

Structural and Featural Distinctions between Germanic and Slavic prefixes

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1 Slavic

1.1 Prefixes and the category P

- (1) Slavic prefixes are closely related to the P system; descriptively, most prefixes are also prepositions, illustrating here with Russian, Matushansky (2002), Svenonius (2004b)

a.	iz-bežatj <i>out.from-run</i> 'avoid'	a'. iz doma <i>out.from house</i> 'out of the house'
b.	pod-bežatj <i>under-run</i> 'run up to'	b'. pod domom <i>under house</i> 'under the house'
c.	pri-bežatj <i>by-run</i> 'come running'	c'. pri dome <i>by house</i> 'by the house'
d.	ot-bežatj <i>away.from-run</i> 'run off'	d'. ot doma <i>away.from house</i> 'from the house'
e.	v-bežatj <i>in-run</i> 'run into'	e'. v dom <i>in house</i> 'into the house'

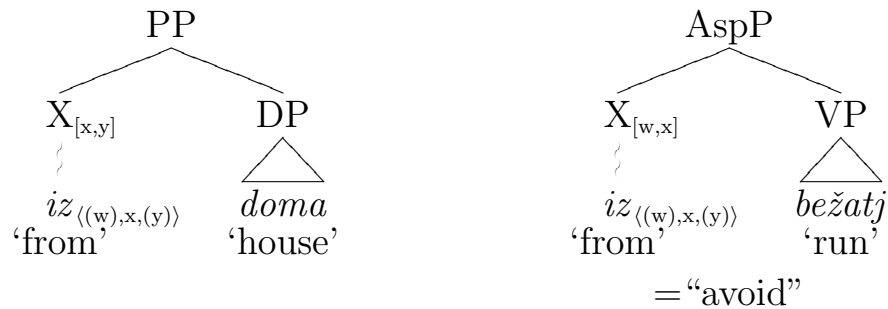
- (2) As prefixes, they often gain idiomatic meanings (exx. from Matushansky 2002, cf. also Svenonius 2004b)

a.	iz-pravitj <i>out.from-drive</i> 'repair'	a'. iz lodki <i>out.from boat</i> 'out of the boat'
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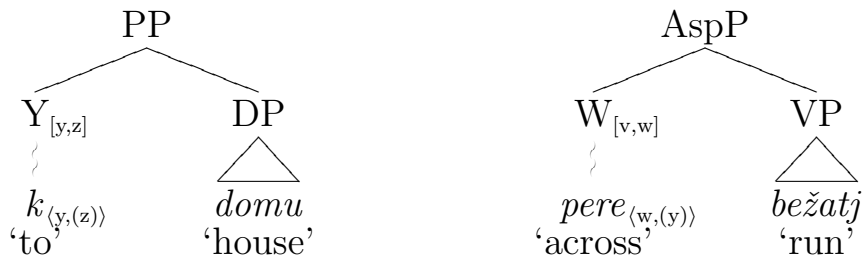
b.	pod-pravitj <i>under-drive</i> 'correct'	b'.	pod lodkoj <i>under boat</i> 'under the boat'
c.	pri-pravitj <i>by-drive</i> 'spice'	c'.	pri lodke <i>by boat</i> 'by the boat'
d.	ot-pravitj <i>away.from-drive</i> 'send'	d'.	ot lodki <i>away.from boat</i> 'from the boat'
e.	v-pravitj <i>in-drive</i> 'set'	e'.	v lodku <i>in boat</i> 'into the boat'

(3) Background assumption: Following McCawley's (1968) late insertion, DM (Marantz 1993), and Beard's (1995) separation hypothesis, I assume a difference between the syntactic structure and the exponents which are used to lexicalize it. So more precisely, most of the exponents which are used to lexicalize prefixes are also used to lexicalize prepositions. That doesn't mean precisely that the prefix *is* a "P," but it shows that (a core set of) prepositions and (most) prefixes have at least one feature in common (a feature which is L-matched by the exponent, in the sense of Bye and Svenonius 2010).

(4) A substantial set of exponents, including *iz*, can lexicalize either a prefix or a preposition



(5) But some exponents can only lexicalize one or the other



1.2 Structural position

- (6) Important and systematic difference among *uses* of prefixes can be related directly to their structural height (cf. Tolskaya, this workshop); in general, each of *pere-*, *za-*, etc. has lexical and superlexical uses. Again, this means that the exponents can lexicalize the low structure or the high structure. They do so nearly systematically; the systematicity suggests a shared feature, but the exceptions show that the difference can be codified.

- (7) Russian superlexical prefixes (from Svenonius 2004a)

