

# Affix ordering in Bulgarian, Russian and Polish double diminutives

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# Goals

- To provide an overview of the diminutivizing strategies in Bulgarian, Russian and Polish;
- To explain the formation of double diminutives in the three Slavic languages;
- To contribute to the typology of diminutivization; and
- To contribute to the better understanding of affix ordering.



# Structure of the talk

- Preliminaries: data and method, the structure of the Slavic word, what is a double diminutive, etc.
- The set of the Bulgarian diminutive suffixes and double diminutives in Bulgarian
- The set of the Russian diminutive suffixes and double diminutives in Russian
- The set of the Polish diminutive suffixes and double diminutives in Polish
- Double diminutives in Bg., R. and P: Summation
- Double diminutives and closing suffixation
- Conclusion



# Data

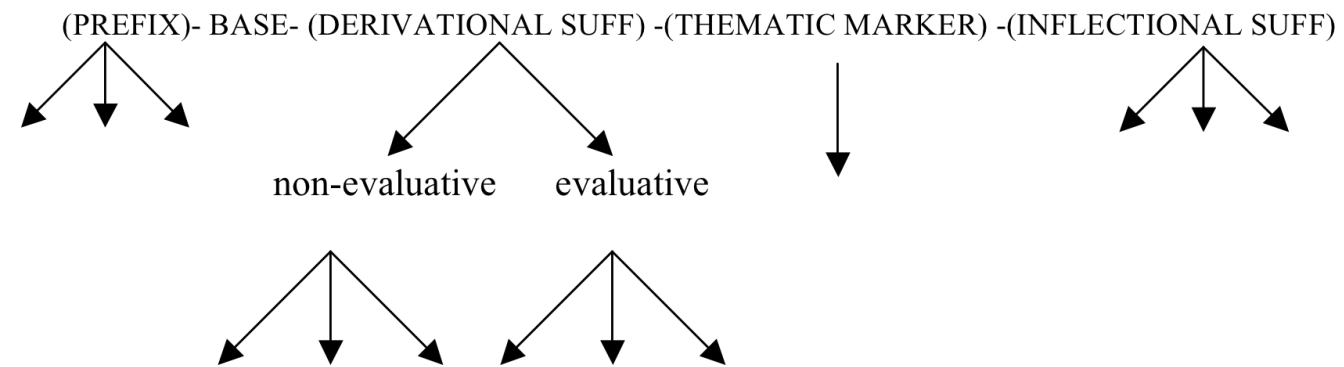
- The data come from **Bulgarian, Russian** and **Polish**, and thus represent the three major subgroups to which the Slavic languages are usually assigned.
- The three languages were selected to ensure that our research is typologically relevant.



# Sources of data

- The respective Academy Grammars: Andrejčin et al. (1983) for Bulgarian, Švedova et al. (1980) for Russian, and Gregorczykowa et al. (1989) for Polish.
- other grammars and scholarly articles
- dictionaries
- the respective national corpora
- Internet
- native speaker intuition

# The structure of the Slavic word





# Double diminutives

$X \rightarrow \text{DIM1 'small } X' \rightarrow$   
 $\rightarrow \text{DIM2 'very small } X'$

A DIM2 noun has **two overt DIM suffixes**, by default.

**The problem:** all diminutive suffixes in a language have the same semantics but do not combine freely with one another to express double diminutives. Thus, diminutive suffixes can help us understand how suffix ordering works.





# The Slavic noun

## PREF-BASE-DSUFF-ISUFF

Recall that the DSUFF slot accommodates the purely derivational suffixes and the DIM suffixes.

NB! Nominal DIM suffixes can be attached recursively:

$$[ [ N + DIM1 ]_N + DIM2 ]_N$$

i.e. suffixes of the same type (often also the same suffix) are added on adjacent cycles, which is rather unusual in word-formation.



# Nominal diminutives

The formation of nominal diminutives, be they DIM1 or DIM2, can be seen as phonologically-driven.

## Default rules

- nouns in **-C** receive **DIM** suffixes in **-C**
- nouns in **-a** receive **DIM** suffixes in **-a**
- nouns in **-o/-e** receive **DIM** suffixes in either **-o** (in R. & P.) or **-e** (in Bg. & R.)



