



**UiT** The Arctic University of Norway

# Taking inflection out of the paradigm box: the intersection of inflected forms and constructions

Laura A. Janda

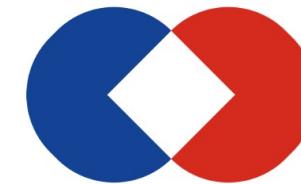
# Overview

- **SMARTool**

- Rich inflectional morphology: Zipfian distribution & “Paradigm Cell Filling Problem”
- A data-based model of rich morphology and a machine-learning experiment

- **The Russian Constructicon**

- Theory and purpose
- Content and target audience
- User-Friendly interface

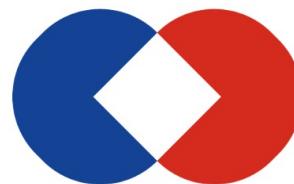


language  
**SMARTool**



**RUSSIAN**  
CONSTRUCTICON

Both resources are open-source hosted on github, designed so that other researchers can re-use our code to create parallel resources for other languages



language  
**SMARTool**



**RUSSIAN**  
CONSTRUCTICON

## Members of the SMARTool and Constructicon teams



Anna  
Endresen



Radovan Bast



Tore Nesset



Francis Tyers



Mikhail Kopotev



Valentina  
Zhukova



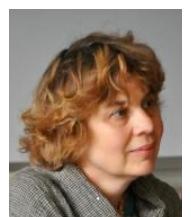
Elizaveta  
Kibisova



Svetlana  
Sokolova



Evgeniia  
Sudarikova



Ekaterina  
Rakhilina



Olga  
Lyashevskaya



James  
McDonald



Daria  
Mordashova

## Financing and collaboration

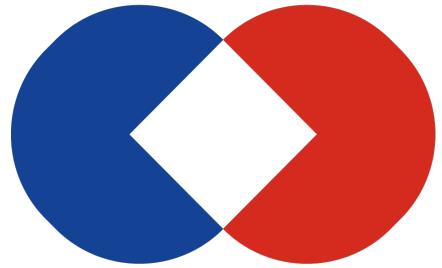
Financed by the Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education as a collaboration between UiT the Arctic University of Norway and the Higher School of Economics in Moscow

**CLEAR**

Cognitive Linguistics: Empirical Approaches to Russian

**Diku**





language  
**SMARTool**

Strategic Mastery of Russian Tool

<http://uit-no.github.io/smartool/>

# Strategic targeting of rich inflectional morphology for linguistic analysis and L2 acquisition

- **What I used to believe:**
  - students need to memorize full paradigms in order to achieve fluency
- **What I now believe:**
  - full paradigms are a fiction and we can strategically target acquisition of morphology

# Challenges of rich inflectional morphology

- Most languages have rich inflectional morphology
- Rich inflectional morphology can involve huge numbers of forms
- Inflectional morphology can be complex

# Most languages have rich inflectional morphology: A sample from Europe

HIGH	<b>Slavic:</b> Bosnian, Croatian, Czech, Montenegrin, Polish, Russian, Rusyn, Serbian, Slovak, Slovene, Sorbian <b>Other Indo-European:</b> Albanian, Greek, Irish, Latvian, Lithuanian, Romany, Scottish Gaelic, Welsh <b>Uralic :</b> Estonian, Finnish, Hungarian, Kven, Saami <b>Other:</b> Basque, Maltese, Turkish
MID	<b>Slavic:</b> Bulgarian, Macedonian <b>Other Indo-European:</b> Catalan, French, German, Italian, Luxembourgish, Portuguese, Spanish, Yiddish
LOW	<b>Germanic språk:</b> Danish, Dutch, English, Norwegian, Swedish

# Rich inflectional morphology can involve huge numbers of forms

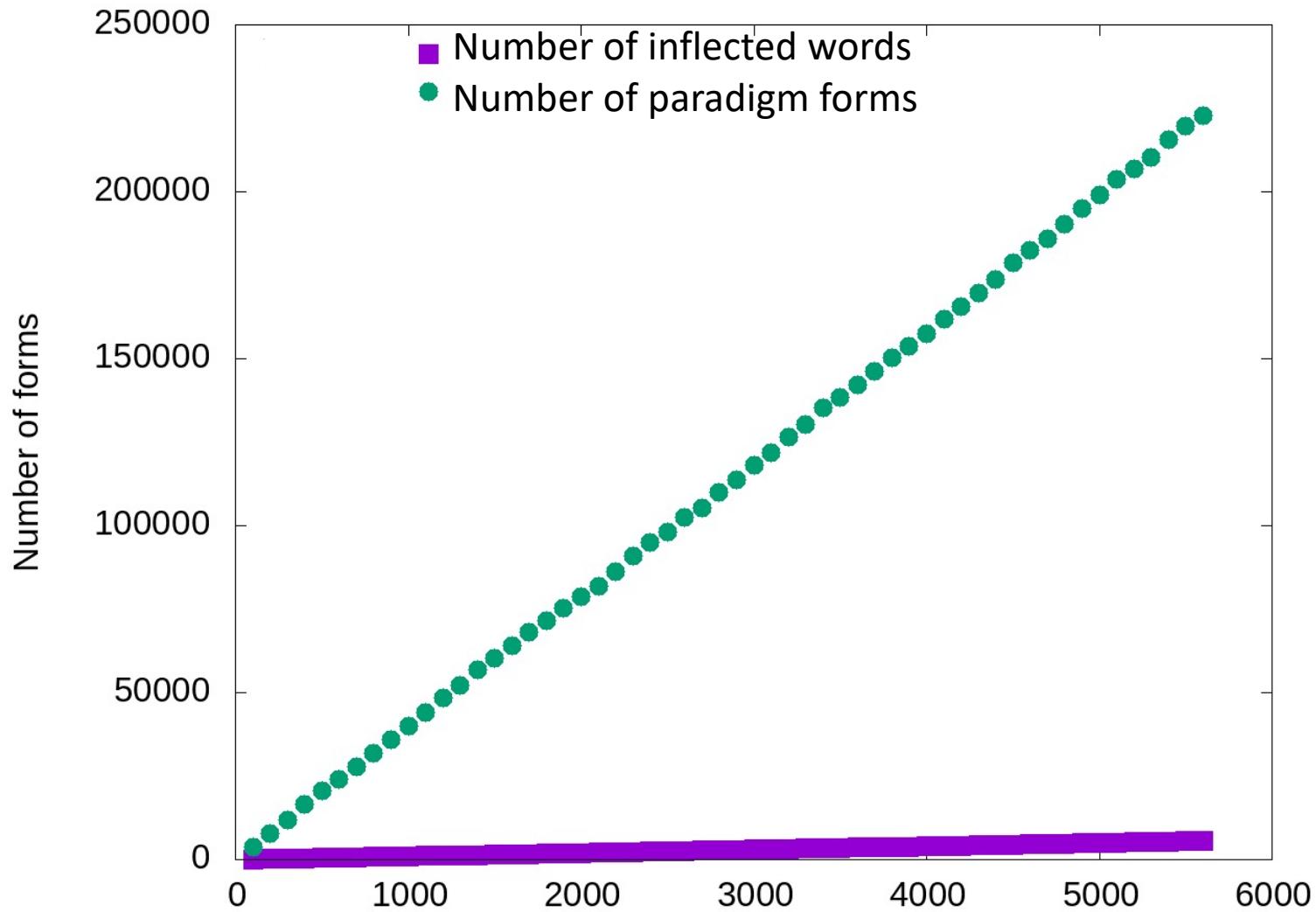
*Kolik řečí znáš, tolíkrát jsi člověkem*

'How many languages you know – that many times you are a person'

Word	Gloss	Grammatical categories marked by morphology
<i>Kolik</i>	How many	Indefinite numeral in Accusative case
<i>řečí</i>	language	Feminine noun in Genitive case and Plural number
<i>znáš</i>	know	Imperfective verb in Present tense, Second person Singular
<i>tolíkrát</i>	that many times	Adverb
<i>jsi</i>	be	Imperfective verb in Present tense, Second person Singular
<i>člověkem</i>	person	Masculine noun in Instrumental case and Singular number

Inflectional morphology in a Czech proverb

In a language with rich inflectional morphology, even a small basic vocabulary can entail **hundreds of thousands of paradigm forms**.



# Inflectional morphology can be complex

- Morphology is considered both to be essential to L2 acquisition and to be a “bottleneck”, more difficult than both syntax and semantics (Slabakova 2009 & 2014, Jensen et al. 2019)
- Morphophonemic alternations can complicate the picture – inflectional morphology is not always a matter of adding desinences to stems
  - consonant and vowel alternations
  - fleeting vowels (jers)
  - suprasegmental alternations

# North Saami example

Basic paradigm of <i>guoibmi</i> “partner”	
NOM.SG	<i>guoibmi</i>
GEN.SG=ACC.SG	<i>guoimmi</i>
ILL.SG	<i>guoibmá-i</i>
LOC.SG	<i>guoimmi-s</i>
COM.SG=LOC.PL	<i>guimmi-in</i>
NOM.PL	<i>guoimmi-t</i>
GEN.PL=ACC.PL	<i>guimmi-id</i>
ILL.PL	<i>guimmi-ide</i>
COM.PL	<i>guimmi-iguin</i>
ESS	<i>guoibmi-n</i>

Table 2. 81 additional paradigm forms required by NPx for *guoibmi* “partner”

NOM.SG:		GEN.SG=ACC.SG:		ILL.SG:	
1SG	<i>guoibmá-n</i>	1SG	<i>guoibmá-n</i>	1SG	<i>guoibmá-s-an</i>
2SG	<i>guoibmá-t</i>	2SG	<i>guoimmá-t</i>	2SG	<i>guoibmá-s-at</i>
3SG	<i>guoibmi-s</i>	3SG	<i>guoimmi-s</i>	3SG	<i>guoibmá-s-is</i>
1DU	<i>guoibmá-me</i>	1DU	<i>guoibmá-me</i>	1DU	<i>guoibmá-s-eame</i>
2DU	<i>guoibmá-de</i>	2DU	<i>guoimmá-de</i>	2DU	<i>guoibmá-s-eatte</i>
3DU	<i>guoibmi-ska</i>	3DU	<i>guoimmi-ska</i>	3DU	<i>guoibmá-s-easkka</i>
1PL	<i>guoibmá-met</i>	1PL	<i>guoibmá-met</i>	1PL	<i>guoibmá-s-eamet</i>
2PL	<i>guoibmá-det</i>	2PL	<i>guoimmá-det</i>	2PL	<i>guoibmá-s-eattet</i>
3PL	<i>guoibmi-set</i>	3PL	<i>guoimmi-set</i>	3PL	<i>guoibmá-s-easet</i>
LOC.SG:		COM.SG=LOC.PL:		GEN.PL=ACC.PL (= NOM.PL 1SG/DU/PL):	
1SG	<i>guoimmi-st-an</i>	1SG	<i>guimmi-in-an</i>	1SG	<i>guimmi-id-an</i>
2SG	<i>guoimmi-st-at</i>	2SG	<i>guimmi-in-at</i>	2SG	<i>guimmi-id-at</i>
3SG	<i>guoimmi-st-is</i>	3SG	<i>guimmi-in-is</i>	3SG	<i>guimmi-id-is</i>
1DU	<i>guoimmi-st-eame</i>	1DU	<i>guimmi-in-eame</i>	1DU	<i>guimmi-id-eame</i>
2DU	<i>guoimmi-st-eatte</i>	2DU	<i>guimmi-in-eatte</i>	2DU	<i>guimmi-id-eatte</i>
3DU	<i>guoimmi-st-easkka</i>	3DU	<i>guimmi-in-easkka</i>	3DU	<i>guimmi-id-easkka</i>
1PL	<i>guoimmi-st-eamet</i>	1PL	<i>guimmi-in-eamet</i>	1PL	<i>guimmi-id-eamet</i>
2PL	<i>guoimmi-st-eattet</i>	2PL	<i>guimmi-in-eattet</i>	2PL	<i>guimmi-id-eattet</i>
3PL	<i>guoimmi-st-easet</i>	3PL	<i>guimmi-in-easet</i>	3PL	<i>guimmi-id-easet</i>
ILL.PL:		COM.PL:		ESS:	
1SG	<i>guimmi-idas-an</i>	1SG	<i>guimmi-id-an-guin</i>	1SG	<i>guoibmi-n-an</i>
2SG	<i>guimmi-idas-at</i>	2SG	<i>guimmi-id-at-guin</i>	2SG	<i>guoibmi-n-at</i>
3SG	<i>guimmi-idas-as</i>	3SG	<i>guimmi-id-is-guin</i>	3SG	<i>guoibmi-n-is</i>
1DU	<i>guimmi-idas-ame</i>	1DU	<i>guimmi-id-eame-guin</i>	1DU	<i>guoibmi-n-eame</i>
2DU	<i>guimmi-idas-ade</i>	2DU	<i>guimmi-id-eatte-guin</i>	2DU	<i>guoibmi-n-eatte</i>
3DU	<i>guimmi-idas-aska</i>	3DU	<i>guimmi-id-easkka-guin</i>	3DU	<i>guoibmi-n-easkka</i>
1PL	<i>guimmi-idas-amet</i>	1PL	<i>guimmi-id-eamet-guin</i>	1PL	<i>guoibmi-n-eamet</i>
2PL	<i>guimmi-idas-adet</i>	2PL	<i>guimmi-id-eattet-guin</i>	2PL	<i>guoibmi-n-eattet</i>
3PL	<i>guimmi-idas-aset</i>	2PL	<i>guimmi-id-easet-guin</i>	3PL	<i>guoibmi-n-easet</i>

# Zipfian distribution

Language & Corpus Name	Corpus Size	Paradigm Size	Total Lexemes	Lexemes with full Paradigm	% Lexemes with full Paradigm
English Web Treebank	254,830	2	6,369	1,524	23.92%
Norwegian Dependency Treebank	311,277	4	12,587	393	3.12%
Russian SynTagRus	1,032,644	12	21,945	13	0.06%
Czech Prague Dependency Treebank	1,509,242	14	17,904	3	0.02%
Estonian ArborEst	234,351	28	14,075	0	0%

# Zipfian distribution

Language & Corpus Name	Corpus Size	Paradigm Size	Total Lexemes	Lexemes with full Paradigm	% Lexemes with full Paradigm
Estonian Treebank	234,351	28	14,075	1,524	23.92%
Treebank	13	3	13	3	3.12%
Treebank	13	3	13	3	0.06%
Treebank	3	3	3	0	0.02%
Estonian ArborEst	234,351	28	14,075	0	0%

**Because Zipf's Law scales up,  
these numbers will never  
change substantially, no matter  
how large the corpus is**

# Language Exposure as a Big Corpus

- A large corpus is a close approximation to the **lifetime linguistic input** for a native speaker, estimated at about 5-10 million words per year
- Zipfian distributions **remain the same** even for very large corpora, like those that approximate a speaker's exposure to their native language
- A native speaker of Russian encounters all twelve paradigm forms of **less than 0.1% of nouns** that they are exposed to in a lifetime
- The portion of adjectives and verbs attested in all paradigm forms is **virtually zero**.