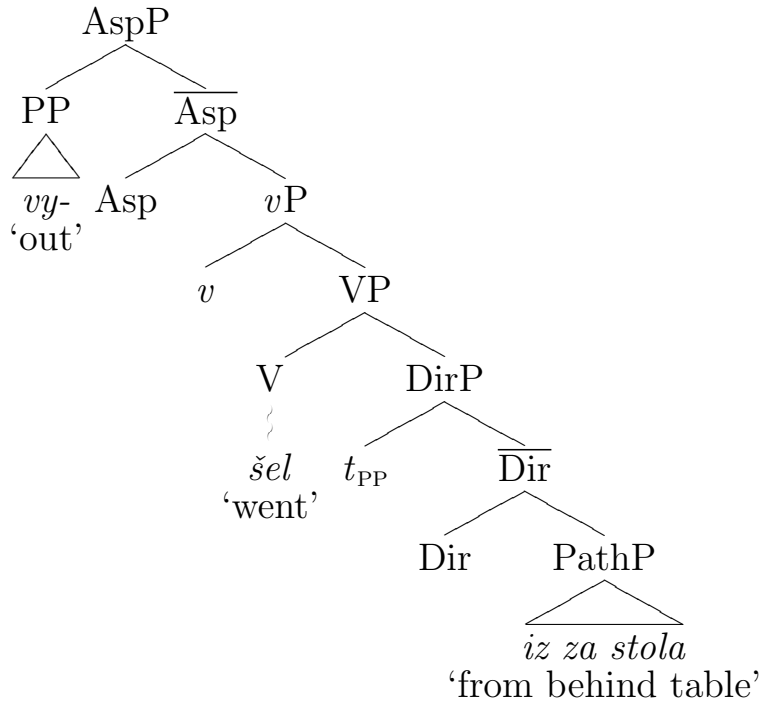
Label	Gloss	exponent
INCEPTIVE	INCP	za
TERMINATIVE	TRMN	ot
COMPLETIVE	CMPL	do, iz
PERDURATIVE	PRDR	pro
DELIMITATIVE	DLMT	po
ATTENUATIVE	ATTN	po
DISTRIBUTIVE	DSTR	po, pere
CUMULATIVE	CMLT	na
SATURATIVE	STRT	na
REPETITIVE	RPET	pere
EXCESSIVE	EXCS	pere

- (8) Babko-Malaya (1999), Svenonius (2004b): Lexical prefixes originate inside VP, superlexical prefixes outside VP, separated by Asp, which can be overtly realized by the secondary imperfective; but in Svenonius (2004b; 2008b) I argued that both types end up in the same place

On vy-šel iz-za stola.

he out-went out.of-behind table

‘He got up from the table’ (ex. from Rojina 2004, tree from Svenonius 2004b)



- (9) Other prefixes have been analyzed as in situ, not forming a syntactic constituent with their surface hosts, as in Julien (2002)

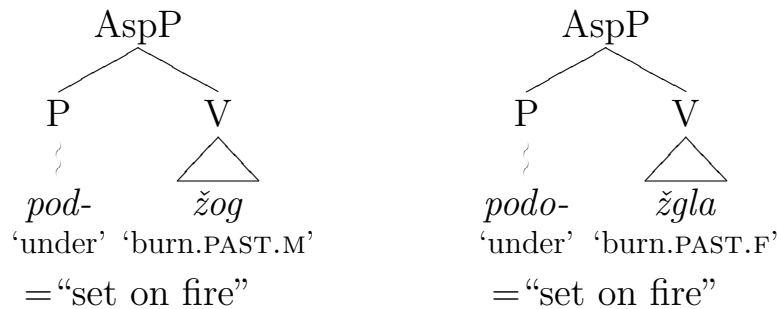
1.3 Aspect and Aktionsart

- (10) Lexical prefixes can change Aktionsart, or argument structure, by licensing (lexicalizing) predicative structure inside VP which in turn supports DP arguments
- a. Sobaka ležala (*odejalo).
dog lay blanket
 'The dog lay (*the blanket)'
 - b. Sobaka pro-ležala odejalo.
dog about-lay blanket
 'The dog wore out the blanket by lying on it' (Dimitrova-Vulchanova 2002)
- (11)
- a. Ivan pisal (pisjmo).
Ivan wrote letter
 'Ivan was writing a letter'
 - b. Ivan na-pisal *(pisjmo).
Ivan on-wrote letter
 'Ivan wrote a letter' (Babko-Malaya 1999:18)
 - c. Ona is-pisala svoju ručku.
she out.of-wrote RFX.POSS pen
 'She has written her pen out [of ink]' (Spencer and Zaretskaya 1998:17)

- (12) Both lexical and superlexical induce perfectivity, which is a syntactically relevant feature in Russian; roughly speaking, PERFECTIVE verbs express an event as a bounded whole, while the IMPERFECTIVE may express an event which is ongoing or otherwise not distinctly bounded (see analysis in Ramchand 2004, Borik 2006, Romanova 2007)
- (13) Only imperfective forms can be embedded under certain verbs like ‘start,’ known as PHASE VERBS
- Petja načal čitatj/*pro-čitatj lekciju.
Peter began read^I/PERF-read^P lecture
 ‘Peter began to give a lecture’ (from Borik 2002)
- (14) So the prefix has a [PERF] feature. If this is attracted to Asp, or must be checked in Asp, then there is a partial structural unification of lexical and superlexical prefixes

1.4 Morphophonology

- (15) Prefixal status; any verb movement (or deletion, or coordination, or focus) takes the prefix along; the two are truly inseparable
- (16) The prefix is subject to word-internal phonology, e.g. yer-realization (Matushansky 2002)



