

# Contrastive morphology and typology:

Towards a semantic typology of  
closing suffixation

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# Goals

- to give a broader, typological, perspective on a detailed contrastive picture with respect to closing suffixation in languages from the same and different language families, i.e.
- to show that a contrastive analysis sometimes provides a (too) detailed picture that may seem (too) complicated and difficult to explain without the help of a typologically-oriented approach

# The structure of the talk

- Definition of 'closing suffix'
- Sources of data
- Method
- Closing suffixes in German
- Contrastive German - Bulgarian – Russian analysis of a set of German closing suffixes
- Additional closing suffixes from Slavic
- Summary
- Conclusion

# The term 'closing suffix'

The term 'closing suffix' goes as back as Nida (1949: 85) where it is used to describe the position of the inflectional suffixes such as the English plural suffix -s in the word form, i.e. inflectional suffixes close the word to the addition of derivational suffixes.

# Closing suffixes: definition

In the current morphological theory, a closing suffix is a suffix that closes the word to the addition of further suffixes of the same type.

(Aronoff & Fuhrhop 2002)

- Closing suffixes do not represent absolute rules and may have exceptions!

(there are usually about 5 instances in which a 'closing' suffix is followed by another suffix)

- So far, closing suffixes have been reported in a number of languages: English (Szymanek 2000), Polish (Szymanek 2000), Bulgarian (Manova 2008, 2009), Russian (Manova 2008, Sitchinava & Plungian 2009) and Greek (Melissaropoulou & Ralli 2010).



# Closing suffixes in derivation and inflection

- If a language stacks suffixes in both derivational and inflectional word slots, it has closing suffixes in derivation and inflection.

Bg. *pisa-tel-sk-o-to* ‘writer’s-NEUT-DEF’

write-DER<sub>N</sub>-DER<sub>ADJ</sub>-INF<sub>NEUT</sub>-INF<sub>DEF</sub>

piša ‘(I) write’

pisa-tel ‘writer’

pisa-tel-ski ‘writer’s-MASC’

pisa-tel-sk-o ‘writer’s-NEUT’

pisa-tel-sko-to ‘writer’s-NEUT-DEF’

# Test for +/-closing in derivation

This research is about closing suffixes in derivation.

Logically,

[BASE + SUFF]<sub>N, A, V</sub> → NOUN (N)  
→ ADJECTIVE (A)  
→ VERB (V)

If none of the three expected derivations is possible, SUFF is a closing derivational suffix.

# What could govern closing suffixation?

- Since a morpheme has form and semantics, closing suffixation can be either formally or semantically driven.
- Formally driven suffixation depends on phonological and morphological information.
- Semantically-driven suffixation depends on information that is semantic by nature.

(Manova & Aronoff 2010)

Is closing suffixation formally driven?

No, it isn't.

- Homophonous suffixes

Russian

*mel'-nic<sub>1</sub>-a* 'mill' → ADJ *mel'-nič<sub>1</sub>-n-yj* 'mill-'

*mel'-nic<sub>1</sub>-a* 'mill' → DIM *mel'-nič<sub>1</sub>-k-a*

*prepodavatel'-nic<sub>2</sub>-a* 'female professor' → ADJ ∅

*prepodavatel'-nic<sub>2</sub>-a* 'female professor' → DIM ∅

*-nic<sub>2</sub>-a* is closing but *-nic<sub>1</sub>-a* is not.

# Closing suffixation and semantics

- Closing suffixes can be described semantically, e.g. suffixes that derive female humans from male humans tend to be closing.

Recall the already discussed R. *-ica*, as in *prepodavatel'nica* 'female professor'.

To be discussed, G. *-in*, as in *Lehrer-in* 'female teacher'.

# The data

- German: Aronoff & Fuhrhop (2002)
- Bulgarian (Manova 2008, 2009)
- Russian (Sitchinava & Plungian 2009, Sitchinava, to appear, Manova, forthcoming)
- Large sets of Bulgarian and Russian derivational suffixes have been checked for being closing. (Those data are from the project '(De)composing the Slavic word' carried out at the University of Vienna):
  - over 120 distinct Bulgarian derivational suffixes
  - over 120 distinct Russian derivational suffixes(allomorphs are not counted as different suffixes)

# Method

Since there are no appropriate resources for investigation of suffix combinations in Slavic languages (note that Slavic morphology is inflecting-fusional), we have mainly followed Aronoff & Fuhrhop's (2002) strategy for establishing of existing suffix combinations.