## What this means for words

- At the word level, each lemma has a unique “grammatical profile” -- frequency distribution of its paradigm forms

# Full paradigms

	'fear'	'soldier'	'department'	'concept'	'memory'
sg.nom	страх	солдат	отделение	концепция	память
sg.gen	страха	солдата	отделения	концепции	памяти
sg.dat	страху	солдату	отделению	концепции	памяти
sg.acc	страх	солдата	отделение	концепцию	память
sg.ins	страхом	солдатом	отделением	концепцией	памятью
sg.loc	страхе	солдате	отделении	концепции	памяти
pl.nom	страхи	солдаты	отделения	концепции	памяти
pl.gen	страхов	солдат	отделений	концепций	памятей
p.dat	страхам	солдатам	отделениям	концепциям	памятым
pl.acc	страхи	солдат	отделения	концепции	памяти
pl.ins	страхами	солдатами	отделениями	концепциями	памятыми
pl.loc	страхах	солдатах	отделениях	концепциях	памятах

# Paradigm forms attested in 1M words

	'fear'	'soldier'	'department'	'concept'	'memory'
sg.nom	<b>страх</b>	<b>солдат</b>	отделение	<b>концепция</b>	память
sg.gen	<b>страха</b>	солдата	<b>отделения</b>	<b>концепции</b>	<b>памяти</b>
sg.dat	страху	солдату	отделению	концепции	памяти
sg.acc	страх	солдата	отделение	концепцию	память
sg.ins	страхом	солдатом	отделением	концепцией	памятью
sg.loc	страхе		<b>отделении</b>	концепции	памяти
pl.nom	страхи	<b>солдаты</b>	отделения		
pl.gen	страхов	<b>солдат</b>	отделений	концепций	
p.dat		солдатам			
pl.acc	страхи	солдат	отделения	концепции	
pl.ins	страхами		отделениями	концепциями	
pl.loc	страхах	солдатах	отделениях		

**bold** >20%, plain >10%, gray 1-9%, (blank) not attested

# Full paradigms

	<i>'background'</i>	<i>'champion'</i>	<i>'expanse'</i>	<i>'frame'</i>	<i>'problem'</i>
sg.nom	фон	чемпион	протяжение	рамка	трудность
sg.gen	фона	чемпиона	протяжения	рамки	трудности
sg.dat	фону	чемпиону	протяжению	рамке	трудности
sg.acc	фон	чемпиона	протяжение	рамку	трудность
sg.ins	фоном	чемпионом	протяжением	рамкой	трудностью
sg.loc	фоне	чемпионе	протяжении	рамке	трудности
pl.nom	фоны	чемпионы	протяжения	рамки	трудности
pl.gen	фонов	чемпионов	протяжений	рамок	трудностей
p.dat	фонам	чемпионам	протяжениям	рамкам	трудностям
pl.acc	фоны	чемпионов	протяжения	рамки	трудности
pl.ins	фонами	чемпионами	протяжениями	рамками	трудностями
pl.loc	фонах	чемпионах	протяжениях	рамках	трудностях

# Paradigm forms attested in 1M words

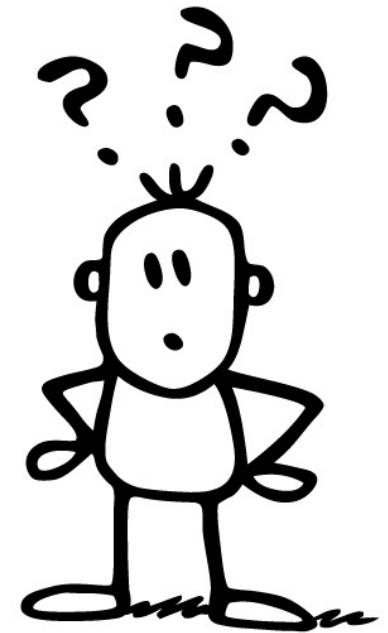
	<i>'background'</i>	<i>'champion'</i>	<i>'expanse'</i>	<i>'frame'</i>	<i>'problem'</i>
sg.nom	фон	чемпион			трудность
sg.gen	фона	<b>чемпиона</b>			трудности
sg.dat		чемпиону			трудности
sg.acc		чемпиона			трудность
sg.ins		<b>чемпионом</b>			трудностью
sg.loc	<b>фоне</b>		<b>протяжении</b>		
pl.nom		чемпионы		рамки	<b>трудности</b>
pl.gen		чемпионов		рамок	<b>трудностей</b>
p.dat		чемпионам			
pl.acc		чемпионов		рамки	<b>трудности</b>
pl.ins		чемпионами		рамками	трудностями
pl.loc				<b>рамках</b>	трудностях

**bold** >20%, plain >10%, gray 1-9%, (blank) not attested

# Paradigm Cell Filling Problem

(Ackerman et al. 2009)

Native speakers of languages with **complex inflectional morphology** routinely **recognize** and **produce** forms that they have **never encountered**.



## Example:

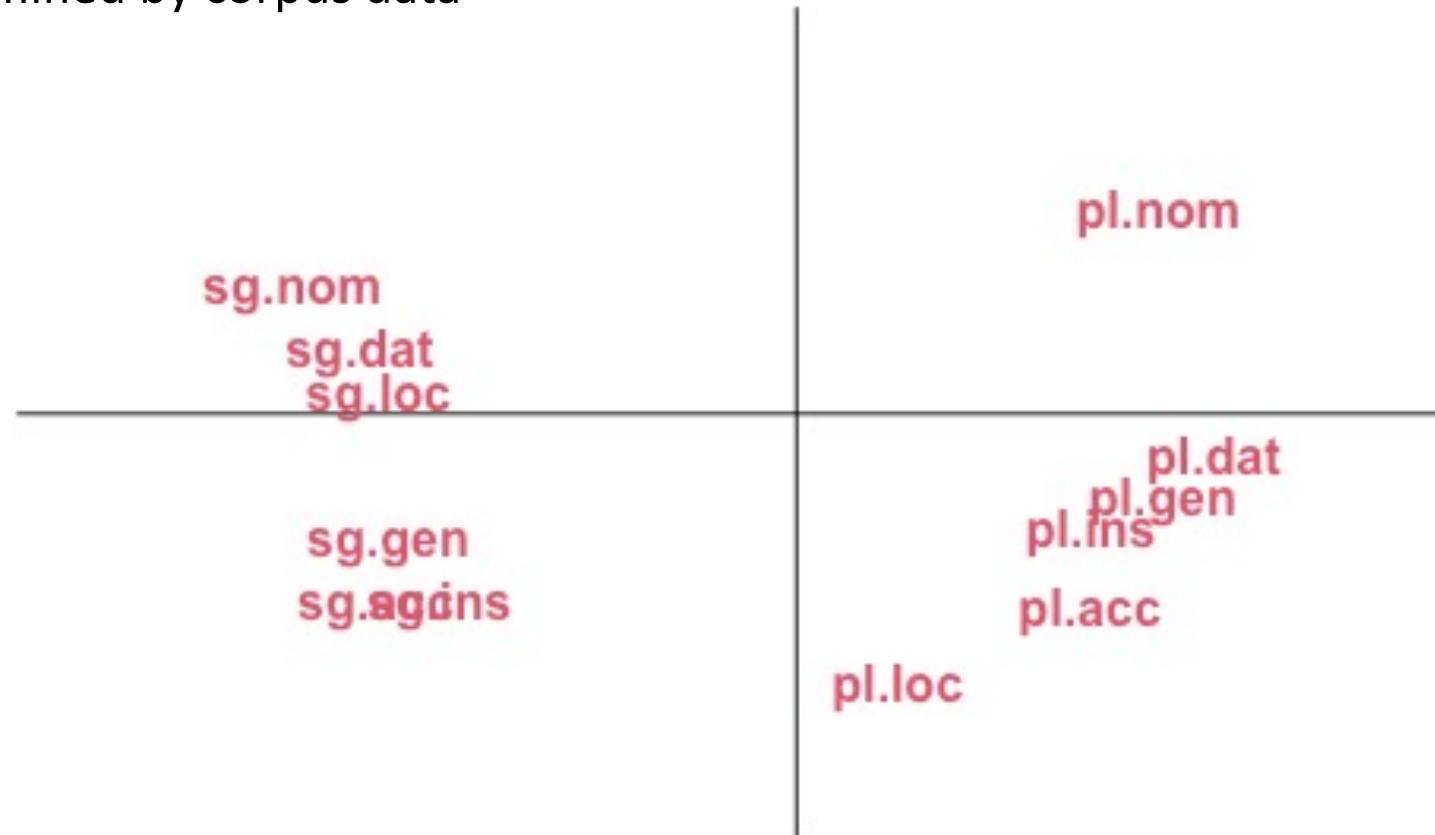
Russian gerund *nedokarmlivaja* ‘while underfeeding’ has no attestations in the Russian National Corpus (>360M words ≈ lifetime exposure), but all native speakers of Russian can be expected to readily understand and to produce these forms in appropriate contexts, as evidenced by rare occurrences that turn up in Google searches.