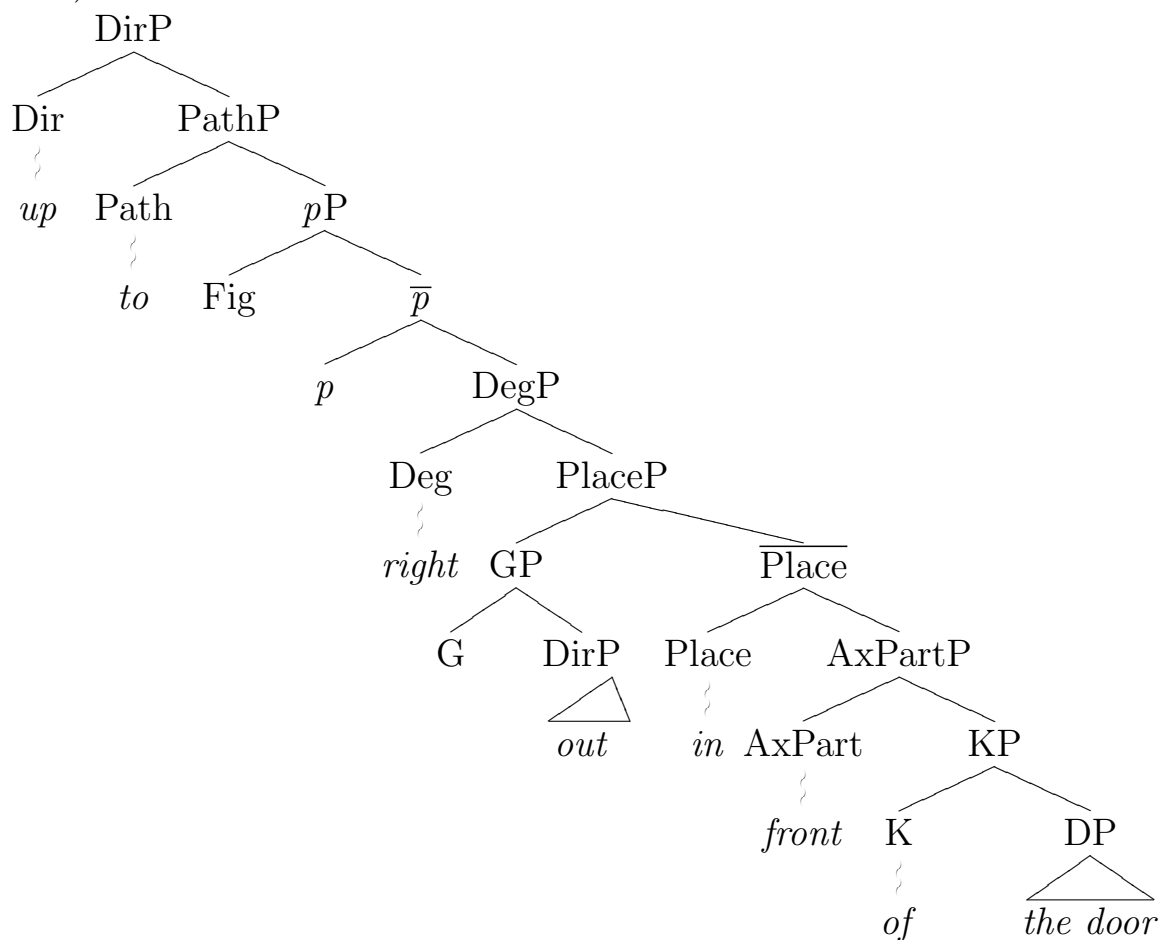
- (17) Compare *ljod dna*, ‘the ice of the bottom,’ not **ljdo dna* (nor **ljodo dna* nor **ljod dona*)
- (18) But the prefix is not subject to ‘cyclic’ word-internal rules like VV simplification and palatalization (Pesetsky 1985, Fowler 1994, Gribanova 2009; examples here from Matushansky 2002)
- a. stol-e ⇒ stolje
table-LOC
- b. ot-iskatj ⇒ otiskatj (*otjiskatj)
FROM-look.for ‘find’

2 Germanic

2.1 Prefixes and the category P

(19) Closely related to the P system

(20) Svenonius (2008a; 2010): Dir is a category above Path in the functional sequence (even if Path is decomposed further, as in Pantcheva 2011)



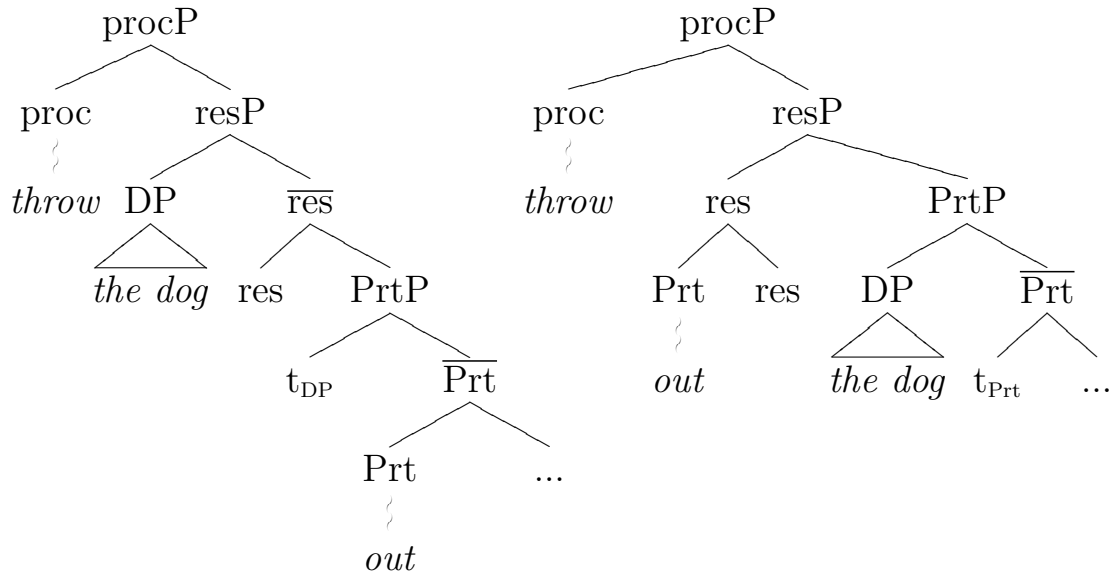
(21) Traditional grammars often treat particles as “adverbial”; Klima (1965) and Emonds (1985) argued that they are of the category P. In a cartographic decomposition, this is more nuanced. Particles are in the same extended projection as P, like modals with respect to V.

