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Prefixes in Target State Participles

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1. Introduction

Target state participles vs. resultant state participles

Kratzer (2000) and German adjectival passives:

- Target states: reversible (1), compatible with *still*, derived by the stativizing operator (2).
- (1) Er ist (immer noch) versteckt.

he is still hidden

- (2) $\lambda R\lambda s \exists e[R(s)(e)]$
- Resultant states: hold forever (3), not compatible with *still*, derived by the operator in (4).
- (3) Es ist (*immer noch) bewiesen.

it is still proven

- (4) $\lambda P \lambda t \exists e [P(e) \& \tau(e) < t]$
- I deal only with adjectival target states participles.
- Standardly, prefixes and the root are treated semantically as one item (Kratzer (2000), Paslawska & von Stechow (2003), Veselovská & Karlík (2004)).

One of the main reasons: non-compositional prefixes:

- (5) a. na-foukaný on-blown 'inflated'
- But: Prefixes are morphemes → they should have their own meaning.

They show regular behaviour.

Therefore: I completely decompose target state participles,

and propose a particular semantics for both types of prefixes.

(The analysis proposed here holds for lexical and at least some superlexical prefixes; for more on the differences, see Biskup (2010))

2. Data

There are two types of adjectival participles in Czech: -lý and -ný/-tý participles.¹

2.1 -ný/-tý participles

• Intransitives do not form -n/-t participles and the -n/-t passive; see *Mluvnice češtiny 2* (1986), Karlík, Nekula & Rusínová (1995), Karlík (2004).

Both unergatives (6a) and unaccusatives (6b).

- Consequently, intransitives do not derive *-ný/-tý* participles. Both unergatives (7a) and unaccusatives (7b).
- (6) a. * je sněženo, jsem hučen, jsem hloubán is snowed am rumbled am pored.over
 b. * je tečen, je měknut, jsem blednut, is flowed is softened am paled
- (7) a. * sněžený, hučený, hloubaný snowed rumbled pored.over b. * tečený, měknutý, blednutý, flowed softened paled
- An accusative object is a necessary condition for -ný/-tý participles.

E.g. číst 'read' derives the -n/-t passive and $-n\dot{v}/-t\dot{v}$ participles (8).

The verbal (8a,c) and the adjectival participle (8b,d) can be pf. (prefixed) as well as impf. (unprefixed).

- (8) a. Ten román byl čten. the novel was read 'The novel was being read.'
 - c. Ten román byl pře-čten. the novel was over-read 'The novel was read.'
- b. čtený román read novel 'the novel that is being read'
- d. pře-čtený románover-read novel'the novel that was read through'
- If the object bears a non-accusative case \rightarrow the default agreement on -n/-t participles (9a).
- (9) a. Bylo (po-)děkováno lingvistům.

 was (up-)thanked linguists_{dat}

 'They were thanking linguists.'

 'They thanked linguists.'
- b. * (po-)děkovaní lingvisté (up-)thanked linguists

¹ I refer to adjectival participles derived by the $-n\acute{y}/-t\acute{y}$ and $-l\acute{y}$ suffixes as ' $-n\acute{y}/-t\acute{y}$ participles' and ' $-l\acute{y}$ participles'. Verbal participles derived by the suffixes -l and -n/-t, I call '-l participles' and '-n/-t participles'.

But the $-n\dot{y}/-t\dot{y}$ participle is ungrammatical (9b).

No matter whether or not the participle is prefixed.

• The ungrammatical participles in (6) and (7) are unprefixed (impf.).

When prefixed, at least some derive target state $-n\dot{y}/-t\dot{y}$ participles because they are transitivized.

The participles can be based on reflexives (10a), or non-reflexives (10b).