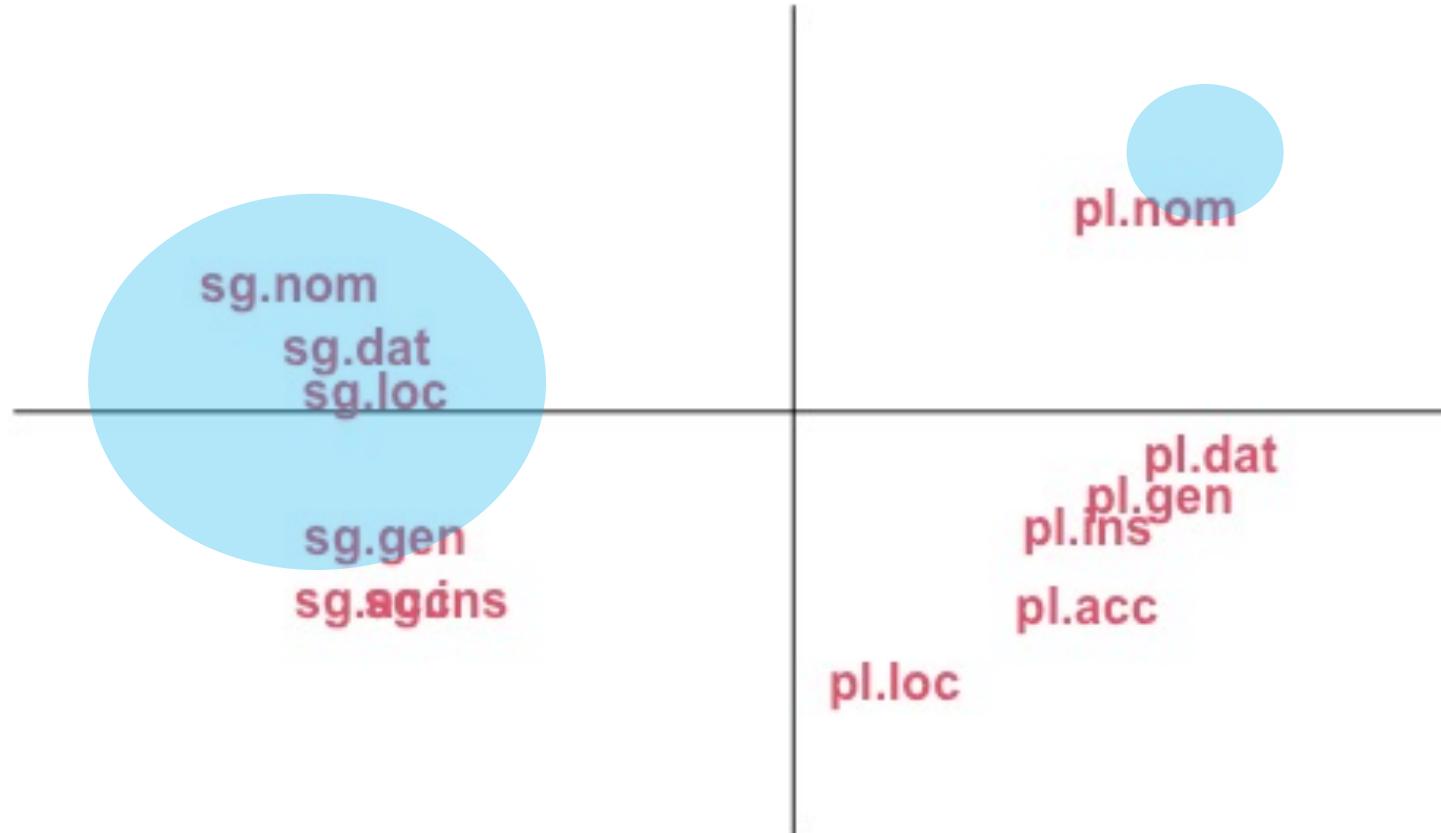
# A data-based model of rich morphology

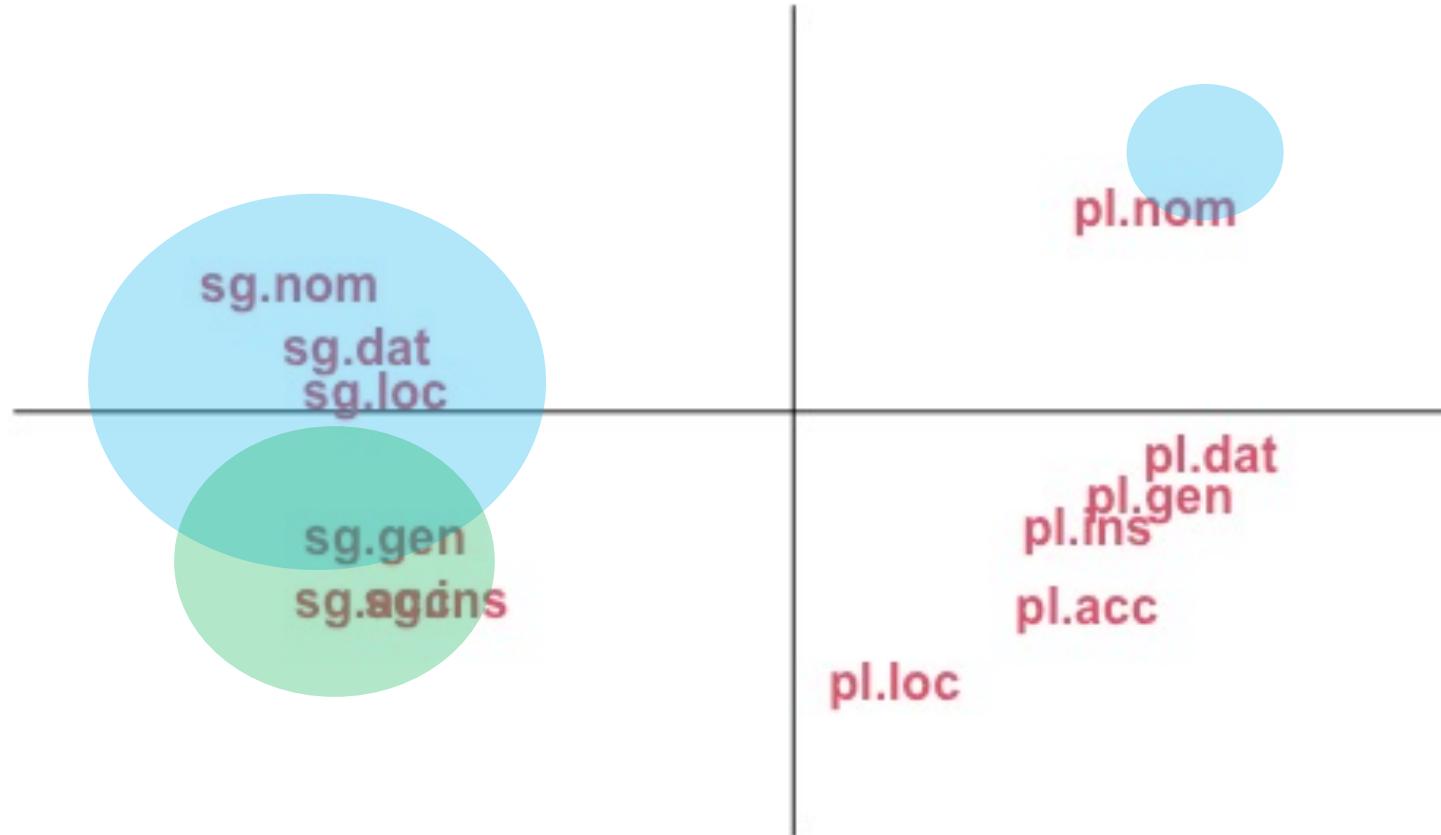
## **Instead of a table of equiprobable cells:**

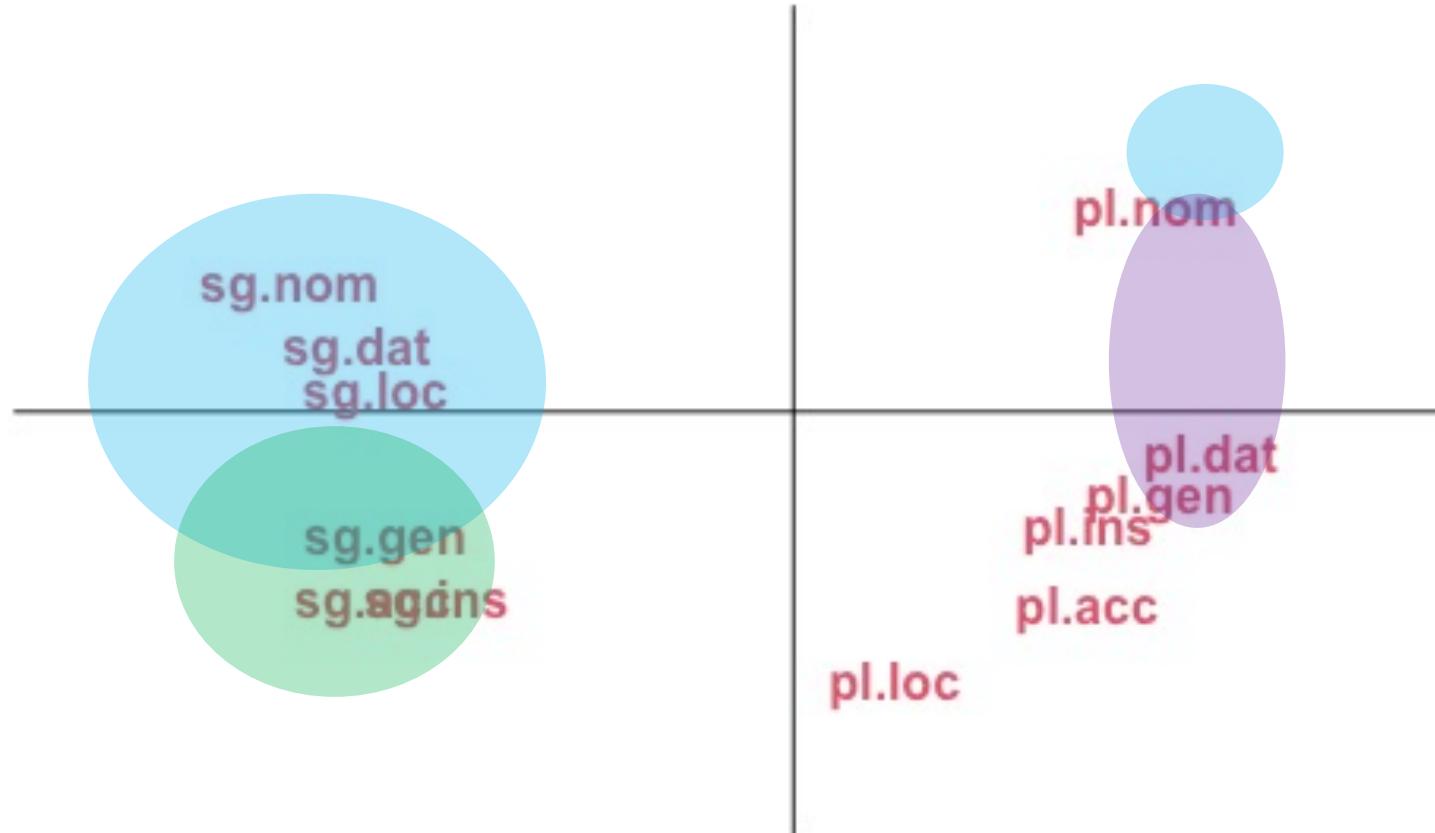
- A multidimensional space that is **partially populated in many different ways** by many different lexemes
- Inflectional morphology can be mastered through exposure to **partially overlapping subsets of paradigms**
- This **cognitively plausible** model explains why native speakers have the intuition that full paradigms exist

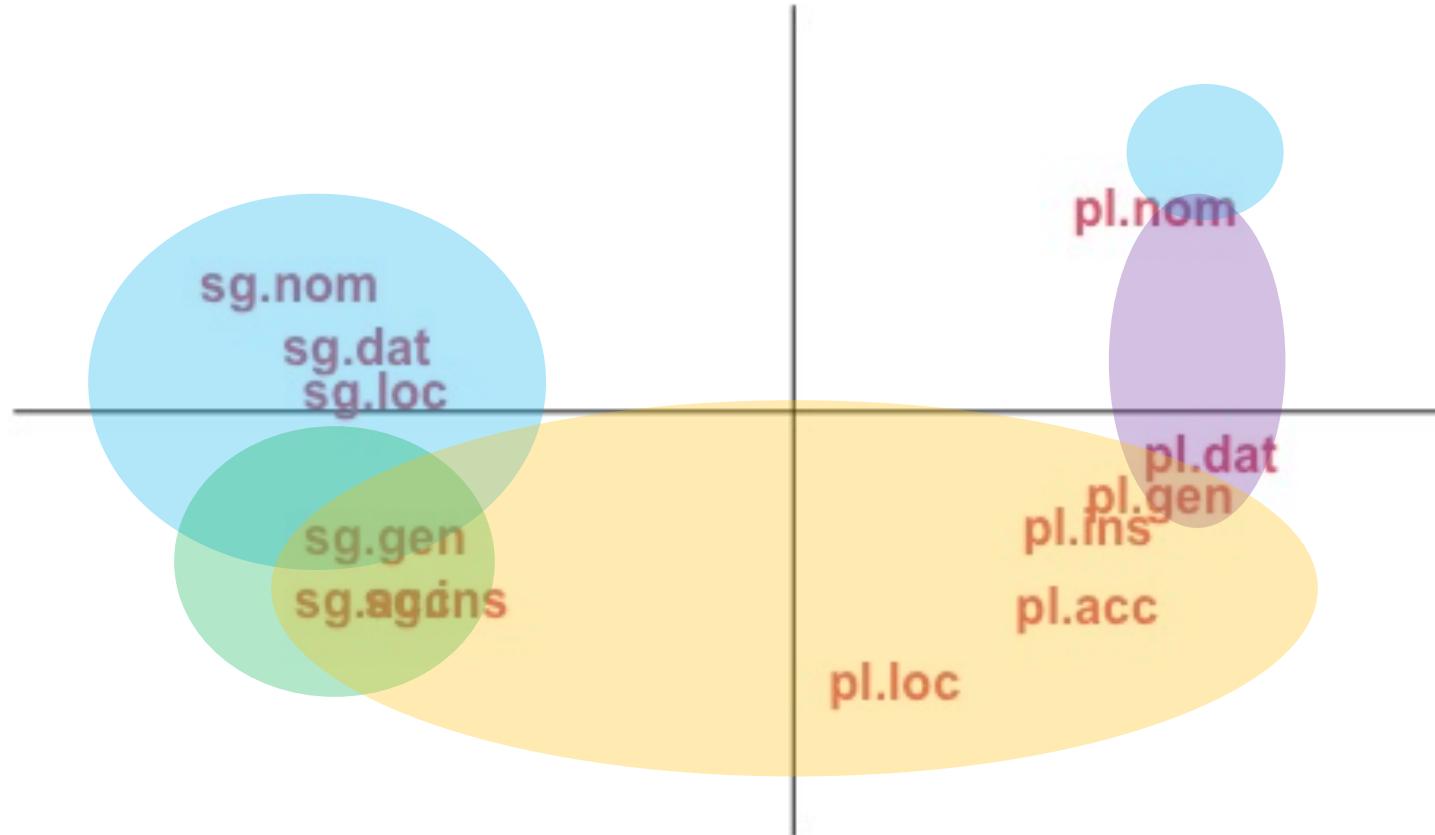
The “space” of the paradigm of Russian masculine animate nouns  
as determined by corpus data