2.2 Structural position

(22) Germanic particles are generally much more like Slavic lexical prefixes, than like superlexical prefixes. There is every indication that they are inside *vP* (Aarts 1992, Neeleman 1994, den Dikken 1995, Zeller 2001, Lüdeling 2001, Müller 2002, Dehé 2002, Toivonen 2003, to name a sample of thesis-length treatments in a range of frame-

works; cf. also e.g. Dehé et al. 2002).

- (23) Particle shift, in English, Norwegian, and Icelandic, involves optional movement of the particle to the left; obligatory in Swedish; I have discussed this in Svenonius (1992; 1994; 1996a;b; 2003a;b; 2007), and Ramchand and Svenonius (2002), using the init–proc–res structure of Ramchand (2008)



- (24) German, Dutch, Danish have no particle shift, but German and Dutch have OV order with the particle to the left of the verb; Dutch clustering effects sometimes give rise to Prt-Aux-V order (exx. from Bennis 1992, den Dikken 1995).

- a. dat ik Jan op zou hebben willen bellen
that I Jan up would have want call
- b. dat ik Jan zou op hebben willen bellen
that I Jan would up have want call
- c. dat ik Jan zou hebben op willen bellen
that I Jan would have up want call
- d. dat ik Jan zou hebben willen op bellen
that I Jan would have want up call
'that I would have liked to call Jan up'

2.3 Aspect and Aktionsart

- (25) Germanic particles affect Aktionsart/Argument structure, in ways similar to that of the Slavic lexical prefixes

- a. We walked (*our new shoes).
- b. We walked our new shoes in.

- (26) a. #They sang their melancholy.

- b. They sang their melancholy away.
- (27) There is no perfectivity effect; perfective is not grammaticized in Germanic languages

2.4 Morphophonology

- (28) Particles can be incorporated or unincorporated
- a. Vi måste kasta ut skräpet.
we must throw out the.trash
 ‘We had to throw out the trash’
- b. Skräpet måste bli utkastat.
the.trash must become out.thrown
 ‘The trash had to be thrown out’ (Swedish, from Svenonius 1996b)
- (29) The separability of separable prefixes suggests they are unincorporated, even when adjacent to V (or to the verbal cluster, cf. (24))
- a. weil er die Oma úm-fuhr
because he the grandmother about-drove
 ‘because he ran over the grandmother’
- b. weil er die Oma umfúhr
because he the grandmother about.drove
 ‘because he drove around the grandmother’ (German, from Müller 2002)
- (30) Head movement (Travis 1984, Baker 1988) has often been taken to be the right mechanism for combining the verb and particle when the particle is incorporated: Complements can incorporate to their selecting heads, left-adjoining in the usual case (Brody 2000a;b)
- (31) West Germanic “separable prefixes” are not really prefixal — they are on the same side of the verb as phrasal complements, they are stranded by finite verb movement, and when stranded, they have phonological word status all on their own
- (32) Three reasons to be suspicious of the head-movement solution to particle incorporation
- a. There are morphophonological differences between normally integrated suffixes and these nonintegrated prefixes; so if head-movement is also used for word-building (which is in large part what motivates the head-movement proposals), then head-movement has to have two different kinds of morphophonological result
- b. There are some cases of incorporation of specifiers, for exam-

ple Hale and Keyser (2002) on Hopi examples like ‘rabbit-run’; this similarly suggests that the phenomenon of complex word formation is not so homogeneous

- c. Compounding can access the stored meaning of the verb-particle collocation without the projection of all the functional structure associated with the noncompounded form (cf. Farrell 2005)
- (33) So word formation includes not only strict spanning of derivational and inflectional morphology, but also cliticization, compounding, and incorporation

3 Comparison

3.1 Lexical and Superlexical

- (34) Q If the Slavic lexical and superlexical prefixes start out in different locations, why do they have the same morphophonological structure?
- A₁ Both are attracted to Asp, because of their [PERF] feature
 - A₂ They are clitics, i.e. structurally deficient specifiers inside the verbal span
- (35) Q If the Slavic lexical and superlexical prefixes are attracted to the specifier of Asp, how can they stack?
- A₁ Secondary imperfective licenses an additional specifier position
 - A₂ There are multiple suitable sites in the verbal span
- (36) Q If the prefixes are specifiers, why are they inseparable from the verb?
- A₁ The verb moves to Asp, nothing can intervene between Asp and its specifier
 - A₂ Clitics form a syntactic word with their hosts

3.2 Slavic and Germanic

- (37) Q If the Slavic lexical prefixes are so similar to the Germanic particles, why are there no superlexical particles in Germanic?
- A The possibility of merging P directly in the T domain is related to the [PERF] feature borne by P in Slavic, but not in Germanic
- (38) Q If the Germanic and Slavic (lexical) prefixes are so alike, why are the Germanic ones not affixed to the verb?
- A Germanic particles are unlike Slavic prefixes in not being structurally deficient clitics (note that *up* and *down* are among the

first words learned by English-speaking children)

