (28) - (31) illustrate.

(28) He carried the ball out and the doll in.

(29) \*He carried out the ball and in the doll.

Sentence (28) shows that the unshifted particle and the Object DP can be coordinated. The possibility of coordination suggests that the unshifted particle and the Object DP are part of a phrase. This claim is supported by the same behavior of the Object DP and the particle with idiomatic reading.

Sentence (29) shows that the shifted particle and the Object DP cannot be coordinated. This suggests that the shifted particle and the Object DP are not part of one phrase. Again, the same result was already reported for particles with idiomatic readings.

Sentences (30) and (31) illustrate the behavior of the spatial particle with regard to modification.

(30) She carried the ball quickly out.

(31) \*She carried quickly out the ball.

Sentence (30) with the unshifted particle shows that the unshifted particle can be modified by an adverb. Sentence (31) shows that shifted particle cannot be modified by an adverb.

These results mirror the results shown for particles with idiomatic readings. Thus the claim made for particle with idiomatic readings is supported by this evidence. The unshifted particle can be modified, this indicates that the unshifted particle is a constituent. The shifted particle cannot be modified, this indicates that the shifted particle is not a constituent or is prevented from being modified.

#### 2.1.4 Analysis

I am going to consider three analyses of the verb particle construction, the analysis proposed by Farrell (2005), the analysis proposed by Johnson (1991) and the analysis proposed by Ramchand and Svenonius (2002).

**Johnson (1991)** Johnson (1991) proposes a Small Clause (SC) analysis of the verb-particle construction. Johnson (1991) argues that the verb with a particle, according to him particle verbs', are inserted as a single lexical item. This claim is supported by the fact that the verb and particle can undergo processes that

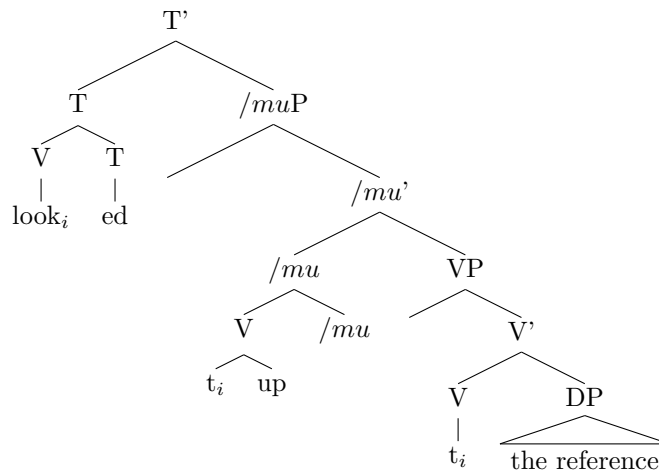
are expected to apply only to verbs - noun formation with ‘-ing’ and adjective formation with ‘-ed’. Consider Johnsons’ sentences (32) and (33).

(32) Mikey’s looking up of the reference is a trying affair.

(33) The dance seemed called off.

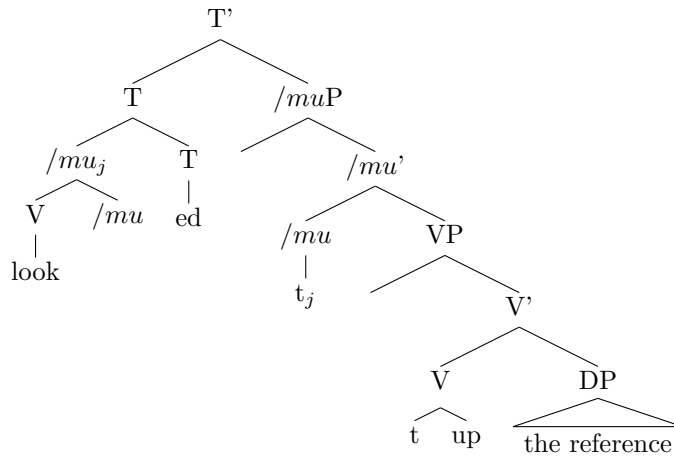
There are two ways to derive the inverted word order under the analysis proposed by Johnson (1991). The verb and the particle are inserted together as a single lexical item at D-structure. The verb moves higher in the structure to a position where it receives tense morphology. The particle can move together with the verb to */mu*, as in figure (34) or the particle can stay in V, as in tree (35).

(34) look up the reference 1



In tree (34) the particle has moved with the verb to */mu* and after that the particle has been stranded and the verb has moved to T, where it receives tense morphology. Johnson (1991) argues that the particle cannot move with the verb to T because T is a position to which only verbs alone can move.

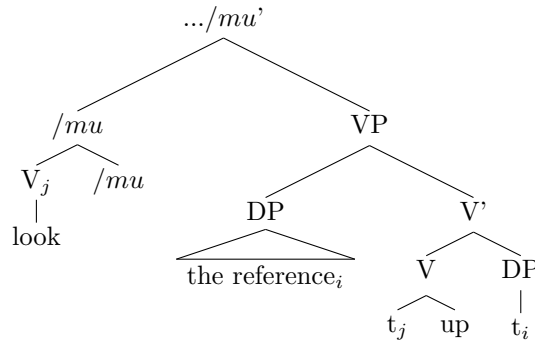
(35) look up the reference 2



Tree (35) illustrates the second way of derivation of the inverted word order. The particle has been stranded in V and the verb has moved alone to */mu* and to T for tense morphology.

The uninverted word order of the particle-verb construction is due to the movement of the object DP, this is illustrated by figure (36).

(36) look the reference up

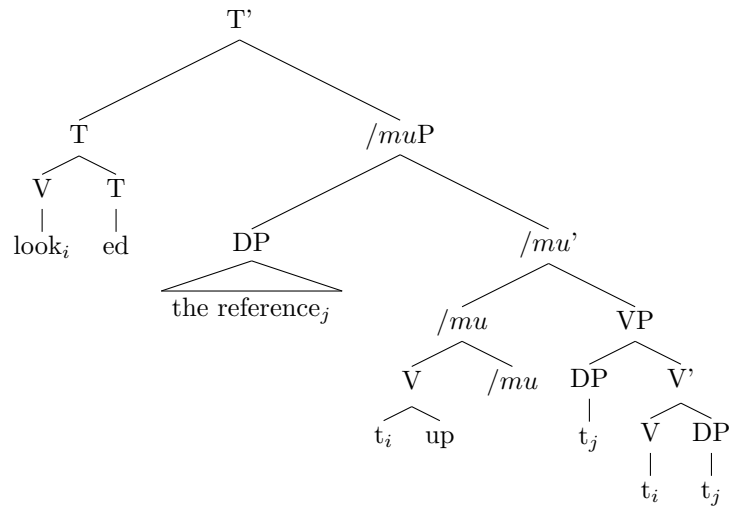


Johnson (1991) argues that the object DP undergoes an A-movement similar to Object shift in Scandinavian languages, a movement that targets DPs and causes the object DPs to precede non-nominal arguments. In sentences with the verb-particle construction according to Johnson (1991), the object DP moves higher in the structure in order to receive case from */mu*. According to Johnson, the */mu* adjoins to the verb and moves to T with the verb. Johnson (1991) argues that */mu* can assign case at any point of the derivation and thus case can be assigned either in the specifier of VP or in the specifier of */mu*P. The case is assigned by the */mu* to a DP in specifier of VP when it is assigned



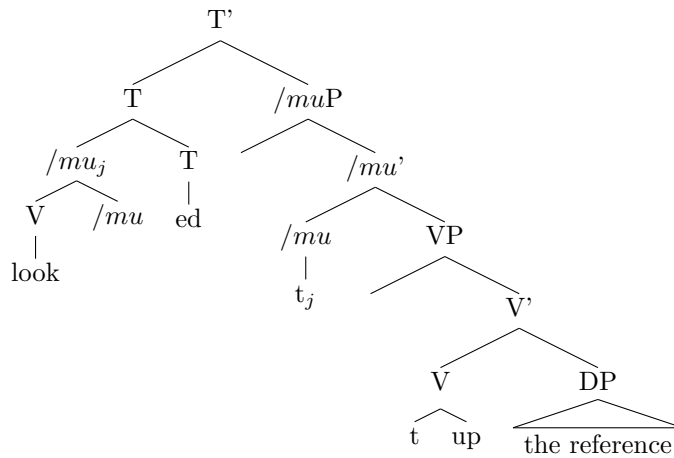
before movement. If the case is assigned after movement, it is assigned to a DP in specifier of */mu*P. Consider the trees (34) and (35) repeated below as (37) and (38).

(37) look up the reference



Tree (37) illustrates the movement of the DP to specifier of VP and to specifier of */mu*P. This structure yields the unshifted word order - the particle follows the DP. In tree (37) the particle moved to */mu* together with the verb and thus prevented the */mu* from adjoining to the verb and moving to T with the verb.

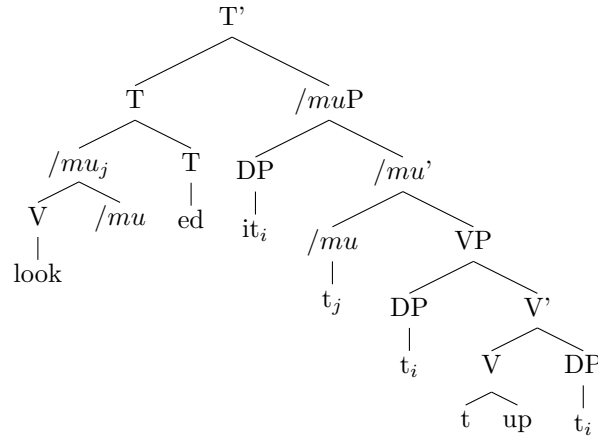
(38) look up the reference 2



In tree (38) the particle was stranded in V and thus the */mu* can adjoin to the verb and move to T together with the verb. The DP didn't move from its position in V', according to Johnson (1991). This structure yields the shifted word order - the particle precedes the DP.

The movement of the DP is optional for full nominal DPs and obligatory for pronominal DPs parallel to the Scandinavian facts, claims Johnson (1991). The pronoun moves to a closest possible position to the verb in this case the specifier mP. Consider the following tree.

(39) look it up



**Problems** The analysis by Johnson (1991) relates the two word order variations of the verb-particle construction to each other and proposes a solution that accounts for the two different structures of this construction. There are however some problems that the analysis doesn't solve.

As Farrell (2005) observes, the object DP and the particle can be coordinated when the particle is preceded by the object DP, but not when the particle precedes the object DP. Consider examples (40) and (41) from Farrell (2005).

(40) She took the newspaper in and the cat out. Farrell (2005)

(41) \*She took in the newspaper and out the cat. Farrell (2005)

This is an unexpected fact under the analysis of Johnson (1991). Recall trees

(37), (38) and (36). In tree (36), which is argued to be underlying the word order in sentence (40), the coordinated part is the VP. If the VP is coordinated in tree (38), the result should be a sentence of the same type as sentence (41). There is no indication that the VP in tree (38) cannot be repeated. To derive the same coordination with an underlying structure as in tree (37) the mP would have to be coordinated. There is no indication that this shouldn't be possible.

Another problem that the analysis of Johnson (1991) doesn't solve has also been pointed out by Farrell (2005). Modification by degree adverbial is possible only under the uninverted word order not under the inverted word order. Consider sentences (42) and (43).

(42) We took the cat right in. Farrell (2005)

(43) \*We took right in the cat. Farrell (2005)

Also this pattern is unexpected under the analysis of Johnson (1991). Recall again trees (37), (38) and (36). Tree (36) is the underlying representation of a sentence with the uninverted word order. Sentences with the verb-particle construction in the uninverted word order can be modified by degree adverbials. Sentences with underlying representations as in trees (37) and (38) have the inverted word order and cannot be modified by degree adverbials. There is no indication in the underlying structure of these sentences that modification is only possible under the uninverted word order.

**Farrell (2005)** Farrell argues against a Small Clause (SC) analysis of the verb-particle construction. He proposes an Lexical conceptual structure (LCA) analysis.

Farrell (2005) argues that there are two different Argument Structures (AS) underlying the two word orders of the verb particle construction. The word order Verb-Particle-Noun Phrase (the inverted word order) is claimed to have Argument Structure illustrated in (44). In this Argument Structure the particle is incorporated into the Verb and thus surfaces always adjacent to the verb.

(44) AS1: V + P < x,y >  
 AS1: mess up < x,y > (word order V P NP)  
 They messed up the song. Farrell (2005)

The word order Verb-Noun Phrase-Particle is claimed to have the Argument Structure in (45). In this case the particle is not incorporated into the Verb, it is one of the arguments of the Verb and thus surfaces to the right of the Object

of the verb (the non-inverted word order).

- (45) AS2: V < x,y,P >  
AS2: mess < x,y,up > (word order V NP P)  
They messed the song up. Farrell (2005)

Farrell (2005) argues that the difference between the two Argument Structures accounts for the different properties of the two word orders of the verb-particle construction. There is a difference in the behavior of the word orders of the verb particle construction with respect to modification by a degree adverbial, extraction, conjunction, heavy or pronominal DPs.

As already noted in 2.2.3, only sentences with the non-inverted word order allow modification of the particle by a degree adverbial, consider Farrell's examples (46) and (47).

- (46) They messed the song all up.

- (47) \*They messed all up the song.

Farrell (2005) argues that this behavior is due to the incorporation of the particle in sentence (47). Under this word order the particle is incorporated into the verb and thus no elements can intervene between the particle and the verb. The intervention of the degree adverbial in this case causes the ungrammaticality of the sentence. In sentence (46) the particle is not incorporated into the verb, it is an argument of the verb and thus can be modified by an degree adverb.

Only sentences with the non-inverted word order allow conjunction of the verbal complements. Consider examples (48) and (49) from Farrell (2005).

- (48) She turned these lights on and those lights off.

- (49) \* She turned on these lights and off those lights.

According to Farrell (2005), this property can be explained by the incorporation of the particle into the verb. In sentence (48), both the object DP and the particle are complements of the verb, strings of complements can be conjoined and thus the sentence is grammatical. In sentence (49), the particle is incorporated into the verb and thus cannot be conjoined as a complement.

Farrell (2005) argues for an Optimality Theory (OT) analysis to account

for the word order facts of heavy DPs and pronominal DPs. The paradigm is illustrated in Farrell's examples (50) - (54).

- (50) She turned them off.
- (51) \* She turned off them.
- (52) She turned off THEM.
- (53) I looked up the meaning of the word that you were asking me about.
- (54) \* I looked the meaning of the word that you were asking me about up.

Weak pronouns can only precede the particle, not follow. The pronoun can follow the particle when it is stressed. This is illustrated by sentences (50), (51) and (52). A heavy DP can only follow the particle but not precede, as sentences (53) and (54) illustrate. Farrell (2005) uses the following constraints with the ranking illustrated below to account for the word order facts of weak pronouns and heavy DPs.

- HEAD-LEFT: The head is leftmost in its projections.
- CP-RIGHT: A CP complement is rightmost in the minimal maximal projection containing it.
- HEAVY-RIGHT: A complement with a sufficiently complex internal structure is rightmost in the minimal maximal projection containing it.
- DO-LEFT: A DP functioning as direct object is leftmost in the minimal maximal projection containing it.
- O1-LEFT: The thematically more prominent of the two direct internal arguments (O1) is leftmost in the minimal maximal projection containing it.
- P-LEFT: A complement P with no arguments expressed within a phrase it projects is leftmost in the minimal maximal projection containing it.

HEAD-LEFT >> O1-LEFT >> CP-RIGHT >> HEAVY-RIGHT >> DO-LEFT >> P-LEFT

Under an OT analysis, constraints can be violated. They are ranked from important to less important. When two or more candidates compete, the candidate that violates the highest constraint is excluded in favor of the other candidates. In the case of eg. sentences (50) and (51) that are repeated here as (55) and (56) this means that the constraint P-LEFT is the highest ranked violated constraint. It is violated by sentence (56) and thus this sentence is excluded and sentence (55) is the optimal candidate.

(55) She turned them off. from Farrell (2005)

(56) \* She turned off them. from Farrell (2005)

In case of Farrell's sentences (53) and (54), which are repeated here as (57) and (58) the highest violated constraint is the constraint HEAVY-RIGHT.

(57) I looked up the meaning of the word that you were asking me about.

(58) \* I looked the meaning of the word that you were asking me about up.

The HEAVY-RIGHT constraint is violated by sentence (58) and thus this sentence is excluded and sentence (57) is the optimal candidate.

**Problems** There are some problems that the analysis proposed by Farrell (2005) doesn't solve. There is one theoretical problem and two practical problems.

The first problem is theoretical. The analysis of Farrell (2005) fails to relate the two word order variations of the verb-particle construction to each other. Farrell (2005) argues that the two word orders of the construction have different underlying Argument Structures. If this claim is true and the two word orders are two different constructions, one could expect that there would be more differences between them than only differences in linear ordering. Differences of readings could be also expected, but this is not the case. Based on the fact that the two word orders have identical readings, it can be argued that they have one common underlying representation.

The second problem is that only sentences with the inverted word order allow extraction from the DP. Consider Farrell's sentences (59) - (62).

(59) [Which song] did you mess up the ending of e ?

(60) \* [Which song] did you mess the ending of e up ?

(61) [Of which song] did you mess up the ending e ?

(62) [Of which song] did you mess the ending e up ?

This is a very unexpected property under the account of Farrell (2005). Under Farrell’s account, the status of the object DP is the same in both sentences, it is an argument of the verb. The DP is not expected to be affected by the two different word orders. Recall the Argument Structures that are claimed to be underlying the two different word orders. They are repeated here as (63) and (64).

(63) AS1: V + P < x,y >  
 AS1: mess up < x,y > (word order V P NP)  
 They messed up the song.

(64) AS2: V < x,y,P >  
 AS2: mess < x,y,up > (word order V NP P)  
 They messed the song up.

In both AS1 and AS2, the y-argument has the same status of an argument and there is no indication that the y-argument in AS1 should behave differently than the y-argument in AS2. Thus the difference in behavior with respect to extraction is unexpected under this account and cannot be accounted for under this account.