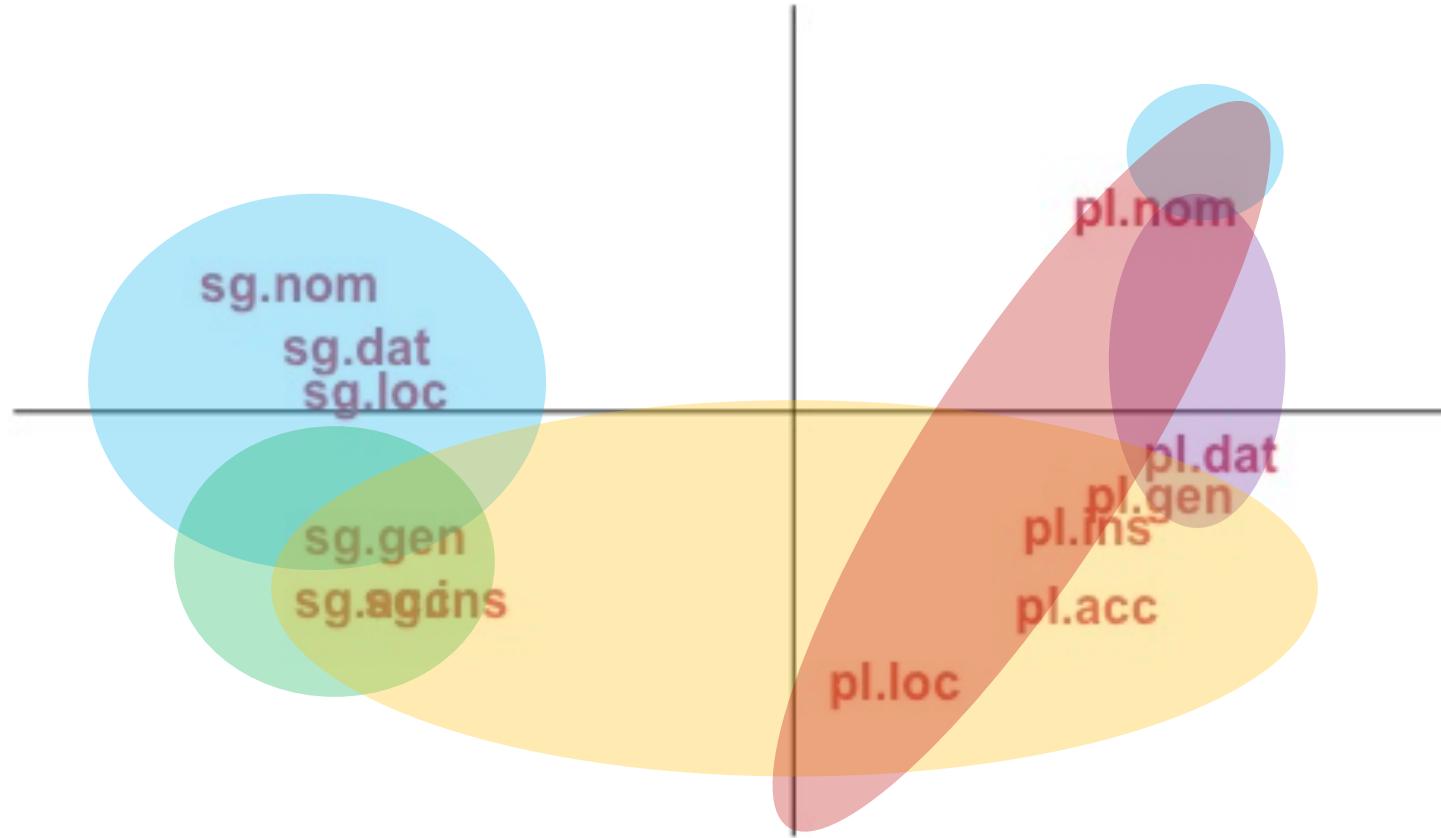


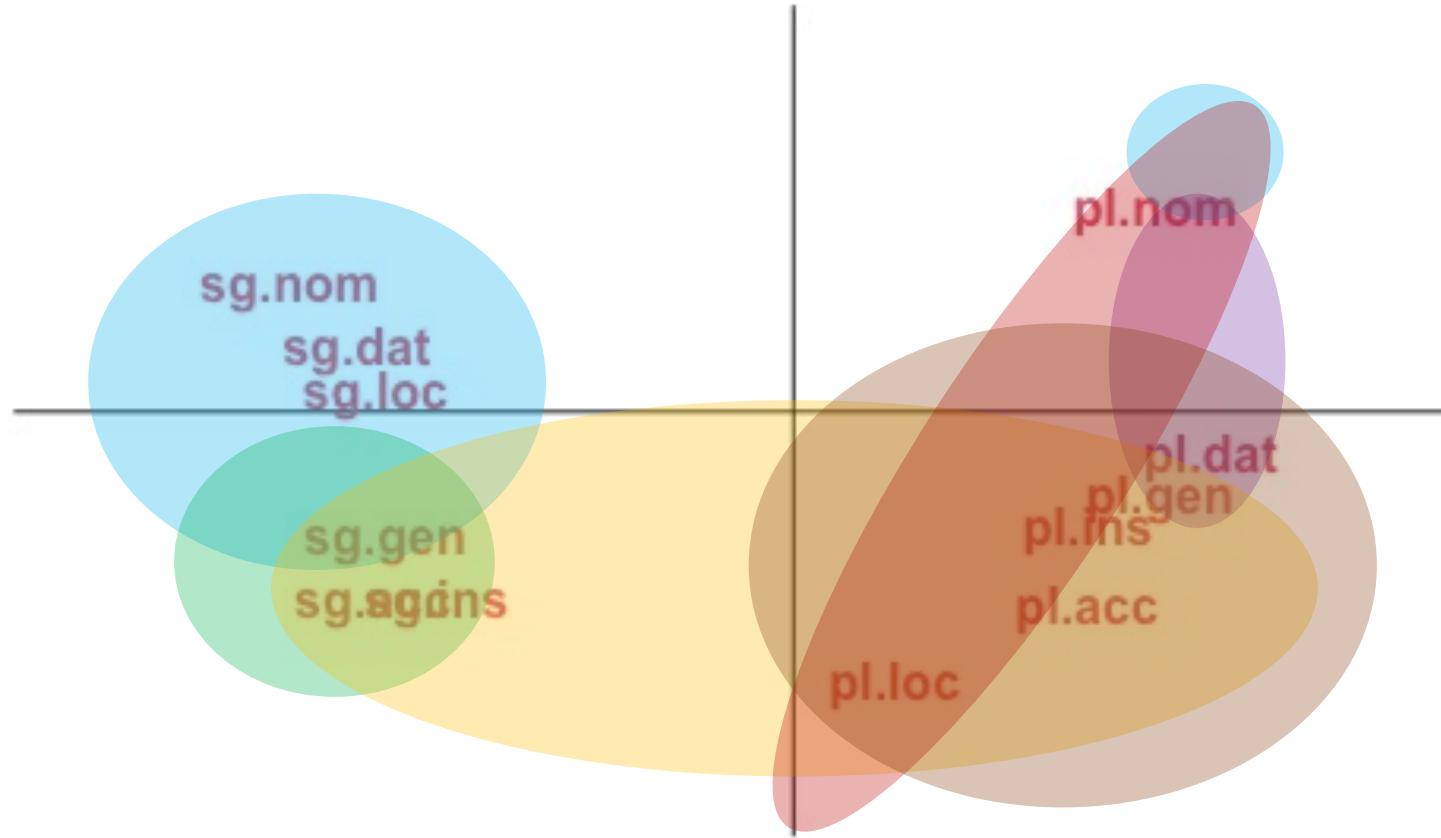


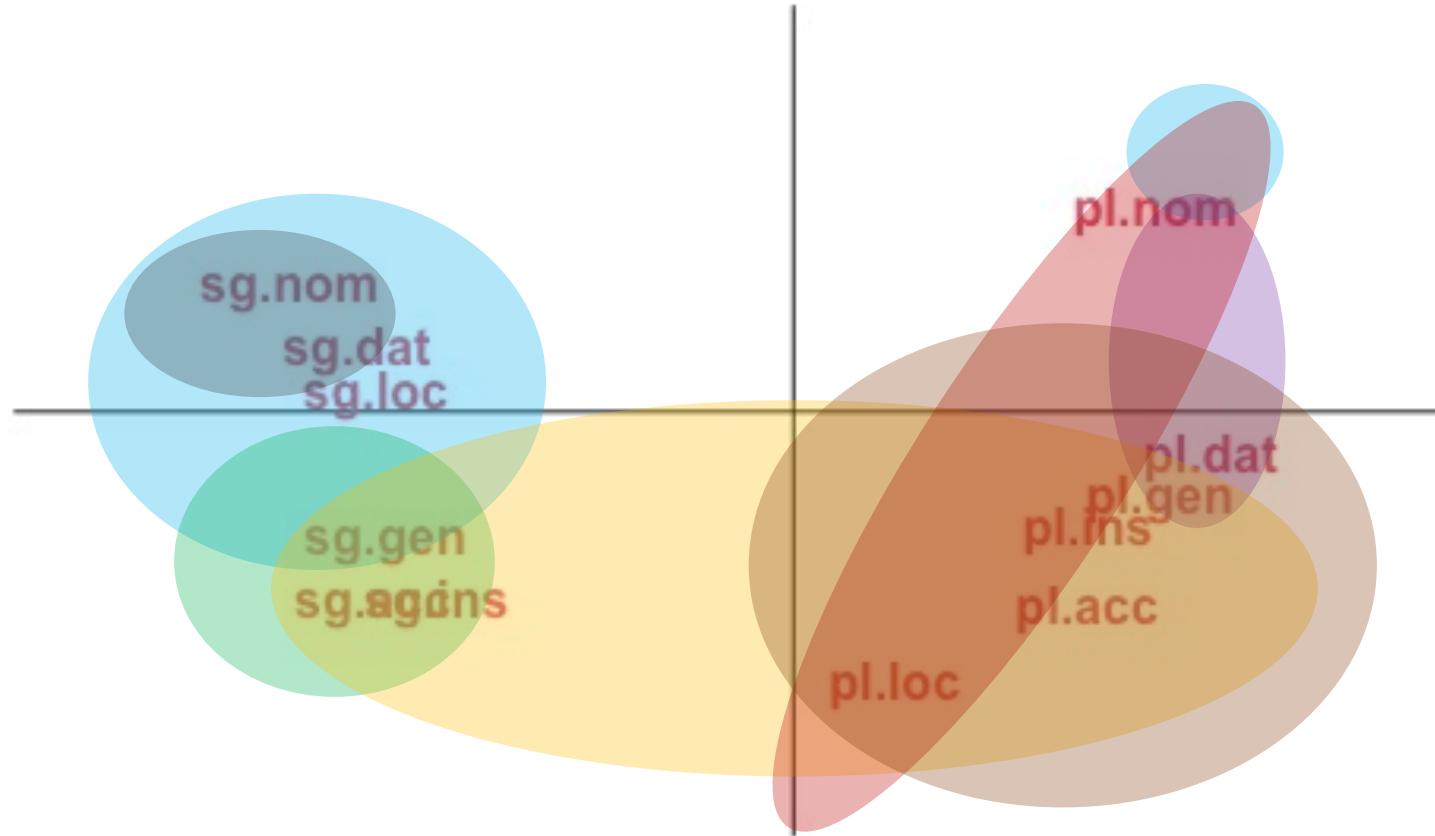


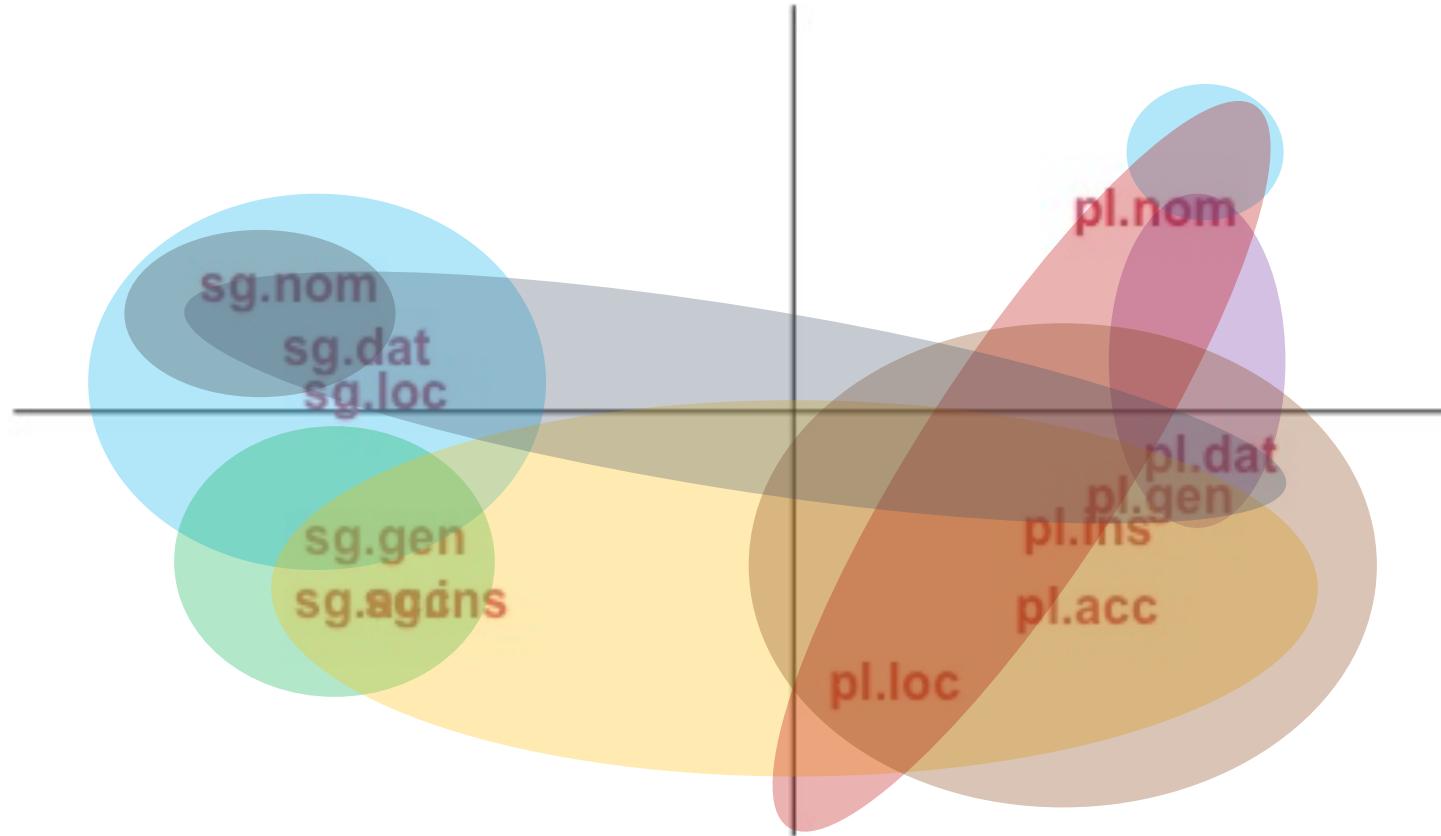


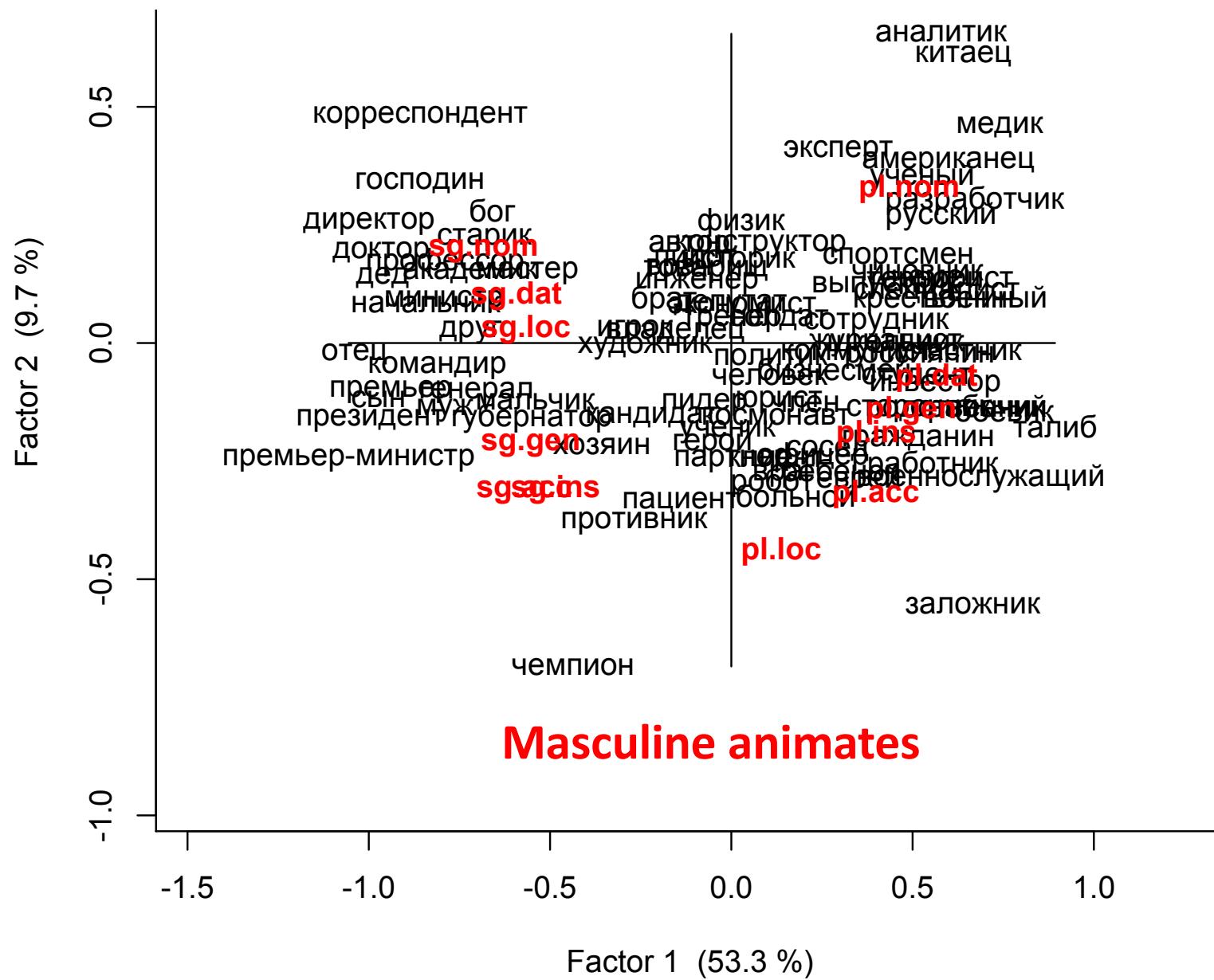








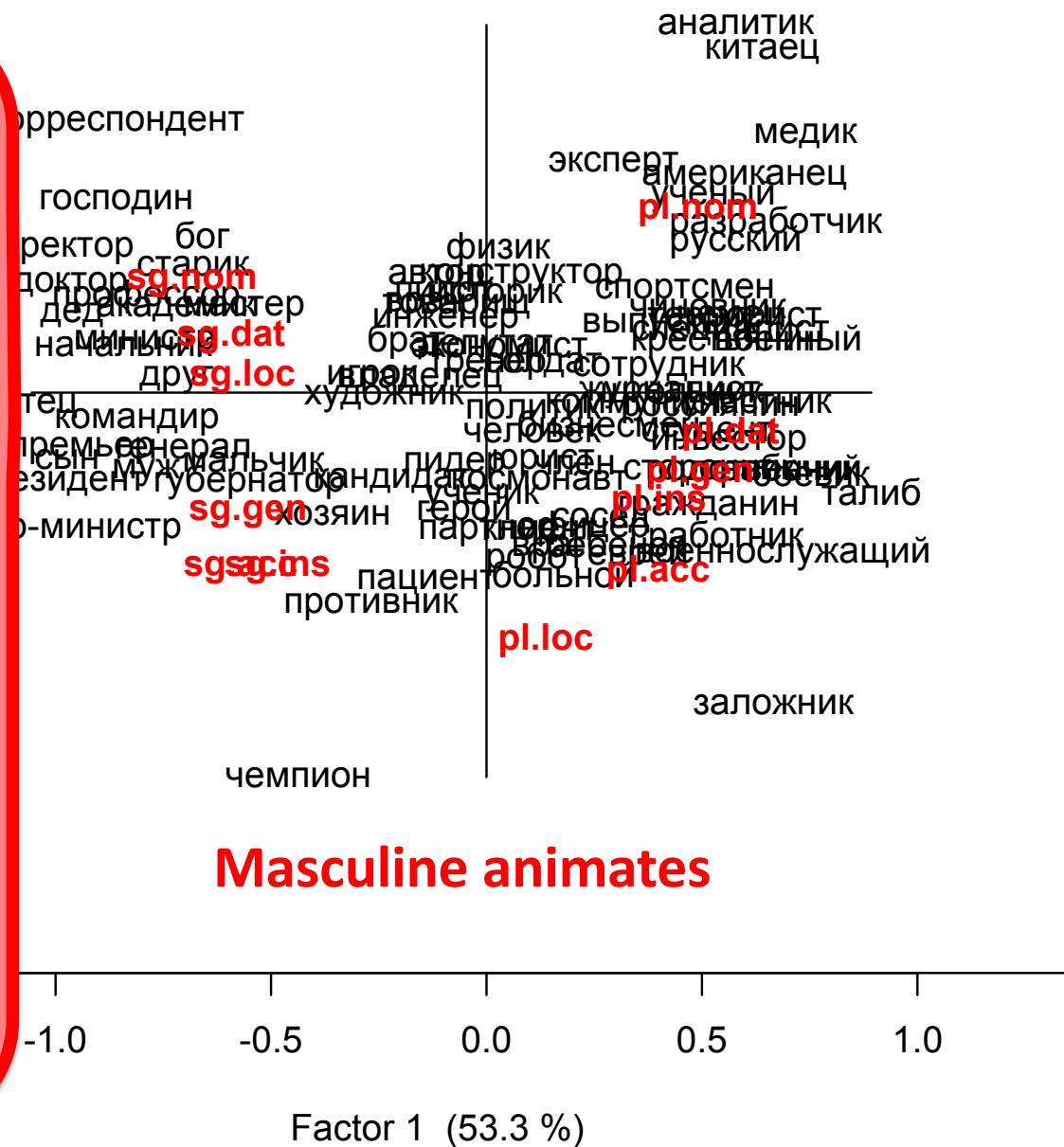