This is an 'outside-in' strategy whereby the last suffix in a word-form is checked for which suffixes can precede it. Such a strategy allows the use of a reverse dictionary or other similar resources. Unlike A&F, we rearranged our data in a more logical 'inside-out' format, i.e. the presentation of the data in the sets is: suffix and suffixes that can follow it.

# Closing suffixes in German

*Lehrer* 'teacher' → *Lehrerin* 'female teacher'

*Lehrer* → *Lehrer-chen* ,little teacher'

*Lehrerin* → \**Lehrerin-chen* 'little female teacher'

Although diminutivization is a productive morphological rule in German, *Lehrerin* cannot be diminutivized. Actually, no derivational suffix can be attached to the suffix *-in*, which allows us to conclude that *-in* is a closing suffix.



# Reopening

If *Lehrerin* is used as a first constituent of a compound or before the suffixoids *-shaft* and *-tum*, a linking element ‘reopens’ it, thus *Lehrerinn-en-zimmer* ‘a room for female teachers’, *Lehrerinn-en-schaft* and *Lehrerinn-en-tum*. (A&F 2002)

Cf. *Mutter-tag* ‘mother’s day’

This definition of closing suffixes is problematic.

## Problems with A&F's definition of the German closing suffixes

- A&F see closing suffixes as dependent on morphological information, the presence of a linking element, and ignore semantics.

However, suffixes such as *-nis*, as in *Erreig-nis* 'event', do not require a linking element, e.g. *Erreignis-struktura*, but seem exactly as closing as the other closing suffixes from A&F (2002). The same holds for the suffix *-ismus* (as in *Sozialismus*) that also derives abstract nouns.

# The German closing suffixes

Aronoff & Fuhrhop (2002: 461) point out the following German suffixes as being closing:

$V + -e_{suff} \rightarrow N$

$A + -heit/-keit/-igkeit \rightarrow N$

$N \text{ males} + -in \rightarrow N \text{ females}$

$N \text{ person} + -isch \rightarrow A$

$V, A + -ling \rightarrow N$

$V + -ung \rightarrow N$

examples follow

# The role of semantics

- If closing suffixes are semantically driven and if linguistic knowledge is cognitive by nature, the semantic equivalents of the above German suffixes should have similar behavior in Bulgarian and Russian, i.e. there should exist semantics that is universally closing.

This is what we will investigate next.

G. *-e<sub>suff</sub>*

V + *-e<sub>suff</sub>* → N

G. *pflegen* 'to care for' → *Pflege* 'care', PL *Pflegen*

Cf. Bg. *griža se* '(I) care for' → *griž-a* 'care',  
PL *griž-i*

R. *zabotat'* → *zabot-a*, NOM PL *zabot-y*

The parallel suffixes in Bulgarian and Russian are inflectional and therefore don't allow attachment of further derivational suffixes.

## G. *-heit/-keit/-igkeit*

A + *-heit/-keit/-igkeit* → N

*schön* ,beautiful' → *Schön-heit* ,beauty'

N is an an abstract noun expressing property of  
A.

Bg. *xubav* ,beautiful' → *xub-ost* ,beauty'

R. *krasiv-yj* ,beautiful' → *krasiv-ost* 'beauty'

## Bg./ R. *-ost/-ost'*

Bg. *cjal* ,whole' → *cjal-ost* ,wholeness' → *cjalost-en*  
,complete' → *cjalostn-ost* ,completeness'

R. *celyj* → *celost'* → *celostnyj* → *celostnost'*

Bg. *xubav* ,beautiful' → *xubost* ,beauty' → *xubost-nik*  
,rascal'

Bg. & R. suffix *-ost* is not closing

! G. *ein-heit-lich*

## Other suffixes for derivation of abstract Ns in Bulgarian and Russian

- Bg. and R. have each over 15 suffixes for derivation of abstract nouns
- Of the 17 Russian suffixes none is closing  
*-ota*, as in *vis-ota* 'height', is closing in Bulgarian.
- The non-native suffix Bg. *-izăm/R. -izm* is seldom followed by other suffixes

But Bg. *-izăm/R. -izm* nouns are sometimes diminutivized in informal discourse or served as bases for derivation of adjectives (ironically) on the Internet.