**Ramchand and Svenonius (2002)** In their analysis, Ramchand and Svenonius propose a decomposition of the Verb Phrase into three subparts — the vP, the VP and the RP. The vP is the subpart of the Verb Phrase that is related to causation of the event described by the verb, the specifier of the vP is the position of the causer of the event. The VP is the subpart related to the process of the event described by the verb and the specifier of the VP is the position of the undergoer of the process. The RP is the subpart that is related to the result of the event described by the verb and the specifier of the RP is the position of the resultee of the event described by the verb. Ramchand and Svenonius claim that the notion of a theta-role is created at this level and thus a DP can have several of the described interpretations. This means that a DP can be the causer and the holder of the result at the same time. This is shown by example (65).

(65) Throw the dead rat out.  
 V Undergoer/Holder of the result Prt.

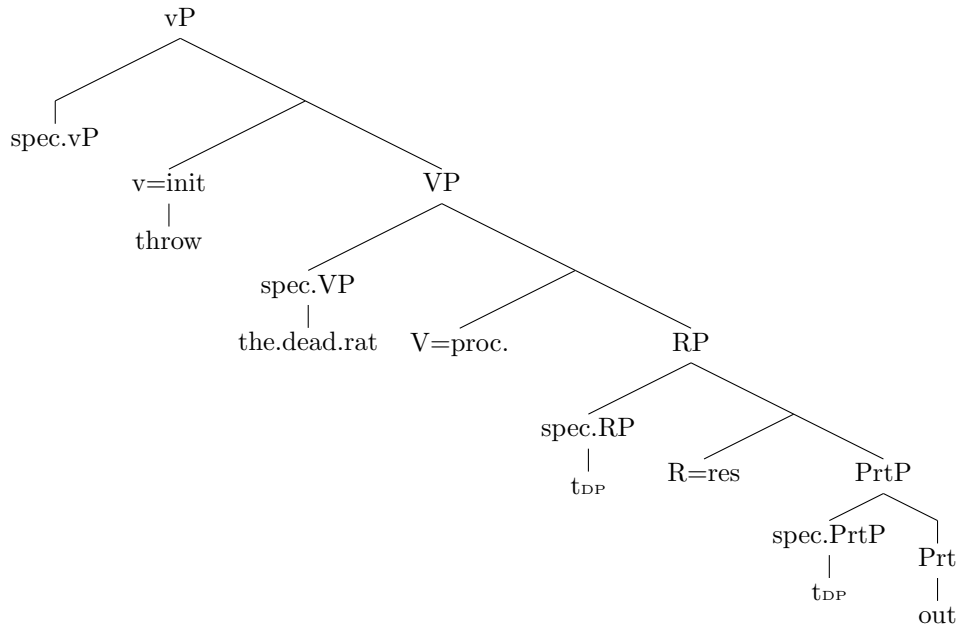
Ramchand and Svenonius (2002)

Ramchand and Svenonius (2002) propose that the two variations of the word order of the verb particle construction are related. They have one underlying

structure, under this analysis. The variation is due to movement of either the Object DP or the particle.

Ramchand and Svenonius (2002) argue that the particle is the head of the PrtP and the DP starts as the specifier of the PrtP. The DP moves to the specifier of the RP and from there it moves to the specifier of the VP thus gaining the roles as the holder of the result and the undergoer. This word order of the particle following the DP is called unshifted. The structure of this word order is illustrated by the help of figure (66).

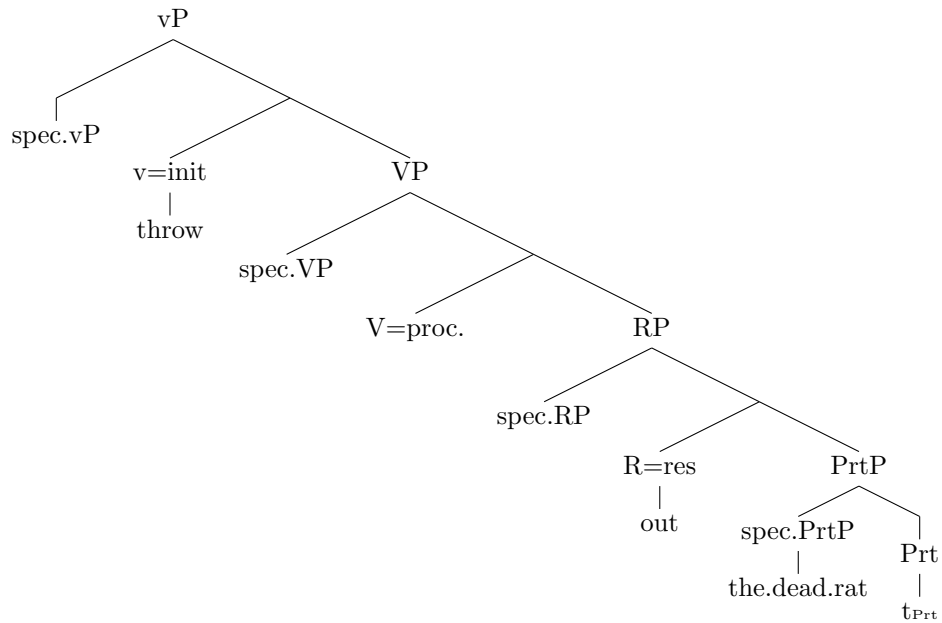
(66) Throw the dead rat out



Tree (67) shows the structure of the shifted particle. Ramchand and Svenonius (2002) argue that the movement of the DP can be covert as well as overt. In cases when the movement is covert the particle moves to R, the head of RP. This yields the shifted word order - the particle precedes the DP. When the particle is modified the possibility of movement is blocked - the particle cannot shift. Thus the DP has to move to the specifier of the RP. Ramchand and Svenonius (2002) propose that either the DP or the particle must move into the RP in order to satisfy an EPP feature or alternatively to lexicalize the projection of RP.

(67) Throw out the dead rat





The analysis proposed by Ramchand and Svenonius (2002) accounts for most of the problems that either Johnson (1991) or Farrell (2005) couldn't account for. I already explained how the analysis by Ramchand and Svenonius (2002) accounts for the two word order variation of the verb particle construction and for the behavior with regard to modification. Let us consider how the analysis accounts for the two other problems - coordination and extraction.

Let us now examine how the analysis by Ramchand and Svenonius (2002) accounts for the extraction facts. Recall, that it is possible to extract from the Object DP under the shifted word order, but it is not possible to extract from the Object DP under the unshifted word order. Notice that this only applies to extraction from a PP that is embedded under the Object PP, the extraction of the whole embedded PP is possible for both word orders. This is illustrated by Farrell (2005)'s examples (59) - (62), repeated here as (68) - (71). Sentences (68) and (69) show that it is possible to extract the DP *which song* under the shifted word order, but it is not possible to extract the same DP under the unshifted word order.

(68) [Which song] did you mess up the ending of e ?

(69) \* [Which song] did you mess the ending of e up ?

(70) [Of which song] did you mess up the ending e ?

(71) [Of which song] did you mess the ending e up ?

Recall that under the analysis of Ramchand and Svenonius (2002) the particle moves to R under the shifted word order and thus the DP stays in its original position in the PrtP. While under the unshifted word order, the particle stays in its original position and the Object DP moves to the specifier of RP.

This explains the possibility of extraction from the Object DP under the shifted order and the impossibility of extraction under the unshifted order. When the Object DP has moved the extraction from the PP embedded under the Object DP is not possible. When the Object DP didn't move the extraction is possible. The Object DP moves to the specifier of RP under the unshifted word order. Thus extraction from the Object DP is not possible under the unshifted word order. The Object DP stays in its original position in the PrtP under the shifted word order. Thus it is possible to extract from the Object DP under the shifted word order.

This analysis predicts that this type of extraction should be blocked for other DPs that move into the Verb domain as well. This prediction can be tested on Subject or Object DPs, as these elements originate below the Verb domain and move into it. Thus this analysis predicts that it should not be possible to extract a DP from a PP embedded under a Subject or Object DP.

(72) Which book did the villain spoil?

(73) \*Which writer did the villain spoil a book by?

(74) \*By which writer did the villain spoil a book?

(75) \*A book by which writer did the villain spoil?

(76) \*Which town did the villain from [t ] spoil the book?

(77) \*From which town did the villain [t ] spoil the book?

(78) \*The villain from which town did spoil the book?

Sentences (72) - (78) show that the extraction pattern observed with the verb particle construction can be observed with objects as well. This shows that the impossibility of extraction is related to the positions within the verbal domain. Remember that the Object DP moves into the specifier RP under the unshifted word order.

**Problems** As already mentioned the particle and the Object DP can be coordinated when they are in the unshifted order, but cannot be coordinated when they are in the shifted word order. Consider the following examples from Farrell (2005) (48) and (49) repeated here as (79) and (80).

(79) She turned these lights on and those lights off.

(80) \* She turned on these lights and off those lights.

Under the analysis by Ramchand and Svenonius (2002) the particle and the Object DP are both part of one constituent in the underlying representation, the PrtP.

Ramchand and Svenonius (2002) argue that the particle has moved to R under the shifted word order. This means that the particle and the Object DP are part of a bigger constituent under the shifted word order, the RP. Thus the analysis predicts that under the shifted word order, the Object DP and the particle can be coordinated, provided that RP can be coordinated. Sentence (80) shows that this prediction is not correct.

Ramchand and Svenonius (2002) argue that the Object DP moves to the specifier of RP in the unshifted word order. This means that the particle and the Object DP are part of the same constituent under the unshifted word order as under the shifted word order, the RP. Thus the analysis predicts that coordination is possible under both word orders. This is not a correct prediction as sentences (79) and (80) show. The particle and the Object DP can be coordinated under the unshifted word order, coordination is not possible under the shifted word order.

**Conclusion** Even though the analysis proposed by Ramchand and Svenonius (2002) cannot account for the behavior of the particle with regard to coordination, I am going to adopt this analysis. The analyses proposed by Farrell (2005) and Johnson (1991) have more problems than the analysis proposed by Ramchand and Svenonius (2002).

The analysis by Farrell (2005) fails to account for the extraction pattern of the particle and it fails to relate the two word orders of the particle and the Object DP. The analysis by Johnson (1991) fails to account for the behavior of the particle with regard to coordination and modification. Both analyses have one more failure than the analysis proposed by Ramchand and Svenonius (2002).

The analysis proposed by Ramchand and Svenonius (2002) has some additional advantages that make this analysis preferable over the analyses by Farrell (2005) and Johnson (1991). I am going to adopt the analysis of particle shift proposed by Ramchand and Svenonius (2002).

## 2.2 Word order of Czech Spatial Adverbs

### 2.2.1 "Adverb shift"

Spatial adverbs in Czech- eg. *nahoru*, *dolu*, *dovnitř* and *ven* - seem at first glance to behave the same way as English particles with regard to particle shift. This is illustrated by sentences (81) and (82).

(81) Petr hodil kytku ven/dovnitř/nahoru/dolu.  
 Petr-Nom threw flower out/to.inside/up/down  
 Petr threw the flower out/in/up/down.

(82) Petr hodil ven/dovnitř/nahoru/dolu kytku.  
 Petr-Nom threw out/to.inside/up/down flower [focused]  
 Petr threw the flower out/in/up/down.

Spatial adverbs in Czech can precede or follow the Object DP, this appears to be parallel to the behavior of English particles. English particles can also precede or follow the Object DP. The spatial adverbs cannot precede the object DP when they are modified, e.g. by *až* 'as far as'. But spatial adverbs can follow the object DP when modified by *až* 'as far as'. This is illustrated in examples (83) and (84).

(83) Petr hodil kytku až ven/dovnitř/nahoru/dolu.  
 Petr-Nom threw flower as.far.as out/to.inside/up/down  
 Petr threw the flower all the way out/in/up/down.

(84) \*Petr hodil až ven/dovnitř/nahoru/dolu kytku.  
 Petr-Nom threw as.far.as out/to.inside/up/down flower [focused]  
 Petr threw the flower all the way out/in/up/down.

This word order property of Czech spatial adverbs also appears parallel to the word order facts observed with English particles. English particles cannot undergo particle shift when they are modified. This has been discussed in the previous section of this thesis. The behavior of English particles with regard to particle shift has been illustrated by examples (1) and (2), repeated here as (85) and (86).

(85) He threw the toy (right) out.

(86) He threw (\*right) out the toy.

### 2.2.2 Additional Word order facts

There are however several differences with regard to the word order of Czech spatial adverbs and English spatial particles. I have shown already that the English spatial particle can only follow the Source PP if it is followed by a Goal PP. In Czech the situation is different. There is an asymmetry between the Source PP and the Goal PP in Czech sentences. The adverbs can precede or follow the Source PP, but the adverbs can only precede the Goal PP. This is shown by examples (87) - (94). Sentences (87) and (88) show that the spatial adverb can precede or follow the Source PP in a position following the Object DP. Sentences (89) and (90) show that the adverb can precede or follow the Source PP even in a position preceding the Object DP.

(87) Petr hodil kytku z okna ven.  
Petr-Nom threw flower out-of window-Gen out  
Petr threw the flower out of the window.

(88) Petr hodil kytku ven z okna.  
Petr-Nom threw flower out out-of window-Gen  
Petr threw the flower out of the window.

(89) Petr hodil ven z okna kytku.  
Petr threw out out-of window flower  
Petr threw the flower out of the window.

(90) Petr hodil z okna ven kytku.  
Petr threw out-of window out flower  
Petr threw the flower out of the window.

In sentences with a Goal PP, the spatial adverb can only precede the Goal PP. This is illustrated by sentences (91) - (94). In sentences (91) and (92), the spatial adverb precedes the Goal PP and both sentences are grammatical.

(91) Petr hodil kytku ven/nahoru na zahradu.  
Petr-Nom threw flower out/up on garden  
Petr threw the flower out/up into the garden.

- (92) Petr hodil ven/nahoru na zahradu kytku.  
 Petr threw out/up on garden flower  
 Petr threw the flower out/up into the garden.

In sentences (93) and (94), the spatial adverb follows the Goal PP and these sentences are ungrammatical.

- (93) \*Petr hodil na zahradu ven/nahoru kytku.  
 Petr threw on garden out/up flower  
 Petr threw the flower out/up into the garden.
- (94) \*Petr hodil kytku na zahradu ven/nahoru.  
 Petr-Nom threw flower on garden out/up  
 Petr threw the flower out/up into the garden.

### 2.2.3 Constituency

The constituency of adverb-PP combinations as illustrated above needs to be examined in order to account for the word order of Czech spatial adverbs. First I am going to test the constituency of the adverb-Source PP combination. There are two word order variations and different readings of the adverb and Source PP combination in Czech. I am going to discuss the unambiguous word order - the Source PP is followed by the adverb first. The sentence is repeated here as (95). I am going to argue that the SourcePP and the adverb in this word order are two different constituents - the Source and the Goal. This claim is supported by the clitic test.

- (95) Petr běžel [z lesa] [ven] hodinu.  
 Petr ran from forest out hour  
 Petr ran out of the forest hour.acc..

Afterwards, I am going to test for constituency the combination of a spatial Adverb and a Goal PP. I am going to argue that they behave like one constituent.

Notice before testing the Adverb in combinations with different PPs that the spatial Adverbs can head a phrase without PPs. Consider sentences (96) and (97).

- (96) Gym si nesl kytaru nahoru/dolů/ven/dovnitř.  
 Gym refl.dat carried guitar up/down/out/in. [neutral word]

order]  
 Gym carried himself the guitar up/down/out/in.

- (97) Nahoru/dolů/ven/dovnitř si nesl kytaru Gym.  
 Up/down/out/in refl.dat carried guitar Gym [focused]  
 Up/down/out/in carried himself the guitar Gym.

Sentence (96) illustrates the neutral word order, sentence (97) shows that the adverb is a constituent. It passes the constituency test - it can be followed by a clitic. In Czech, clitics occupy second position in a sentence as Franks and Holloway (2000) argue and Veselovská (1995) and Hana (2007) mention, thus they can be used for a constituency test. Any string of words that can precede a clitic is a constituent in Czech. This doesn't imply that every string of words that cannot precede a clitic is not a constituent. There are cases in Czech when constituents due to other restrictions cannot precede a clitic.

I am going to discuss the behavior of the spatial Adverbs with regard to modification and coordination in order to provide more direct comparison between the English particles and Czech spatial adverbs. Notice however, that modification and coordination cannot be used as constituency test in Czech. The most reliable constituency test for Czech is the test I described above - the test of precedence of a clitic.

**Testing Source PP + Adverb** Sentence (98) shows the neutral word order. This sentence is a sensible answer to a question "What happened?", this test is used by Kučerová (2007) and Veselovská (1995) among others.

- (98) Marek se potácel ven z lesa. [neutral word order]  
 Marek refl. staggered out from forest  
 Marek staggered out of the forest.

Sentences (99), (100) and (101) are not possible answers to the question. These sentences don't have the neutral word order, they are focused. Sentence (99) shows that the PP *z lesa* 'from the forest' can precede the clitic *se* 'self', this shows that the PP *z lesa* 'from the forest' is a constituent.

- (99) Z lesa se potácel ven MAREK ( ne Simon).  
 From forest refl. staggered out Marek (not Simon)  
 Marek(not Simon) staggered out of the forest .

Sentence (100), shows that the adverb *ven* ‘out’ can precede the clitic and this shows that the adverb is a constituent.

- (100) Ven se potácel z lesa MAREK (ne Simon).  
Out refl. staggered from forest Marek (not Simon)  
Marek (not Simon) staggered out of the forest.

Sentence (101) shows that the string *z lesa ven* ‘from the forest to out’ can precede the clitic. This means that the two constituents *z lesa* and *ven* either form one constituent together or they are both part of a bigger constituent.

- (101) Z lesa ven se potácel MAREK (ne Simon).  
from forest out refl. staggered Marek (not Simon)  
Marek( not Simon) staggered out of the forest.

Recall that in English there is a difference in readings between the different underlying structures. The phrases *z lesa* and *ven* in sentences (99), (100) and (101) have the reading that *z lesa* is a Source and *ven* is a Goal. This reading corresponds to the structure illustrated by tree ?? in section 4.1.2 where I discuss different readings of Czech spatial Adverbs. Notice that only this reading and this underlying representation predicts *z lesa* and *ven* to be two phrases.

Let us now turn to modification. Sentences (103) and (105) show a parallel behavior to the English data. The Czech spatial adverb can be modified by another adverb when it follows the Object DP. This is illustrated by sentence (103). In English, this is the unshifted word order. The Particle can be modified in the unshifted word order, as in sentence (102) by Svenonius (1992).

- (102) Those punks snapped the antenna completely off.