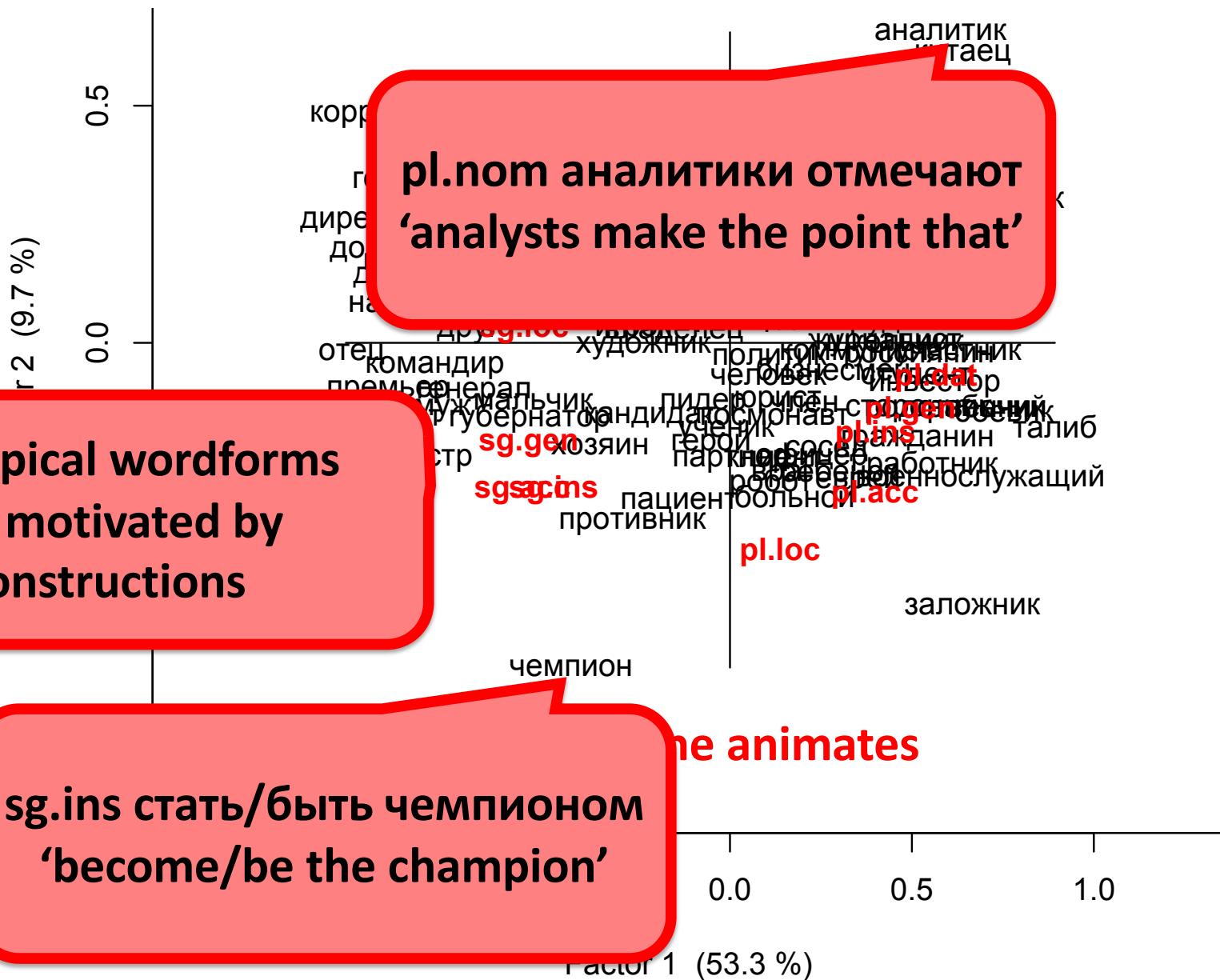


**Any single lexeme gives exposure to only a subset of the paradigm.**

**Each lexeme has a different subset of most typical forms.**

Collectively they  
populate the entire  
“space” of  
case/number  
combinations.