- (10) a. za-hloubaný člověk behind-pored.over man 'the man who is engrossed in sth'
- b. za-sněžená střecha behind-snowed roof 'the snowy roof'
- When the verb is not transitivized by the prefix and there is no acc. object, the $-n\dot{y}/-t\dot{y}$ participle is bad.
 - (11): the prefixed unergative forms the -l participle, but not the $-n\dot{\gamma}/-t\dot{\gamma}$ participle.
 - (12): the prefixed unaccusative derives the -l participle but not the -ny/-ty participle.
- (11) a. Motor do-hučel. motor to-rumbled 'The motor stopped purring.'
- b. * do-hučený motor to-rumbled motor

- (12) a. Prst o-tekl. finger about-flowed 'The finger swollened.'
- b. * o-tečený kost about-flowed finger
- An agentivity restriction on -ný/-tý and -n/-t participles (cf. Veselovská & Karlík 2004). The transitive experiencer verb with the accusative object in (13) derives the -l participle, but not -ný/-tý and -n/-t participles, regardless of prefixation.
- (13) a. Pavla gól (za-)mrzel.
 Pavel_{acc} goal_{nom} (behind-)regreted
 'Pavel was sorry about the goal.'
 - b. * Pavel/gól byl (za-)mrzen. Pavel/goal was (behind-)regreted
 - c. * (za-)mrzený Pavel/gól (behind-)regreted Pavel/goal
 - \triangleright Only agentive transitives with an accusative object derive $-n\dot{v}/-t\dot{v}$ participles.

2.2 -lý participles

• Impf. intransitives form -*l* participles (and past tense), both unergatives (14a) and unaccusatives (14b).

isem hloubal (14) a. sněžilo, isem hučel, snowed am rumbled am pored.over 'I was murmuring' 'It was snowing' 'I was poring over' měknul, jsem bledl b. tekl, flowed softened am paled lit: 'It was flowing' 'It was softening' 'I was paling'

• Impf. intransitives do not derive -lý participles:

(15) a. * sněžilý, hučelý, hloubalý snowed rumbled pored.over b. * teklý, měklý, bledlý flowed softened paled

• The formation of -*lý* participles is sensitive to aspectual properties.

When the verbs are perfectivized (prefixed), some derive target state -*lý* participles:

(16) o-teklý, z-měklý, po-bledlý about-flowed from-softened up-paled 'swollen' 'softened' 'paled a bit'

- Only unaccusatives, not unergatives, derive -lý participles; see (16).
- The formation of -*l*½ participles is sensitive to (in)transitivity of the verb.

 In Modern Czech, transitives do not derive -*l*½ participles (Lamprecht et al. 1986).

 Transitives form -*l* participles but not -*l*½ participles

(17) a. za-hubil, s-míchal, z-líbal, vy-koupal behind-destroyed with-mixed from-kissed out-bathed 'he killed' 'he mixed' 'he kissed' 'he bathed' b. * za-hubilý, s-míchalý, vy-koupalý z-líbalý, behind-destroyed with-mixed from-kissed out-bathed

> Only pf. unaccusatives derive -lý participles.

3. The analysis

3.1 The stativizer and the structure of -lý and -ný/-tý participles

- The past participle -l can attach to impf. verbs (14), hence the ungrammaticality of (15) is not based on requirements of -l.
- It also cannot be based on requirements of the agreement marker $-\dot{y}$; it can attach to impf. verbs (8b).

Proposal, part I:

There is a covert affix (head A) between -l and $-\dot{y}$ working as a stativizing operator, following Kratzer (2000): $\lambda R\lambda s \exists e[R(s)(e)]$.

Support:

 $-l\dot{y}$ participles (in contrast to -l participles) have the stative (resultative) interpretation (16). Similarly as $-n\dot{y}/-t\dot{y}$ participles from pf. verbs (10), cf. Kopečný (1962). Thus, the proposal extended to pf. $-n\dot{y}/-t\dot{y}$ participles.

• Kratzer (2000), Alexiadou, Rathert & von Stechow (2003): The target state operator can apply only to verbs with a 'visible' state.

Since prefixes make verbs perfective and telic,

and since stative adjectival participles are derived from pf. verbs,

> Proposal, part II:

Prefixes introduce the state variable (in addition to the event variable).

This way, they license the stativizing operator.