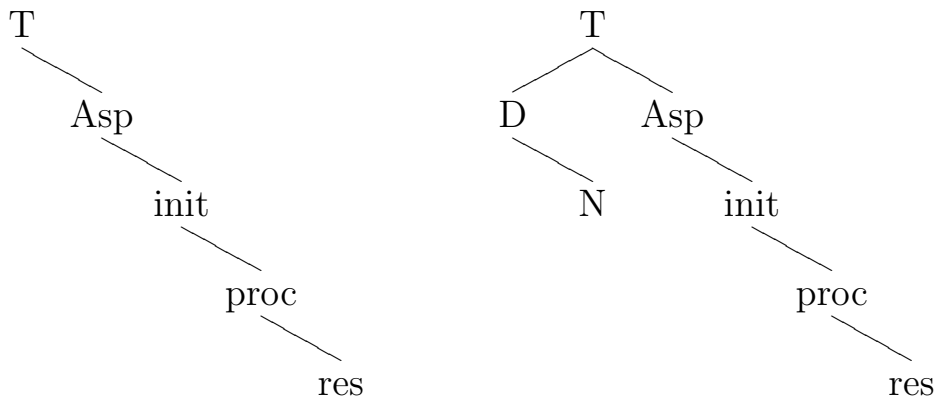
4 Proposal

4.1 Clitics

(39) I assume a restrictive syntax-phonology correspondence (Selkirk 2011) in which word formation is closely connected to the SPAN (Williams 2003): a consecutive head-complement sequence in an extended projection; equivalent to what can be constructed by traditional head-movement if the HMC is respected, but lowering is allowed

- a. Words correspond to spans (Brody 2000a;b), excluding certain well-defined elements (clitics, phrasal affixes, compounds, and certain kinds of incorporation).
- b. Morphemes can only lexicalize spans, and cannot include specifiers, or adjuncts (Svenonius 2012, Bye and Svenonius 2010; in press)
- c. Phrasal specifiers and adjuncts map onto independent phonological phrases (e.g. Hayes 1990)
- d. Clitics are structurally deficient elements in phrasal positions (Cardinaletti and Starke 1999, Roberts 2010)

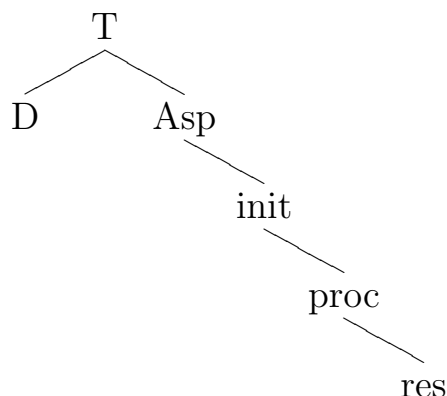
(40) The structure on the left is a span, and could hence be spelled out as a single word, in a head-movement system, Brody's Mirror Theory, or the Spanning theory; the structure on the right, however, contains a specifier, and hence must spell out as at least two words (in all of the models just mentioned, barring morphological merger, Marantz 1989)



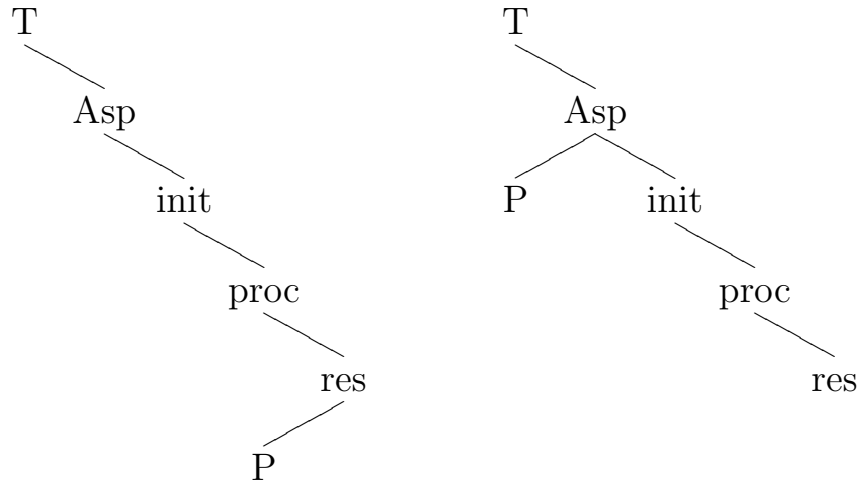
(41) This can be motivated in part by the fact that the specifier must be assembled in a separate workspace, assuming that Merge can only operate on one target at a time

(42) If that is the reason that specifiers must map onto distinct words,

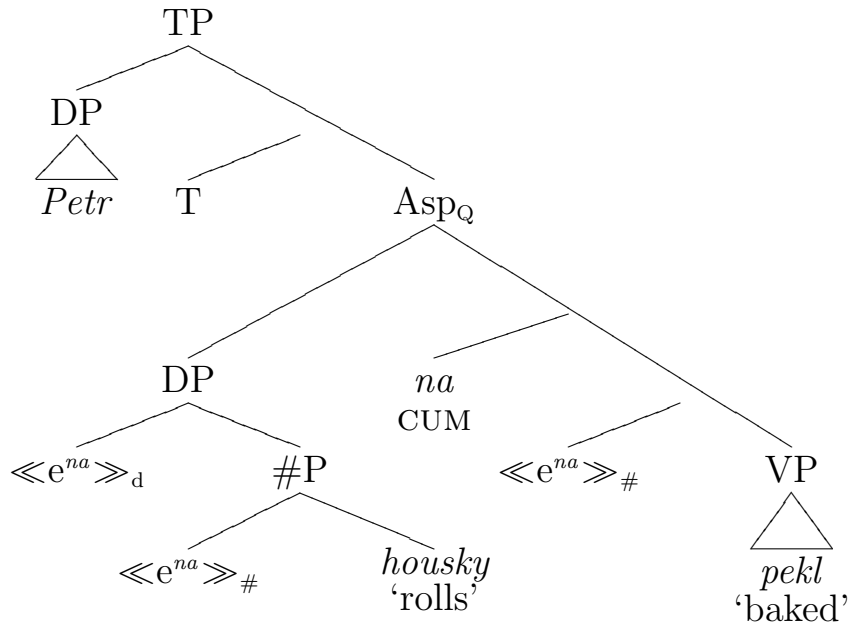
then consider a “nonbranching” (structurally deficient) specifier: There is no need for assembly in a separate workspace; D can be introduced directly from the list of syntactic atoms