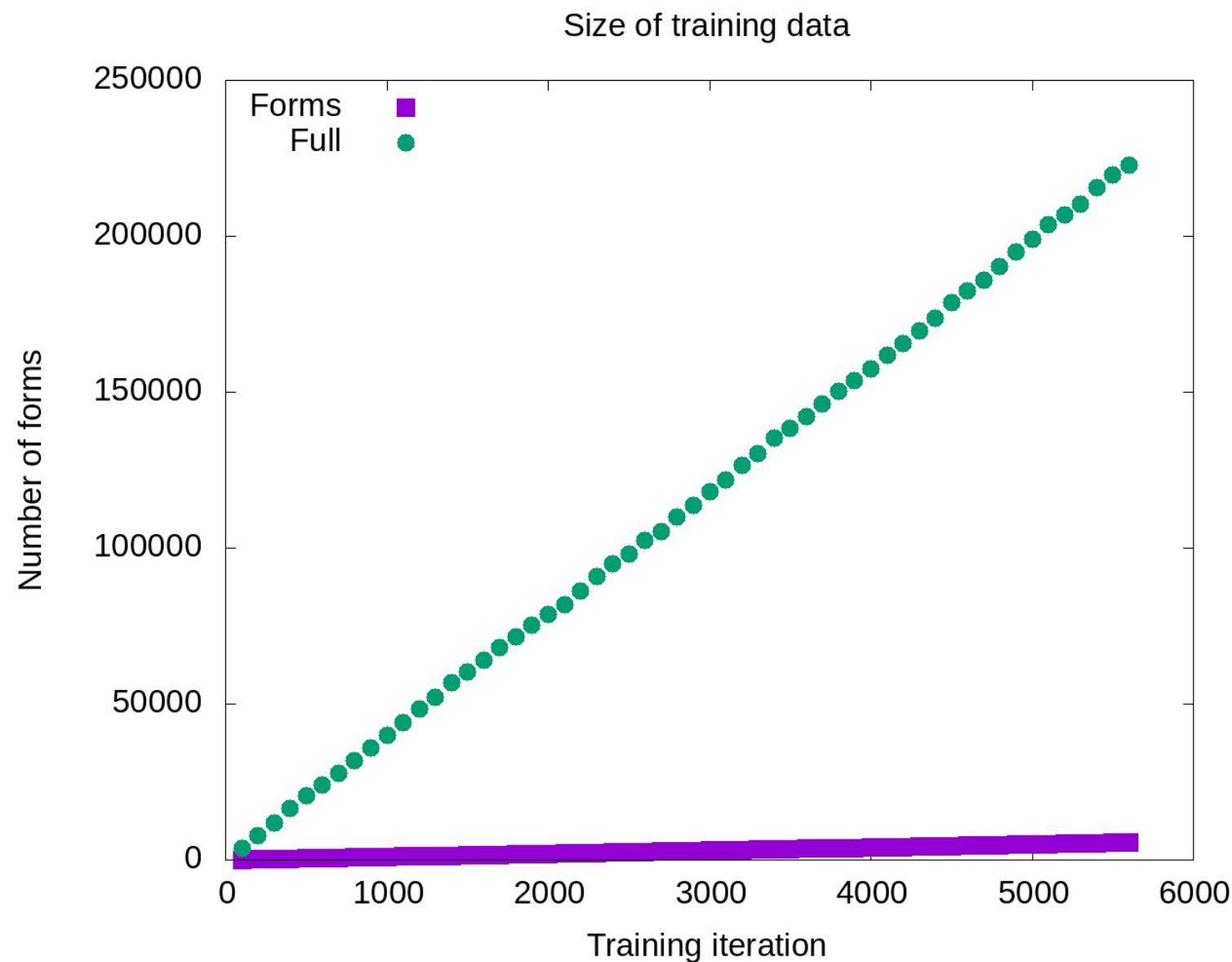


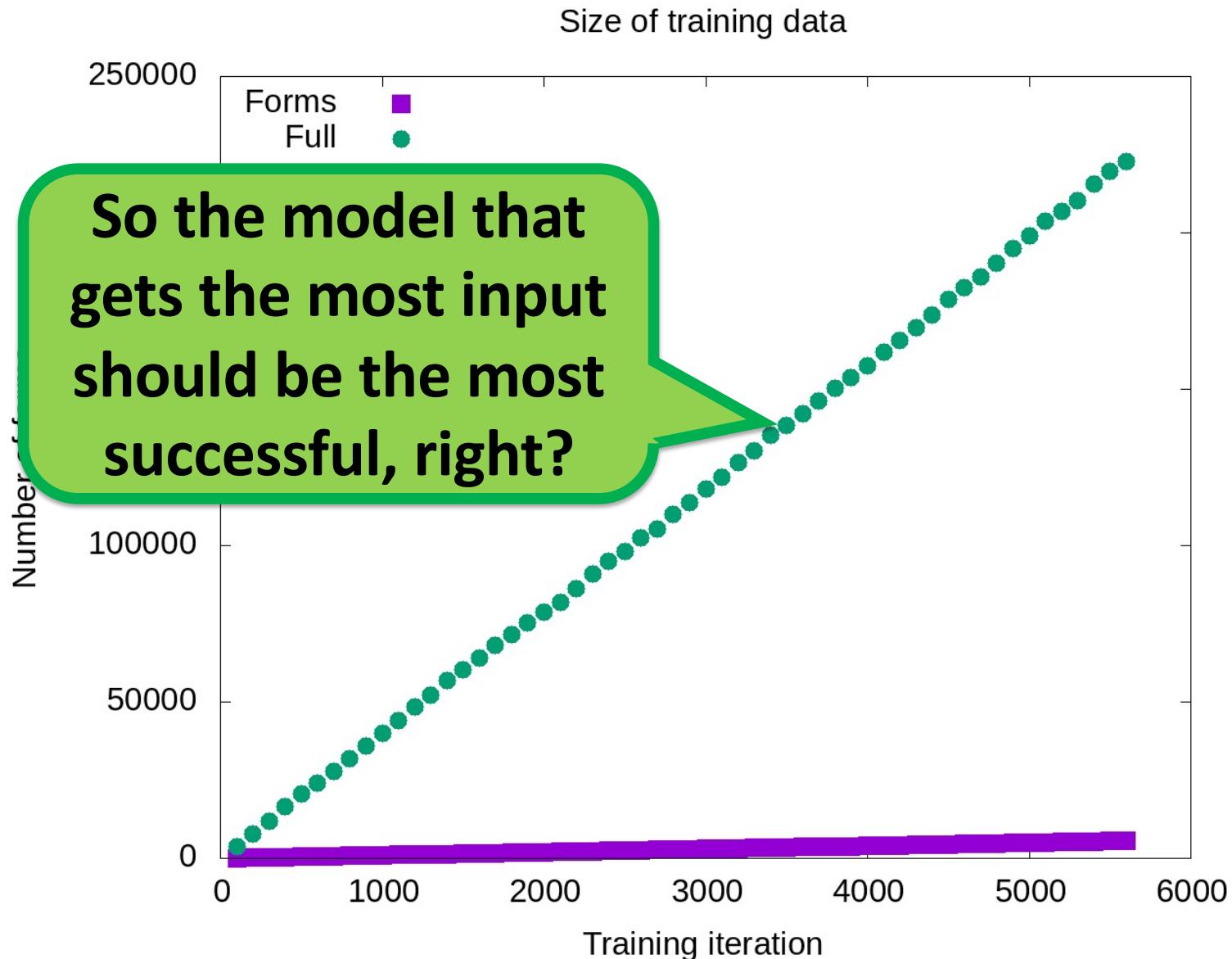
# A machine-learning experiment

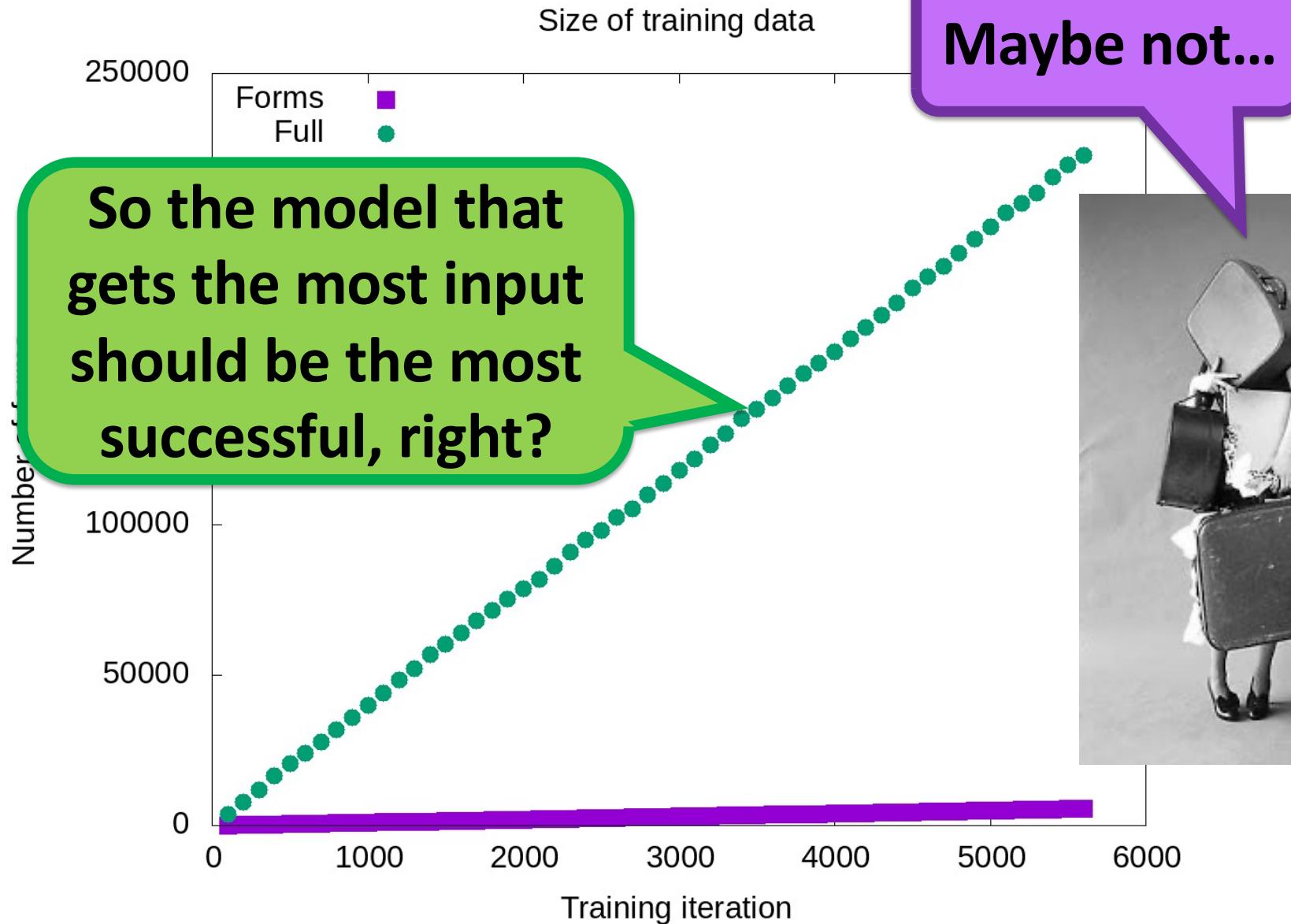
- Based on an ordered list of the most frequent forms for nouns, verbs, and adjectives in SynTagRus (1M gold standard)
- Machine learning: training, testing
  - Given the 100 most frequent forms, predict the next 100 most frequent forms
  - Given the 200 most frequent forms, predict the next 100 most frequent forms
  - Given the 300 most frequent forms, predict the next 100 most frequent forms
  - ... until 5400, when SynTagRus runs out of data
- Testing is always: Predict paradigm forms for 100 previously unseen words
- Two versions of experiment:
  - Training on entire paradigm, all forms
  - Training only on the single most frequent form

# Data for training and testing from SynTagRus

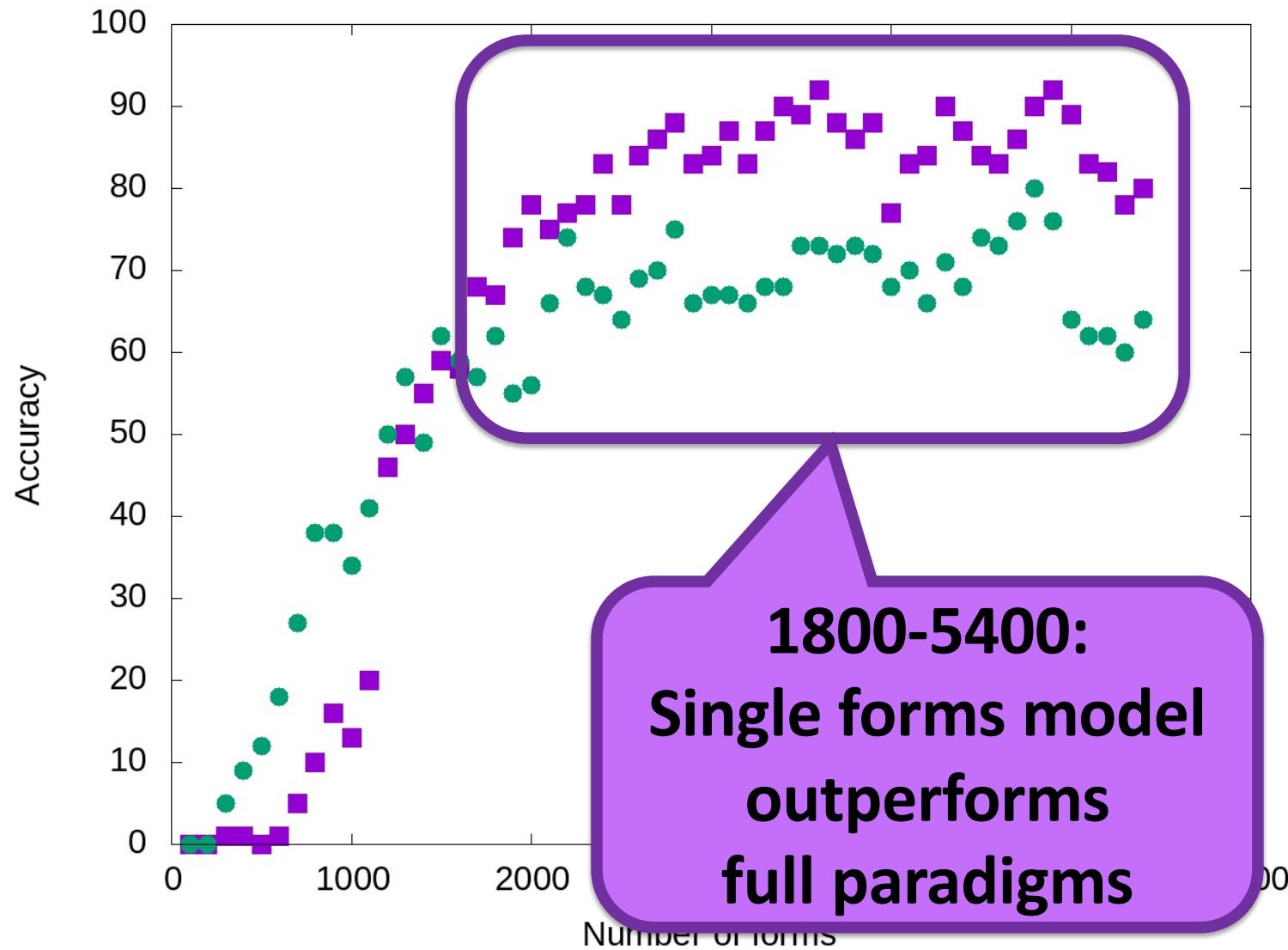
Frequency & Form	Lemma	POS	Parse of form
1447 может	мочь	VERB	Aspect=Imp Mood=Ind Number=Sing Person=3 Tense=Pres VerbForm=Fin Voice=Act
1286 года	год	NOUN	Animacy=Inan Case=Gen Gender=Masc Number=Sing
999 лет	год	NOUN	Animacy=Inan Case=Gen Gender=Masc Number=Plur
832 году	год	NOUN	Animacy=Inan Case=Loc Gender=Masc Number=Sing
813 время	время	NOUN	Animacy=Inan Case=Acc Gender=Neut Number=Sing
678 россии	россия	NOUN	Animacy=Inan Case=Gen Gender=Fem Number=Sing
571 могут	мочь	VERB	Aspect=Imp Mood=Ind Number=Plur Person=3 Tense=Pres VerbForm=Fin Voice=Act
571 люди	человек	NOUN	Animacy=Anim Case=Nom Gender=Masc Number=Plur
543 россии	россия	NOUN	Animacy=Inan Case=Loc Gender=Fem Number=Sing
436 является	являться	VERB	Aspect=Imp Mood=Ind Number=Sing Person=3 Tense=Pres VerbForm=Fin Voice=Act
416 случае	случай	NOUN	Animacy=Inan Case=Loc Gender=Masc Number=Sing
411 людей	человек	NOUN	Animacy=Anim Case=Gen Gender=Masc Number=Plur
403 страны	страна	NOUN	Animacy=Inan Case=Gen Gender=Fem Number=Sing
400 жизни	жизнь	NOUN	Animacy=Inan Case=Gen Gender=Fem Number=Sing





