Suffix order and the structure of the Slavic word

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The claim

- The Slavic word has two major domains: one derivational and one inflectional. The derivational domain can be seen as having two subdomains: non-evaluative and evaluative. The two derivational subdomains and the inflectional domain exhibit suffix order peculiarities of their own.

The structure of the talk

- The topic of affix order
- Approaches to affix order
- The structure of the Slavic word
- Suffix order in non-evaluative morphology: rules and peculiarities
- Suffix order in evaluative morphology: rules and peculiarities
- Suffix order in inflection
- Conclusions

Affix order

- A language's morphology possesses a large set of meaningful elements, affixes, which combine in order to express an even larger set of semantic meanings; and affixation is the default rule for derivation of new words and word forms. However, of all possible affix combinations in a language, a relatively limited number really exist, which gives rise to the question: What principle(s) is/are responsible for the combination of affixes? This question is a central one in linguistic theory.

Approaches to affix order

Depending on the type of information relevant to affix order:

1) phonological
2) morphological
3) syntactic
4) semantic
5) statistical
6) psycholinguistic
7) cognitive, and
8) templatic   (Manova & Aronoff 2010)

The most recent approach: Complexity Based Ordering (CBO)

- The term CBO was suggested by Plag (2002) but is based on the Parsability Hypothesis (Hay 1999, 2001 and later work on English derivational morphology).

- According to the suggested classification of approaches to affix order, CBO is a psycholinguistic approach because its predictions depend mainly on processing (easy and difficult to parse) and productivity, among other things.

A CBO hierarchy

- All affixes of a language constitute a hierarchy, e.g. A-B-C-D-X-Y-Z. Affixes that follow the affix X on the hierarchy can be added to words already affixed by X, whereas affixes preceding X on the hierarchy cannot be attached to words containing X. i.e. combinations such as BASE-A-X-Z and BASE-C-Y-Z would be possible combinations, whereas *BASE-X-A-Z and *BASE-Z-D-A would be impossible. Thus, CBO, by definition, excludes suffix permutations of AB–BA type and repetition of suffixes, i.e. ABA and AA(A). Such combinations should be impossible.

Plag & Baayen (2009)

Based on CBO, they speak of acyclicity in affixation, i.e. an affix that is once attached is no more available for further affixation. They speculate that acyclicity should be a fundamental property of the human language. Slavic languages provide evidence that this claim is false.

Recently, Talamo (2010), following Manova (2010) on Bulgarian, has demonstrated that Italian derivational morphology allows for cyclic affixation, too.

For evidence from German showing that CBO is mistaken and not related to productivity , see Hilkelbach (2010).

The project *(De)composing the Slavic word*, U of Vienna, 2007-2011

- Generalized structure of the Slavic word:

PREF-BASE-DER SUFF-INFL SUFF

non-evaluative   evaluative
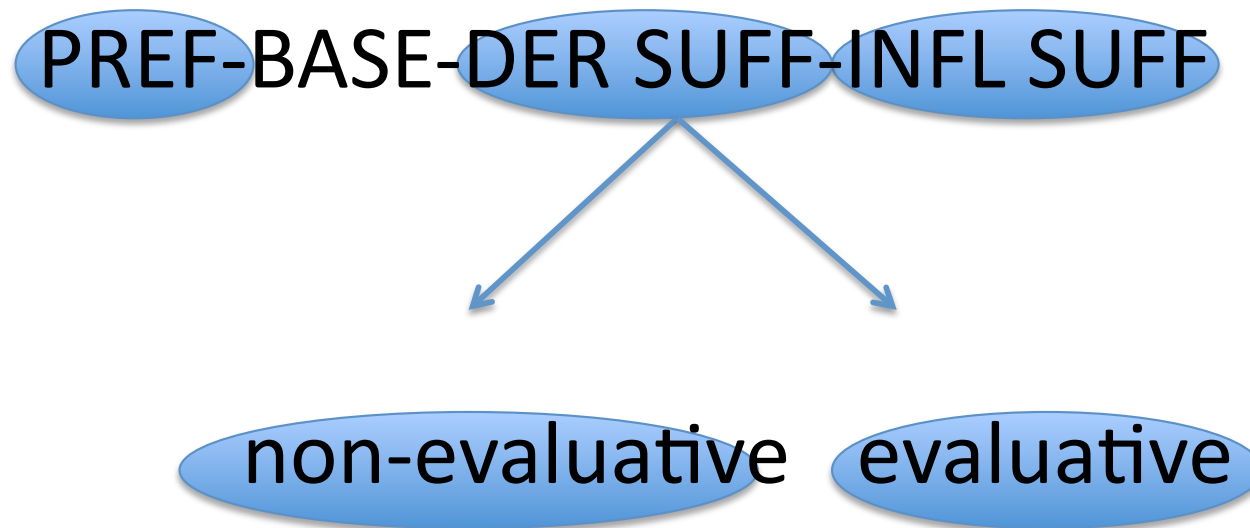
(Manova 2003, based on Skalička 1979, Dressler 1985)