Place of the stativizer

- The stativizer cannot reside in the participial affixes -l and -n/-t. They can derive words without the stative meaning: $\check{c}ten$ in (8a) and tekl in (14b).
- Therefore, the stativizer also cannot be attached somewhere lower in the structure.
- Perfectivity itself is not enough for stativity (the stativizer is not in the prefix):
- (18) za-sněžil behind-snowed 'snowed'

- The stativizer cannot reside in the adjectival ending $-\dot{y}$. It can occur in words not bearing the stative meaning:
- (19) a. topen-ý člověk drowned-m.sg.nom man 'the man who is being drowned'
 - b. čtver-ý rum four-m.sg.nom rum 'four kinds of rum'
- Therefore: stativizer in the covert head A, taking Part(icipial)P headed by affixes -l and -n/-t
 -y´ is just an agreement marker expressing φ-features of A.
 (The same holds for short endings of verbal participles.)
- Unprefixed (impf.) -ný/-tý participles are not stative,

hence 2 types of A: non-stativizer A

stativizer A (selects only pf. -l and -n/-t participles (PartP))

Prediction

If the stativizer merged so high, target state participles can contain an agentive phrase.

Correct:

(20) Pavlem zašpiněný stůl Pavel_{inst} smeared table 'the table smeared by Pavel'

And they can contain agent-oriented adverbs. Correct:

(21) úmyslně / záměrně / opatrně otevřené okno on purpose / on purpose / cautiously opened window

The head A

- -l participles derived from both impf. and pf. verbs.
 - -lý participles derived only from pf. verbs.

Hence, A deriving -lý participles bears the selection perfective-feature (22).

- -l participles derived from: transitives, unergatives and unaccusatives.
 - -lý participles derived only from unaccusatives.

Hence, the stativizing A selects a complement with the unaccusative v (22).

Structures for -lý and -l participles, with selection features of A:

(22) a.
$$-l\dot{y}$$
: [AP A_{stativizer [pf, unacc]} [PartP l []]]
b. $-l$: [AP A [PartP l []]]

- -*n*/-*t* participles are derived only from transitives.

 And there is an agentivity restriction on the formation of -*n*/-*t* participles.

 Therefore, Part: the selection transitive-feature and the agentive-feature (23).
- -n/-t participles have the default agreement with the non-accusative object.
 -ný/-tý participles are ungrammatical with non-accusative objects.
 Hence, A_{stativizer} selecting the -n/-t PartP bears the accusative-feature (23a).
 This also holds for non-stativizing A in -ný/-tý participles (23b).

(23) a. pf.
$$-n\dot{y}/-t\dot{y}$$
: [AP $A_{\text{stativizer [pf, acc]}}$ [PartP $n/t_{\text{[trans, ag]}}$ []]]

b. impf. $-n\dot{y}/-t\dot{y}$: [AP $A_{\text{[impf, acc]}}$ [PartP $n/t_{\text{[trans, ag]}}$ []]]

c. $-n/t$: [AP $A_{\text{[trans, ag]}}$ []]]

d. $-n/t$: [AP $A_{\text{stativizer [pf, acc]}}$ [PartP $n/t_{\text{[trans, ag]}}$ []]]

- (23c): the head A for -n/-t participles, e.g. čten 'read' in (8a). This is identical to A in -l participles; see (22b).
- Not only long participles are stative.
 There are stative *n/-t* participles in copular constructions, also derived only from pf. verbs.
- (24) Ten toustovač je rozbit (už dva týdny). the toaster is broken (already two weeks) 'The toaster is broken (already two weeks).'

Stative -n/-t participles are bad with non-accusative underlying objects:

(25) * Dítě je pomoženo. child is helped

Therefore, $A_{\text{stativizer}}$ of -n/-t participles bears the accusative-feature (23d). There is only one type of $A_{\text{stativizer}}$ in -n/-t and -ny/-ty participles, cf. (23d) and (23a).

The lower heads

- The secondary imperfective -va- is closer to the root than the participal -l and -n/-t:
- (26) a. při-děl-á-va-l at-make-TH-SI-part 'he was fixing'
- b. při-děl-á-vá-n at-make-TH-SI-part 'being fixed'

If -va- represents the head Asp \rightarrow PartP is higher than AspP in the participal structure.