Bg. *-izăm/R. -izm* illnesses, e.g. Bg. *revmatizăm/R. revmatizm* can be further derived, R. *revmatizm-ennoj*



## G. *-in*

(derivation of females from males)

- N males + *-in* → N females

Over 90 % of all *Movierung* formations in German are derived through the attachment of this suffix. In other words, the fact that the suffix *-in* is closing is enough to determine German *Movierung* as closing in general.

Except *-in*, modern German uses for *Movierung* also *-(i/e)sse*, *-euse*, *-ine*, *-esse* and *-sche* (dialectal, North German), formations with these suffixes, however, often have *-in* doublets or allow addition of *-in*, e.g. *Baron-esse* and *Baron-in*, as well as *Prinzess-in* (cf. Wellmann 1975: 107ff).

## Bulgarian suffixes for derivation of females from males (1)

- *-k-a* (e.g. *učitelka* ← *učitel* ‘teacher’)
- *-in-ja* (e.g. *boginja* ← *bog* ‘God’)
- *-kin-ja* (e.g. *srăbkinja* ← *sărbîn* ‘a Serbe’)
- *-ic-a* (e.g. *kralica* ← *kral* ‘king’)
- *-es-a* (e.g. *poetesa* ← *poet* ‘poet’)
- *-is-a* (e.g. *aktrisa* ← *akt’or* ‘actor’) and
- *-v-a* (only in *svekărva* ← *svekăr* ‘father-in-law’)

## Bulgarian suffixes for derivation of females (2)

These suffixes are closing only if the suffix is native and does not derive an animal. (Manova 2008)

The only instance of a derivation involving a human being that can be further derived is *svekār* 'father-in-law' → *svekārva* 'mother-in-law' → *svekārvička* (rather ironical) (Google – 82 occurrences).

*Svekārva* is derived with the unique suffix *-v-a*.

# Female humans from foreign bases (Bg.)

*princ* 'prince' → *princesa* → DIM *princeska*  
(Google – 528 occurrences)

*poet* 'poet' → *poetesa* → DIM *poeteska* (Google  
– 236 occurrences)

*baron* 'baron' → *baronesa* → DIM *baroneska*  
(Google – 1 occurrence)

*akt'or* 'actor' → *aktrisa* → DIM *aktriska* (Google  
– 54 occurrences)

# Lexicalizations

## Bulgarian

- *daskal* ,teacher (archaic)' → *daskal-ica* → DIM  
*daskal-ič-ka* ,little female teacher & little  
female pupil'
- *princ-esa* 'warm sandwich' → DIM *princ-es-ka*

# Derived females in Russian

- Russian is very much like Bulgarian, but without the ‘human’ constraint, i.e. derived females (humans and animals) cannot be further suffixed by default
- Like in Bulgarian, derived female humans cannot be diminutivized but may allow the possessive *-in/ -yn*:

*učitel’* ‘teacher’ → *učitel’-nic-a* ‘female teacher’ →  
*učitel’-nic-yn* ‘female teacher’s’

(Sitchinava & Plungian 2009 based on RNC)

- *direktor* → *direktor-š-a* → *direktor-š-in*

*-in* is not a clear case of a derivational suffix, compare with Genitive case meaning

(Manova 2009)

## G. *-isch*

N person, animals + *-isch* → A

*Schriftsteller* ,writer' → *schriftsteller-isch*  
,writer's'

Bg. *pisatel* ,writer' → *pisatel-sk-i* ,writer's'

R. *pisatel'* ,writer' → *pisatel'-sk-ij* ,writer's'

Bulgarian and Russian have also other suffixes for derivation of ADJs, they however do not correspond to the G. *-isch* semantically.

Bg. *-ski* / R. *-skij*

The Bg. suffix *-ski* is closing.