Data

- Bulgarian, Russian and Polish suffixes for derivation of the major syntactic categories, i.e. nouns, adjectives and verbs.

Sources
- The respective academy grammars
- Specialized sources (monographs and articles)
- Dictionaries
- Corpora
- Internet
- Native speaker intuition

Method

- Large sets of derivational suffixes – over one hundred suffixes from each language. NB! From the literature on affix order, it is already well-known that the number of the investigated suffixes is significant for the conclusion drawn.

- Establishing the suffix profile: word-class specification of the suffix (i.e. the word class of the derivative); suffix semantics, allomorphs, bases to which the suffix attaches (formally and semantically specified), morphological technique (the way the suffix attaches, e.g. by addition, substitution, subtraction), and suffixes that can follow the suffix.

- The data sets will be made available on the Internet after the completion of the project, i.e. next year.

Difficulties: extensive allomorphy

- a. *vojn-ík* 'soldier' → *vojn-íš-ki* ‚soldier-'

- b. *uče-ník* 'pupil' → *uče-níč-eski* ‚pupil-'

- c. *upravl-énie* ‚government' → *upravl-én-ski* 'government-, governmental'

- d. *poved-énie* ‚behaviour' → *poved-én-česki* 'behaviour-, behavioural'

- e. *djádo* 'grandfather' → *djád-ovski* 'grandfather-'

- f. *póšta* ‚post' → *póšt-enski* ‚post-,

- g. *tur-íst* ‚tourist' → *turist-íčeski* ‚tourist-'

- h. *Amérika* ‚America' → *amerik-ánski* ‚American'

- i. *žába* ‚frog' → *žáb-eški* 'frog-‘

Suffix order in non-evaluative morphology: rules

- There is a systematic relationship between the word class of the derived base (terminating in SUFF1) and the attached SUFF2 in the sense that there is a clear tendency for a SUFF1 to select only one SUFF2 of a major syntactic category. If more than one SUFF2 with the same word-class specification exist, either one of the SUFF2 suffixes applies by default, i.e. most of the derivations exhibit that suffix, or there is some semantic rule that requires a particular single SUFF2. Additionally, since word-formation is prototypically word-class-changing, SUFF1 and SUFF2 usually have different word-class specification.

Suffix order in non-evaluative morphology: peculiarities

- ## AB – BA suffix permutations

Bg. *-en* & *-ota*

jas-en 'clear' → jas-*n-ota* 'clearness'

sam-ota 'loneliness' → *sam-ot-en* 'lonely'

R. *-nyj* & *-ota*

jas-nyj 'clear' → *jas-n-ota* 'clearness'

vys-ota 'height' → *vys-ot-nyj* 'height-'

Pl. *-ny* & *-ota*

dusz-ny 'stuffy' → *dusz-n-ota* 'stuffiness'

sam-ota 'loneliness' → *sam-ot-ny* 'lonely'

AB - BA

Bg. *-(l)iv* & *-ost*

săn-liv ‚sleepy' → *săn-liv-ost* ‚sleepiness'

mil-ost ‚mercy' → *mil-ost-iv* ‚merciful'