- (103) Janek táhl Jindru z lesa přímo ven hodinu.  
Janek dragged Jindra.Acc from.inside forest directly out hour  
Janek dragged Jindra directly out from the forest in an hour.

The Czech spatial adverb cannot be modified when it precedes the Object DP. This is illustrated by sentence (105). This is the shifted word order in English. The Particle cannot be modified in the shifted word order, as in sentence(104) by Svenonius (1992).

- (104) \*Those punks snapped completely off the antenna.



- (105) \*Janek táhl z lesa přímo ven Jindru hodinu.  
 Janek dragged from.inside forest directly out Jindra.Acc hour  
 Janek dragged Jindra directly out from the forest in an hour.

Coordination of the Czech spatial Adverb and the Object DP shows a different behavior than English particles. As sentences (107) and (109) show, the Czech spatial Adverb and the Object DP can be coordinated in both word orders.

In sentence (107) the spatial Adverb follows the Object DP - the unshifted word order and coordination is possible. This is parallel to the English data, particles and the Object DP can be coordinated under the unshifted word order. Recall sentence (48) by Johnson (1991) repeated here as (106)

- (106) She turned these lights on and those lights off.
- (107) Janek kutálel balón z lesa ven a kámen z potoka nahoru.  
 Janek rolled ball from.inside forest out and stone from.inside creek up  
 Janek rolled a ball out of the forest and a stone up from a creek.

In sentence (109) however the spatial Adverb precedes the Object DP - the shifted word order and still coordination is possible. This contrasts with the English data, particles and the Object DP cannot be coordinated under the shifted word order. Recall sentence (49) by Johnson (1991) repeated here as (108).

- (108) \*She turne on these lights and off those lights.
- (109) Janek kutálel z lesa ven balón a z potoka nahoru kámen.  
 Janek rolled from.inside forest out ball and from creek up stone  
 Janek rolled out of the forest a ball and up from a creek a stone.

**Testing Adverb + Source PP** The second possible word order – the adverb preceding the Source PP – has two possible readings, the directional reading and the goal reading. I am going to test the constituency of this word order. It is important that the readings of the tested sentences are preserved as this word order has two different readings. Sentence (110) illustrates the neutral

word order for both readings of this sentence. Under the directional reading the adverb *ven* expresses the direction in which Petr ran and the PP *z lesa* expresses the Source of the running. Under the goal reading the goal is a place that is out of the forest, thus the whole string *out of the forest* expresses the goal.

- (110) Petr běžel ven z lesa hodinu.  
 Petr ran out from forest hour  
 Petr ran out of the forest hour.acc.

The clitic test above has shown that the adverb and the Source PP can each and both together precede the clitic, which means that both the adverb and the Source PP are a constituent and they are both part of a bigger constituent. The readings of sentences (99) and (100) are however not identical with the target readings in this test. The readings of the sentence when thus preceding the clitic is that the PP *z lesa* ‘from the forest’ is a Source and the Adverb *ven* ‘out’ is a Goal. To get the directional and the goal reading the whole string *ven z lesa* ‘out of the forest’ must precede the clitic, as in sentence (111). In this sentence both the adverb and the Source PP precede the clitic with the target reading, this shows that the adverb and the Source PP are a constituent.

- (111) Ven z lesa se potácel Petr. [contrastive/Focus]  
 Out from forest refl. staggered Petr  
 Petr staggered out of the forest.

Modification shows the same pattern as the one already discussed. Sentences (112) and (113) show a parallel behavior to the English data. The Czech spatial adverb can be modified by another adverb when it follows the Object DP. This is illustrated by sentence (112). In English, this is the unshifted word order. The Particle can be modified in the unshifted word order, this has already been illustrated by Svenonius (1992)’s sentence (102).

- (112) Janek nesl balon rychle ven z lesa.  
 Janek carried ball quickly out from.inside forest  
 Janek carried a ball quickly out from the forest.

The Czech spatial adverb cannot be modified when it precedes the Object DP. This is illustrated by sentence (113). This is the shifted word order in English. The Particle cannot be modified in the shifted word order, this has already been illustrated by Svenonius (1992)’s sentence(104).

- (113) \*Janek nesl rychle ven z lesa balon.

Janek carried quickly out from.inside forest ball [Focused]  
Janek carried quickly out from the forest a ball.

Again, coordination of the Czech spatial Adverb and the Object DP shows a different behavior than English particles. As sentences (114) and (115) show, the Czech spatial Adverb and the Object DP can be coordinated in both word orders.

In sentence (114) the spatial Adverb follows the Object DP - the unshifted word order and coordination is possible. This is parallel to the English data, particles and the Object DP can be coordinated under the unshifted word order. Recall sentence (106) by Johnson (1991) repeated here as.

- (114) Janek nesl balon ven z lesa hodinu a panenku nahoru ze sklepa pět minut.  
Janek carried ball out from.inside forest hour and doll up from.inside cellar five minutes  
Janek carried a ball out from the forest for/in an hour and a doll up from the cellar in/for five minutes.

In sentence (115), unlike English, the spatial Adverb precedes the Object DP - the shifted word order and still coordination is possible. This contrasts with the English data, particles and the Object DP cannot be coordinated under the shifted word order. Recall sentence (108) by Johnson (1991).

- (115) Janek nesl ven z lesa balon hodinu a nahoru ze sklepa panenku pět minut.  
Janek carried out from.inside forest ball hour and up from.inside cellar doll five minutes  
Janek carried out from the forest a ball for/in an hour and up from the cellar a doll in/for five minutes.

**Testing Adverb + Goal PP** The test of precedence of a clitic shows that the Adverb and the Goal PP are parts of one phrase. Consider sentence (116). It shows that the Adverb and the PP can precede the clitic *se*.

- (116) Ven na zahradu se kutálel míč.  
Out on garden refl. rolled ball  
Out onto the garden rolled a ball.

As sentences (117) and (118) show, it is not possible to front only a part of the ‘Goal Phrase’. Sentence (117) shows that the Adverb cannot precede the clitic while the Goal PP follows the clitic. Sentence (118) shows that the Goal PP cannot precede the clitic while the Adverb follows it.

This pattern is parallel to the behavior of two Goal PPs where one Goal PP closely specifies the content of the preceding Goal PP, as sentences (119) - (121) show.

(117) ??Ven se na zahradu kutálel míč.  
 Out refl. on garden rolled ball  
 Out onto the garden rolled a ball.

(118) \*Na zahradu se ven kutálel míč.  
 On garden refl. out rolled ball  
 Out onto the garden rolled a ball.

The two Goal PPs can precede the clitic *se*, as sentence (119) illustrates.

(119) Do města do knihovny se hnál Jakub.  
 To town to library refl.Acc rushed Jakub  
 Into the town to the library rushed Jakub.

It is not possible for only one of the two PPs to precede the clitic *se* while the other PP follows it. Sentence (120) shows that the PP *do města* cannot precede the clitic *se* while the PP *do knihovny* follows it.

Sentence (121) shows that the PP *do knihovny* cannot precede the clitic *se* while the PP *do města* follows it.

(120) ?Do města se do knihovny hnál Jakub.  
 To town refl.Acc to library rushed Jakub  
 Into the town to the library rushed Jakub.

(121) \*Do knihovny se do města hnál Jakub.  
 To town to library refl.Acc rushed Jakub  
 Into the town to the library rushed Jakub.

In Czech several Goal PPs can occur in one sentence provided that every following PP is a subset of its preceding PP. This is illustrated by sentence (122). Notice that the reverse order of the PPs is ungrammatical, as sentence (123)

shows.

(122) Petr běžel do města do knihovny.  
Petr ran to town to library  
Petr ran to the town, to the library.

(123) \*Petr běžel do knihovny do města.  
Petr ran to library to town  
Petr ran to the library to the town.

When substitution behavior of the Adverb-Goal PP combination is considered, again it is strikingly parallel to the substitution behavior of a combination of two Goal PPs.

The second, more specific, PP *do knihovny* ‘to the library’ cannot be substituted by a question adverb, as sentence (124) shows.<sup>1</sup>

(124) ??Kam běžel Petr do města?  
To.where ran Petr to town  
Where did Petr run to town?

This is parallel with sentence (125). In this sentence the second, more specific, PP cannot be substituted either.

(125) ??Kam běžel Petr ven?  
Where ran Petr out  
Where did Petr run out?

Sentence (126) shows that the first PP can be substituted by a question adverb, like in sentence (127).

(126) Kam běžel Petr do knihovny?  
To.where ran Petr to library  
Where did Petr run to the library?

(127) Kam běžel Petr na louku?  
Where ran Petr on meadow

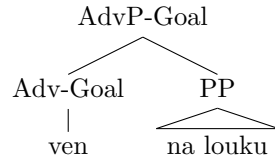
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<sup>1</sup>This question is only grammatical under the reading that there are several possible towns Petr could run to, which is not the intended reading. Under the intended reading, the answer is that Petr ran ‘to the town to the library’.

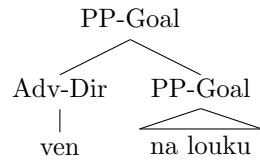
Where did Petr run onto the meadow?

This evidence supports the claim that the Adverb can be a head of the whole Adverb - Goal PP combination. This however doesn't imply that the Adverb cannot be a modifier with a directional reading modifying a Goal PP. Unfortunately, I haven't found a way to determine the head of the Adverb - Goal PP combination. There is only one reading and both the Adverb and the Goal PP have the same properties with regard to the tests that have been applied above. Based on the evidence above that the Adverb can be either a modifier or a head I expect both structures (figures (129) and (128)) to be possible for the Adverb - Goal PP combination.

(128) Petr běžel ven na louku. - ven = head



(129) Petr běžel ven na louku. - ven = modifier



Modification of the Adverb and the Goal PP shows again the same pattern as in English. This is illustrated by sentence (130) and (131).

In the unshifted order, English particles can be modified. Sentence (130) shows the unshifted order of the Adverb and the Goal PP. Notice that the Adverb can be modified under this order like in English.

(130) Janek nesl balon až ven na zahradu.  
 Janek carried ball as.far.as out on garden  
 Janek carried the ball all the way out into the garden.

Sentence (131) show that the Adverb cannot be modified under the shifted word order. This is also parallel to English.

(131) \*Janek nesl až ven na zahradu balon.  
 Janek carried as.far.as out on garden ball

Janek carried all the way out into the garden the ball.

The Coordination of the Czech spatial Adverb and the Goal DP shows a different behavior than English particles. As sentences (132) and (133) show, the Czech spatial Adverb and the Goal DP can be coordinated in both word orders.

In sentence (132) the spatial Adverb follows the Object DP - the unshifted word order and coordination is possible. This is parallel to the English data, particles and the Object DP can be coordinated under the unshifted word order.

- (132) Janek nesl balon ven na zahradu a panenku dovnitř do domu.  
Janek carried ball out on garden and doll inside into house  
Janek carried the ball out into the garden and the doll inside into the house.

In sentence (133) the spatial Adverb and the Goal PP precede the Object DP - the shifted word order and coordination of these two elements is still possible. This differs from the English data, where particles and the Object DP cannot be coordinated under the shifted word order.

- (133) Janek nesl ven na zahradu balon a dovnitř do domu panenku.  
Janek carried out on garden ball and inside into house doll  
Janek carried out into the garden the ball and inside into the house the doll.

#### 2.2.4 Modification by *až*

As has already been discussed, the spatial adverb in Czech can be modified by *až* ‘as far as’. The modified adverb cannot precede the DP object. It has been illustrated by sentences (81) and (82), repeated here as (134) and (135). This fact seems parallel to the particle shift in English.

Let us examine closer what effects the modification by *až* has and what kind of elements can be modified by it. Sentence (134) has two readings — the directional and the goal reading. However under modification by *až* only the goal reading is available. The word order in which the adverb follows the Source PP has only the goal reading. This reading is not affected by modification by *až*. This is illustrated by sentence (137). When the spatial adverb occurs without any PP, it has both the directional and the goal reading. This is shown in sentence (138). When the adverb is modified by *až*, only the goal reading is available.

- (134) Petr hodil kytku (až) ven/dovnitř/nahoru/dolu.  
 Petr-Nom threw flower (as.far.as) out/to.inside/up/down  
 Petr threw the flower (all the way) out/in/up/down.
- (135) Petr hodil (\*až) ven/dovnitř/nahoru/dolu  
 Petr-Nom threw (as.far.as )  
 kytku. -focus  
 out/to.inside/up/down flower  
 Petr threw the flower (all the way) out/in/up/down.
- (136) Petr běžel (až) ven z lesa hodinu.  
 Petr ran (as.far.as) out from forest hour  
 Petr ran (all the way) out of the forest hour.acc..
- (137) Petr běžel z lesa (až) ven hodinu.  
 Petr ran from forest (as.far.as) out hour  
 Petr ran (all the way) out of the forest hour.acc..
- (138) Petr běžel (až) ven.  
 Petr ran (as.far.as) out.  
 Petr ran (all the way) out.

The modifier *až* can modify PPs as well as adverbs. Let us examine its effects when modifying PPs. Both Source PPs and Goal PPs can be modified by the modifier *až*. However, there is a difference in readings of the modified PPs. Source PPs when modified by *až* have a reading that the Source was far away. Goal PPs when modified by *až* have a reading that the goal was reached, optionally the reading that the goal was far away can be present. This reading is indicated by pronunciation and thus will not be discussed here further.

The reading that the Goal was reached is always present when a Goal PP is modified by *až*. This is the same reading that has been observed in sentences (110), (137) and (138). This indicates that the elements in sentences (110), (137) and (138) that are modified by *až* are goals. This explains too, why the directional reading disappears when the sequence of Adverb-Source PP like in *ven z lesa* is modified by *až*. *Až* can only modify Goal phrases under the target reading and the sequence Adverb- Source PP is not a Goal phrase under the directional reading.

- (139) Petr běžel až z lesa.  
 Petr ran as.far.as from forest  
 Petr ran all the way out of the forest.



- (140) Petr běžel až do kina.  
 Petr ran as.far.as to cinema  
 Petr ran all the way to the cinema.

Let us examine the word order effects of the modifier *až*. It has been shown several times already that Adverb shift is not possible while the adverb is modified by *až*. This is illustrated by sentences (141) and (142).

There is only one difference between sentences (141) and (142). Sentence (141) has a neutral word order, while in sentence (142) the object DP is focused or contrastive - both readings are possible. To determine the neutral word order, I used the same test as in section 2.2.3. Sentence (141) is the proper answer to a question "What happened?". This test is adopted from Kučerová (2007) and Veselovská (1995).

In Czech, focused elements occur in sentence final position, as Spevak (2008) and Kučerová (2007) mention. Notice that elements modified by *až* can only occur in sentence final position. This is shown by the grammaticality of sentences (139), (140) or (141) and by the ungrammaticality of sentence (142).

- (141) Honza nesl Radka (až) ven. [neutral word order]  
 Honza carried Radek (as.far.as) out  
 Honza carried Radek (all the way) out.

- (142) Honza nesl (\*až) ven RADKA, (ne Robina) .  
 Honza carried (as.far.as) out Radek( not Robin)  
 Honza carried (all the way) out Radek(, not Robin).

Sentence (142) with the modified adverb is more acceptable when the object DP is contrastive like in example (144). This sentence is a reaction to sentence (143). Notice that sentence (144) is slightly strange. Sentence (145) is a better formulation of sentence (144). The focus status of *až ven* in sentence (145) is not quite clear and it is only show here for the sake of completeness. The interaction of different types of focus in Czech is not going to be discussed further in this thesis.

- (143) A: Honza nesl Radka až ven.  
 Honza carried Radek as.far.as out  
 Honza carried Radek all the way out.

- (144) B1: (Ne, to není pravda.) ?Honza nesl [AŽ VEN]  
 (No it not.is truth.) Honza carried as.far.as out

Karla<sub>contrastive</sub>.

Karel.

(No, this is not true.) Honza carried all the way out Karel.

- (145) B2: (Ne, to není pravda.) [AŽ VEN] nesl Honza  
(No it not.is truth.) As.far.as out carried Honza

Karla<sub>contrastive</sub>.

Karel.

(No, this is not true.) Honza carried Karel all the way out.

Kučerová (2007) points out that in order to test focus in Czech, wh-questions can be used. The questions target the constituent that is focused in the answer. In Czech, it is not possible to form a grammatical wh-question targeting a constituent, while the Goal phrase is modified by *až*. It is possible to form the wh-question when the Goal phrase is not modified by *až*. This is illustrated by sentences (146) and (147). Sentence (147) is grammatical as echo question.

- (146) Co hodil Pepa ven z okna?  
What threw Pepa out from window  
What did Pepa out of the window ?

- (147) \*Co hodil Pepa až ven z okna?  
What threw Pepa as.far.as out from window  
What did Pepa throw all the way out of the window ?

The fact that a Goal PP must occur in focus position when modified by *až*, that no other constituent may be focused when the Goal PP is modified by *až* and the unavailability of focus question containing a Goal phrase modified by *až* shows that the modifier *až* is related to focus.

### 2.2.5 Analysis

It has already been argued that the sequence of Spatial Adverb followed by a Source PP has two different underlying structures that correspond to two different readings - the Directional and the Goal reading. A different underlying representation has been claimed for the sequence of a Source PP followed by a Spatial Adverb. Two different underlying representation were argued for the sequence of a Spatial Adverb followed by a Goal PP based on parallel to the Spatial Adverb - Source PP sequence. Several properties of these sequences have been discussed. The purpose of this section is to unite the word order variations of Spatial Adverb - PP sequences, with the differences in readings and other properties that were discussed in the previous sections. I will be

particularly addressing the asymmetry between Source and Goal phrases and "Adverb shift".

**The Asymmetry between Source and Goal PPs** Recall that there is a difference between Source and Goal PPs with regard to word order of the Spatial Adverb and the PP. Spatial Adverbs can precede or follow a Source PP, but they can only precede a Goal PP. This is illustrated by examples (148) - (151).

(148) Michal lezl nahoru z jeskyně.  
Michal climbed up from cave  
Michal climbed up from the cave.

(149) Michal lezl z jeskyně nahoru.  
Michal climbed from cave up  
Michal climbed up from the cave.

(150) Véva lezl nahoru na skálu.  
Véva climbed up on rock  
Véva climbed up on the rock.

(151) \*Véva lezl na skálu nahoru.  
Véva climbed on rock up  
Véva climbed up on the rock.

