# "The Metaphorical Shape of Actions: Verb Classifiers in Russian" by Laura A. Janda and Tore Nesset and other members of the CLEAR group (Cognitive Linguistics: Empirical Approaches to Russian) at the University of Tromsø

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#### Overview

- Aspect in Russian
- Are there "empty" prefixes in Russian?
- Why the prefixes aren't "empty"
  - Radial category profiling
  - Semantic profiling
- Why the prefixes are a verb categorization system
  - Comparison with verb classifiers
  - Comparison with numeral classifiers

# Aspect in Russian: prefixation of verbs

- Simplex verbs
  - nearly all imperfective (tajat' 'melt', nesti 'carry')
- Prefixed verbs (prefix + simplex)
  - nearly all perfective (rastajat' 'melt', raznesti 'deliver, disperse')
  - 16 prefixes that can BOTH:
    - perfectivize a simplex verb without changing the lexical meaning, as in *rastajat*' 'melt'
    - perfectivize a simplex verb and change the lexical meaning, as in *raznesti* 'deliver, disperse' (Russian is satellite framed, path is marked in the prefix)

## Are there "empty" prefixes in Russian?

- It is traditionally assumed that when a prefix perfectivizes a simplex verb without changing the lexical meaning, the prefix is "empty"
- Our goal:
  - Show that the prefixes aren't "empty" each specifies a "shape" for an event
  - Prefixes are a verb categorization system, parallel to numeral classifiers for nouns
  - "Emptiness" is an illusion caused by conceptual overlap

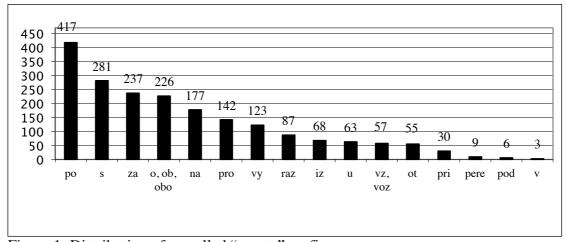


Figure 1: Distribution of so-called "empty" prefixes

# General arguments against "empty" prefixes

- 1. If the only purpose of prefixes is to perfectivize verbs, Russian would need only ONE prefix to mark "+ perfective"
- BUT: Russian has sixteen such prefixes
  - 2. All 16 "empty" prefixes are semantic when combined with other verbs
- SO: How do the prefixes know when to turn their meanings on and off?
  - 3. WHY do native speakers agree on which "empty" prefix to use with borrowed verbs?

# Radial category profiling

- 11 prefixes analyzed
  - Nearly 2000 verbs (both "non-empty" and "empty" uses)
  - (Baydimirova et al. forthc., Baydimirova 2010)
- Method:
  - polysemy of each prefix established via analysis of all "non-empty" uses in verbs with frequency >100 in Russian National Corpus
  - this yields a radial category for the meanings of the prefix
  - comparison of prefix meanings with meanings of simplex verbs that use the same prefix as an "empty" prefix

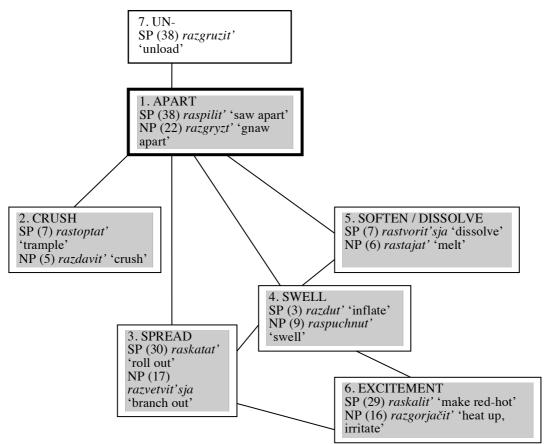
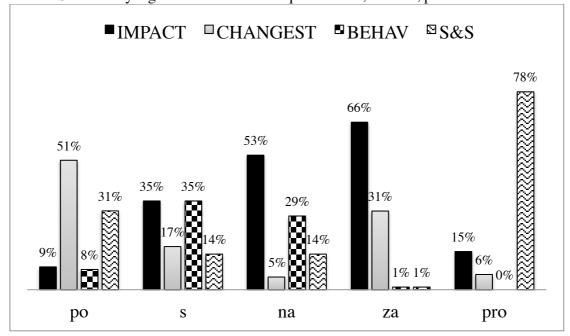


Figure 2: RAZ-: Radial Category Profiling

- FINDING: The radial categories of prefixes and verbs coincide
  - 3 prefixes coincide in all meanings
  - 5 prefixes coincide in all but one meaning
  - 3 prefixes coincide in some meanings
  - In the so-called "empty" uses of prefixes, there is conceptual overlap between the meanings of the prefixes and the meanings of the verbs
- Prefixes and verbs are matched for "shape"

## **Semantic profiling**

- 5 of the "biggest" prefixes analyzed (po-, s-, za-, na-, pro-)
- 382 verbs (ONLY "empty" uses, limited to verbs that use only one prefix and received only one tag)
- Semantic tags assigned independently in the Russian National Corpus:
  - IMPACT, CHANGEST, BEHAV, SOUND & SPEECH
- Statistically significant effect: chi-square = 248, df = 12, p = 2.2e-16



- Each prefix has a unique semantic profile
- Further analysis makes it possible to discover the "shape" of each prefix:
  - po-: quantization along a scale
  - s-: semelfactive, 'together', and 'down'
  - za-: covering and putting into a fixed state
  - *na*-: accumulation
  - pro-: 'through' a quantum

Radial category profiling and semantic profiling show that the prefixes sort the verbal lexicon into categories, based on the "shape" of the action that is referred to

#### Why the prefixes are a verb categorization system

- The behavior of Russian prefixes is entirely parallel with verb superclassification systems as described by McGregor (2002)
- Russian prefixes are also parallel with numeral classifier systems for noun categorization described by Aikhenvald (2000)

## Conclusion

- Russian has 16 prefixes that serve as a verb superclassifying system
  - prefixes are obligatory to mark quantified aspect (perfective)
  - prefixes classify the verbal lexicon (few exceptions)
  - prefixes classify verbs according to their "shape"
- This has probably been overlooked because
  - More attention has been paid to noun categorization than to verb categorization
  - Verb categorization has been previously recognized primarily in languages that have noun categorization (Chinese, Australian languages)

#### Works cited

Aikhenvald, Alexandra Y. 2000. *Classifiers: A Typology of Noun Categorization Devices*. Oxford: Oxford University Press.

McGregor, William B. 2002. *Verb Classification in Australian Languages*. (= *Empirical Approaches to Language Typology* 25). Berlin/New York: Mouton de Gruyter.

Baydimirova, Anna. 2010a. *Russian aspectual prefixes O, OB and OBO : A Case Study of Allomorphy*. Master's thesis. University of Tromsø. Tromsø. Available at http://www.ub.uit.no/munin/handle/10037/2767.

Forthcoming works from the CLEAR group:

Janda, Laura A. and Olga Lyashevskaya. "Semantic Profiles of Five Russian Prefixes: po-, s-, za-, na-, pro-". under submission. 27pp.

Baydimirova, Anna, Laura A. Janda, Julia Kuznetsova, Olga Lyashevskaya, Anastasia Makarova, Tore Nesset, Svetlana Sokolova. "Russian 'purely aspectual' prefixes: Not so 'empty' after all?". under submission. 51pp.

NOTE: Both of the forthcoming works contain extensive bibliographies. These works can be made available on request.