- (26): Thematic vowel between the root and -vaThematic vowels determine the syntactic (verbal) category → they represent v
- The structure of adjectival participles:

(27)
$$\left[AP A \right]_{PartP} Part \left[ASP ASP \left[VP V \left[\sqrt{P} V \right] \right] \right] \right]$$

Another argument for the high position of the stativizer

Lexical prefixes (LP) make verbs perfective (28b).

The secondary imperfective suffix -va- scopes over LPs (28c).

SPs can scope over the secondary imperfective suffix, as the distributive po- in (28d).

The stativizing A (and Part) attach to the pf. superlexically prefixed verb (28e).

The stativizing A must be merged higher than SP since it selects only pf. complements.

(28) a. krýt^{IMPF} b. od-krýt^{PF} c. od-krý-va-t^{IMPF} d. po-od-krý-va-t^{PF} cover away-cover away-cover-si-inf up-away-cover-si-inf e. po-od-krý-va-n-á tajemství up-away-cover-si-part-n.pl.nom mysteries 'mysteries uncovered one by one'

3.2 Prefixes and the structure of -lý and -ný/-tý participles

- Prefixes in -ný/-tý participles:
- (29) a. za-hloubaný člověk behind-pored.over man 'the man who is engrossed in sth'
 - c. roz-foukané listí apart-blown leaves 'scattered leaves'

- b. na-foukané kolo on-blown tyre 'the inflated tyre'
- d. při-dělaný háček at-made hook 'the fixed hook'

- Prefixes in *-lý* participles:
- (30) a. pro-padlá střecha through-fell roof 'the roof that caved in'
- b. za-padlé pero de behind-fell pen 'the pen that fell behind sth'
- c. pře-padlý člověkover-fell man'the man who fell over sth'

'the haggard man'

d. (na mrazáku) na-mrzlý led on freezer on-froze ice 't e. při-mrzlý led

on freezer on-froze ice 'the ice frozen onto the freezer'

at-froze ice 'the ice that is frozen to sth'

- f. po-rostlá zeď up-grew wall 'the wall overgrown with sth'
- Generalization wrt argument structure:

It depends on the verb (root) whether the prefixed verb derives a $-l\dot{y}$ or $-n\dot{y}/-t\dot{y}$ participle.

(30): prefixes attached to unaccusatives: the verb remains unaccusative

derive $-l\dot{y}$ participles

(29a,b,c): prefixes attached to unergatives: the verb is transitivized

a -ný/-tý participle is derived

(29d): prefixes attached to transitives: the verb remains transitive

derive $-n\dot{y}/-t\dot{y}$ participles

Support:

The consequent behaviour of the verb wrt different prefixes:

For $-n\dot{y}/-t\dot{y}$ participles, see derived transitives in (29b,c).

For -lý participles, cf. derived unaccusative (30a,b,c).

• Generalization wrt perfectivity and telicity:

Prefixes make verbs perfective (29)-(30).

Prefixed $-l\dot{y}$ and $-n\dot{y}/-t\dot{y}$ participles: resultative/change of state meaning (29)-(30).

Prefixation adds the state predicate and turn atelic eventualities into telic eventualities,

see e.g. (30d) with namrzlý 'frozen on sth' from atelic mrznout 'to freeze'.

• This can be straightforwardly analysed if

prefixes are incorporated prepositions (Mulder (1992), Miller (1993), Romanova (2006),

Biskup (2007, 2009)),

and project the complement of the root; see (31).

(31) $[_{AP} A [_{PartP} Part [_{AspP} Asp [_{\nu P} v [_{\sqrt{P}} \sqrt{_{PP} P/Prefix]]]]]]$

And if perfectivity: perfective feature on the prefix

telicity: a lambda-bound state variable introduced in the meaning of the prefix (Telicity is not equal to perfectivity, cf. Bertinetto (2001), Borik (2002) and Filip (2003)).

−lý participles

 $\sqrt{\text{merged with the prefix (PP)}}$ and selected by the unacc. v.