- (43) Proposal:
- a. A phonological word corresponds to a cycle (Marvin 2002, Newell 2008)
 - b. Lexical insertion matches spans to morphemes (Bye and Svenonius 2010; in press)
 - c. A deficient specifier is therefore inside the word cycle, but constitutes a separate lexical insertion cycle
 - d. The phonological interpretation of this situation is one of the things that we call “special clitics” (Zwicky 1977)
 - e. Linearization is, as for specifiers in Brody’s Mirror Theory, to the left of the verbal word
 - f. In a departure from Brody’s theory, I assume that head raising (e.g. V to T) leads to a relinearization of the word, including any special clitics
- (44) Note that ‘structurally deficient’ does not mean ‘bearing only a single feature,’ neither here nor on Cardinaletti & Starke’s (1999) proposal, nor on that of Roberts (2010).
- (45) For Slavic languages, this means that there are multiple positions inside the verbal word where a clitic might be attached, and still linearize to the left of the verbal word



- (46) Cf. Borer’s (2005a, 2005b, to appear) separation of range assignment (terminal) from open value (category): a “head pair”



- (47) Compare various proposals to eliminate one or more of the distinctions between specifiers, adjuncts, and complements (Kayne 1994, Chomsky 1995, Cormack 1999, Lohndal 2012), and Starke’s (2004) elimination of the head-specifier distinction

4.2 Consolidation

- (48) At this point, there are two differences between the Slavic and the Germanic systems
- a. Slavic prefixes are structurally deficient, hence clitics, Germanic particles are not, hence are words
 - b. Slavic prefixes have a [PERF] feature (or: can assign range to #), hence can merge directly in Asp, with superlexical meanings,

Germanic particles do not and cannot

- (49) Are these two differences irreducible, or can they be related to each other?
- (50) The [PERF] feature does not seem to play any role in the prepositional use of the exponents *za*, *na*, etc. This suggests that it is a functor which is combined with P to create a prefix; hence something that can add W to something that already has X, in the sense of (4) and (5), but which doesn't add structure.
- (51) The Germanic P system seems to be more syntactically elaborate than the Slavic one. There are more possibilities for complex prepositional collocations. Prepositional elements can be stranded, like lexical ones. This suggests that there are several obligatory elements in the extended projection of P, in Germanic.
- (52) The absence in Germanic of a P-to-prefix functor introducing aspectual features could be related to the fact that the extended projection of P requires certain specialized components in Germanic, perhaps components which are incompatible with turning the P into an aspectual operator.

References

- Aarts, Bas. 1992. *Small Clauses in English: The Nonverbal Types*. Mouton de Gruyter, Berlin.
- Babko-Malaya, Olga. 1999. *Zero Morphology: a Study of Aspect, Argument Structure and Case*. Ph.D. thesis, Rutgers, New Brunswick, New Jersey.
- Baker, Mark C. 1988. *Incorporation: A Theory of Grammatical Function Changing*. University of Chicago Press, Chicago.
- Beard, Robert. 1995. *Lexeme-Morpheme Based Morphology: A General Theory of Inflection and Word-Formation*. SUNY Press, Albany, NY.
- Bennis, Hans. 1992. Long head movement: The position of particles in the verbal cluster in Dutch. In *Linguistics in the Netherlands*, edited by R. van Hout and R. Bok-Bennema, vol. 1992, pp. 37–48. John Benjamins, Amsterdam.
- Borer, Hagit. 2005a. *In Name Only (Structuring Sense, vol. I)*. Oxford University Press, Oxford.
- Borer, Hagit. 2005b. *The Normal Course of Events (Structuring Sense, vol. II)*. Oxford University Press, Oxford.
- Borer, Hagit. to appear. *Taking Form (Structuring Sense, vol. III)*. Oxford University Press, Oxford.
- Borik, Olga. 2002. *Aspect and Reference Time*. Ph.D. thesis, Universiteit Utrecht.
- Borik, Olga. 2006. *Aspect and Reference Time*. Oxford University Press, Oxford.
- Brody, Michael. 2000a. Mirror Theory: Syntactic representation in Perfect Syntax. *Linguistic Inquiry* 31 1: 29–56.