It has been argued that sentence (148) has two different readings and I have proposed two different underlying structures matching the readings. Sentence (149) has only one reading with one underlying representation. Sentence (150) can have two different underlying representations, it was not possible to distinguish these two representations. Both representation lexicalize a Goal phrase.

In Czech the order of Source and Goal phrases in neutral sentences is always the following — a Source phrase precedes the Goal phrase. A Source phrase can follow a Goal phrase if the Source phrase is either focused or contrastive. This pattern is illustrated by sentences (152) and (153).

(152) Zuza pospíchala z university do knihovny.  
Zuza hurried from university to/into library  
Zuza hurried from the university into the library.

(153) Zuza pospíchala do knihovny z university(, ne z  
Zuza hurried to/into library from university (not from

hosbody). [Focused/contrastive]  
pub).

Zuza hurried into the library from the university (not from the pub).

This fixed order of the Source and Goal phrase accounts for the asymmetry between the two phrases. The spatial Adverb has two options as to in what position it will occur according to the required reading when it cooccurs with a Source PP. There are two options for the adverb with a Goal PP too, but both surface preceding the Goal PP.

The Adverb can modify a Source PP, in this case it precedes the Source PP. The Adverb can head a Goal phrase and a Source PP can modify it, in this case too the Adverb precedes the Source PP in the surface representation. The last option is that the Source PP lexicalizes the Source projection while the Adverb lexicalizes the Goal projection. Under this option the position of the adverb is identical with option two - the adverb heads a Goal phrase, only the Source PP doesn't modify it under this option - it lexicalizes the Source projection. In this case the Adverb follows the Source PP in sentences with neutral word order. Thus the Adverb can either precede or follow the Source PP.

When the Adverb cooccurs with a Goal PP the Adverb can either modify the PP and contribute to the meaning of the Goal PP with a directional reading. Or the Adverb can head a complex Goal phrase. In both cases the only possible position for the Adverb is above the Goal PP in the structure, there is no possible landing site for the Adverb below the Goal PP in the structure.

**Adverb shift** I have shown that the Adverb has a word order effect that resembles particle shift. The Adverb can precede or follow the Object DP; when the Adverb is modified by *až* however, it can only follow the Object DP. This is illustrated here by sentences (154) and (155).

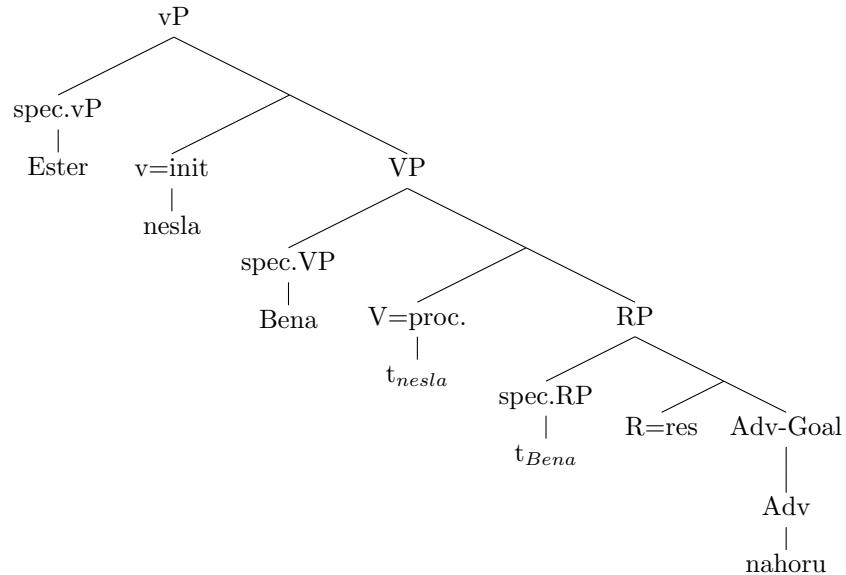
(154) Ester nesla Bena nahoru. [neutral word order]  
Ester carried Ben up  
Ester carried Ben up.

(155) Ester nesla nahoru Bena-Focus/contrastive.  
Ester carried up Ben  
Ester carried up Ben.

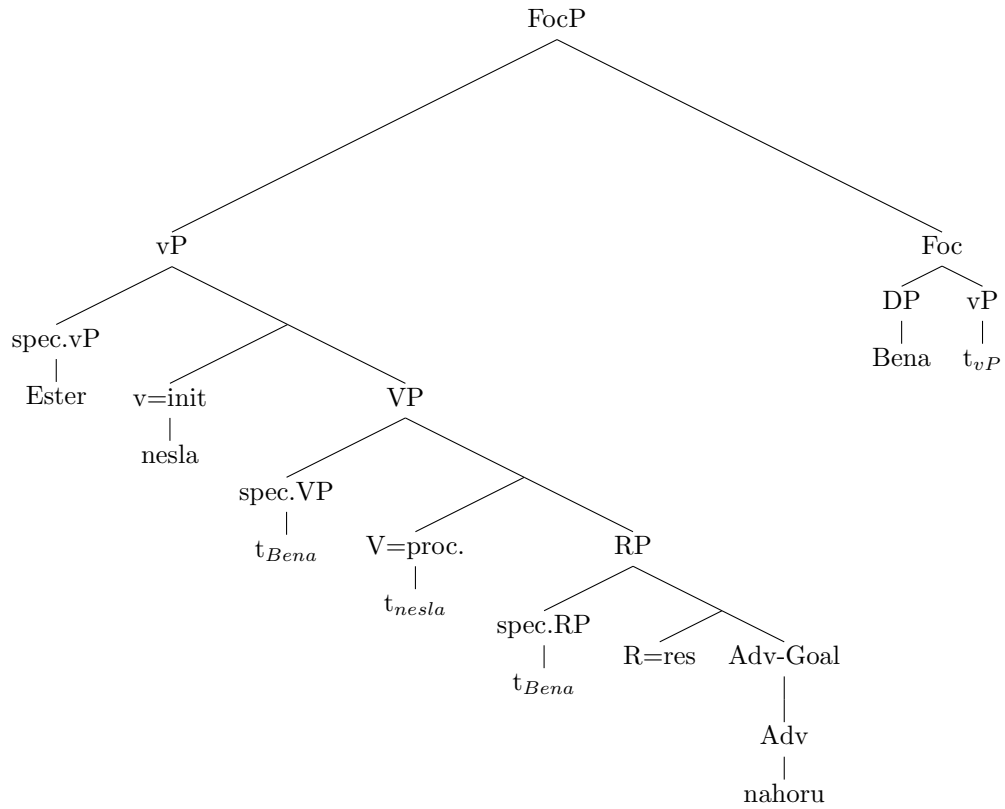
There is one difference between the Czech Adverb shift and the English particle shift. Both word orders, the shifted and the unshifted, are equal and neutral in English, whereas in Czech the word order in (154) is the neutral word order and

in sentence (155) the Object DP is either focused or contrastive -both readings are possible. This means that sentence (154) has an underlying structure as illustrated in figure (156) and sentence (155) has an underlying representation as in figure (157). This is a different structure and a different movement motivation than has been claimed for particle shift. Particle shift is claimed to be due to movement of either the Object DP or the particle into the RP to satisfy an EPP feature. This analysis is adopted from Ramchand and Svenonius (2002). In Czech, unlike English the Object DP must always satisfy the EPP feature in the RP, because the Adverb never moves to the RP, as will be argued later in this thesis.

(156) Ester nesla Bena nahoru. - neutral word order

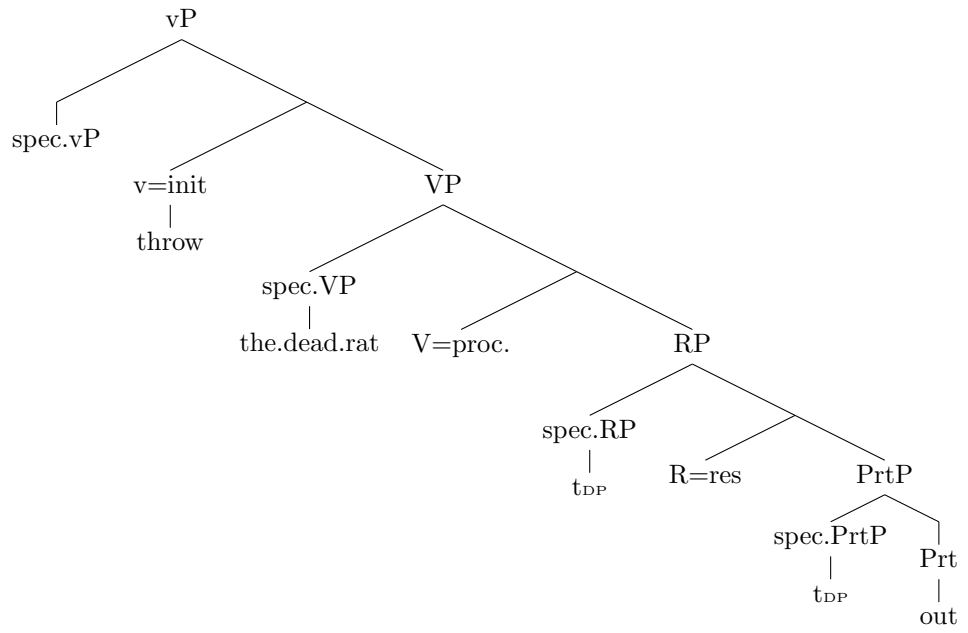


(157) Ester nesla nahoru Bena. - focused Object word order

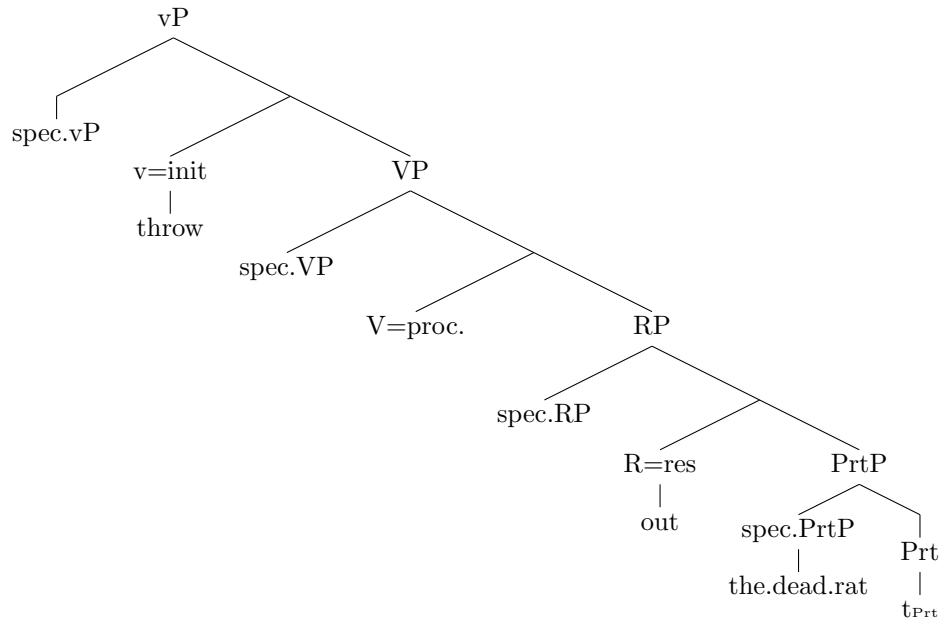


In Czech, Adverb shift is underlyingly a movement of the Object DP to a Focus position. This is directly related to the reason why Adverb shift is not possible when the Adverb is modified by *až*. In section 2.2.4, I have shown that the modifier *až* is related to focus and causes a Goal phrase that it modifies to become focused. This interferes with the focus movement of the Object. When the Adverb-goal phrase is focused, the Object DP cannot be focused and thus there is no possibility for Adverb shift in sentences when the Adverb is modified by *až*. This shows that even though particle shift and Adverb shift seemed identical in the surface representation, these movements are different. Consider the trees illustrating the Particle shift, repeated here as (158) and (159).

(158) Throw the dead rat out



(159) Throw out the dead rat



### 2.3 Conclusion

In this section of the thesis I addressed the word order properties of English particles and Czech spatial adverbs. On the surface English particles and Czech spatial adverbs seem to be very similar, consider sentences (160) and (161).

(160) The boy carried the ball out/ out the ball.

(161) Chlapec nesl balón ven/ ven balón.  
boy carried ball out/ out ball  
The boy carried the ball out/ out the ball.

English particles can occur in two different word orders, preceding or following the object - shifted and unshifted. Czech adverbs can also occur in these two word orders.

I have shown in this section of the thesis that the apparent similarity between English particles and Czech spatial adverb - the particle/adverb shift is caused by two unrelated types of movement in English and in Czech.

In English, the particle shift is a movement of the particle to a position within the Verb domain - the specifier of RP, in order to satisfy an EPP feature, as argued by Ramchand and Svenonius (2002).

In Czech, the Adverb shift is a movement of the object DP to a focus position. This claim is supported by several arguments. One of them is the fact that sentences with the unshifted word order are a possible answers for a neutral question like: What happened?. While sentences with the shifted word order are possible answers to focus questions like: Where did he carry the ball?.

In English, both the unshifted and the shifted word order are equal and can be used in the same context.



## 3 Aspect

### 3.1 Introduction

The term aspect refers mainly to a semantic notion of temporal structure of events. There are different types of aspect. Aspect can be expressed syntactically or morpho-syntactically. For the purpose of this thesis and thus for the discussion of English and Czech data, two types of aspect must be distinguished, perfectivity and telicity. Perfectivity is a syntactic type of aspect while telicity is semantic.

### 3.2 Tests

Perfectivity and Telicity are two different and independent notions. Perfectivity refers to syntactic behaviour of a verb, while Telicity refers to a semantic behaviour of a VP, as Gehrke (2008) and Součková (2004) claim.

This claim is partly supported by the evidence of motion verbs in Czech. There are inherently perfective and imperfective motion verbs in Czech. The unprefixated motion verbs are atelic except for three verbs which are punctual. After prefixation with a perfectivizing prefix the verbs all become perfective and telic. Please consider the list of motion verbs in the Appendix.

There are different tests to determine whether a verb is perfective or imperfective or whether a verb is telic or atelic. I use the following tests adopted from Součková (2004) and Gehrke (2008) to determine the perfectivity and the telicity of all verbs in discussion, even though this is not always shown explicitly.

#### 3.2.1 Telicity

**Test of Compatibility with temporal Adverbials** Gehrke (2008) presents two different Telicity tests. I use both of them for the purpose of distinguishing telic and atelic verbs.

The first test of Telicity is the test of compatibility of telic/atelic verbs with temporal Adverbials. Telic verbs can be modified by the Adverbial *in an hour*, while atelic verbs cannot be modified by this Adverbial. Atelic verbs can be modified by the Adverbial *for an hour*, while telic verbs cannot be modified by this PP. Table (162) illustrates the distribution shortly.

(162) Test of Compatibility with Temporal Adverbials

	Telic	Atelic
Modification by ‘in an hour’	ok	*
Modification by ‘for an hour’	*	ok

Součková (2004), Gehrke (2008)

Sentences (163) and (164) illustrate a telic and an atelic sentence. Sentence (163) is a telic sentence - it can be modified by the temporal PP ‘in an hour’ and it cannot be modified by the temporal PP ‘for an hour’. Sentence (164) is an atelic sentence - it can be modified by the temporal PP ‘for an hour’ and it cannot be modified by the temporal PP ‘in an hour’.

(163) Nathaniel walked into the shop in an hour/\*for an hour.

(164) Nathaniel walked for an hour/\*in an hour.

This test is not reliable for Czech, as will be shown later in this thesis. I use the test of Telic entailment to determine whether a verb is telic or atelic in Czech. The Test of Compatibility with temporal PPs is a reliable test for English and I use this test for English sentences.

**The Test of Telic Entailment** The second test of Telicity is a test of Telic Entailment adopted from Gehrke (2008). This test makes use of the fact that telic verbs refer to bounded events and thus have a Goal reading. This means that a telic sentence in past tense refers to a completed process. Thus this (completed) process cannot be claimed to be ongoing still in the present.

This is illustrated by example (165). Sentence (165) is a very odd sentence of English. It would require a very odd context in order to be grammatical. *Tim walked into the shop* means that Tim walked until he arrived in the shop, this entails that he can’t be walking to the shop anymore. The VP *to walk into the shop* is telic in English.

Sentence (166) shows the same pattern.

(165) #Tim walked into the shop, and he is still walking into the shop.

(166) Tim walked into the shop, and he is not walking into the shop anymore.

Atelic sentences behave differently. They don’t have the Goal reading. An atelic sentence in past tense referring to a process does not entail that the process cannot be ongoing in the present. This is illustrated by examples (167) -

(168).

Sentences (167) and (168) show that the verb *to walk* is atelic. The sentence *Tim walked* doesn't entail either that he is still walking, nor that he is not walking anymore.

(167) Tim walked, and he is still walking.

(168) Tim walked, and he is not walking anymore.

### 3.2.2 Perfectivity

Some Czech motion verbs don't pass all three parts of the test of perfectivity (169). These verbs are generally considered perfective, but fail to pass the first part of the perfectivity test - reference to future time in present. Table (170) shows these verbs. All the verbs that don't pass the first part of the perfectivity test are durative verbs, while all the punctual perfective motion verbs pass all three parts of the perfectivity test. This may be related to the difference between the punctual and durative verbs. Punctual verbs refer to very short activities while durative verbs refer to activities that last for longer than only a short moment. Punctual and durative verbs differ with regard to tense reference and readings with spatial adverbs, as can be seen in table (337). The differences among these readings are described later in this thesis.

(169) Test of Perfectivity

	Perfective	Imperfective
1.future time reference in the present tense	+	-
2.compatibility with the future auxiliary	-	+
3. compatibility with phasal verbs	-	+

Součková (2004), Gehrke (2008)

(170) Motion verbs that don't pass all three parts of the Perfectivity Test

Verb	Gloss	1.	2.	3.
táhnout	pull	-	??	??
jít	go	-	-	-
valit	roll	-	??	??
jet	drive	-	-	-
běžet	run	-	-	-
letět	fly	-	-	-
nést	carry	-	-	-
vézt	transport by a vehicle	-	-	-
plout	float	-	?	??

