## Non-predicative particles as adjuncts to abstract arguments

I propose an event structure based analysis of the particle-verb constructions with non-predicative particles (i.e. directional, aspectual and others, like in (1a), as opposed to the predicative ones illustrated in (1b)) and apply it to the puzzling behavior of verb affixes in Slavic languages, which all appear to be non-predicative. The analysis is built on a decomposition model based on the temporal organization of event, in which the structure of an event consists of a number of aspectual heads (like [START] or [CHANGE]) and arguments mapped by these heads onto the temporal structure of event; an illustration of the decomposition model is given in (2). Arguments can be overt (phonologically realized) and abstract (with no phonological realization). Abstract arguments carry all the lexical semantic material of the verb other than the aspectual heads. Since the material they contain is lexically specified for each verb, they have no phonological realization of their own. These arguments may have overt adjuncts or complements ([to Mary] in (2)), which surface as resultatives or particles.

In the present analysis particles are derived as phrasal adjuncts to abstract arguments. They modify one feature from the sequence of features that forms the argument, for instance [PATH], [ABLATIVE] or [ADLATIVE] feature of verbs of motion, or [INCHOATIVE] or [COMPLETIVE] feature of any action verbs. Similar to resultatives, being adjuncts to abstract arguments, particles are subject to certain restrictions WRT positions where they can surface. A certain kind of subcategorization or partial coreference with PP's is possible but not always present, as illustrated by the Serbo-Croatian (S-C) and Afrikaans examples like (3a-d), and it appears not because PP's are complements to particles, but rather because they both sometimes modify the same feature of an abstract argument. I argue that this structure is universal and that the English sentences like (4a) have the structure in (4b) with a preposition deleted under the combination of shared features and phonological identity with the particle. This is why, among other things, particles have to surface adjacent to the PP, as shown in (5).

In the rest of the paper I apply the analysis to the S-C verb affixation system. In S-C particles surface as prefixes on the verb. As in other Slavic languages, in S-C there can be more than one particle on the same verb, and this number does not seem to be syntactically limited – it goes to five and even more. If added to an imperfective stem verb, particle makes the verb perfective. Adding the imperfective suffix "-va" reverses the process, but then another prefixed particle can make the verb perfective again, as shown in (6).

Data suggest that there are at least two base positions where the particles appear, and one between them where the suffix originates, in order to be able to scope over one set of particles, but to also potentially be inside the scope of other, higher particles. This presents a problem for the approaches that consider particles to be heads, like the one of Svenonius & Ramchand (2002), because in that case they should all originate lower than the suffix, in order to end up as prefixes after head movement inside the VP.

Particles in S-C are marked in the Lexicon for phonological deficiency. They show properties of both prefixes and verb-oriented clitics, according to the criteria given in Zwicky (1977) and Zwicky (1985). Based on this I claim that, like the proper clitics in S-C, they form a cluster, but that this cluster, unlike the one with pronominal and auxiliary clitics, (left-) adjoins to the verb, which is why particles up in the base generated order, instead of the mirror picture order expected if there was head movement. Particles in S-C contain quantifying and directional features and modify abstract arguments derived in two different positions WRT the aspectual structure of the VP, e.g. one higher and one lower than the aspectual head in which the suffix "-va" is derived. The formation and movement of the cluster is due to the phonological deficiency of the particles. It happens early at PF and has no effect on LF, so the scope relations are counted before the cluster is formed.

- (1) a. John pulled the book **out**.
  - b. John turned the radio on.
- (2) John sent a book to Mary

PAST [John] START [SENDING [to Mary]] IS [book]<sup>1</sup>

(3) a. Jovan je iz-vukao knjigu iz ormara

Jovan AUX from-pull.PCL book from cupboard

Jovan pulled the book out of the cupboard

b. Jovan je iz-vukao knjigu u ormar

Jovan AUX from-pull.PCL book into cupboard

Jovan pulled the book out into the cupboard (pulled it out and put it in the cupboard)

c. Hij spring uit die venster uit

he jump out the window out

He jumps out of the window

d. Hij het in deur die venster gespring he has in through the window jumped

He jumped in through the window

- (4) a. John jumped out of the window
  - b. John jumped out [out of the window]
- (5) a. John pulled the ball out of the box.
  - b. \*John pulled out the ball of the box.
- (6) a. Jovan je znao novosti

Jovan AUX know.IMPF.PCL news

Jovan knew the news

b. Jovan je sa-znao novosti

Jovan AUX with-know.PF.PCL news

Jovan found out the news

c. Jovan je sa-zna-va-o novosti

Jovan AUX with-know-va. IMPF.PCL news

Jovan was finding out the news

(va >> sa)

d. Jovan je **po**-sa-zna-va-o novosti

Jovan AUX over-with-know-va.PF.PCL news

Jovan found out all the available/required news.

(po >> va >> sa)

## **REFERENCES**

Svenonius, Peter & Gillian Ramchand (2002). *The Lexical Syntax and Lexical Semantics of the Verb-Particle Constructions*. Paper presented in April 2002 in Santa Cruz at the West Coast Conference on Formal Linguistics. To appear in the Proceedings.

Zwicky, Arnold M. (1977). *On Clitics*. Bloomington, IN: Indiana University Linguistics Club.

Zwicky, Arnold M. (1985). Clitics and Particles. Language 61. 283-305.

<sup>1</sup> Arguments are given in brackets, and abstract elements, aspectual heads and abstract Arguments are in capital letters. [SENDING] is an abstract argument.