PP is in complementary distribution with the nominal complement of $\sqrt{\ }$, hence the argument structure is not augmented.

Part -n/-t selects agentive and transitive properties (23) \rightarrow only a $-l\acute{y}$ participle can be derived.

-ný/-tý participles and base unergative verbs

 $\sqrt{}$ selected by the agentive v and the prefix introduces an unselected argument(s), hence augmentation of the argument structure.

Part -n/-t selects agentive and transitive properties (23) $\rightarrow -ny/-ty'$ participle is derived.

Prefixation induces perfectivity and v assigns accusative,

hence selectional requirements of A_{stativizer} satisfied.

-ný/-tý participles and base transitive verbs

The prefix (PP) replaces the nominal complement of $\sqrt{\ }$,

hence the prefixed verbs remain transitive.

Part -n/-t and A_{stativizer} satisfied (23) $\rightarrow -ny/-ty'$ participle is derived.

Interim summary

The stativizer is merged high (in A).

Prefixes can introduce an unselected argument.

They typically transitivize unergative verbs and then derive $-n\dot{y}/-t\dot{y}$ participles.

They are incorporated Ps.

They induce perfectivity, so they help to derive $-l\dot{y}$ and stative $-n\dot{y}/-t\dot{y}$ participles.

They can turn atelic eventualities into telic eventualities,

so they bring about a cause relation between subevents.

3.3 The semantic analysis

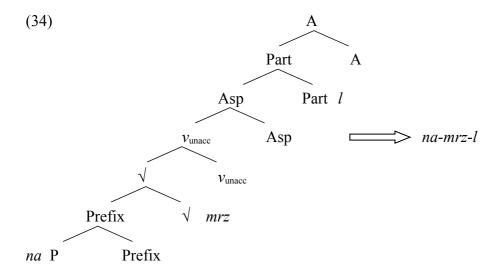
- Two derivations of target state participles.
- Prefixes can be compositional:

namrzlý 'frozen onto sth' and zapadlý 'fallen behind sth' as well as non-compositional:

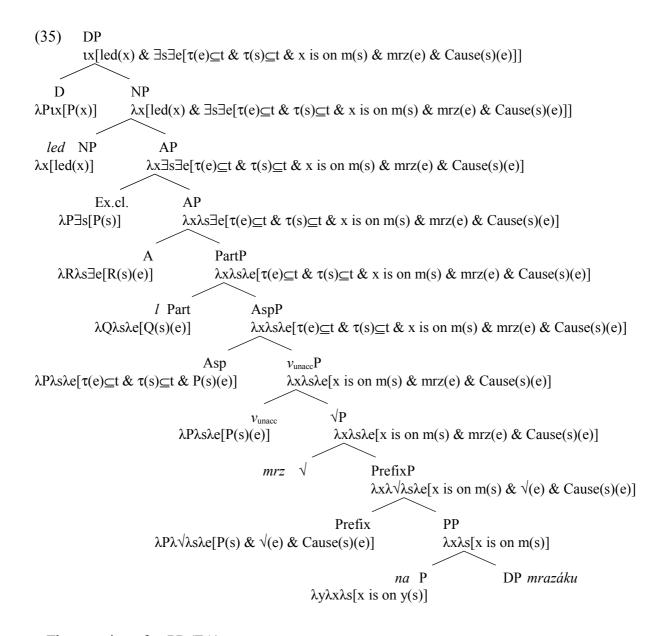
nafoukaný 'inflated' and namožený 'pulled/strained'

Compositional prefixes

- (32) (ten) led na-mrzlý na mrazáku (the) ice on-froze on freezer 'the ice frozen onto the freezer'
- The syntactic structure of *namrzlý* with selection features of the A_{stativizer}:
- (33) [AP Astativizer [pf, unacc] [PartP l [AspP Asp [vP Vunacc [vP mrz [PrefixP Prefix [PP na mrazáku]]]]]]]]
- By means of head incorporation, we receive the complex head (34).
 The *v* is unaccusative and *na* bears the perfective-feature; selection of A is satisfied.
 Head incorporation derives the right order of morphemes: *na-mrz-l*.
 The form of the ending (-ŷ) determined by φ-features of the modified argument *led*.