The R. suffix *-skij* can be followed by *-ost'*, as in:

*rus-sk-ost'* 'Russianness'

*svet-sk-ost'* 'worldliness'

*det-sk-ost'* 'childishness'



G. *-ung*

*bewegen* 'move' → *Bewegung* 'movement'

Bg. equivalents *-Vnie* and *-Vne*

*dviža* (se) ,(I) 'move' → *dviž-ene* ,moving' → ∅

→ *dviž-enie* ,moving, movement' → DIM

*dviž-eni-jce*

*-Vne* is clsoing but *-Vnie* is not

## Russian *-Vnie* and *-Vn'e*

Russian *-Vnie* nouns, like Bulgarian *-Vne* nouns, do not diminutivize.

However some R. *-Vnie* nouns can be further suffixed:

- *upravljat'* → *upravl-enie* → *upravlen-ec*

Lexicalized *-Vn'e* nouns diminutivize, i.e. like *-Vnie* nouns in Bulgarian:

*var-en'e* 'jam' → *var-en'-ce*

BUT *var-enie* 'cooking' → ∅

## G. *-ling*

V, A + *-ling* → N

However:

*prüfen* ,to examin' → *Prüfling* ,the examined person' →

FEM *Prüflingin*

*lehren* ,to teach' → *Lehrling* ,the taught person' →

FEM *Lehrlingin*

Source: Google (Native speakers evaluate such forms as impossible.)

G. *-ling* does not have an equivalent in Bulgarian and Russian.

# Closing suffixes in Slavic:

## Diminutives

- Aronoff & Fuhrhop (2002 : 460) exclude German diminutive suffixes (*-chen*, *-ei/-erei*, and *-lein*) from their analysis since a diminutive suffix is not expected to be followed by another suffix. This observation, however, does not hold for Bulgarian and Russian:

Bg. *dete* 'child' → DIM1 *det-ence* → DIM2 *det-enc-ence* → DIM3 *det-enc-enc-ence*

R. *den* 'day' → DIM1 *den-ek* → DIM2 *den-eč-ek*

# Summary

- Semantics that is closing in German is not always closing in Bulgarian and Russian
- Semantically equal suffixes in Bulgarian and Russian are not closing in both languages, e.g. -*ski* is closing only in Bulgarian.

# Summary

• G.	Bg.	R.
<i>-e<sub>suff</sub></i>	∅	∅
<i>-heit</i> (abstract N)	YES	NO
<i>-in</i> (FEM humans)	YES/NO	YES
<i>-isch</i> (relat. A)	YES	NO
<i>-ling</i>	∅	∅
<i>-ung</i> (action N)	YES	YES/NO
DIM	YES/NO	YES/NO

# Conclusion

Closing suffixes in Bulgarian, Russian and German show a number of language-specific peculiarities that makes it difficult to generalize about closing suffixation on the bases on purely contrastive analysis.

Intriguingly, with respect to closing suffixation Bulgarian has more in common with German than with the closely genealogically related Russian.

# Conclusion

- Nevertheless, in a broader perspective one can say that suffixes for derivation of abstract nouns, action nouns, female humans as well as relational adjectives tend to be the semantic meanings that are usually related to closing suffixation.
- The reluctance of the above derivational groups to serve as bases for further suffixation can be explained in terms of semantic scope, in the sense of Rice (2000), which means that the suffix attached scopes semantically over the (derived) base it attaches to.



# Conclusion

- The semantic scope principle can also explain why suffixes that derive concrete objects and collectives in Bulgarian and Russian are observed to have a very restricted combinability with further suffixes. It is hard to imagine what semantic meaning should be derived from some objects and collectives.
- Diminutive suffixes in Bulgarian and Russian can combine with each other and produce sequences of two, or even three, diminutive suffixes, i.e. not all diminutive suffixes are closing.

# Conclusion

- Closing suffixation is not an absolute rule and it is not so that there is a 'red light' in speakers' heads that switches on in order to ban further suffixation of bases terminating in particular derivational suffixes.
- Closing suffixation is best describable as a tendency for suffixes that derive particular semantic meanings to disallow further suffixation.