# Bulgarian diminutive suffixes

1. **-ec**: vjatr̃ ‘wind’ → DIMI vetr-ec
  2. **-le**: nos → DIMI nos-le
  3. **-če**: pr̃st ‘finger’ → DIMI pr̃st-če
  4. **-ka**: kniga ‘book’ → DIMI kniž-ka
  5. **-ica**: r̃ka ‘hand’ → DIM r̃č-ica
  6. **-ička**: čanta → DIMI čant-ička
  7. **-čica**: sol ‘salt’ → DIMI sol-čica
  8. **-ce**: krilo ‘wing’ → DIMI kril-ce
  9. **-ice**: mljako ‘milk’ → DIMI mleč-ice (unprod.)
  10. **-ence**: tele ‘calf’ → DIMI tel-ence
- ! I I. **-e**: is considered inflectional (Manova 2005), e.g. kotel ‘caldron’ → kotl-**e**



## Bulgarian diminutives (bases in -C)

Nouns terminating in **-C**, which are **masculine** by default, take either **-ec** or **-le** and **-če**:

- **-ec**: vjatăr 'wind' → DIMI vetr-ec
- **-le**: nos → DIMI nos-le
- **-če**: prăst 'finger' → DIMI prăst-če

**-le** and **-če** are gender-changing, i.e. **-le** and **-če** diminutives are **neuter**.



## Bulgarian diminutives (bases in -a)

Nouns terminating in **-a** are feminine by default and take either the diminutive suffix **-ka** or **-ica**, and seldom both, **-ka** and **-ica**:

kniga → DIMI kniž-**ka**

kniga → DIMI kniž-**ica** (archaic).



## Bulgarian diminutives (bases in -o/-e)

Nouns terminating in **-o/-e** which are neuter by default select **-ce**, **-ice**, and **-ence**. Some nouns form diminutives with both **-ce** and **-ice**:

mljako 'milk' → DIM I mlek-**ce**

mljako 'milk' → DIM I mleč-**ice**

dete 'child' → DIM I det-**ence**



# DIM2 in Bulgarian I

DIMI suffixes that attach to masculine nouns (i.e. to nouns in -C) cannot be used as DIM2 suffixes. However, the gender-changing DIMI suffixes **-le** and **-če** can be followed by the diminutive suffix **-ence**:

**-le + -ence → -lence**

nos 'nose' → DIMI nos-le → DIM2 nosl-**ence**

**-če + -ene → -čence**

krąg 'circle' → DIMI krąg-če → DIM2 krąg-**čence**

drug-ar 'friend' → DIMI drugar-če → drugar-**čence**

pisa-tel 'writer' → DIMI pisatel-če → DIM2 pisatel-**čence**

# DIM2 in Bulgarian 2

Diminutive suffixes that attach to nouns terminating in **-a** form the following combinations:

- **-ica + -ka: -iĉ-ka**

răka 'hand' → DIM1 răĉ-ica

→ DIM2 răĉ-iĉ-ka

- **-ka + -ica → -ĉ-ica**

kniga 'book' → DIM1 kniž-ka

→ DIM2 kniž-ĉ-ica

!There are DIM1 suffixes **-iĉka** (ĉanta 'bag' → DIM1 ĉant-iĉka) and **-ĉica** (sol 'salt' → DIM1 sol-ĉica).





# Interim conclusion: Bulgarian

- DIM2 are **-ka,-ica** and **-ence**

## Rules for derivation of DIM2 nouns

- 1) A noun in **-a** → DIM1 in **-a** → DIM2 in **-a** (either **-ka** or **-ica**)
  - 2) A base in **-C/-o/-e** → DIM1 in **-e** → DIM2 with **-ence**
  - 3) Inanimate non-abstract nouns (countable) as well as animates denoting offspring (man's and of animal's) are the most typical meanings of DIM2 nouns.
- DIM2 are frequent, i.e. the process is productive and relatively unconstrained.



# Russian diminutive suffixes

1. **-ec**: vopros 'question' → voprosec
2. **-onok**: mal'čik 'boy' → mal'čonok
3. **-ik**: stol 'table' → stolik
4. **-ok**: pidžak 'coat' → pidžačok
5. **-ek**: den 'day' → denek
6. **-čik**: rukav 'sleeve' → rukavčik
7. **-ic-a**: čast' 'part' → častica
8. **-k-a**: bereza ,birch' → berezka
9. **-očk-a**: kofta ,blouse' → koftočka
10. **-ik-o**: lico ,face' → ličiko
11. **-k-o**: pivo 'beer' → pivko
12. **-c-e**: maslo 'oil' → maslice
13. **-ec-o**: pis'mo ,letter' → pis'meco



