1. Introduction

Closing suffixes are suffixes that close the word to the addition of further suffixes. The term goes back as far as Nida (1949: 85) where it is used to describe the position of inflectional suffixes such as the English plural suffix -s in the word form, i.e. inflectional suffixes close the word to the attachment of derivational suffixes. In the literature on affix order, the term ‘closing suffix’ has been recently used to explain constraints in German and English suffixation (Aronoff & Fuhrhop 2002). Due to the more complex structure of the German word, Aronoff & Fuhrhop (2002: 468), however, argue for two types of closing suffixes, namely closing suffixes in derivation and closing suffixes in inflection. We will also adopt this differentiation of closing material. To exemplify, the Bulgarian definite article is a closing inflectional suffix, and it is therefore never followed by another, neither derivational nor inflectional suffix. The present paper focuses on closing derivational suffixes. Thus, I will now provide a definition of a closing derivational suffix.

Hypothetically, a derivational suffix, SUFF1\(^2\), irrespective of its syntactic specification, i.e. regardless whether nominal, adjectival or verbal, may be followed by another derivational suffix, SUFF2. Depending on the syntactic category of SUFF2, the output of the derivation BASE-SUFF1-SUFF2 may be N, ADJ or V. If none of these three possible outputs exists, SUFF1 cannot be followed by another derivational suffix (SUFF2), which means that SUFF1 is closing.

In order to investigate the role of semantics in closing suffixation, I set Bulgarian in Slavic and non-Slavic contexts. I compare the closing suffixes of German, a non-Slavic language, with their semantic homologues from two Slavic languages, Bulgarian and Russian. For a similar strategy of analysis, see Manova (2007, 2008b) who discusses German and Bulgarian closing suffixes and Sitchinava & Plungian (2009) who, following Manova (2008b), try to establish closing suffixation patterns in Russian.

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The main claim that I would like to put forward is that semantics is of importance to closing suffixation; however, semantic constraints alone cannot define a suffix as +/-closing.

This paper is structured as follows. In the next section, German closing suffixes, as established by Aronoff & Fuhrhop (2002), are introduced and their Bulgarian and Russian semantically parallel suffixes are checked for being closing or not. Section 3 discusses the nature of exceptions in closing suffixation. In the last section 4 conclusions are drawn.

2. German closing suffixes and their Bulgarian and Russian parallels

In what follows I will take the German closing suffixes available from the literature (Aronoff & Fuhrhop 2002), and compare them with their Bulgarian and Russian (more or less) semantic equivalents. As already mentioned, the Bulgarian parallels of the German closing suffixes are those established by Manova (2007, 2008b), whereas the Russian parallels are those pointed out by Sitchinava & Plungian (2009).

According to Aronoff & Fuhrhop (2002: 461), six German suffixes are closing: -e, -heit/-keit/-igkeit, -in, -isch, -ling, and -ung. With respect to the categories of the base and the output, we can define the German closing suffixes in the following way: V + -e suff/N; ADJ + -heit/-keit/-igkeit/N; N males + -in → N females, N person + -isch → ADJ; V, ADJ + -ling → N and V + -ung → N.

The German pattern V + -e suff → N, as in pflegen ‘to care for’ → Pflege ‘care’, can be compared with Bulgarian and Russian derivations of the types Bg. griža se ‘(I) care for’ → griž-a ‘care’ and R. zabort’ → zabot-a. These derivations are, however, conversions in Bulgarian and Russian where the Bulgarian and Russian suffixes parallel to the German -e suff are purely inflectional (consider Bg. griž-a → PL griž-i, R. zabort-a → NOM PL zabot-y), which explains why the suffix -a cannot be followed by derivational suffixes in the two Slavic languages.

The German patterns ADJ + -heit/-keit/-igkeit → N, e.g. schön ‘beautiful’ → Schönheit ‘beauty’, has a clear parallel in derivations such as Bg. xubav ‘beautiful’ → xub-ost ‘beauty’ and R. krasiv-yj → krasiv-ost’. In the three languages, N is an abstract noun expressing a property of ADJ. However, the Bulgarian and Russian parallels of the German closing suffix -heit (-keit/igkeit) allow further suffixation. Consider, Bg. cjal ‘whole’ → cjal-ost ‘wholeness’ → cjalost-en ‘complete’ → cjalost-nost ‘completeness’ and R. celyj → cel-ost’ → celost-nyj → celostn-ost’. The Bulgarian suffix -ost can be also followed by the suffix -nik. This unproductive pattern derives human beings with negative characteristics, e.g. Bg. xubav ‘beautiful’ → xubost ‘beauty’ → xubost-nik ‘rascal’. Thus, Bg. -ost / R. -ost’ is not closing. Note that also the German suffix -heit can be followed by other suffixes.
Such instances are, however, exceptions in German *einheitlich* ‘uniform’ (Aronoff & Fuhrhop 2002: 460).