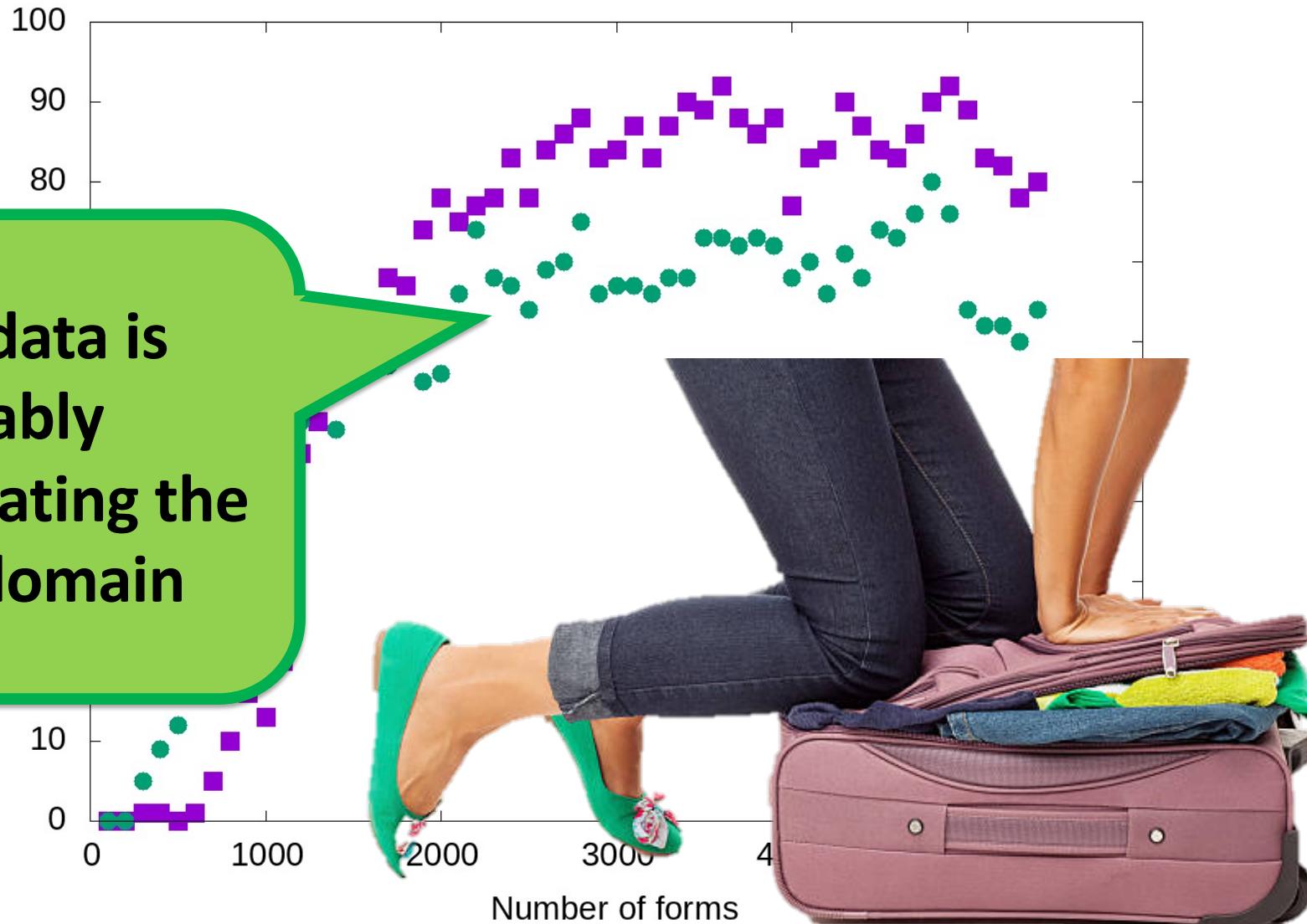


Comparison of accuracy training on individual forms and full paradigms

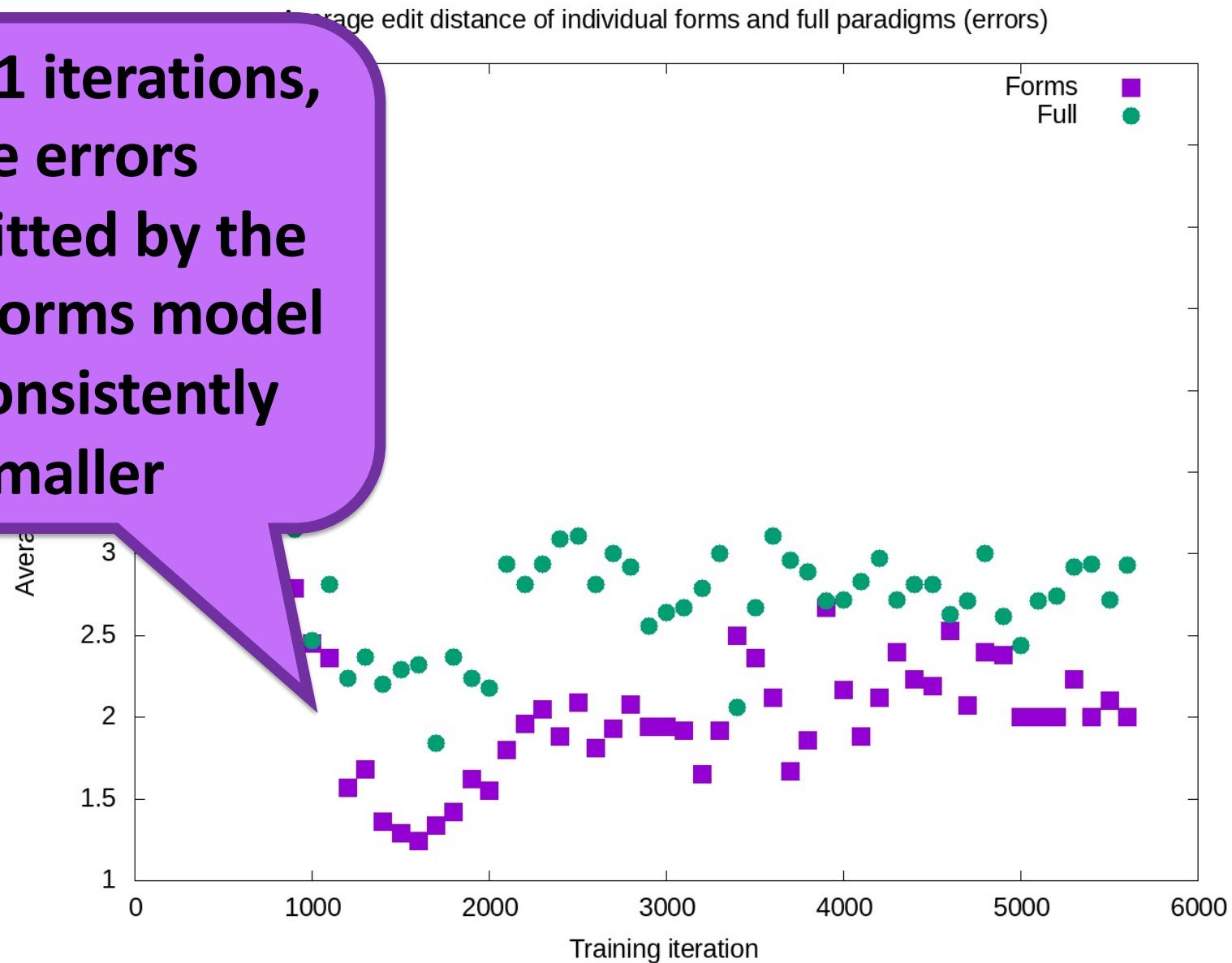


Comparison of accuracy training on individual forms and full paradigms

Excess data is  
probably  
overpopulating the  
search domain



**After 11 iterations,  
the errors  
committed by the  
single forms model  
are consistently  
smaller**

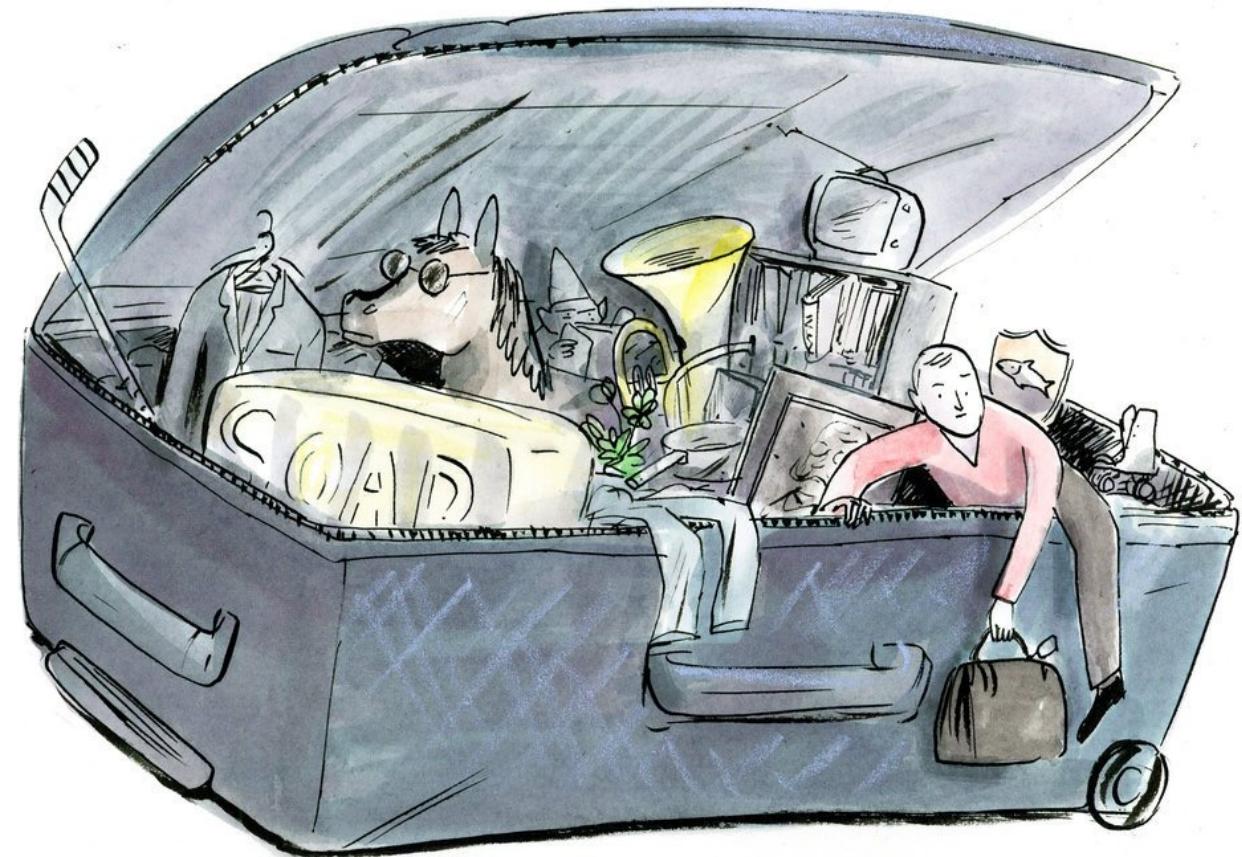


# Machine-learning experiment: Summary

- Learning is potentially enhanced by focus **only on the most typical wordforms** attested for each lexeme: **accuracy increases and severity of errors decreases**
- This finding is **consistent with a usage-based cognitively plausible model**

# How Can We Escape From Overstuffed Paradigms?

- Textbooks have always focused on certain forms and constructions
- Now we can do this in a scientific, consistent way



# The SMARTool:

- **Inspired by research** on the distribution and simulated learning of Russian wordforms (**cognitively plausible**)
- Strategic focus on the **highest frequency wordforms and contexts** that motivate their use (**usage-based**)
- **Reduces the task** of learning a basic vocabulary of about 3,000 lexemes **by over 90%**
- Can be **continuously updated** and custom-tailored
- Potentially **portable to other languages** with rich inflectional morphology

## Vocabulary Selection from 5 Textbooks and Лексический минимум; Balanced for Nouns, Verbs, Adjs (RNC ratio)

CEFR Level	ACTFL Equivalent	Russian Equivalent	SMARTool number of lexemes
A1 “Beginner”	Novice Low-Mid	ТЭУ Элементарный уровень	500
A2 “Elementary”	Novice High	ТБУ Базовый уровень	500
B1 “Intermediate”	Intermediate Low-Mid	ТРКИ-1   Сертификационный уровень	1,000
B2 “Upper Intermediate”	Intermediate High-Advanced Low	ТРКИ-2	1,000

# Typical Contexts Illustrated by Examples

- For each lexeme we identify 3 most common wordforms and **most typical grammatical constructions** and **lexical collocations**, and provide corpus-inspired **example sentences**
- Based on queries:
  - SynTagRus Corpus
  - the Russian National Corpus (<http://ruscorpora.ru>)
  - the Collocations Colligations Corpora (<http://cococo.cosyco.ru/>)
  - the Russian Constructicon (<https://constructicon.github.io/russian/>)



RUSSIAN  
CONSTRUCTICON

# SMARTool

[Search by topic](#)[Search by analysis](#)[Search by dictionary](#)[List of abbreviations](#)[About](#)

Level

Topic

 Show translation  male voice  female voice

Find the SMARTool here:

<https://smartool.github.io/smartool/>

1) Select a Level

2) Search by topic,  
analysis, dictionary



**RUSSIAN**  
CONSTRUCTICON

# The Russian Constructicon

<http://constructicon.github.io/russian/>

# What is a construction?

- A construction is:
  - any **conventionalized form-meaning pairing** in a language, at any level of complexity, from morpheme through lexeme through phrase to discourse structure (Goldberg 2006, 5)
  - **the basic** (though not elementary) **unit** that structures language
- A construction may be **compositional or non-compositional**
- **All meaningful units** of a language are constructions
- **An entire language** can be described in terms of constructions