R. *-(l)ivyj* & *-ost'*

son-livyj → *son-liv-ost'*

mil-ost' → *mil-ost-ivyj*

Pl. *-(l)iwy* & *-ość*

chorob-liwy 'sickly' → *chorob-liw-ość* 'sickliness'

mił-ość → *mił-ośc-iwy*

Suffix order in non-evaluative morphology: peculiarities

- ABA order

Bg. *-ost-n-ost*

cjal 'whole' → *cjal-ost* 'whole, entirety' → *cjal-ost-en* 'comprehensive, exhaustive' → *cjal-ost-n-ost* 'comprehensiveness'

R. *-ost-n-ost'*

revn-iv-yj ,jealous' → *revn-ost'* ,jealousy' → *revn-ost-n-yj* ,devoted'→ *revn-ost-n-ost'* ,   devotedness'

PL. -ość + -owy + -ość

 długość → długościowy → dług-ościowość 'longness - longness-'

Suffix order in evaluative morphology

- Bulgarian, Russian, and Polish possess relatively rich sets of diminutive suffixes (more than 10), of those only three are used in double (and multiple) diminutives in each language.

DIM1   –   DIM2

10 suffixes   3 suffixes

! The combinations of DIM1-DIM2 suffixes are fixed.

Suffix order in evaluative morphology: peculiarities

- AA order (*-ek + -ek; -ka + -ka; -ko + -ko*)

R.

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

DIM1 *kartin-k*a → DIM2 *kartin-oč-ka*   'build'

DIM1 *veder-ko* → DIM2 *veder-eč-ko*   'bucket'

Pl.

DIM1 *dom-ek* → DIM2 *dom-ecz-ek*   'house'

DIM1 *ram-ka* → DIM2 *ram-ecz-ka*   'frame'

DIM1 *sit-ko* → DIM2 *sit-ecz-ko*   'sieve

Bulgarian diminutives

- AAA order

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

- AB – BA order

(*răka* 'hand' →) DIM1 *răč-ica* → DIM2 *răč-ič-ka*

(*kniga* 'book' →) DIM1 *kniž-ka* → DIM2 *kniž-č-ica*

Suffix order in infection

- The suffix order in inflection is templatic:

Bg. adjectives' template:

BASE–GEND/NUM–DEF

krasiv-ø-ø 'beautiful' (masculine)

krasiv-ø-ijat 'beautiful-DEF'

krasiv-a-ø 'beautiful-FEM/SG'

krasiv-a-ta 'beatuful-FEM/SG-DEF'

krasiv-o-ø ‚beautiful-NEUT/SG'

krasiv-o-to 'beautiful-NEUT/SG-DEF'

krasiv-i-ø 'beautiful-PL'

krasiv-i-te ‚beautiful-PL-DEF'

Further support for word-domains: closing suffixes

- Closing suffixes are suffixes that close the word to the addition of further suffixes (Aronoff & Fuhrhop 2002)
- Closing suffixes in non-evaluative derivation, e.g. suffixes deriving action nouns; and some of the suffixes for derivation of abstract nouns.
- Closing suffixes in evaluative derivation, e.g. diminutive suffixes that follow other diminutive suffixes.
- Closing suffixes in inflection, e.g. the definite article in Bulgarian nouns and adjectives.

Conclusions

- The Slavic word has two domains: one derivational and one inflectional. The derivational domain consists of two subdomains: non-evaluative and evaluative.

- The two derivational subdomains and the inflectional domain exhibit suffix order peculiarities of their own:

1) AB – BA suffix permutations are typical of non-evaluative morphology, as well as the ABA order of suffixes.

2) Suffix repetition, i.e. AA(A) is typical of evaluative morphology.

Conclusions

3) Derivational forms are layered, i.e. compositional (= step-by-step derived) and every new derivational step adds some semantics to the previous step (Rice 2000), therefore the permutation and repetition of suffixes.

4) Inflectional morphology is primarily templatic, i.e. the order of the suffixes is fixed and does not allow variations, which does not mean that the order of inflectional suffixes is entirely non-compositional.

Conclusions

- The order of suffixes in evaluative derivations is fixed (there are only 3 suffixes in each language that can be used a DIM2, and a DIM1 suffix can be followed by only one particular DIM2 suffix) and compositional (DIM2 means smaller DIM1). Thus, this study confirms the in-between status of evaluative morphology in morphological theory.

Thank you!

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