## Russian DIM I (bases in -C)

- **-ec:** vopros 'question' → voprosec
- **-onok:** mal'čik 'boy' → mal'čonok
- **-ik:** stol 'table' → stolik
- **-ok:** pidžak 'coat' → pidžačok
- **-ek:** den 'day' → denek
- **-čik:** rukav 'sleeve' → rukavčik

**! More or less variants of -ok/-ik/-ek.**



## Russian DIMI (bases in -a)

-k-a: bereza ‚birch‘ → berez-ka

-očk-a: kofta ‚blouse‘ → koft-očka

-ešk-a: ryba ‚fish‘ → ryb-eška

• -ic-a: část ‚part‘ → část-ica



## Russian DIMI (bases in -o/-e)

- **-ik-o**: lico ‚face‘ → lič-iko
- **-k-o**: pivo ‚beer‘ → piv-ko
- **-c-o/-c-e**: maslo ‚oil‘ → masl-ice
- **-ec-o**: pis'mo ‚letter‘ → pis'm-ece
- **-yšk-o**: sol'nce → sol'n-yško



## DIM2 in Russian (bases in -C)

- -ok + -ek → -oček

golos 'voice' → golosok → golos-oček

- -ek + -ek → -eček

den 'day' → denek → den-eček

- -ik + -ek → -iček

nož 'knife' → nožik → nož-iček



## DIM2 in Russian (bases in -a and ‘)

- -ka + -ka → -očka

igla ‘needle’ → igolka → igol-očka

- -ica + -ka → -ička

voda → vodica → vod-ička

část’ → částica → část-ička

- -eška + -ka → -ešečka

ryba → rybeška → ryb-ešečka



## DIM2 in Russian (bases in -o/-e)

- -ko + -ko → -ečko

sito ‚sieve‘ → DIM1 sitko →

→ DIM2 sit-ečko

okno ‚window‘ → DIM1 okoško →

→ DIM2 okoš-ečko





# Interim conclusion: Russian

## Rules for derivation of DIM2 nouns:

- DIM1 in **-C** takes DIM2 **-ek**
- DIM1 in **-a** take DIM2 **-ka**
- DIM1 in **-o** take the DIM2 **-ko**.

DIM2 are usually formed from non-derived basic nouns that are countable, inanimate and non-abstract.

- A significantly lesser number of nouns than in Bulgarian form DIM2 nouns.



# Polish diminutive suffixes

1. **-ek**: fartuch 'apron' → DIMI fartusz-ek
2. **-ik**: konflikt 'conflict' → DIMI konflikt-ik
3. **-yk**: kamień 'stone' → DIMI kam-yk
4. **-uszek**: dzbanek 'jug' → DIMI dzban-uszek
5. **-iszek**: brat 'brother' → DIMI brac-iszek
6. **-ulek**: garnek 'pot' → DIMI garn-ulek
7. **-k-a**: rura 'pipe' → DIMI rur-ka
8. **-uszk-a**: bryczka 'sulky' → DIMI brycz-uszka
9. **-yczk-a**: twarz 'face' → DIMI twarz-yczka
10. **-k-o**: wiadro 'bucket' → DIMI wiader-ko
11. **-uszk-o**: jabłko 'apple' → DIMI jabł-uszko



## Polish DIMI (bases in -C)

**-ek:** fartuch 'apron' → DIMI fartusz-ek

**-ik:** konflikt 'conflict' → DIMI konflikc-ik

**-yk:** kamień 'stone' → DIMI kam-yk

**-uszek:** dzbanek 'jug' → DIMI dzban-uszek

**-iszek:** brat 'brother' → DIMI brac-iszek

**-ulek:** garnek 'pot' → DIMI garn-ulek



## Polish DIM1 (bases in -a)

**-ka:** rura 'pipe' → DIM1 rur-ka

**-uszka:** bryczka 'sulky' →

DIM1 brycz-uszka

**-yczka:** twarz 'face' →

DIM1 twarz-yczka



## Polish DIM1 (bases in -o/-e)

**-ko**: wiadro 'bucket' → DIM1 wiader-ko

**-uszko**: jabłko 'apple' →

DIM1 jabł-uszko



# DIM2 in Polish

Polish is very similar to Russian.