Perfective verbs refer to future time in present tense. This is a part of the test that is generally used to show that a verb is perfective. The Czech motion verbs shown above don't pass this part of the perfectivity test, while they pass the other two parts of the test. They are compatible with the future auxiliary *být* and with phasal verbs like *začít* 'to start' or *skončit* 'to end'. The prefixed verbs, in contrast, pass all three parts of the perfectivity test.

### 3.3 Telicity

Before I start discussing telicity effects of English particles, Czech prefixes and Czech adverbs, it is necessary to understand the notion of telicity and the related notion of boundedness. Consider the following sentences.

(171) Dino drank water for ten minutes/ \*in ten minutes.

(172) Dino drank a glass of water \*for ten minutes/ in ten minutes.

There are differences between sentences (171) and (172). At first glance, it can be observed that sentence (171) is compatible with the temporal Adverbial *for an hour* but it is incompatible with the temporal Adverbial *in an hour*. I disregard at this moment iterative and inceptive readings or event stretching readings; these readings will be discussed shortly later in this section. Sentence (172) shows the inverted pattern.

Another difference between these two sentences is in their readings. Sentence (171) means that Dino drank an unspecified amount of water, this event of drinking lasted for ten minutes and after that time he stopped drinking water. Sentence (172) means that Dino drank water from a glass and it took him ten minutes to empty the glass. There is a difference between these two drinking events, in sentence (171) there is no sense of completion of the drinking, the event of drinking purely stopped after a certain period of time. In sentence (172) there is a sense of completion and the temporal Adverbial measures the time between the start of the drinking event and the completion of the drinking event.

The different readings are created by the two different DPs in sentences (171) and (172). The difference between the DPs is characterized as a difference in boundedness. The DP *water* in sentence (171) is unbounded. Notice that this DP doesn't contain any specification about the amount of the substance the DP refers to. The DP *a glass of water* in sentence (172) is bounded. Notice that this DP specifies the amount of the substance it refers to. Unbounded DPs, as they don't contain information about their limits, cannot induce a reading of completeness to a sentence, while bounded DPs contain information about their limits and can thus add a reading of completeness to a sentence. This can be

seen in examples (171) and (172) as well as in examples (173), (174) and (175).

(173) Johanka ate sandwiches for ten minutes/ \*in ten minutes.

(174) Johanka ate three sandwiches \*for ten minutes/ in ten minutes.

(175) Johanka ate a sandwich \*for ten minutes/ in ten minutes.

Sentences with unbounded DP complements like (171) or (173) are compatible with the temporal Adverbial *for ten minutes*. The compatibility with this adverbial indicates that these sentences are atelic. Sentences with bounded DP complements like (172), (174) or (175) are compatible with the temporal Adverbial *in ten minutes*. This indicates that these sentences are telic. The Telicity of a sentence can be influenced by boundedness or unboundedness of an argument.

Spatial complements of verbs show the same bounded-unbounded distinction. Consider sentences (176) and (177).

(176) Thilo walked for an hour/ \*in an hour.

(177) Thilo walked to the shop \*for an hour/ in an hour.

Sentence (176) has no spatial argument and it has no inherent endpoint or inherent boundaries. Notice that the sentence is compatible with the temporal Adverbial *for an hour* but not with the temporal Adverbial *in an hour*. Sentence (177) is almost identical with sentence (176) with the only difference that sentence (177) contains a Goal PP. This sentence has an inherent endpoint - the shop. Notice that the sentence is not compatible with the temporal Adverbial *for an hour* anymore, but it is compatible with the temporal Adverbial *in an hour*. This indicates that sentence (176) is atelic while sentence (177) is telic.

Not all spatial PPs are bounded and thus not all spatial PPs can influence the Telicity of a sentence. Consider sentences (178) and (179). Neither sentence (178) nor sentence (179) have an inherent end point or an inherent boundary. In sentence (178) the verb has a Source PP as a complement. This sentence means that Paula walked with the shop as a starting point of the walking event and she was getting gradually further and further away from the shop, but there is no specified endpoint in the sentence. The situation is very similar in sentence (179). In this sentence, the verb has a directional PP as a complement. The PP denotes a direction but without an endpoint, thus this PP is not bounded. Notice that both sentences are compatible with the temporal Adverbial *for an hour* but incompatible with the temporal Adverbial *in an hour*, this indicates

that these two sentences are atelic.

(178) Paula walked from the shop for an hour/ \*in an hour.

(179) Thilo walked toward the shop for an hour/ \*in an hour.

Vendler (1967) proposes that there are four different aspectual classes — States, Activities, Accomplishments and Achievements. The four aspectual classes are illustrated by examples (180) - (183). States and Activities are unbounded, Accomplishments are bounded and Achievements are point events. This predicts that States and Activities are atelic, Accomplishments telic. Achievements are neither atelic nor telic. Achievements, being point events, involve no time at all, so they cannot be neither telic nor atelic.

(180) States: Jim lives in Oslo.

(181) Activities: Ann sang loudly.

(182) Accomplishments: Martha read a book.

(183) Achievements: Karla submitted the thesis.

Verkuyl (1993) in contrast to Vendler (1967) claims that there is only an aspectual difference between States and Activities on one side and Accomplishments and Achievements on the other side. This aspectual difference corresponds to the telic/atelic distinction.

Sentences modified by temporal Adverbials like *for an hour* or *in an hour* can have readings that are related to Telicity. Sentences that would otherwise be ungrammatical or very awkward when modified by these temporal Adverbials can have iterative, inceptive or event lengthening readings if the real world conditions allow for the possibility of such readings. It is a way of making sentences grammatical when modified by the temporal Adverbials and no other grammatical reading is available.

These readings are not equivalents of the telic and the atelic readings and are to be distinguished from the telic and the atelic reading. The inceptive, iterative and event lengthening readings are illustrated by examples (184), (185) and (186).

Sentence (184) illustrates an example of an iterative reading.

(184) Jack ran to the shop for an hour.

The reading of this sentence is that Jack ran repeatedly to the shop in the time span of one hour. An iterative reading describes an event that is repeated for a given period of time, in the case of sentence (184) the running to the shop is repeated for one hour.

Sentence (185) illustrates the inceptive reading.

(185) I'll leave in an hour.

The reading of the sentence is that I will stay one more hour here and after this hour has passed I will leave. An inceptive reading describes an event that is realized after a given period of time has passed. In example (185), the *leaving* happens after one hour has passed.

Sentence (186) illustrates the reading of event lengthening as described by Verkuyl (1993).

(186) Ben ate a baguette for an hour.

Some sentences when modified by the temporal Adverbial *for an hour* can have either an iterative reading or a reading that the event described lasted for an unnaturally long period of time. This is the reading of event lengthening. In example (186) the reading can be iterative - that Ben repeatedly during the time period of an hour ate from a baguette. This sentence can also have the event lengthening reading meaning that the event of eating a baguette lasted for the period of one hour.

### 3.3.1 Evaluation of Telicity Tests

With a deeper understanding for telicity now, we can take a closer look at the tests that are commonly used to determine whether a sentence is telic or atelic.

I have presented two different Telicity Tests - The Test of Compatibility with Temporal Adverbials and The Test of Telic Entailment. Both of these tests work very well for English, so both may be used to test the telicity of English sentences. Both of these tests seem to work as well for Czech at first glance. I wish to show now that this impression is wrong. There is only one test that ought to be used for Czech. It is The Test of Telic Entailment.

Consider sentences (187) - (190). The Test of Compatibility with Temporal Adverbials seems to be working very well.

- (187) Anna šla        hodinu.  
Anna walked hour.acc.  
Anna walked for an hour.

Sentence (187) describes a walking event, this is an unbounded event. There is no Goal or any element that would create a boundary for the walking event. Sentence (187) is an atelic sentence. This sentence is compatible with the Temporal Adverbial *hodinu* 'hour.acc.', exactly as the Test of Compatibility with Temporal Adverbials predicts.

- (188) Anna šla        za    hodinu. [inceptive]  
Anna walked after hour.  
Anna walked after an hour.

Sentence (188) confirms the same pattern. According to the Test of Compatibility with Temporal Adverbials, this sentence should be ungrammatical or have an extraordinary reading. This is the case with sentence (188). This sentence has an inceptive reading. As I already said, I am going to set aside sentences of this type as they only represent side effects of telicity.

- (189) \*Anna vyšla        hodinu.  
Anna out.walked hour.acc.  
Anna walked out for an hour.

Sentence (189) describes an bounded event. Out is the Goal of motion in this sentence and the Goal causes the boundedness of the sentence. This sentence shouldn't be compatible with *hodinu* 'hour.acc.' according to the Test of Compatibility with Temporal Adverbials and this prediction holds. Sentence (189) is ungrammatical.

- (190) Anna vysla        za    hodinu.  
Anna out.walked after hour.  
Anna walked out in an hour.

As argued above sentence (190) describes a bounded event, thus the PP *za hodinu* 'after an hour' is expected to be compatible with this sentence. This prediction holds. An inceptive reading is possible as well.



The Test of Telic Entailment confirms that sentence (187) is an atelic sentence, while sentences (189) and (190) are telic sentences. Consider now sentences (191) and (192).

(191) Anna šla ven hodinu. [Directional]  
Anna walked out hour.acc.  
Anna walked out for an hour.

(192) Anna šla ven hodinu. [Goal]  
Anna walked out hour.acc.  
Anna walked out in an hour.

Sentences (191) and (192) are identical in Czech. However, this sentence has two different readings that are represented by different translations.

Under the Directional reading the adverb *ven* ‘out’ points out the direction of motion, while under the Goal reading the adverb *ven* ‘out’ represents the goal of motion that is reached after the given period of time.

The Test of Compatibility with Temporal Adverbials diagnoses both sentences (191) and (192) as atelic, because both sentences are compatible with *hodinu* ‘hour.acc.’. Let us now consider the Test of Telic Entailment. I will test the Directional reading first.

(193) Anna šla ven hodinu a jeste pořád jde ven. [Directional]  
Anna walked out hour.acc. and still still walks out  
Anna walked out for an hour and she is still walking out.

(194) Anna šla ven hodinu a už nejde ven.  
Anna walked out hour.acc. and anymore not.walks out.  
[Directional]

Anna walked out for an hour and she is not walking out anymore.

Sentence (191) is compatible with both test sentences of The Test of Telic Entailment. The sentence says that Anna walked out for an hour, but it doesn’t say anything about what happened after that hour. Anna might have stopped and she might have continued. This shows that sentence (191) is an unbounded sentence and thus atelic. Let us now turn to the Goal reading.

- (195) \*Anna šla ven hodinu a jeste pořád jde ven. [Goal]  
 Anna walked out hour.acc. and still still walks out  
 Anna walked out in an hour and she is still walking out.
- (196) Anna šla ven hodinu a už nejde ven. [Goal]  
 Anna walked out hour.acc. and anymore not.walks out.  
 Anna walked out in an hour and she is not walking out anymore.

Sentence (192) is not compatible with the two test sentences of The Test of Telic Entailment. The sentence says that Anna walked out for an hour and came out after the one hour's time. This means that she can't be walking out anymore. Notice that the test sentence (195) is ungrammatical under the Goal reading. This shows that sentence (192), the Goal reading of this sentence, is bounded and thus telic.

The results of The Test of Telic Entailment differ from the results of The Test of Compatibility with Temporal Adverbials. In order to determine which of these two tests is right, we have to turn back to telicity.

As I already discussed, the definition of telicity involves boundedness. Telic sentences are bounded. This means that they contain an endpoint such as a Goal, some kind of natural limitation or similar. Atelic sentences are unbounded. This means that they don't contain an endpoint of any sort.

From the definition of telicity, we clearly see that sentence (192) is not unbounded because it contains a Goal. This sentence is bounded and thus telic.

The comparison of the two telicity tests shows that The Test of Compatibility with Temporal Adverbials doesn't work well for Czech. The temporal Adverbial *hodinu* 'hodinu.acc.' is compatible with both telic and atelic sentences and thus cannot be used to identify atelic sentences. I am going to use The Test of Telic Entailment to determine telicity of Czech sentences in this thesis.

### 3.3.2 English Particles

English particles can have a telicizing effect. This is parallel to the effect of Czech spatial adverbs that will be discussed later in this thesis.

Notice that sentences (197) and (198) are a minimal pair.

- (197) Kari walked (\*in an hour).

(198) Kari walked out/up/ away (in an hour).

The only difference between these two sentences is the presence of a particle in sentence (198). Sentence (197) is not modified by a particle and it doesn't have a telic reading. This is shown by the ungrammaticality of the sentences when modified by the temporal PP *in an hour*. Sentence (198) is modified by a particle and has a telic reading. It can be modified by the temporal PP *in an hour*.<sup>2</sup>

Sentences (199) and (200) are a minimal pair too. Sentences (199) and (200) illustrate a difference between sentences that are modified by a particle and sentences that are not modified by a particle.

(199) Kari walked (for an hour).

(200) Kari walked out/ up / away (for an hour).

The sentences are identical with sentences (197) and (198) only the temporal Adverbial modifying the sentences is different. The two sentences (199) and (200) are modified by the temporal Adverbial *for an hour*. The grammaticality of both sentences shows that both sentence (199) and (200) have an atelic reading.

Sentences containing particles can have both telic or atelic readings. Particles can have a telicizing effect, but they can also be without any effect on telicity at all. Some particles can even have an atelicizing effect when they are used in a non-spatial sense.

Consider the following two sentences. Sentence (201) has two possible readings. One of the readings is that Sondre jumped and the jumping event lasted for an hour. The other reading is that Sondre jumped one jump. This reading is not compatible with the PP 'for an hour'. This shows that this sentence has an atelic reading. The second reading is punctual.

Sentence (202) has an inceptive reading. It means that one hour passed and after that time Sondre jumped. This sentence requires a certain context in order to be grammatical and even then the reading of this sentence is inceptive. As we already discussed the inceptive reading is related to telicity but it is not the telic reading itself. This sentence is not telic.

(201) Sondre jumped (for an hour).

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<sup>2</sup>There are other ways of telicizing a sentence than modification by a particle, but I am not going to discuss this topic in this thesis.

(202) Sondre jumped in an hour.

Consider now sentences (203) and (204). Sentence (203) is compatible with the temporal Adverbial *for an hour*, this shows that the sentence has an atelic reading. The meaning of sentence (203) is that Sondre jumped and the jumping event lasted for one hour. Recall the two different readings of sentence (201), the atelic and the punctual reading. Sentences (201) and (203) are a minimal pair with the difference that sentence (203) contains the particle *on*. The effect of adding *on* in sentence (203) is that only the atelic reading is available. This shows that the particle *on* has an atelicizing effect.

Sentences (202) and (204) are a minimal pair with the difference that sentence (204) contains the particle *on*. There is no difference in the readings. The only possible reading for both sentences is the inceptive reading. This shows that the particle *on* doesn't have a telicizing effect.

(203) Sondre jumped on for an hour.

(204) Sondre jumped on in an hour.

### 3.3.3 Czech Spatial Prefixes

Table (336) in the Appendix shows that the only unprefixated telic motion verbs in Czech are punctual motion verbs. There are three telic verbs in the table — *skočit* 'to jump', *spadnout* 'to fall' and *hodit* 'to throw'. The imperfective counterparts of these verbs are not telic, they are not punctual either. They have a habitual, an iterative or a progressive reading and can be glossed as — *skákat* 'to keep jumping/ to be jumping', *padat* 'to keep falling/ to be falling' and *házet* 'to keep throwing/ to be throwing'. *Padat* 'to keep falling/ to be falling' can have a durative reading, in this case it refers to a longlasting fall, like in example (205). Remember that telicity of a sentence can be influenced by other constituents than the verb. Spatial adverbs for instance open the possibility for both a telic and an atelic reading, the directional and the goal reading.

(205) Kámen padal asi pět vteřin a všichni  
Stone was.falling approximately five seconds.acc. and all  
poslouchali, až ho uslyší žbluňknout do vody.  
listened until him hear to.plop into water  
The stone was falling for approximately five seconds and everybody  
listened to hear it hit the surface of the water.

In order to find out what effect the spatial prefixes have, the Test of Telic Entailment must be used. Consider sentences (206) and (207). These two sentences are a minimal pair with the difference that the verb in sentence (206) is prefixed by the prefix *vy-* while the verb in sentence (207) is not prefixed.

(206) Martin vyskákákal z lesa.  
 Martin out.jumped out.of forest.  
 Martin jumped out of the forest (with many jumps).

(207) Martin skákákal z lesa.  
 Martin jumped out.of forest.  
 Martin jumped out the forest (with many jumps).

According to the Test of Telic Entailment a telic sentence in past tense refers to a completed activity/situation. This entails that the situation/activity does not hold in present. An atelic sentence in past tense doesn't have a reading where the activity/situation described is finished. It can be completed in present but it doesn't need to be completed. Consider now sentences (208) and (209) .

(208) \*Martin vyskákákal z lesa. Martin ještě vyskakuje z  
 Martin out.jumped out.of forest. Martin still out.jumps out.of  
 lesa.  
 forest.  
 Martin jumped out of the forest. Martin is still jumping out of the  
 forest.

(209) Martin vyskákákal z lesa. Martin už nevyskakuje  
 Martin out.jumped out.of forest. Martin anymore not.out.jumps  
 z lesa.  
 out.of forest.  
 Martin jumped out of the forest. Martin is not jumping out of the  
 forest anymore.

The Test of Telic Entailment shows that sentence (206) is a telic sentence. It refers to a completed activity. As sentence (208) shows, sentence (206) entails that the activity described by the sentence is not ongoing in the present. Sentence (209) confirms this. Consider now sentences (210) and (211) .

(210) Martin skákákal z lesa. Martin ještě skáče z lesa.  
 Martin jumped out.of forest. Martin still out.jumps out.of forest.  
 Martin jumped out of the forest. Martin is still jumping out of the

forest.

- (211) Martin skákal z lesa. Martin už neskáče z  
Martin jumped out.of forest. Martin anymore not.jumps out.of  
lesa.  
forest.  
Martin jumped out of the forest. Martin is not jumping out of the  
forest anymore.

The Test of Telic Entailment shows that sentence (207) is an atelic sentence. It doesn't refer to a completed activity. As sentences (210) and (211) show, sentence (207) doesn't entail neither that the activity is completed nor that the activity is ongoing. It could be both. Sentence (207) is compatible with both possibilities. This is typical for atelic sentences.