The German closing suffix *-in* derives female humans from male humans. Over ninety percent of all female humans in German are derived through the attachment of *-in.* In other words, the fact that the suffix *-in* is closing is sufficient to determine the semantic meaning ‘a female human derived from a male human’ as closing in general. Bulgarian and Russian, however, each possesses a set of suffixes for deriving of female humans from male humans: Bg.: *-ka, -inja, -kinja, -ica, -esa, -isa,* and *-va* (cf. Stojanov 1993) and R.: *-ka, -ixa, -ica, -ša, -na, -inja, -axa,* - *essa, -isa* (cf. Švedova 1980). Manova (2008a) establishes that the Bulgarian suffixes are closing only if the suffix is native and added to a base denoting a male person. Suffixes deriving female animals are not closing, e.g. *magare* ‘donkey’ → FEM *magar-ica* → DIM *magarica* (Google 6 – 683 occurrences). Female humans derived from foreign bases can also be diminutivized, e.g. *princ* ‘prince’ → FEM *princ-esa* → DIM *princeska* (Google – 528), *poet* ‘poet’ → FEM *poet-esa* → DIM *poeteska* (Google – 236), *akt’or* ‘actor’ → FEM *aktr-isa* → DIM *aktriska* (Google – 54). Another exception to the closing character of the pattern of female humans constitute lexicalizations, e.g. *daskal* ‘teacher (archaic)’ → *daskalica* ‘female teacher and female pupil’ → DIM *daskalička* ‘little female teacher and little female pupil’. Additionally, the diminutivization *princeska* ‘little warm sandwich’, from the lexicalization *princesa* ‘warm sandwich’, is much more usual than diminutivization of *princesa* in its basic meaning ‘princess’. Russian derived nouns denoting female humans and animals cannot be diminutivized but allow, though rarely, the possessive *-in/-yn,* e.g. *ucitel’* ‘teacher’ → FEM *ucitel’-nica* → *ucitel’nyn* ‘female teacher’s’ (Sitchinava & Plungian 2009 based on RNC) and *direktor* → FEM *direktorša* → *direktoršin* ‘female director’s and director’s wife’s’ (Švedova 1980: 270). The suffix *-in/-yn,* however, cannot be seen as purely derivational, since such nouns can be substituted by normal genitive case forms, e.g. *ucitel’nicy syn* and *syn učitel’nicy* (the latter in genitive case), both meaning ‘female teacher’s son’.

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3 Except *-in,* modern German uses for the derivation of female humans from their male counterparts also *-(i/e)sses, -euse, -ine, -esse* and *-sche* (dialectal, North German). Formations with these suffixes, however, often have *-in* doublets or allow the addition of *-in,* e.g. *Baronesse* and *Barones,* as well as *Princesses* (cf. Wellmann 1975: 107ff).

4 Only in *svěkva* ‘mother-in-law’ < *svěk* ‘father-in-law’

5 The unique suffix *-va* (see footnote 4) is an exception. Consider *svěk* ‘father-in-law’ → *svěkva* ‘mother-in-law’ → DIM *svěkvička* (rather ironical) (Google – 82). Note that nouns such as *etěrva, žáva,* both ‘sister-in-law’, though terminating in *-v-a,* are non-derived.

6 All Google data as of August 2008.
The German -isch as in Schriftsteller ‘writer’ → schriftsteller-isch ‘writer’s’ corresponds to Bg. -ski / R. -skij7, e.g. pisatel’ ‘writer’ → pisatel’-ski ‘writer’s’ and R. pisatel’ → pisatel’-skij. Intriguingly, whereas the Bg. suffix -ski is closing, the Russian -skij is not. Consider: rus-sk-ošt’ ‘Russian-like style’, svet-sk-ošt’ ‘worldly-minded style’, det-sk-ošt’ ‘child-like style’.

The German -ling has no parallel in Bulgarian and Russian. It is also unclear where the suffix is closing in German. On the Internet one can find: prüfen ‘to examin’ → Prüfling ‘the examined person’ → FEM Prüflingin, lehren ‘to teach’ → Lehrling ‘the taught person’ → FEM Lehrlingin, Haft ‘prison’ → Häftling ‘prisoner’ → FEM Häftlingin.

The last German closing suffix -ung derives action nouns as in bewegen ‘move’ → Bewegung ‘moving, movement’. The suffix has two corresponding suffixes in Bulgarian, the suffix -Vne, e.g. dviža (se) ‘(I) move’ → dviž-ene ‘moving’, and the suffix -Vnie, e.g. dviža (se) ‘(I) move’ → dviž-enie ‘moving, movement’. Curiously, only -Vnie nouns can be diminutivized, e.g. DIM dviž-eni-jce whereas the suffix -Vne cannot be followed by other suffixes, dvižene ‘moving’ → *DIM. This different behaviour of the two suffixes with respect to diminutivization can be explained as due to the more lexicalized character of the -nie pattern, i.e. -nie nouns often exhibit lexicalized semantics and denote objects instead of actions (cf. Radeva 1991: 139), e.g. piša → pis-anie ‘a piece of writing’ (cf. pis-ane ‘writing’). In other words, Bulgarian -Vne is closing while -Vnie is not. Lexicalizations of -ne nouns are seldom. The reverse dictionary (Andrejčin 1975) lists only prane ‘laundry’, piene ‘drink’, jadene ‘food’, and imane ‘wealth’. Some native speakers use diminutivized forms of these nouns.