- DIM1 in -C take the DIM2 **-ek**:

**-ek + -ek → -eczek**

dom 'house' → DIM1 domek →

DIM2 dom-**eczek**

**-ik + -ek → -iczek**

stół 'table' → DIM1 stol-ik →

DIM2 stol-**iczek**

**-yk + -ek → -yczek**

kosz 'basket' → DIM1 kosz-yk →

DIM2 kosz-**yczek**



# DIM2 in Polish

(bases in -a and -o/-e)

- DIM1 in **-a** select DIM2 **-ka**:


**-ka + -ka → -eczka**

rama 'frame' → ramka → ram-**eczka**

- DIM1 in **-o** select the DIM2 **-ko**:

**-ko + -ko → -eczko**

sito 'sieve' → sitko → sit-**eczko**



## DIM2 in Polish (unproductive patterns)

kwiat 'flower' → DIM1 kwiat-ek → DIM2  
kwiat-**uszek**

kij 'stick' → DIM1 kij-ek → DIM2 kij-**aszek**

paka 'package' → DIM1 pacz-ka → DIM2 pacz-  
**uszka**

However, there is no \*-uszko!





## Interim conclusion: Polish

Polish is very similar to Russian, i.e. -ek, -ka and -ko are used as DIM2 suffixes.

DIM2 are derived from base noun that are countable, non-abstract and non-personal. The base nouns also tend to be morphologically simple and monosyllabic.

**NB! Phonological constraint:** nouns ending in a velar consonant (k, g, h) seldom form DIM2.

- The number of DIM2 nouns is relatively small.



# Summing up

- The three languages, Bulgarian, Russian and Polish, have specialized three suffixes each for derivation of DIM2 nouns:

Bg.: -ka, -ica and -ence

R.: -ek, -ka and -ko

P: -ek, -ka and -ko

- Double diminutives are most frequent (less constraint) in Bulgarian, less frequent in Russian and least frequent (most constraint) in Polish.



# Constraints on double diminutives

## Constraints on the BASE NOUN:

- **Semantic** (slightly different in the different languages): countable inanimate non-abstract nouns are the typical bases of DIM2;
- **Morphological** (only in Russian and Polish): non-derived monosyllables are the typical bases of DIM2.
- **Phonological** (only in Polish): bases in velar consonants seldom have DIM2.



## Constraints on the suffix attached

- **Phonological:** the suffix must have a particular phonological make-up;
- **Morphological:** the combinations of suffixes are fixed and to some extent resemble templatic affix ordering, i.e. only particular suffixes can be placed in the DIM2 subslot and these suffixes never co-occur in the that subslot.
- **Psycholinguistic:** only productive diminutive suffixes are used in DIM2 nouns.



# Suffix selection in diminutives

Bg. N in -C → DIM1 in -e → DIM2 -ence → DIM3 -ence

Bg. N in -a → DIM1 in -a → DIM2 in -a → DIM3 -ica

Bg. N in -o/-e → DIM1 in -e → DIM2 -ence → DIM3 -ence

R./P. N in -C → DIM1 in -C → DIM2 -ek

R./P. N in -a → DIM1 in -a → DIM2 in -ka

R./P. N in -o/-e → DIM1 in -o → DIM2 in -ko



# Closing suffixation

A closing suffix is a suffix that does not allow addition of further suffixes of the same type, i.e. a closing derivational suffix cannot be followed by another derivational suffix, and a closing inflectional suffix cannot be followed by another inflectional suffix. Inflectional suffixes can attach to closing derivational suffixes.

(based on Aronoff & Fuhrhop 2002)



## Diminutives and closing suffixation

- DIM suffixes follow the other derivational suffixes and are thus trivially closing.  
(Aronoff & Fuhrhop 2002)

**This claim is false!**

As we could see, with respect to reclusiveness there are different types of diminutive suffixes.



# Closing diminutive suffixes

There are two types of closing diminutive suffixes:

- 1) Diminutive suffixes which do not allow further diminutivization, e.g. Bg./R. -ec. Such suffixes are unproductive.
- 2) Diminutive suffixes that can be followed only by themselves. Such suffixes are productive.





# Closing suffixes revisited

Closing suffixes are suffixes that close the word to the addition of further suffixes of the same type, i.e. a closing derivational suffix cannot be followed by another derivational suffix, **except by itself**, and a closing inflectional suffix cannot be followed by another inflectional suffix.



# Conclusion

- Slavic double diminutives are an interesting case of affix ordering and contribute to morphological theory.
- Of all constraints involved in the ordering of the semantically homogeneous diminutive suffixes, the morphological constraint on the DIM2 suffixes, i.e. the fixed order defined by morphology, is the most powerful one. If one knows which suffixes can be used as DIM2 and in which combinations (they are only three!), one would be able to produce a DIM2 noun (a potential one at least).



**Thank you!**