The prefix *vy-* has a telicizing effect on the verb it attaches to. Sentences (206) with the prefixed verb and (207) with the unprefixed verb show that the atelic verb *skákat* became telic after prefixation by the prefix *vy-*.

Consider now sentences (212) and (213). These sentences are a minimal pair with the difference that sentence (212) is not prefixed by the prefix *vy-*, while sentence (213) is prefixed.

- (212) Martin skočil z potoka.  
Martin jumped out.of brook  
Martin jumped out of the brook (with one jump).

- (213) Martin vyskočil z potoka.  
Martin out.jumped out.of brook  
Martin jumped out of the brook (with one jump).

Let us now test the telicity of these two sentences. I am going to use the Test of Telic Entailment for this purpose.

- (214) Martin skočil z potoka. Martin už neskáče z  
Martin jumped out.of brook Martin anymore not.jumps out.of  
potoka.  
brook  
Martin jumped out of the brook (with one jump). Martin isn't jump-  
ing out of the brook anymore.

- (215) \*Martin skočil z potoka. Martin ještě skáče z potoka.  
 Martin jumped out.of brook Martin still jumps out.of brook  
 Martin jumped out of the brook (with one jump). Martin is still jump-  
 ing out of the brook.

The unprefix verb *skočit* is telic as the Test of Telic Entailment shows, consider sentences (214) and (215).

The telic verb *skočit* refers to a completed action in past tense. As sentence (214) shows sentence (212) can be followed by a sentence that refers to the ‘jumping’ in sentence (212) as completed.

Sentence (215) illustrates that sentence (212) cannot be followed by a sentence that refers to the ‘jumping’ in sentence (212) as still ongoing.

- (216) Martin vyskočil z potoka. Martin už neskáče z  
 Martin out.jumped out.of brook Martin anymore not.jumps out.of  
 potoka.  
 brook  
 Martin jumped out of the brook (with one jump). Martin isn’t jump-  
 ing out of the brook anymore.

- (217) \*Martin vyskočil z potoka. Martin ještě skáče z  
 Martin out.jumped out.of brook Martin still jumps out.of  
 potoka.  
 brook  
 Martin jumped out of the brook (with one jump). Martin is still jump-  
 ing out of the brook.

The prefixed verb *vyskočit* is telic as the Test of Telic Entailment shows, consider sentences (216) and (217). The telic verb *vyskočit* refers to a completed action in past tense. As sentence (216) shows sentence (212) can be followed by a sentence that refers to the ‘jumping’ in sentence (212) as completed. Sentence (217) illustrates that sentence (212) cannot be followed by a sentence that refers to the ‘jumping’ in sentence (212) as still ongoing.

By the help of the Test of Telic Entailment it has been shown that the prefix *vy-* has no effect on the telicity of originally telic verbs, such as the verb *skočit*. The verb *skočit* is originally telic and it is still telic after prefixation by the prefix *vy-*. As has been shown earlier in this thesis, the prefix *vy-* has a telicizing effect on atelic verbs, such as the verb *skákat*, recall sentences (206) and (207). This chapter of the thesis shows that the prefix *vy-* as well as other Czech spatial prefixes has a telicizing effect on atelic verbs but no effect on telic

verbs.

### 3.3.4 Czech Spatial Adverbs

In Czech, both telic and atelic sentences are compatible with the PPs *za hodinu* ‘in an hour’ and *hodinu* ‘for an hour’. I already argued that the Test of Compatibility with Temporal PPs is not a good telicity test for Czech. I am using the test of telic entailment to determine the telicity of Czech sentences.

There are two different readings of sentences containing spatial adverbs and the telicity of both readings must be considered. I am going to use the temporal PP *hodinu* ‘for an hour’ to show a significant difference between the two readings.

As I already argued in section 3.2.1, the PP *za hodinu* ‘in an hour’ can modify sentences with the inceptive reading. In this case the PP specifies the time span between reference time and the start/completion of the activity. This reading is not the subject of this thesis, so I won’t discuss this PP.

- (218) Martin skákal ven za hodinu. [inceptive]  
Martin jumped out in hour  
Martin jumped out after an hour.

Consider sentences (219) - (220) illustrating the Goal and the Directional reading.

The Goal reading is a reading where the Adverb refers to a goal of motion, the Directional reading is a reading where the Adverb refers to a direction of motion. These readings among others are discussed in more detail in the section 4.1.2 of this thesis.

- (219) Martin skákal ven hodinu. [Goal reading]  
Martin jumped out hour  
Martin jumped out in an hour.

The PP *hodinu* ‘hour.acc.’ can modify sentences with both the Goal and the Directional reading. The PP refers to the time span between the reference time and the completion of the activity expressed by the verb when modifying a sentence with a Goal reading, as illustrated by sentence (219). This sentence describes a jumping event by Martin. The jumping lasted for one hour and after one hour Martin finally jumped out.

- (220) Martin skákal ven hodinu. [Directional reading]  
Martin jumped out hour



Martin was jumping out for an hour.

The directional reading of this sentence refers to the time span between the reference time and the end of the activity expressed by the verb or the end of time measuring, as in example (220). This however doesn't imply that the activity was completed. In the case of sentence (220), Martin was jumping in the direction out for one hour, he didn't jump all the way out though. He might have stopped jumping or he might have continued, sentence (220) doesn't contain any information about what happened after the measured jumping event.

This is a significant difference between the Goal and the Directional reading. Under the Goal reading the goal of motion was achieved while under the Directional reading the motion simply stops without achieving the goal.

Let us now discuss the telicity of the Goal and the Directional reading in more detail.

I am going to use the Test of Telic Entailment to determine whether the Goal and Directional readings of sentences (221) and (222) are telic or atelic.

(221) Martin skákal ven hodinu. [Goal reading]  
Martin jumped out hour  
Martin jumped out in an hour.

(222) Martin skákal ven hodinu. [Directional reading]  
Martin jumped out hour  
Martin was jumping out for an hour.

Let's consider the Goal reading first.

Sentence (223) is not a possible sentence of Czech under the Goal reading. Under the Goal reading Martin finished jumping out after one hour's time, so he can't be jumping out any more.

Sentence (224) is compatible with the Goal reading, it describes this reading accurately. Martin jumped out of the forest after one hour's jumping and he is not jumping anymore. This shows that the Goal reading is a telic reading.

(223) # Martin skákal ven z lesa hodinu, a ještě skáče ven  
Martin jumped out from forest hour.acc. and still jumps out  
z lesa.  
from forest  
Martin jumped out of the forest for an hour and he is still jumping  
out of the forest.

- (224) ok Martin skákal ven z lesa hodinu, a už  
 Martin jumped out from forest hour.acc. and anymore  
 neskáče ven z lesa.  
 not.jumps out from forest  
 Martin jumped out of the forest for an hour and he isn't jumping out  
 of the forest anymore.

The results for the Directional reading are different.

Sentences (225) and (226) are both compatible with the directional reading. Sentence (222) doesn't say anything about what happens after the jumping event, so Martin may be still jumping or he may not be jumping anymore. The compatibility with both test sentences shows that the Directional reading of sentence (221) is atelic.

- (225) ok Martin skákal ven z lesa hodinu, a ještě skáče ven  
 Martin jumped out from forest hour.acc. and still jumps out  
 z lesa.  
 from forest  
 Martin jumped out of the forest for an hour and he is still jumping  
 out of the forest.

- (226) ok Martin skákal ven z lesa hodinu, a už  
 Martin jumped out from forest hour.acc. and anymore  
 neskáče ven z lesa.  
 not.jumps out from forest  
 Martin jumped out of the forest for an hour and he isn't jumping out  
 of the forest anymore.

The Test of Telic Entailment shows that the Goal reading is a telic reading — the event described by this reading is bounded, while the event described by the Directional reading is not bounded.

The results of this test show that Czech spatial adverbs have a telicizing effect when they have a Goal reading, they don't have a telicizing effect under the Directional reading.

### 3.3.5 Analysis

English particles and Czech spatial adverbs show the same effect on telicity. They both can have a telicizing effect, but they do not always have it. In both cases these readings are connected to two different readings of sentences with spatial adverbs/particles — the directional reading and the goal reading. The

directional reading is atelic and the goal reading is telic.

This mirrors naturally the nature of telicity — bounded events, events with a defined endpoint, like a goal, are telic, unbounded events, without a defined endpoint, are atelic. The goal reading is expected to be telic and the directional reading atelic. This is exactly what we find.

Czech spatial prefixes on the other hand have always a telicizing effect. This supports the analysis I am going to suggest for the prefixes later in this thesis. Czech spatial prefixes can be accounted for in terms of Ramchand (2004), they originate in the result subpart, R, of the First Phase and move to Asp, where they attach to the verb. Starting in R, the prefixes are bounded and thus expected to have a telicizing effect, as we find.

### 3.4 Perfectivity

The notion of perfectivity differs between English and the Slavic languages. In Czech, as one of the Slavic languages, verbs are inherently perfective or imperfective and even an infinitive is either one or the other. This is not the case in English. In English, verbs are not inherently perfective or imperfective. In English the tense of the verbs can be perfective or imperfective. This on the contrary is not the case in Czech. I include the following discussion on perfectivity for the sake of completeness.

#### 3.4.1 Czech Spatial Prefixes and Adverbs

The prefix *vy-* and the adverb *ven* show different effects with regard to perfectivity of a verb. The prefix *vy-* is a lexical prefix in the sense of Svenonius (2004). Lexical prefixes have a perfectivizing effect at the verb they attach to. All verbs prefixed by a lexical prefix are perfective in Czech. The spatial adverb *ven* in contrast to the lexical prefixes has no effect on the perfectivity of the verb it modifies. This is illustrated by the examples (227) - (232).

The verb ‘plavat’ in sentence (227) is imperfective. In sentence (228) the same verb is modified by the spatial adverb *ven* and the verb is still imperfective.

(227) Thilo vcera plaval.I.  
Thilo yesterday swam.  
Thilo swam yesterday.

(228) Thilo plaval.I ven ze zátoky.  
Thilo swam out from bay

Thilo was swimming out of the bay.

In sentence (229) the prefix *vy-* is attached to the verb ‘plaval’, this time the verb is perfective.

- (229) Thilo vyplaval.P ze zátoky.  
Thilo out.swam from bay  
Thilo swam out of the bay.

The verb ‘hodit’ in sentence (230) is perfective. In sentence (231) the same perfective verb is modified by the spatial adverb *ven* and it is still perfective. In sentence (232) the prefix *vy-* attached to the verb ‘hodit’ and the prefixed verb is perfective too.

- (230) Thilo hodil.P papír z okna.  
Thilo threw paper from window  
Thilo threw a paper out of the window.

- (231) Thilo hodil.P papír ven z okna.  
Thilo threw paper out ou.of window  
Thilo threw the paper out of the window.

This illustrates that the prefix *vy-* causes an imperfective verb to become perfective, but it has no effect on the perfectivity of an originally perfective verb. The spatial adverb *ven* on the contrary to the prefix has no effect on the perfectivity of the verb it modifies.

- (232) Thilo vyhodil.P papír z okna.  
Thilo outhrew paper from window  
Thilo threw the paper out of the window.

In Czech, it is possible to create Secondary Imperfectives from prefixed verbs by suffixation with the suffix ‘-vá/va’. Only originally imperfective verbs, verbs that were imperfective before prefixation, can be imperfectivized by the suffix to Secondary Imperfectives. Some verbs create Secondary Imperfectives irregularly by a change of stem vowel instead of suffixation. This is illustrated by examples (233) - (236). As the adverb *ven* has no effect on the perfectivity of a verb, originally imperfective verbs are still imperfective when modified by this adverb. And there is no possibility of creating Secondary Imperfectives from these verbs.

Sentences (233) and (234) show that originally perfective verbs cannot be

imperfectivized to secondary imperfectives, while originally imperfected verbs can be imperfectivized to secondary imperfectives. In sentence (233) the prefixed verb *vytáhnout* ‘out.pull’ was perfective before prefixation and cannot be imperfectivized to secondary imperfective. The attempted secondary imperfective form *vytáhnúval* doesn’t exist. The verb *vytahat* ‘out.pull’ in sentences (234) is originally imperfective and can be imperfectivized to secondary imperfective, as the availability of the secondary imperfective *vytahával* ‘out.pull’ shows. The secondary imperfective is created regularly by suffixation of the suffix *-vá/va* in this case.

(233) Jindra vytáhnul.P/#vytáhnúval.P<sup>3</sup>zajíce z pytle.  
 Jindra out.pulled hare from bag  
 Jindra pulled the hare out of the bag.

(234) Jindra \*vytahal.I/vytahával.I zajíce z pytle.  
 Jindra out.pulled hares from bag  
 Jindra pulled/used to pull the hares out of the bag.

Sentences (235) and (236) show the same pattern as the preceding pair of sentences. The originally perfective verb *jít* ‘go’ cannot be imperfectivized to secondary imperfective, while the originally imperfective verb *chodit* ‘walk’ can be imperfectivized to secondary imperfective. In sentence (236) the prefixed originally imperfective verb is imperfectivized irregularly by vowel change. The prefixed verb *vychodit* ‘out.go/walk’ has the form *vycházet* ‘out.go/walk’ when secondary imperfective.

(235) Sandra vyšla<sup>4</sup>/vyjívala P/vyšlávala P /\*vychodila I ze dveří.  
 Sandra out.went from door  
 Sandra went out of the door.

(236) Sandra vycházela/vyšla/\*vychodila<sup>5</sup>ze dveří.  
 Sandra out.went from door  
 Sandra usually went out of the door.

Secondary Imperfectives have a habitual reading. This is independent of the way they are created. Both Secondary Imperfectives with the suffix ‘-vá/va’ and Secondary Imperfectives with vowel change have a habitual reading. Un-

<sup>3</sup>The P and I refer to the original perfectivity or imperfectivity of the verbs before prefixation.

<sup>4</sup>There is only one prefixed form with the spatial reading of the aspectual pair *jít/chodit*.

<sup>5</sup>*Vychodila* is the prefixed imperfective verb, but it only has the resultative/creation reading and cannot be used in this context. It can either mean to create something by walking or to achieve something by attending.

prefixed imperfective verbs have habitual reading already. The suffix ‘-vá/va’ can be attached to unprefixated imperfective verbs with the effect of making the habitual reading of the imperfective verb more salient, but with no effect on the imperfectivity of the verb. This is illustrated by the aspectual pair in examples (237) and (238).

(237) Já chodím I. ven zadními dveřmi.  
I go out back door  
I go out through the back door.

(238) Já chodívám.I ven zadními dveřmi.  
I go-hab. out back door  
I usually go out through the back door.

### 3.5 Conclusion

In this chapter I discussed two types of aspect - telicity and perfectivity. There is a difference between these two aspects, telicity is a semantic notion of VP, while perfectivity is a grammatical notion of a verb.

I presented tests to determine both telicity and perfectivity. There are two different telicity tests - The Test of Compatibility with Temporal Adverbials and The Test of Telic Entailment. These tests are adopted from Gehrke (2008) among others, the Test of Compatibility with Temporal Adverbials is a commonly used test of telicity. In order to test perfectivity, I used the test based on three characteristics of perfective verbs — 1. they refer to future time in present tense, 2. they are not compatible with future auxiliary and 3. they are not compatible with phase verbs.

I have shown that the Test of Compatibility with Temporal Adverbials doesn't work well for Czech and thus shouldn't be used. I argued this showing that Czech sentences that contain spatial adverbs can have two different readings, consider sentence (191) repeated here as (239).

(239) Anna šla ven hodinu.  
Anna walked out hour.acc.  
Anna walked out for an hour.

Sentence (239) has two different readings - a Goal reading and a Directional reading. This sentence can be modified by the temporal adverbial *hodinu* ‘hour.acc.’, that has been considered to be equal to the English temporal adverbial *for an hour* in the Czech. This predicts that both readings of sentence (239) are atelic. I have argued that this is not true. The Goal reading of this sentence is bounded

and thus telic. This shows that the Test of Compatibility with Temporal Adverbials is not a reliable telicity test for Czech. I use The Test of Telic Entailment to determine the telicity of Czech clauses.

I discussed the effect of the English particle on the telicity of English sentences. The particle can have a telicizing effect under the Goal reading but the particle doesn't have any effect on the telicity under the Directional reading. Consider sentences (197) - (200), repeated here as (240) - (243).

(240) Kari walked (for an hour)/\*(in an hour).

(241) Kari walked out/up/ away (in an hour). [Goal]

Sentences (240) and (241) show that the particle has a telicizing effect. Sentence (240) is an atelic sentence, it is not compatible with the temporal adverbial *in an hour*, but it is compatible with the temporal adverbial *for an hour*. With the particles *out*, *up* or *away* added to the sentence, it is compatible with the temporal adverbial *in an hour*. This sentence has a Goal reading.

(242) Kari walked (for an hour)/\*(in an hour).

(243) Kari walked out/ up / away (for an hour). [Directional]

Sentences (242) and (243) show that the particle doesn't have a telicizing effect under the directional reading. Sentence (242) is an atelic sentence, it is not compatible with the temporal adverbial *in an hour*, but it is compatible with the temporal adverbial *for an hour*, as has been already shown. With the particles *out*, *up* or *away* added to the sentence, it is still compatible with the temporal adverbial *for an hour* under the directional reading.

Czech spatial adverbs show the same pattern as English particles with respect to telicity. Sentences with spatial adverbs can also have two readings - the directional and the goal reading. Consider Sentences (223) and ??, repeated here as (244) and ??, they illustrate the goal reading.

(244) # Martin skákal ven z lesa hodinu, a ještě skáče ven  
 Martin jumped out from forest hour.acc. and still jumps out  
 z lesa.  
 from forest  
 Martin jumped out of the forest for an hour and he is still jumping  
 out of the forest.

- (245) Martin skákal ven z lesa hodinu, a už neskáče  
 Martin jumped out from forest hour.acc. and anymore notjumps  
 ven z lesa.  
 out from forest  
 Martin jumped out of the forest for an hour and he isn't jumping out  
 of the forest anymore.

Under the goal reading the jumping is finished after an hour's time and thus cannot be still ongoing as sentence (244) shows. This is confirmed by sentence (245). Consider now sentences (225) and (226) with directional reading, repeated here as (246) and (247).

- (246) Martin skákal ven z lesa hodinu, a ještě skáče ven z  
 Martin jumped out from forest hour.acc. and still jumps out from  
 lesa.  
 forest  
 Martin jumped out of the forest for an hour and he is still jumping  
 out of the forest.