• The semantic derivation:



• The meaning of *na*PP (FA):

The external argument is in the state of being *na* 'on' *mrazáku* 'freezer'.

• The generalized meaning for compositional prefixes:

(36)
$$\lambda P \lambda \sqrt{\lambda s \lambda e} [P(s) \& \sqrt{(e)} \& Cause(s)(e)]$$

1. conjunct:

The meaning of PP. This is the result state.

Thus, the prefix introduces the lambda-bound state variable, in addition to the event variable This allows the application of the target state operator.

2. conjunct:

allows PrefixP to combine with the root

3. conjunct:

The prefix brings about the causative relation between the result state and the other subevent

- Prefix combines with PP via functional composition.
- PrefixP combines with the root:

x is in the state of being on the freezer and this is caused by the event of freezing.

- \sqrt{P} is composed with the unaccusative v, which works as an identity function.
- vP combines with Asp:

Asp localizes the time of e and s within the reference time t.

Asp is modified:

the state variable is added.

the existential quantification of e changed to lambda binding.

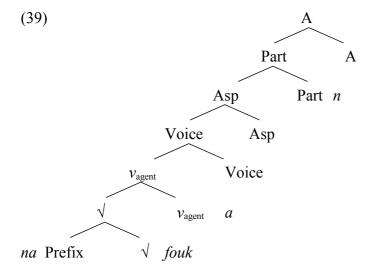
it should be the TS operator that existentially binds the event variable (Kratzer 2000).

t is a free variable (interpreted by the context).

- AspP combines with the meaningless Part.
- PartP combines with the stativizer (Kratzer's (2000) meaning) → stative interpretation. It existentially closes the event argument and externalizes the state variable.
- If there are no modifiers, the existential closure can apply.
- NP merged with AP via predicate modification.
- The definite D is applied to NP.

Non-compositional prefixes

- (37) (to) Pavlem na-foukané kolo (the) by.Pavel on-blown tyre 'the tyre inflated by Pavel'
- The syntactic structure of *nafoukané* with selection features of the A_{stativizer} and Part:
- (38) [AP Astativizer [pf, acc] [PartP $n_{\text{[trans, ag]}}$ [AspP Asp [VoiceP Voice [ν_P ν_{agent} [ν_P fouk [PrefixP na]]]]]]]]
- v assigns accusative and na bears the perfective-feature, the selectional requirements of A satisfied.
- v introduces the agent and $\sqrt{}$ is merged with the PrefixP complement, the selectional requirements of Part satisfied.
- Head incorporation derives the complex head (39):



• The semantic derivation:

Challenge

One would like to separate the prefix from the root and other morphemes.

But combination of the prefix and the root brings about an idiosyncratic meaning.

- The generalized meaning for non-compositional prefixes:
- (41) $\lambda \sqrt{\lambda x \lambda s \lambda e} [P.\sqrt{s}] \& Theme(x)(s) \& \sqrt{e} \& Cause(s)(e)]$

1. conjunct:

The first conjunct expresses the result state.

The dot stands for concatenation:

a binary operation producing one word (string) at LF when both sides are specified.

The first conjunct cannot be interpreted until the root is added.

Then, the particular meaning of the whole string is used.

2. conjunct:

says that *x* is the theme of the result state.

This renders the transitivizing effect of prefixation.

The prefix introduces the lambda-bound state variable and the event variable,

which allows the application of the target state operator.

3. conjunct:

allows PrefixP to combine with the root.

4. conjunct:

The prefix brings about the causative relation between the result state and the other subevent.

• PrefixP combines with the root:

Now, the first conjunct can be interpreted:

x is in the state of being inflated.

- \sqrt{P} is composed with v, which has the agentive semantics, via functional composition.
- Voice switches the argument variables and introduces the instrumental agent.
- The next steps parallel to compositional prefixes.

4. Conclusion

 $-l\dot{y}$ and $-n\dot{y}/-t\dot{y}$ participles are headed by A, which functions as a stativizing operator.