The situation in Russian is reversed to that in Bulgarian. Russian -nie nouns are action nouns, whereas the marginal pattern of -n’e formations is lexicalized. Russian -nie nouns usually avoid diminutivization but can be followed by other derivational suffixes, e.g. upravljat’ ‘manage’ → upravl-enie ‘managing, management’ → upravlen-ec ‘manager’. The lexicalized -n’e nouns freely diminutivize, e.g. R. var-en’e ‘jam’ → DIM varen’-ce but var-enie ‘cooking’ → *DIM.

In sum, semantic meanings that are closing in German are not always closing in Bulgarian and Russian, i.e. there is no universal closing semantics. However, we can define a closing suffix in a particular language (sometimes with a few exceptions) through its semantics, e.g. the suffix -Vne that derives action nouns in Bulgarian is closing, as is the suffix -ung in German. We can even define sets of semantically related closing suffixes in one language and

7 Sitchinava & Plungian (2009) consider also the possessive -in here. However, as mentioned in the previous paragraph, -in is not a clear case of a derivational suffix.
in different languages, e.g. native suffixes deriving female humans from male humans are closing in Bulgarian (except the suffix -va), in Russian (if we ignore the possessive -yn/-in) and in German. However, due to the exceptions found, it is impossible to conclude that closing suffixes can be defined properly on the basis of their semantics only.

3. Closing suffixation allows exceptions
In the previous section, we could establish that closing suffixes can have exceptions. However, the exceptions we have discussed so far have been primarily due to lexicalization and cannot be therefore seen as evidence against the importance of the semantics in closing suffixation. In this section, I will focus on instances of closing suffixes from Bulgarian that allow (a few) exceptions that share the semantics of the closing pattern. To exemplify, the Bulgarian suffixes -ina and -ota both derive abstract nouns from adjectival bases, as in dobrina ‘good deed’ and dobrota ‘goodness’, both formed from the adjective dobăr ‘good’. However, while the suffix -ina easily diminutivizes, one even does not need a basic word in order to produce the corresponding suffix combination -in-ka (as in dobrinka ‘little good deed’), the suffix -ota is hard to diminutivize.\(^8\) Despite the existence of the suffix -oten, e.g. straxoten ‘terrific’ (note that there is no *straxota, i.e. -oten is not a combination of -otaN + -enADJ), abstract nouns in -ota do not adjectivize, i.e. there is neither *dobroten nor *krasoten (← kras-ota ‘beauty’, cf. footnote 7) in Bulgarian. Two words, however, seem to be exceptions to the closing character of -ota: sam-ota ‘loneliness’ → samot-en ‘lonely’ and čest-ota ‘frequency’ → čestot-en ‘frequent’. For the sake of completeness, the adjectives dobrot-nyj ‘good’ and krasot-nyj ‘beautiful’ exist in Russian, as well as krosot-ka, a diminutive from kras-ota ‘beauty’. Consider also vys-ota ‘height’ → vysot-nyj ‘high’ and vysot-ka ‘little height’. In Bulgarian, one finds vis-ota ‘height’, but there is neither *visot-en nor *visot-ka.

In sum, closing suffixes allow exceptions. If one of a set of suffixes with synonymous semantics is closing, the other suffixes of the set are not all closing (recall here the exceptional behavior of the suffix -va in svekăr-va ‘mother-in-law’, the latter denotes a female human but can be diminutivized).

4. Conclusions
In this paper, I have compared German closing suffixes, as established by Aronoff & Fuhrhop (2002), with their Bulgarian and Russian parallels. The relation between closing suffixation and suffix semantics is a complex one: suffixes expressing synonymous semantics are not all closing, and a closing

\(^8\) Perhaps the only exception is krasotička ‘little beautiful place’ (find on the Internet), which is, however, a diminutive form of the lexicalized krasota ‘beautiful place’.

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suffix often allows a few exceptions. Therefore, it seems more reasonable to define closing suffixes as suffixes that tend to avoid further suffixation rather than as suffixes that always disallow attachment of further suffixes. Semantics is of importance to closing suffixation, i.e. it is a necessary criterion for the definition of a closing suffix, but the semantic specification of the suffix alone is not a sufficient criterion for the identification of the suffix as +/-closing.

REFERENCES


Švedova, N. 1980 = Шведова, Н. (отг. ред.)


ЛИТЕРАТУРА