- (247) Martin skákal ven z lesa hodinu, a už neskáče  
 Martin jumped out from forest hour.acc. and anymore notjumps  
 ven z lesa.  
 out from forest  
 Martin jumped out of the forest for an hour and he isn't jumping out  
 of the forest anymore.

The directional reading is compatible with both the jumping stil going on or the jumping not going on anymore.

Czech spatial prefixes have an telicizing effect. Consider the two following senteces.

- (248) Lars skákal z lesa.  
 Lars jumped out.of forest.  
 Lars jumped out the forest (with many jumps).

- (249) Lars vyskákal z lesa.  
 Lars out.jumped out.of forest.  
 Lars jumped out of the forest (with many jumps).

Sentence (248) is an atelic sentence as the Test of Telic Entailment shows bel-



low, see sentences (250) and (251).

(250) Lars skákal z lesa. Lars ještě skáče z lesa.  
Lars jumped out.of forest. Lars still out.jumps out.of forest.  
Lars jumped out of the forest. Lars is still jumping out of the forest.

(251) Lars skákal z lesa. Lars už neskáče z lesa.  
Lars jumped out.of forest. Lars anymore not.jumps out.of forest.  
Lars jumped out of the forest. Lars is not jumping out of the forest  
anymore.

Adding the prefix *vy-* made the sentence telic as the Test of Telic Entailment shows bellow, see sentences (252) and (253).

(252) \*Lars vyskákal z lesa. Lars ještě skáče z lesa.  
Lars out.jumped out.of forest. Lars still out.jumps out.of forest.  
Lars jumped out of the forest. Lars is still jumping out of the forest.

(253) Lars vyskákal z lesa. Lars už neskáče z  
Lars out.jumped out.of forest. Lars anymore not.out.jumps out.of  
lesa.  
forest.  
Lars jumped out of the forest. Lars is not jumping out of the forest  
anymore.



## 4 Readings

English Particles have spatial, idiomatic and systematic non-spatial readings, Czech spatial prefixes and spatial adverbs cover the same variety of readings the particles have.

There are several differences between the readings of a prefixed verb with the prefix *vy-* and the verb modified by the spatial adverb *ven* .

The first difference in readings between the prefix *vy-* and the adverb *ven* lies in the availability of different types of readings. The prefix *vy-* can have spatial reading as well as non-spatial or idiomatic readings. The adverb *ven* has only a spatial reading.

English particles can express both general direction or a deictic direction, Czech spatial prefixes express only general direction whereas spatial adverbs can express both a general direction and a deictic direction. This is another difference between the prefixes and the adverbs.

The prefix *vy-* can have two spatial reading, up and out. I discuss mainly the spatial readings with the meaning ‘out’ in order to be able to compare these readings with the spatial adverb *ven* ‘out’ and the English particle ‘out’ .

### 4.1 Spatial reading

#### 4.1.1 English Particles

(254) Sebastian drove his car out of the tunnel.

(255) The plane flew up into the clouds.

Even though English particles can have two different word orders - the shifted and the unshifted, the readings usually don’t change dramatically when the word order is changed. Consider sentences (4) and (12) repeated here as (256) and (257). Sentence (256) has unshifted word order, while sentence (257) has shifted word order. The reading of both sentences is identical. *The toy* - the object of the sentences has been carried by the subject - *he*, with the intention to place the toy *out of the room*.

(256) He carried the toy out from the room.

(257) He carried out the toy from the room.

There are however cases when there are differences of readings based on word order. Consider the two following sentences. Sentence (258) has the unshifted word order, while sentence (259) has the shifted order.

(258) The child threw the toy out from the house.

(259) The child threw out the toy from the house.

The readings of the two sentences are slightly different. Sentence (258) means that the child threw the toy and the goal of this throwing event was out of the house. Sentence (259) means that the child threw out the toy and this event happened from the house. I disregard the reading with ‘the toy from the house’ as a NP.

These two different readings are connected to the position of the particle. In sentence (258), in the unshifted word order, the particle occupies a position below the VP. As the reading of the sentence shows the spatial reading of the particle is more salient in this position. In sentence (259), in the shifted word order, the particle occupies a position within the RP. That is exactly the position where Ramchand and Svenonius (2002) claim that idiomatic readings are created. As the reading of sentence (259) shows the idiomatic reading is salient in this position.

Sentences with English particles can have three different readings — a bounded, an unbounded and an interval reading. Examples (260) and (261) illustrate the bounded and the unbounded readings. These two readings differ with regard to telicity. I have discussed this topic in more detail in section 3.3.2 of this thesis.

(260) He ran \*out/up for an hour. (unbounded)

(261) He ran out/up in an hour. (bounded)

Under the unbounded reading, as in sentences (262) and (263), the particle describes a direction of motion.

(262) Justin ran out of the forest for an hour.

(263) He ran out from the middle of the forest for an hour.

Sentences (262) and (263) have the reading that Justin ran in the direction out inside a forest and after one hour’s time he didn’t exit the forest, he simply

stopped.

Under the bounded reading, as in sentences (264) and (265) the particle describes a goal of motion.

(264) Justin ran out of the forest in an hour.

(265) He ran out from the middle of the forest in an hour.

Both sentences (264) and (265) have a reading that Justin ran and after one hour's time he exited the forest. I am going to refer to the unbounded reading as the directional reading and to the bounded reading as the goal reading.

Sentence (266) illustrates the interval reading.

(266) Manon walked from the second floor down.

This is the only possible reading of the word order when the particle follows the Source PP. This reading is slightly special and will not be discussed any further in this thesis.

The meaning of sentence (266) is that Manon walked the route from the second floor down, but she didn't walk from any higher floor than the second floor.

Sentence (267) doesn't give rise to the interval reading even though there is a Source and a Goal in the sentence.

(267) Manon walked from the second floor to the cellar.

Svenonius (2010) shows that particles can cooccur with Place and Path, P - expressions that refer to stationary locations and directions. He argues that there is a limitation of one particle per Place or Path. He presents examples such as (268) and claims that the first particle modifies Path adding a general direction whereas the second particle has a deictic reading adding a reference person's spatial perspective.

(268) The boat drifted down from up above the dam.

The features of the particle are mirrored by the prefix and adverb, as will be

shown later in this chapter. The prefix always refers to a general direction whereas the adverbs can add a reference person's perspective.

#### 4.1.2 Czech spatial Adverbs

There are two different word orders in sentences with spatial adverbs in Czech that seem parallel to the particle shift in English. I have already argued in this thesis that these word orders are created by a different kind of movement from particle shift in English and thus they are unrelated.

There are differences in readings of the two word orders of the Adverb - Source PP combination. These differences are especially clear when the sentences are modified by a temporal Adverbial like *hodinu* 'an hour.acc.'.

- (269) Petr běžel ven z lesa hodinu.  
Petr ran out from forest hour  
Petr ran out of the forest hour.acc..

Sentence (269) has two different readings - a directional and a Goal reading. The directional reading means that Petr ran in the direction out of the forest for one hour. Under this reading Petr doesn't need to get out of the forest after one hour's time or for some speakers Petr can get out of the forest and continue in the same direction until one hour has passed.

The Goal reading means that Petr ran with the intention to get out of the forest and it took him one hour to arrive out of the forest. Under this reading *out of the forest* is the goal. These readings have been discussed in more detail in section 3.3.4 when the telicity effects of Czech spatial adverbs are discussed.

- (270) Petr běžel z lesa ven hodinu.  
Petr ran from forest out hour  
Petr ran from the forest out hour.acc..

Sentence (271) has only one reading. It expresses the same Goal reading as sentence (270) with the difference that in sentence (270) *z lesa* 'from the forest' is the source and *ven* 'out' is the goal while in sentence (269) *ven z lesa* 'out of the forest' is the goal. This claim is supported by the fact that the adverb *ven* in sentence (270) can be substituted by a Goal PP or even by an adverb - Goal PP combination, as is illustrated in sentence (271).

- (271) Petr běžel [z lesa] (ven) na louku hodinu.  
Petr ran from forest (out) on meadow hour

Petr ran from the forest (out) onto the meadow for hour.acc..

Like particles, the spatial adverbs can modify PPs and express direction, either a general established direction or a deictic direction. Sentence (272) can have two slightly different readings - either Milan drove in an upward direction onto the square, or Milan drove onto the square that we know to be higher than the speaker at the moment. The first reading expresses a general established direction, the second reading expresses a deictic reading.

- (272) Milan jel nahoru na náměstí.  
Milan drove up onto square  
Milan drove up onto the square.

Two adverbs can cooccur in one sentence, in this case the first one expresses the general direction and the second has a deictic reading in a neutral word order. There are examples like *nahoru dolu* ‘up and down’ or *dopředu dozadu* ‘back and forth’ that have interval readings. This behaviour of the Czech adverb mirrors the behaviour of English particles.

Consider sentences (273) and (274). Sentence (273) shows the pattern that I have just explained; it describes an upward movement of a bus that is observed by a subject above the town, so that the upward movement happens lower than the position of the subject and thus - down in the town. Notice that the first adverb has a directional form while the second adverb has a locative form.

- (273) Z věže jsem viděl autobus jet nahoru dole ve městě.  
From tower saw bus drive up-dir down-loc in town.  
I saw a bus from the tower drive up down in the town.

In sentence (274) the situation is different, the sentence has an interval reading and describes a bus driving upwards and downwards in the town. In this sentence, the adverbs don't have a deictic reading.

- (274) Z věže jsem viděl autobus jet nahoru dolů ve městě.  
From tower saw bus drive up-dir down-dir in town.  
I saw a bus from the tower drive up and down in the town.

### 4.1.3 Czech Prefixes

Czech spatial prefixes show varied and interesting features with regard to aspect and idiomacy. However when we focus on their spatial readings their be-

haviour is very simple, they contribute with their bounded/goal spatial reading. Variations in readings are created by the verb and its aspects, I comment on this topic in section 4.3.2 in this thesis. Consider now sentences (275) and (276).

(275) Auto jelo.  
Car drove.  
The car was driving.

(276) Auto vyjelo.  
Car up/out.drove.  
The car drove out/up.

Apart the difference in aspect that I am not going to address in this section, the prefix adds only the information that the general direction of the movement of the car in sentence (276) is upwards. Consider now a slightly extended version of the previous sentence.

(277) Auto jelo k nám na kopec.  
Car drove to us on hill.  
The car was driving to us onto the hill.

(278) Auto vyjelo k nám na kopec.  
Car up.drove to us on hill.  
The car drove up to us onto the hill .

We know that the car is driving upwards, because it is driving onto the hill. Thus the only difference between sentences (277) and (278) is in aspect. We can see the same facts in sentences (279) and (280).

(279) Auto jelo na kopec nad námi.  
Car drove on hill above us.  
The car was driving onto the hill above us.

(280) Auto vyjelo na kopec nad námi.  
Car up.drove on hill above us.  
The car drove up onto the hill above us.

Notice however that the prefix vy- is perfectly compatible with different locations of the speaker. This confirms that the spatial prefix vy- only refers to general direction of the movement. There is no deixis involved.



## 4.2 Idiomatic readings

### 4.2.1 English particles

Usually, the meaning of a sentence is constructed as a combination of the meanings of its parts. This is not true for idioms. The meanings of idiomatic expressions are not purely composed of the meanings of their parts.

Consider sentences (281) and (282). Sentence (281) illustrates the spatial reading of the particle, ‘out of my hands’ means here that the tray left the hands of the speaker.

Sentence (282) illustrates the idiomatic reading, ‘out of my hands’ in this sentence refers to being out of control of the speaker. The whole sentence means that the speaker has no control of the topic they are discussing.

(281) You took the heavy tray out of my hands just in time.

(282) This is out of my hands.

Ramchand and Svenonius (2002) connect idiomatic readings to RP in the first phase. According to their analysis, the particle moves to the specifier of RP under the shifted word order. This is also the word order where the idiomatic reading is more salient. Sentences (283) and (284) are another examples of the idiomatic use of the particle ‘out’. The expression ‘to break out’ in sentence (283) means to begin. The expression ‘to freak out’ in sentence (284) means to come into an emotional state or to lose control.

(283) The fever broke out yesterday.

(284) Bob freaked out.

For the purpose of this thesis, the availability of idiomatic readings is important. I am not going to attempt to give any analysis of how idiomatic readings are created, that is not the topic of this thesis.

### 4.2.2 Czech spatial prefixes

Sentences (285) and (286) illustrate the spatial and idiomatic use of the perfective verb *běžet* prefixed by the prefix *vy-*. In sentence (285) the verb has a spatial reading, while in sentence (286) the same prefixed verb has an idiomatic reading meaning ‘being angry’.

- (285) Za chvíli vyběhne.P i Káťa.  
 In while out.runs too Káťa  
 In a while is Káťa going to run out too.
- (286) Až tohle uvidí mamka, tak se Sandrou vyběhne.P.  
 when this sees mum, so with Sandra out.run-fut.  
 When mum sees this, she is going to be angry at Sandra.

Sentences (287) and (288) illustrate the two readings of the imperfective verb *běhat* prefixed by the prefix *vy-*. In this case no spatial reading is available, though there are two different readings of this verb - prefix combination. The reading in sentence (287) is not idiomatic. It is a systematic but non-spatial reading that the prefix *vy-* has when attached to imperfective verbs and this reading is going to be discussed later. The reading in sentence (288) is an idiomatic reading meaning ‘to arrange something that is difficult or time consuming’.

- (287) Tim byl tak rychlej, že si dneska vyběhal.I první místo.  
 Tim was so quick that refl. today out.ran first place  
 Tim was so quick today, that he managed to get the first place.
- (288) Tak ty víza už jsem vyběhal.I .  
 So those visa already am out.ran  
 So, I have arranged the visa already.

#### 4.2.3 Czech spatial adverbs

Czech spatial adverbs have only spatial readings. I am going to claim in the analysis that the lack of idiomatic or non-spatial readings is due to the fact that spatial adverbs in Czech stay below the VP and don’t move to R.

### 4.3 Systematic non-spatial readings

The spatial prefix *vy-* ‘out’ and the spatial particle ‘out’ have systematic non-spatial readings. The spatial adverb *ven* ‘out’ has no non-spatial readings, so it won’t be discussed in this section.

#### 4.3.1 The English Particle

Systematic non-spatial readings, like idiomatic readings, are non-spatial readings, in other words they don’t refer to locations or directions, unlike idiomatic

readings the particle-verb combination has systematically the same type of meaning that varies as the verb varies.

I am going to show two different kinds of systematic non-spatial reading. This is not a complete overview. Again, it is the availability of these readings that is of essence here.

**To cause something to disappear by V-ing** Under this reading, something disappears caused by the subject doing V. In sentence (289), the wrinkles disappear, because the subject ‘she’ irons. In sentence (290), the dirt is not going to disappear by washing.

(289) She ironed the wrinkles out.

(290) This dirt won’t wash out.

**To V to an end/ until the end/to quit or stop** Under this reading, the particle ‘out’ refers to finishing or completing an activity. In sentence (291), the supplies have been used until there are no more. In sentence (292), the fire has stopped burning. In sentence (293), Tom played the game until the very end.

(291) The supplies have run out.

(292) The fire has gone out.

(293) Tom played the game out.

#### 4.3.2 The Czech prefix *vy-*

**The Start V-ing Reading** A restricted group of motion verbs when prefixed by the prefix *vy-* have a reading of a start of V-ing in addition to the spatial reading. This reading is only available for verbs that are used together with vehicles or the verb ‘go’. This reading is not available for the verbs modified by the adverb *ven*. This is illustrated by the examples (294) - (298). The examples (294) and (296) show the two readings of sentences with prefixed verbs, the regular spatial reading and the reading of ‘start V-ing’. The examples (295), (297), show that sentences with verbs modified by the adverb *ven* have only the regular spatial reading.

Sentences (294) and (295) show that the prefixed verb *vyběhnout* ‘to run out’ has two different readings, the spatial reading of ‘run out’ and the start V-ing reading, while the verb *běžet* ‘to run’ modified by the adverb *ven* ‘out’ only has the spatial reading.

(294) Jakub vyběhl.P pozdě.  
 Jakub out.ran late  
 Jakub ran out late./ Jakub started running late.

(295) Jakub běžel.P ven pozdě.  
 Jakub ran out late  
 Jakub ran/was.running out late.

(296) Vyjíždíme.SI za deset minut.  
 out.drive in ten minutes  
 We start driving in ten minutes.

(297) Jedeme.P ven za deset minut.  
 Drive out in ten minutes  
 We drive (in the direction) out in ten minutes

(298) My jezdíme.I ven zadní branou.  
 We drive out back gate [habitual]  
 We drive out through the back gate. [habitual]

**The Win/Gain Reading** A verb prefixed by the prefix *vy-* can have a reading that can be paraphrased as ‘to win or gain something caused by/ as the result of V-ing-’. This is illustrated by the examples (299) - (302). This reading of the prefix *vy-* is compatible not only with motion verbs. Examples (301) and (302) show that verbs like ‘cry’ or ‘argue’ have the same reading when prefixed by the prefix *vy-*. Prefixed motion verbs as in examples (299) and (300) have a reading of winning in sport competitions.

(299) Jan Železný si v roce 2000 vyházel zlatou medaili.  
 Jan Železný refl. in year 2000 outhrew gold medal.  
 Jan Železný won gold medal in (javelin) throwing in 2000.

(300) Šárka si vytancovala obdiv diváků.  
 Šárka refl. out.danced admiration spectator.  
 Šárka won the admiration of the spectators with her dancing.

- (301) Tim si vybrečel (od maminky) nový auto.  
 Tim refl. outcried (from mom) new car  
 Tim got a new car (from mom) thanks to/ because of his crying.
- (302) Sandra si vyhádala povolení přijít domů až po  
 Sandra refl. outargued permission come home as.late.as after  
 půlnoci.  
 midnight  
 Sandra persuaded (someone) by arguing to give her the permission to  
 return home after midnight.

**The Causative reading** All prefixed motion verbs have a resultative spatial reading with the spatial prefixes. In the case of unergative verbs, the external argument is situated at a certain place as a result of the activity described by the prefixed verb. In the case of unaccusative and transitive verbs the internal argument is effected and situated at a place described by the prefix of the verb as a result of the activity described by the verb. This is illustrated for the prefixes *v-* ‘in’ and *s-* ‘down’ by sentences (303) and (304). In sentence (303), Ondra is going down and the result of it is that he is down (in the valley). In sentence (304), Tim ran into the house and the result of this is that he is inside.