“It’s constructions all  
the way down”  
(Goldberg 2006: 18)

# Examples of Russian constructions

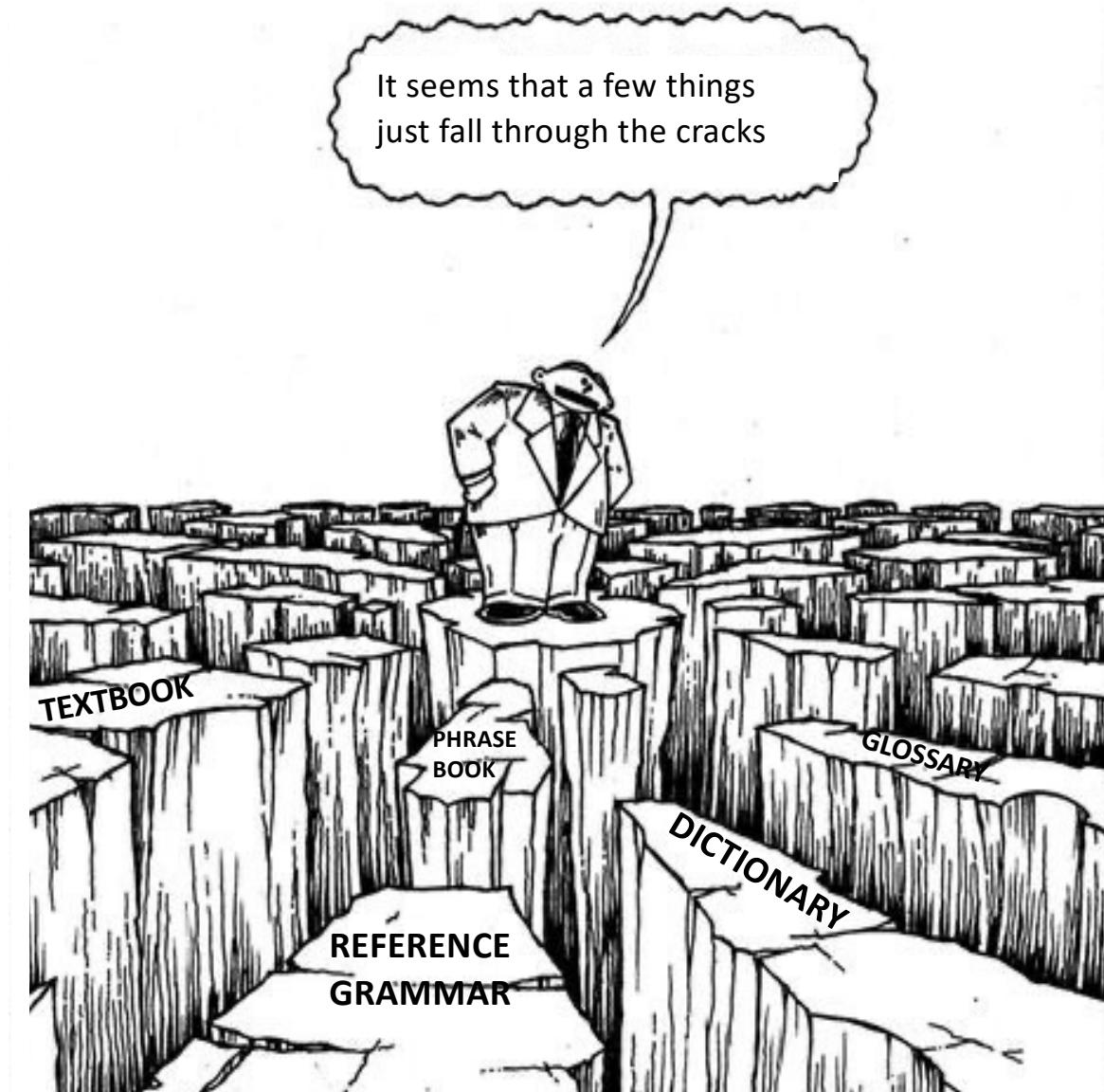
- morphemes  
-t' = INF
- lexemes  
*tancevat'* 'dance'
- multi-word idioms where all slots are fixed  
*tancevat' ot Adama* 'start from the very beginning'
- **multi-word expressions with open slots**  
VP pod NP-Acc  
*Ona tancevala pod muzyku* 'She danced to the music'
- larger discourse units



Our project focuses mainly on this type of construction

# Filling in the gaps

- Dictionaries, grammars, and textbooks focus primarily on lexemes, lexicalized idioms, inflectional paradigms, and grammatical patterns
- **Multi-word expressions with open slots** are less reliably represented in standard resources



# What is a constructicon?

- A constructicon is:
  - a structured inventory of constructions in a given language
- Constructicons exist for:
  - English
  - German
  - Swedish
  - Japanese
  - Brazilian Portuguese

The Russian Constructicon  
is by far the largest,  
with over 2200  
constructions

# Why build a construction?

- For linguists
  - to achieve improved description of languages
  - to extend theory of construction grammar
  - to facilitate cross-linguistic typological comparison
- For L2 learners
  - to achieve greater language proficiency
  - to motivate use of specific wordforms
  - to fill in gaps in current language resources and pedagogy

# How to build a constructicon: Classification of constructions

- Families
  - a family is a relatively homogeneous group of approx. 2-9 constructions that share some semantic, syntactic, and/or structural properties
  - the constructions in a family share various subsets of these properties
  - semantic and syntactic tags facilitate identification of families
  - annotation by a panel of three native speakers
- Clusters
  - a cluster is a group of families that are linked through semantic and/or syntactic similarities in a prototypical vs. peripheral distribution, usually corresponding to semantic subtypes in annotation
- Networks
  - a network is a group of clusters that share a general semantic tag

# Constructionalization as grammaticalization

- Conventionalization of form-meaning pairings can be understood as an early stage in the process of grammaticalization
- The semantic tags are quasigrammatical meanings that are distributed across constructions and their (partially bleached) anchor words
- Classification rests on lexical functions (cf. Mel'čuk, Apresjan) which are comparable across languages

1247

NAME хорош VP-Ipfv.Inf! - Эй, наверху! Хорош прыгать!

## An example of a Prohibitive construction

DEFINITION (Russian) Конструкция используется, когда говорящий побуждает собеседника прекратить выполнять [некоторое действие][Action](#). Говорящий оценивает это действие отрицательно, так как оно причиняет ему дискомфорт или кажется слишком длительным. Конструкция подразумевает отсутствие между говорящим и собеседником социальной иерархии и произносится в дружеском тоне.

DEFINITION (English) The construction is used when the speaker prompts the interlocutor to stop performing [some action][Action](#). The speaker evaluates this action negatively, as it causes them discomfort or seems too long. The construction implies the absence of social hierarchy between the speaker and the interlocutor and is pronounced in a friendly tone.

DEFINITION (Norwegian) Konstruksjonen anvendes når taleren anmoder samtalepartneren om å slutte å utføre [en handling][Action](#). Taleren har et negativt syn på handlingen fordi den volder ubehag eller synes å vare for lenge. Konstruksjonen forutsetter fravær av rangforskjeller mellom taleren og samtalepartneren og fremføres i en vennskapelig tone.

### EXAMPLES

1. Я им говорю — вы что, мужики. Хорош [слушать][Action](#) этот концерт по радио!
2. — Хорош [ссориться][Action](#)! — прервал девушек Илья. — Неконструктивно.
3. — Эй, Артем! Хорош [спать][Action](#)! Ну-ка вставай давай! Ты уже семь часов кряду дрыхнешь... Вставай же, соня!
4. — Хорош там [скакать][Action](#)! — крикнул Степан девочкам. Он сидел на корточках перед новой газовой плитой, читая руководство по эксплуатации.
5. — Васька, хорош [тормозить][Action](#)! — крикнул Андрей. — Открывай скорее двери!

## anchor

## slot

1247

NAME хорош VP-Ipfv.Inf! - Эй, наверху! Хорош прыгать!

DEFINITION (Russian) Конструкция используется, когда говорящий побуждает собеседника прекратить выполнять [некоторое действие][Action](#). Говорящий оценивает это действие отрицательно, так как оно причиняет ему дискомфорт или кажется слишком длительным. Конструкция подразумевает отсутствие между говорящим и собеседником социальной иерархии и произносится в дружеском тоне.

DEFINITION (English) The construction is used when the speaker prompts the interlocutor to stop performing [some action][Action](#). The speaker evaluates this action negatively, as it causes them discomfort or seems too long. The construction implies the absence of social hierarchy between the speaker and the interlocutor and is pronounced in a friendly tone.

DEFINITION (Norwegian) Konstruksjonen anvendes når taleren anmoder samtalepartneren om å slutte å utføre [en handling][Action](#). Taleren har et negativt syn på handlingen fordi den volder ubehag eller synes å vare for lenge. Konstruksjonen forutsetter fravær av rangforskjeller mellom taleren og samtalepartneren og fremføres i en vennskapelig tone.

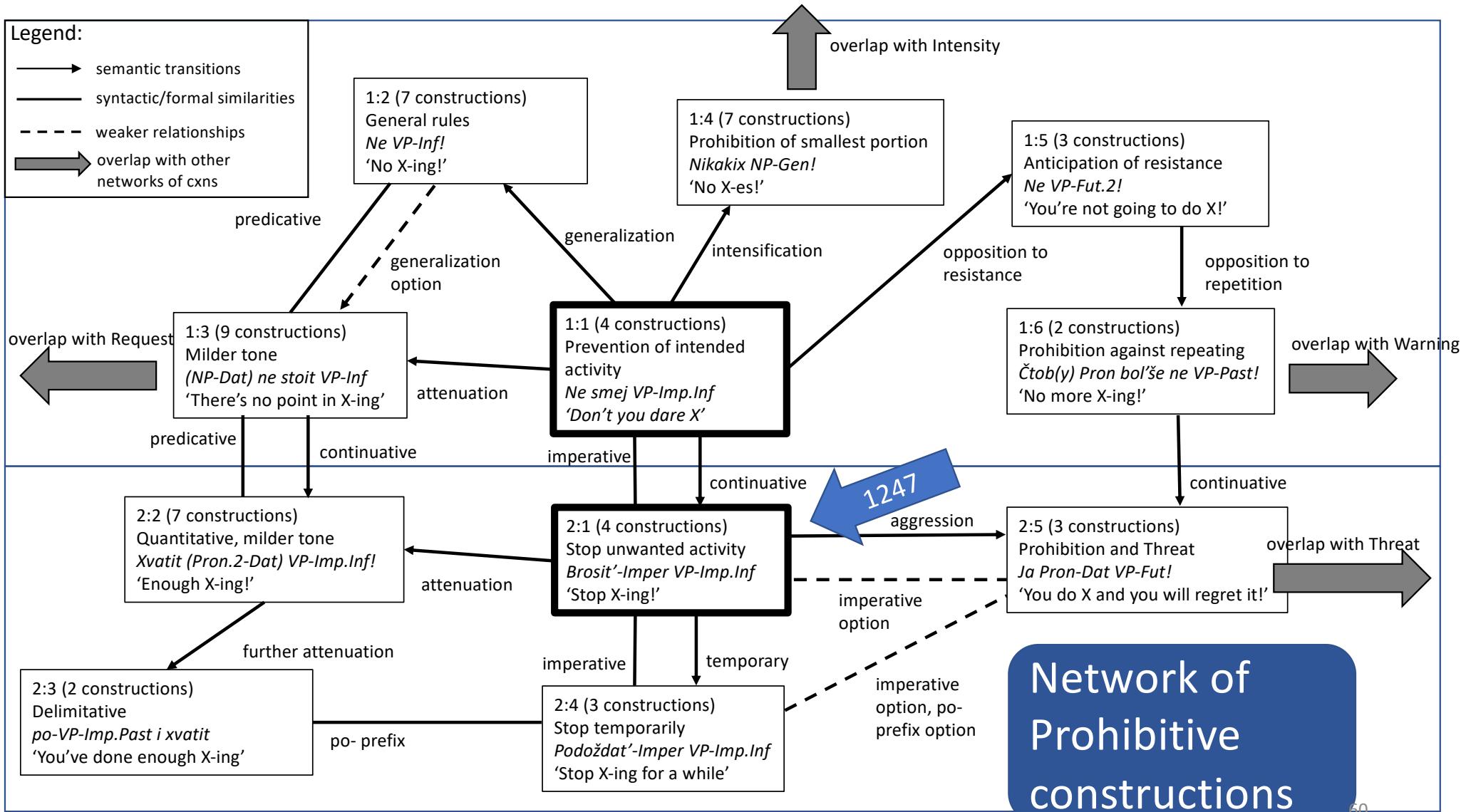
### EXAMPLES

1. Я им говорю — вы что, мужики. Хорош [слушать][Action](#) этот концерт по радио!
2. — Хорош [ссориться][Action](#)! — прервал девушек Илья. — Неконструктивно.
3. — Эй, Артем! Хорош [спать][Action](#)! Ну-ка вставай давай! Ты уже семь часов кряду дрыхнешь... Вставай же, соня!
4. — Хорош там [скакать][Action](#)! — крикнул Степан девочкам. Он сидел на корточках перед новой газовой плитой, читая руководство по эксплуатации.
5. — Васька, хорош [тормозить][Action](#)! — крикнул Андрей. — Открывай скорее двери!

## Cluster 1

**Legend:**

- semantic transitions
- syntactic/formal similarities
- - - weaker relationships
- overlap with other networks of cxns



# General information about resource

- **The Russian Constructicon** is a free open access electronic resource that offers a searchable database of Russian constructions
- **Name:** Constructicon means a structured inventory of constructions
- **Content:** 2265 multi-word grammatical constructions & descriptions of their properties & corpus-based illustrations
- **Target audience:** students and teachers of Russian as a foreign language, researchers, specialists in natural language processing
- **Time spent creating it:** 5 years, 2016 – 2020 (2021)
- **User-friendly interface:** <https://constructicon.github.io/russian/>