- Brody, Michael. 2000b. Word order, restructuring, and Mirror Theory. In *The Derivation of VO and OV*, edited by Peter Svenonius, pp. 27–43. John Benjamins, Amsterdam.
- Bye, Patrik and Peter Svenonius. 2010. Exponence, phonology, and non-concatenative morphology. Ms. CASTL, University of Tromsø; available at ling.auf.net/lingbuzz/001099.
- Bye, Patrik and Peter Svenonius. in press. Non-concatenative morphology as epiphenomenon. In *The Morphology and Phonology of Exponence: The State of the Art*, edited by Jochen Trommer, pp. 427–495. Oxford University Press, Oxford.
- Cardinaletti, Anna and Michal Starke. 1999. The typology of structural deficiency: A case study of three classes of pronouns. In *Clitics in the Languages of Europe*, edited by Henk van Riemsdijk, pp. 145–233. Mouton, Berlin.
- Chomsky, Noam. 1995. Bare phrase structure. In *Government and Binding Theory and the Minimalist Program: Principles and Parameters in Syntactic Theory*, edited by Gert Webelhuth, pp. 383–439. Blackwell, Oxford.
- Cormack, Annabel. 1999. Without specifiers. In *Specifiers: Minimalist Approaches*, edited by David Adger, Susan Pintzuk, Bernadette Plunkett, and George Tsoulas, pp. 46–68. Oxford University Press, Oxford.
- Dehé, Nicole. 2002. *Particle Verbs in English: Syntax, Information Structure, and Intonation*. John Benjamins, Amsterdam.
- Dehé, Nicole, Ray Jackendoff, Andrew McIntyre, and Silke Urban (eds.). 2002. *Verb-Particle Explorations*. Mouton de Gruyter, Berlin.
- den Dikken, Marcel. 1995. *Particles: On the Syntax of Verb-particle, Triadic, and Causative constructions*. Oxford University Press, New York.
- Dimitrova-Vulchanova, Mila. 2002. On two types of result: Resultatives revisited. Ms. NTNU, Trondheim.
- Emonds, Joseph. 1985. *A Unified Theory of Syntactic Categories*. No. 19 in *Studies in Generative Grammar*. Foris, Dordrecht.
- Farrell, Patrick. 2005. English verb-preposition constructions: Constituency and order. *Language* 81 1: 96–137.
- Fowler, George. 1994. Verbal prefixes as functional heads. *Studies in Linguistic Sciences* 24: 171–185.
- Gribanova, V. 2009. Phonological evidence for a distinction between Russian prepositions and prefixes. In *Studies in Formal Slavic Phonology, Morphology, Syntax, Semantics and Information Structure: Proceedings of the 7th European conference on Formal Description of Slavic Languages*, edited by Gerhild Zybatow, Uwe Junghanns, Denisa Lenertová, and Petr Biskup, pp. 383–396. Peter Lang, Frankfurt am Main.
- Hale, Ken and Samuel Jay Keyser. 2002. *Prolegomenon to a Theory of Argument Structure*. No. 39 in *Linguistic Inquiry Monographs*. MIT Press, Cambridge, Ma.
- Hayes, Bruce. 1990. Precompiled phrasal phonology. In *The Phonology-Syntax Connection*, edited by Sharon Inkelas and Draga Zec, pp. 85–108. University of Chicago Press, Chicago.
- Julien, Marit. 2002. *Syntactic Heads and Word Formation*. Oxford University Press, New York.
- Kayne, Richard S. 1994. *The Antisymmetry of Syntax*. MIT Press, Cambridge, Ma.
- Klima, Edward S. 1965. *Studies in Diachronic Syntax*. Ph.D. thesis, Harvard.
- Lohndal, Terje. 2012. *Without Specifiers: Phrase Structure and Events*. Ph.D. thesis, University of Maryland, College Park, Md.
- Lüdeling, Anke. 2001. *On Particle Verbs and Similar Constructions in German*. CSLI, Stanford, Ca.

- Marantz, Alec. 1989. Clitics and phrase structure. In *Alternative Conceptions of Phrase Structure*, edited by Mark R. Baltin and Anthony S. Kroch, pp. 99–116. University of Chicago Press, Chicago.
- Marantz, Alec. 1993. A late note on late insertion. In *Explorations in Generative Grammar: A Festschrift for Dong-Whee Yang*, edited by Y.-S. Kim et al., pp. 396–413. Hankuk, Seoul.
- Marvin, Tatjana. 2002. *Topics in the Stress and Syntax of Words*. Ph.D. thesis, MIT, Cambridge, Ma.
- Matushansky, Ora. 2002. On formal identity of Russian prefixes and prepositions. In *Phonological Answers (and their corresponding questions)*, edited by Anikó Csirmaz, Zhiqiang Li, Andrew Nevins, Olga Vaysman, and Michael Wagner, vol. 42, pp. 217–253. MITWPL, Cambridge, Ma.
- McCawley, James D. 1968. Lexical insertion in a grammar without deep structure. In *Papers from the Fourth Regional Meeting of the Chicago Linguistic Society*, edited by Bill J. Darden, Charles-James N. Bailey, and Alice Davidson, pp. 71–80. University of Chicago, Chicago.
- Müller, Stefan. 2002. *Complex Predicates: Verbal Complexes, Resultative Constructions, and Particle Verbs in German*. CSLI, Stanford, Ca.
- Neeleman, Ad. 1994. *Complex Predicates*. Ph.D. thesis, Utrecht University.
- Newell, Heather. 2008. *Aspects of the Morphology and Phonology of Phases*. Ph.D. thesis, McGill University, Montréal.
- Pantcheva, Marina. 2011. *Decomposing Path: The Nanosyntax of Directional Expressions*. Ph.D. thesis, University of Tromsø.
- Pesetsky, David. 1985. Morphology and lexical form. *Linguistic Inquiry* 16 2: 193–246.
- Ramchand, Gillian. 2004. Time and the event: The semantics of Russian prefixes. In *Nordlyd, Tromsø Working Papers on Language and Linguistics 32.2: Special issue on Slavic prefixes*, edited by Peter Svenonius, pp. 323–361. University of Tromsø, Tromsø. Available at www.ub.uit.no/munin/nordlyd/.
- Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon*. Cambridge University Press, Cambridge.
- Ramchand, Gillian and Peter Svenonius. 2002. The lexical syntax and lexical semantics of the verb-particle construction. In *Proceedings of WCCFL 21*, edited by Line Mikkelsen and Christopher Potts, pp. 387–400. Cascadilla Press, Somerville, Ma.
- Roberts, Ian. 2010. *Agreement and Head Movement: Clitics, Incorporation, and Defective Goals*. MIT Press, Cambridge, Ma.
- Rojina, Nina. 2004. *English Particles, Russian Prefixes, and Prepositional Phrases*. Master's thesis, Universitetet i Tromsø.
- Romanova, Eugenia. 2007. *Constructing Perfectivity in Russian*. Ph.D. thesis, University of Tromsø, Tromsø. Available at <http://hdl.handle.net/10037/904>.
- Selkirk, Elisabeth. 2011. The syntax-phonology interface. In *The Handbook of Phonological Theory*, edited by John Goldsmith, Jason Riggle, and Alan Yu. Blackwell, Oxford, 2nd edn.
- Spencer, Andrew and Marina Zaretskaya. 1998. Verb prefixation in Russian as lexical subordination. *Linguistics* 36: 1–39.
- Starke, Michal. 2004. On the inexistence of specifiers and the nature of heads. In *Structures and Beyond: The Cartography of Syntactic Structures, vol. 3*, edited by Adriana Belletti, pp. 252–268. Oxford University Press, New York.