- (303) Ondra sešel z kopce do údolí.  
 Ondra down.went from hill into valley.  
 Ondra went down from the hill into the valley.
- (304) Tim vběhl do domu.  
 Tim in.ran into house.  
 Tim ran into the house.

Some prefixed imperfective or secondary imperfective spatial verbs have a resultative/creation reading, that could be paraphrased as — ‘to create something by V-ing’. This reading is slightly similar to the Win/gain reading in the sense that by V-ing the subject causes a result to happen/become. A verb can have both of these readings. The resultative/creation reading is illustrated by the example (305). Some verbs have the resultative/creation reading even as secondary imperfectives, in this case the reading is the same as the reading of the relevant imperfective prefixed verb, only the secondary imperfective has a habitual or progressive reading, as illustrated by example (306).

- (305) Auto vyjezdilo.I v blátě koleje.  
 Car out.drove in mud tracks  
 The car made tracks in mud by driving.

- (306) Auto vyjízdělo.SI v blátě koleje.  
 Car out.drove in mud tracks  
 The car made-hab./ was making tracks in mud by driving.

**The Distributed reading** Transitive and unaccusative prefixed imperfective verbs with perfective counterparts have spatial reading only if their internal argument is a plural count noun or a mass noun. This is illustrated by the examples (307) - (314).

Examples (307) -(309) show the unaccusative prefixed verb *padat* ‘fall’ prefixed by the prefix *vy-* ‘out’ . The internal argument surfaces as the subject of unaccusative verbs. Sentences (307) and (309) are a minimal pair. The only difference between the sentences is that in sentence (307) the internal argument is a count noun in plural and the sentence is grammatical, while in sentence (309) the internal argument is a count noun in singular and the sentence is ungrammatical. The verb agrees with the subject in gender and number. This agreement causes the verbs in examples (307) and (309) to have different endings. In sentence (308), the internal argument is a mass noun and the sentence is grammatical.

- (307) Hrušky vypadaly z auta.  
 Pears out.fell-fem.pl. from car  
 The pears fell out of the car.

- (308) Obilí vypadalo z auta.  
 Grain out.fell from car  
 The grain fell out of the car.

- (309) \*Hruška vypadala z auta.  
 Pear out.fell-fem.sg. from car  
 The pear fell out of the car.

Examples (310) - (312) show the transitive verb *vozit* ‘drive’ prefixed by the prefix *vy-* ‘out’ . Sentences (310) and (312) are a minimal pair. They differ only in the number of the internal argument. in sentence (310) the internal argument is a count noun in plural and the sentence is grammatical, while in sentence (312) the internal argument is a count noun in singular and the sentence is ungrammatical. In sentence (311), the internal argument is a mass noun and the sentence is grammatical.

- (310) Sedlák vyvozil hrušky ze stodoly.  
Farmer out.drove pears from barn  
The farmer drove the pears out of the barn.
- (311) Sedlák vyvozil obilí ze stodoly.  
Farmer out.drove grain from barn  
The farmer drove the grain out of the barn.
- (312) \*Sedlák vyvozil hrušku ze stodoly.  
Farmer out.drove pear from barn  
The farmer drove the pear out of the barn.

There is only one unergative verb that has the distributed reading when prefixed, *vyskákat* ‘to jump out’. This verb refers to several instances of jumping. Depending on the subject, there can be either several people jumping out at the same time or one person doing several jumps in the direction out (with a final jump out of a container). This is illustrated by the examples (313) and (314).

Sentence (313) means that Martin came out of the forest jumping and he made several jumps before coming out of the forest. Sentence (314) means that a number of boys jumped out of the forest. They didn’t need to do more than one jump each, the plurality comes from the fact that there were several boys jumping. So there were several jumps together.

- (313) Martin vyskákal z lesa.  
Martin out.jumped from forest  
Martin jumped out of the forest.
- (314) Kluci vyskákali z lesa.  
Boys out.jumped from forest  
The boys jumped out of the forest.

#### 4.4 Conclusion

In this chapter, I have discussed readings of English spatial particles, Czech spatial prefixes and adverbs. I have looked at three types of readings - spatial reading, idiomatic and systematic non-spatial reading. I have been mainly concerned with availability of these readings.

All three, the particles, the prefixes and the adverbs have a spatial reading, the particles and the prefixes have both an idiomatic reading and systematic non-spatial readings. This is fully expected according to analysis by Ramchand and Svenonius (2002).

Ramchand and Svenonius (2002) claim that adverbs originate in DeixP, this accounts for the deictic reading that adverbs can have. Adverbs don't move to R, thus they are not expected to have idiomatic readings. This also fits, adverbs don't have idiomatic readings in Czech.

Czech spatial prefixes originate in R this gives rise to the idiomatic readings that we find with the prefixes. They attach to V, they never move through DeixP and thus are not expected to have deictic readings. This is exactly what we find when we consider readings of spatial prefixes.

English particles originate in DeixP, we expect particles to have deictic readings like spatial adverbs in Czech. This is exactly what we find, English particles have deictic readings. English particles move to R and thus we expect them to have idiomatic readings like Czech spatial prefixes. This expectation is correct, English particles have idiomatic readings.



## 5 Conclusion

I have compared English particles, Czech adverbs and Czech spatial prefixes with regard to three main themes - word order, aspect and readings. I am first going to summarize my findings and then show how theory accounts for the facts.

The spatial prefixes attach to the verbs, so their word order facts cannot be compared with behaviour of the English particles. Czech spatial adverbs and English particles seemly undergo the same movement - the particle shift, but closer consideration of the data shows that the movement of the adverbs in Czech is not of the same sort as the particle shift. Spatial adverbs in Czech may move to a focus position and thus give the impression of the particle shift.

The spatial adverbs in Czech and the English particles however show similar behaviour when telicity is considered. Both the particles and the adverbs may have telicizing effect, this is in contrast to the spatial prefixes that always have telicizing effect. Spatial adverbs in Czech have two possible readings in combination with motion verbs — a directional reading and a goal reading. The directional reading is atelic, the goal reading is telic.

I didn't compare the particles, the adverbs and the prefixes with regard to perfectivity because there are basic differences between the languages. Slavic verbs are inherently perfective or imperfective, perfectivity can be influenced by prefixes and suffixes, whereas in English perfectivity is a feature of the tense system. Som tenses are perfective and som tenses are imperfective.

When we consider the readings that the particles, the adverbs and the prefixes give rise to in combination with motion verbs, the adverbs and the prefixes seem to devide between themselves the work that the particle does in English. Particles have spatial readings, they can express the point of view of a refference person, modify path, they have idiomatic readings and systematic non-spatial readings. Czech spatial adverbs have spatial readings and can express a view of a reference person, but they are limited to these two functions. The spatial prefixes have spatial readings, they cannot express the view of reference person, but they can modify path, they have idiomatic readings and systematic non-spatial readings that the adverbs lack.

### 5.1 The English Particle

English particles have been accounted for by Ramchand and Svenonius (2002) and Svenonius (2010). Particles originate in the specifier of DeixP and move to R. This movement may be overt or covert. This movement of the particle gives rise to the particle shift. Recall examples (1) and (2) repeated here as (315) and (316).

(315) He threw the toy (right) out.

(316) He threw (\*right) out the toy.

The particle in English can either precede or follow an object DP. However when the particle is modified, in our example with ‘right’ it cannot precede the object DP. Ramchand and Svenonius (2002) claim that the underlying structure of both the shifted and the unshifted word order is identical. The two different word orders are created by two different movements. In the case of the shifted word order, the particle moves to R and thus precedes the object DP. Under the unshifted word order the object DP moves to the specifier of VP and thus precedes the particle. The modification by ‘right’ makes the particle unable to move to R and thus the shifted word order is not possible in this case.

Consider now sentence (268) from Svenonius (2010) repeated here as (317).

(317) The boat drifted down from up above the dam.

Svenonius (2010) shows that the first particle expresses a general direction while the second particle has a deictic reading. As I have already mentioned, the particle originates in the specifier of DeixP. Svenonius (2010) argues that the DeixP is related to deictic readings, thus he explains the deictic readings of English particles. This analysis can be extended to Czech spatial adverbs as we have seen in this thesis.

The following sentence (283), here (318) illustrates the idiomatic readings of particle-verb combinations.

(318) The fever broke out yesterday.

The idiomatic and systematic non-spatial readings are accounted for by the movement of the particle to R. This is the position related to idiomaticity. I don’t attempt to explain how idiomatic readings are created. I am mainly concerned with the fact that particles give rise to idiomatic readings in combination with certain verbs.

I have also shown that particles can have a telicizing effect. Consider sentences (197) and (198), repeated here as (319) and (320).

(319) Kari walked \*(in an hour).

(320) Kari walked out/up/ away (in an hour).

Sentence (319) is atelic as we see, but adding a particle makes the sentence telic, as we see in sentence (320). Notice that the sentence is only telic under the goal reading. This explains the telicizing effect of the particle. The Goal reading is a bounded event, telicity is also bounded, thus the goal reading is telic.

## 5.2 The Czech Spatial Prefix

The analysis of English spatial particles gives rise to some expectations when we consider Czech spatial prefixes.

I am going to adopt the analysis suggested by Ramchand (2004) for lexical prefixes. Lexical prefixes originate in R, the result subpart of the First Phase and move to Asp. They attach to the verb.

The origin of the prefixes is in R, thus the Czech spatial prefixes don't have the possibility to move through Deix and we expect no deictic readings. This is correct. Czech spatial prefixes express only general direction or a goal, but have no deictic readings.

Consider sentences (321) and (322).

(321) Mikin skočil na stůl .  
Mikin jumped on table.  
Mikin jumped on the table.

(322) Mikin vyskočil na stůl .  
Mikin up.jumped on table.  
Mikin jumped up on the table.

Both sentences, (321) and (322), describe the same situation - Mikin jumping on a table. The difference between sentences (321) and (322) is that in sentence (322) we know that Mikin had to jump in an upward direction in order to get on the table, whereas in sentence (321) we don't know in what direction he jumped. Sentence (322) doesn't give any information about where the observer of the action is situated or where Mikin is situated in relation to the observer. Sentence (322) doesn't contain any deictic information.

As has already been said the prefixes originate in R and thus we expect them to have both idiomatic and systematic non-spatial readings. This prediction is also correct. I have focused mostly on the prefix *vy-* 'out/up'. Sentence (286),

here (323) illustrates the idiomatic readings of verbs prefixed by ‘vy-’.

- (323) Až tohle uvidí mamka, tak se Sandrou vyběhne.P.  
when this sees mum, so with Sandra out.run-fut.  
When mum sees this, she is going to be angry at Sandra.

Prefixed verbs can also have systematic non-spatial readings. The prefix *vy-* ‘out/up’ in combination with different verbs can have several systematic non-spatial readings, like the start to V-ing reading, the causative reading or the distributed reading.

Sentence (296), here (324) illustrates the start V-ing reading.

- (324) Vyjíždíme.SI za deset minut.  
out.drive in ten minutes  
We start driving in ten minutes.

Lexical prefixes move to Asp as Ramchand (2004) argues and thus influence the aspect of the verb they attach to. This effect is also found in Czech spatial prefixes, they have telicizing and perfectivizing effect on the verb. Consider sentences (208) - (211), here (325) - (328).

- (325) \*Martin vyskáká z lesa. Martin ještě vyskakuje z  
Martin out.jumped out.of forest. Martin still out.jumps out.of  
lesa.  
forest.  
Martin jumped out of the forest. Martin is still jumping out of the  
forest.
- (326) Martin vyskáká z lesa. Martin už nevyskakuje  
Martin out.jumped out.of forest. Martin anymore not.out.jumps  
z lesa.  
out.of forest.  
Martin jumped out of the forest. Martin is not jumping out of the  
forest anymore.
- (327) Martin skákal z lesa. Martin ještě skáče z lesa.  
Martin jumped out.of forest. Martin still out.jumps out.of forest.  
Martin jumped out of the forest. Martin is still jumping out of the  
forest.

- (328) Martin skákal z lesa. Martin už neskáče z lesa.  
 Martin jumped out.of forest. Martin anymore not.jumps out.of forest.  
 Martin jumped out of the forest. Martin is not jumping out of the forest anymore.

In sentences (325) and (326) the verb is prefixed and the test of telic entailment confirms that the sentences are telic. The same sentences without the prefix are atelic, (327) and (328).

Consider now sentences (228) and (229), here (329) and (330), they illustrate the perfectivizing effect of the prefixes.

- (329) Thilo plaval.I ven ze zátoky.  
 Thilo swam out from bay  
 Thilo was swimming out of the bay.

- (330) Thilo vyplaval.P ze zátoky.  
 Thilo out.swam from bay  
 Thilo swam out of the bay.

Sentence (228) without the prefix is imperfective, but sentence (229) with the prefixed verb is perfective. I use the test of telicity throughout the thesis to determine the perfectivity of sentences.

### 5.3 The Adverb

It seems that the features of English particles have been split between the spatial prefix and the corresponding spatial adverb in Czech. Czech spatial adverbs have spatial and deictic readings and seemly undergo particle shift like particles. However they don't have idiomatic and systematic non-spatial readings that particles and Czech spatial prefixes have.

Consider sentence (273), here (331).

- (331) Z věže jsem viděl autobus jet nahoru dole ve městě.  
 From tower saw bus drive up-dir down-loc in town.  
 From the tower, I saw a bus drive up down in the town.

There are two spatial adverbs in this sentence *nahoru* 'upwards' and *dole* 'down.loc'

The first adverb expresses the general direction of the bus, the second adverb expresses deixis — the driving of the bus is going on somewhere below the observer of it.

Czech spatial adverbs seem to undergo particle shift like particles in English. Consider the following sentences (332) - (335).

(332) Petr hodil kytku ven/dovnitř/nahoru/dolu.  
 Petr-Nom threw flower out/to.inside/up/down  
 Petr threw the flower out/in/up/down.

(333) Petr hodil ven/dovnitř/nahoru/dolu kytku.  
 Petr-Nom threw out/to.inside/up/down flower [focused]  
 Petr threw the flower out/in/up/down.

(334) Petr hodil kytku až ven/dovnitř/nahoru/dolu.  
 Petr-Nom threw flower as.far.as out/to.inside/up/down [focused]

Petr threw the flower all the way out/in/up/down.

(335) \*Petr hodil až ven/dovnitř/nahoru/dolu kytku.  
 Petr-Nom threw as.far.as out/to.inside/up/down flower [focused]

Petr threw the flower all the way out/in/up/down.

The spatial adverb can either precede or follow the object DP. When the spatial adverb is modified by *až* ‘as.far.as’ it can only follow the object DP. Notice however that the object DP is focused when it is in a sentence final position. The adverb is also focused when it is modified by *až* ‘as.far.as’. I have discussed this at length in section ?? and concluded that both the focused adverb and the focused DP compete for the sentence final position. This position can only be occupied by one of them and thus the sentence is ungrammatical.

This means that this pattern that seems to be parallel to particle shift is motivated by focus and is not similar to particle shift in English at all.

Adverbs don’t move as high as R in Czech so we don’t expect them to have any other readings than spatial. This prediction is correct, spatial adverbs have only spatial readings in Czech.

There is one topic that has to be commented on with regard to spatial ad-

verbs. They don't move to R or Asp as I have already mentioned. Still spatial adverbs can have a telicizing effect.

This is not unexpected. Recall that it is only the goal reading that has telicizing effect. Recall also that telicity is a semantic notion connected to boundedness. The sentences with goal reading refer to bounded events and thus are telic.





## 6 Appendix

(336) Czech motion verbs

ven +Vperf.	vy- + Vperf.	ven +Vimperf.	vy- + Vimperf.	Gloss of the verb
skočit ven - T	vyskocit - T	skákat - A ven	vyskákat - T	to jump
táhnout - A ven	vytáhnout - T	tahat - A ven	vytahat - T	to pull
jít ven - A	vyjít - T	chodit - A ven	vychodit - T	to go, walk
spadnout - T ven	vypadnout - T	?padat - A ven	vypadat - T	to fall
valit - A ven	vyvalit - T	válet - A ven	vyválet - T	to roll
jet - A ven	vyjet - T	jezdit - A ven	vyjezdit - T	to drive, go
běžet - A ven	*vyběžet	běhat - A ven	vyběhat - T	to run
	vyběhnout - T		vybíhat - T	to run
letět - A ven	vyletět - T	létat - A ven	vylétat - T	to fly
nést - A ven	vynést - T	nosit - A ven	vynosit - T	to carry
vézt - A ven	vyvézt - T	vozit - A ven	vyvozt - T	to carry(in a car or s.)
hodit - T ven	vyhodit - T	házet - A ven	vyházet - T	to throw
plout - A ven	vyplout - T			to float
		tlačit - A ven	vytlačit - T	to push
		koulet - A ven	vykoulet - T	to roll
		kutálet -A ven	vykutálet - T	to roll
		stepovat - A ven	vystepovat - T	to tap-dance
		plavat - A ven	vyplavat - T	to swim
		tancovat - A ven	vytancovat - T	to dance
		tančit - A ven	vytančit - T	to dance
		lézt - A ven	vylézt - T	to crawl, creep, climb

(337) The Readings and tense reference of aspectual pairs modified by the adverb 'ven'

Verb	Perf. pres.	Imperf. pres.	Perf. past	Imperf. past	Gloss
skočit/skákat	future	present	completive	past/habitual	to jump
táhnout/tahat	present	habitual	past	habitual	to pull
jít/chodit	present	habitual	past	habitual	to go, to walk
padnout/padat	future	present	completive	past/habitual	to fall
valit/válet	present	habitual	past	habitual	to roll
jet/jezdit	present	habitual	past	habitual	to drive
běžet/běhat	present	habitual	past	habitual	to run, to jog
letět/létat	present	habitual	past	habitual	to fly
nést, nosit	present	habitual	past	habitual	to carry
vézt, vozit	present	habitual	past	habitual	to transport by a vehicle
hodit/házet	future	present	completive	past/habitual	to throw
tlačit		present		past	to push
koulet		present		past	to roll
kutálet		present		past	to roll
plavat		present		past	to swim
lézt		present		past	to crawl, to creep, to climb

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