The Metaphorical Shape of Actions: Verb Classifiers in Russian

Laura A. Janda & Tore Nesset
CLEAR-group (Cognitive Linguistics – Empirical Approaches to Russian)
at the University of Tromsø:
Anna Baydimirova, Julia Kuznetsova, Olga Lyashevskaya, Anastasia Makarova, Svetlana Sokolova
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

Each prefix has a unique “shape”
Aspect in Russian

- All forms of all verbs express aspect
  - (residue of biaspectual verbs are syncretic)

- Two types of verbs in Russian, often referred to as “paired”:
  - Perfective
  - Imperfective
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
Distribution of so-called “empty” prefixes

Semantic profiling for remaining 5 prefixes

Radial category profiling for 11 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
Radial category profiling, cont’d.
The prefix RAZ– as an example

“Non-empty” meanings of RAZ

APART: RAZ+pilit’ ‘saw’ = ‘saw apart’
CRUSH: RAZ+toptat’ ‘stamp one’s feet’ = ‘trample, crush by stamping’
SPREAD: RAZ+katat’ ‘roll’ = ‘roll out dough’
SWELL: RAZ+dut’ ‘blow’ = ‘inflate, swell by blowing’

Meanings of simplex verbs with “empty” RAZ

APART: RAZ+bit’ ‘break’ = ‘break’
CRUSH: RAZ+davit’ ‘crush’ = ‘crush’
SPREAD: RAZ+vetvit’sja ‘branch out’ = ‘branch out’
SWELL: RAZ+puxnut’ ‘swell’ = ‘swell’
1. APART
   SP (38) raspilit’ ‘saw apart’
   NP (22) razgryzt’ ‘gnaw apart’

2. CRUSH
   SP (7) rastoptat’ ‘trample’
   NP (5) razdavit’ ‘crush’

3. SPREAD
   SP (30) raskatat’ ‘roll out’
   NP (17) raspuchnut’ ‘swell’

4. SWELL
   SP (3) razdut’ ‘inflate’
   NP (9) raspuchnut’ ‘swell’

5. SOFTEN / DISSOLVE
   SP (7) rastvorit’sja ‘dissolve’
   NP (6) rastajat’ ‘melt’

6. EXCITEMENT
   SP (29) raskalit’ ‘make red-hot’
   NP (16) razgorjačit’ ‘heat up, irritate’

7. UN-
   SP (38) razgruzit’ ‘unload’

**RAZ-:**
Radial Category Profiling
Radial category profiling, cont’d.

• 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
Semantic Profiling of *po−, s−, na−, za−, pro−*
Semantic profiling, cont’d.
• Each prefix has a unique semantic profile
• Further analysis makes it possible to discover the “shape” of each prefix:
  • \textit{po–}: quantization along a scale
  • \textit{s–}: semelfactive, ‘together’, and ‘down’
  • \textit{za–}: covering and putting into a fixed state
  • \textit{na–}: accumulation
  • \textit{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):
  - small number of overt markers that are obligatory in certain environments
  - exhaustively categorize the verbal lexicon (with few exceptions)
  - multiple classification exists, but is limited
  - classification is according to semantic parameters, namely Aktionsart (aspect), vectorial configuration (“the verbal analogue of shape” McGregor 2002: 29), and valency
Why the prefixes are a verb categorization system, cont’d.

- Russian prefixes are also parallel with numeral classifier systems for noun categorization described by Aikhenvald (2000):
  - small number of overt markers that are obligatory with numerals or quantifiers
  - exhaustively categorize the nominal lexicon (with few exceptions)
  - classification is according to semantic parameters such as animacy, shape, size, structure, countability
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)