- Svenonius, Peter. 1992. Movement of P⁰ in the English verb-particle construction. In *Syntax at Santa Cruz 1*, edited by H. Andrew Black and James McCloskey, pp. 93–113. Syntax Research Center, UCSC, Santa Cruz, Ca.
- Svenonius, Peter. 1994. *Dependent Nexus: Subordinate Predication Structures in English and the Scandinavian Languages*. Ph.D. thesis, University of California at Santa Cruz.
- Svenonius, Peter. 1996a. The optionality of particle shift. *Working Papers in Scandinavian Syntax* 57: 47–75.
- Svenonius, Peter. 1996b. The verb-particle alternation in the Scandinavian languages. Ms. University of Tromsø; available at www.ling.auf.net/lingBuzz/000046.
- Svenonius, Peter. 2003a. Limits on P: *filling in holes* vs. *falling in holes*. *Nordlyd, Tromsø Working Papers on Language and Linguistics. Proceedings of the 19th Scandinavian Conference of Linguistics* 31 2: 431–445.
- Svenonius, Peter. 2003b. Swedish particles and directional prepositions. In *Grammar in Focus: Festschrift for Christer Platzack 18 November 2003*, edited by Lars-Olof Delsing, Cecilia Falk, Gunlög Josefsson, and Halldór Á. Sigurðsson, vol. II, pp. 343–351. Department of Scandinavian Languages, Lund University, Lund.
- Svenonius, Peter. 2004a. Slavic prefixes and morphology: An introduction to the Nordlyd volume. In *Nordlyd, Tromsø Working Papers on Language and Linguistics 32.2: Special issue on Slavic prefixes*, edited by Peter Svenonius, pp. 177–204. University of Tromsø, Tromsø. Available at www.ub.uit.no/munin/nordlyd/.
- Svenonius, Peter. 2004b. Slavic prefixes inside and outside VP. In *Nordlyd, Tromsø Working Papers on Language and Linguistics 32.2: Special issue on Slavic prefixes*, edited by Peter Svenonius, pp. 205–253. University of Tromsø, Tromsø. Available at www.ub.uit.no/munin/nordlyd/.
- Svenonius, Peter. 2007. Adpositions, particles, and the arguments they introduce. In *Argument Structure*, edited by Eric Reuland, Tanmoy Bhattacharya, and Giorgos Spathas, pp. 71–110. John Benjamins, Amsterdam.
- Svenonius, Peter. 2008a. Projections of P. In *Syntax and Semantics of Spatial P*, edited by Anna Asbury, Jakub Dotlačil, Berit Gehrke, and Rick Nouwen, pp. 63–84. John Benjamins, Amsterdam.
- Svenonius, Peter. 2008b. Russian prefixes are phrasal. In *Formal Description of Slavic Languages: The Fifth Conference, Leipzig 2003*, edited by Gerhild et al. Zybatow, pp. 526–537. Peter Lang, Frankfurt am Main.
- Svenonius, Peter. 2010. Spatial prepositions in English. In *Mapping Spatial PPs: Cartography of Syntactic Structures, vol. 6*, edited by Guglielmo Cinque and Luigi Rizzi, pp. 127–160. Oxford University Press, Oxford. Prepublication draft available at <http://ling.auf.net/lingBuzz/000001>.
- Svenonius, Peter. 2012. Spanning. Ms. University of Tromsø, available at ling.auf.net/lingBuzz/001501.
- Toivonen, Ida. 2003. *Non-projecting Words: A Case Study of Swedish Particles*. Kluwer, Dordrecht.
- Travis, Lisa. 1984. *Parameters and Effects of Word Order Variation*. Ph.D. thesis, Massachusetts Institute of Technology, Cambridge, Ma.
- Williams, Edwin. 2003. *Representation Theory*. MIT Press, Cambridge, Ma.
- Zeller, Jochen. 2001. *Particle Verbs and Local Domains*. John Benjamins, Amsterdam.
- Zwicky, Arnold M. 1977. *On clitics*. Indiana University Linguistics Club, Bloomington, In.