They have the following structure:

(42) [AP A [PartP Part [AspP Asp ([VoiceP Voice]]
$$\nu$$
P ν [ν P ν [PrefixP Prefix (PP)]]]]]]

Prefixes are incorporated Ps, projecting PrefixP in the complement of $\sqrt{ }$.

Prefixes can introduce an unselected argument and add a new subevent.

Compositional prefixes: (36) $\lambda P \lambda \sqrt{\lambda s \lambda e[P(s) \& \sqrt{(e) \& Cause(s)(e)}]}$

Non-compositional prefixes: (41) $\lambda \sqrt{\lambda x \lambda s \lambda e} [P.\sqrt{s}]$ & Theme(x)(s) & \sqrt{e} & Cause(s)(e)]

Prefixes introduce the state variable and the event variable, which license the stativizer.

References

- Alexiadou, A., M. Rathert & A. von Stechow (2003), Introduction: the modules of Perfect constructions. In: Alexiadou, A., M. Rathert & A. von Stechow (eds.), *Perfect Explorations*. Berlin, New York: Mouton de Gruyter, vii-xxxviii.
- Bertinetto, P. M. (2001), On a Frequent Misunderstanding in the Temporal-Aspectual Domain: The 'Perfective = Telic Confusion'. In: C. Cecchetto et al. (eds.), *Semantic Interfaces*. Stanford: CSLI, 177-210.
- Biskup, P. (2007), P(refixe)s and P(reposition)s. To appear in: B. Dvořák (ed.), *Proceedings of the 2nd Congress of the Slavic Linguistic Society*, 2007.
- Biskup, P. (2009), Prefixes as Prepositions and Multiple Cases. In: G. Zybatow, U. Junghanns, D. Lenertová & P. Biskup (eds.), *Studies in Formal Slavic Phonology, Morphology, Syntax, Semantics and Information Structure. Proceedings of FDSL 7, Leipzig 2007.* Frankfurt am Main: Peter Lang, 3-17.
- Biskup, P. (2010), The Syntax and Semantics of Prefixed Adjectival Participles. Ms. Universität Leipzig.
- Borik, O. (2002), *Aspect and Reference time*. Ph.D. dissertation, Utrecht University, LOT dissertation series.
- Filip, H. (2003), Prefixes and the delimitation of events. *Journal of Slavic Linguistics* 11, 55-101.
- Karlík, P. (2004), Pasivum v češtině. Slovo a slovesnost 65, 82-113.
- Karlík, P., M. Nekula & Z. Rusínová (1995), *Příruční mluvnice češtiny*. Praha: Nakladatelství Lidové noviny.
- Kopečný, F. (1962), Základy české skladby. Praha: Státní pedagogické nakladatelství.
- Kratzer, A. (2000), Building Statives. In: *Proceedings of the Berkeley Linguistics Society 26*, ed. L. J. Conathan, J. Good, D. Kavitskaya, A. B. Wulf & A. C. L. Yu. Berkeley: Berkeley Linguistic Society, 385-399.
- Lamprecht, A., D. Šlosar, & J. Bauer (1986), *Historická mluvnice češtiny*. Praha: Státní pedagogické nakladatelství.
- Miller, D. G. (1993), *Complex Verb Formation*. Amsterdam, Philadelphia: John Benjamins Publishing Company.
- Mluvnice češtiny 2 (1986), ed. J. Petr. Praha: Academia.
- Mulder, R. (1992), The aspectual nature of syntactic complementation. Ph.D. dissertation, Rijksuniversiteit Leiden.
- Paslawska, A. & A. von Stechow (2003), Perfect readings in Russian. In: Alexiadou, A., M. Rathert & A. von Stechow (eds.), *Perfect Explorations*. Berlin, New York: Mouton de Gruyter. 307-362.
- Romanova, E. (2006), Constructing Perfectivity in Russian. Ph.D. dissertation, University of Tromsø.
- Veselovská, L. & P. Karlík (2004), Analytic passives in Czech. *Zeitschrift für Slawistik* 49, 163-235.