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The Morpho-Syntax of Slavic Possessives

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1. Introduction

In his seminal work on denominal Slavic possessives, Corbett (1987) showed that the syntactic behavior of Slavic possessives poses a problem for theories of morphology which treat inflectional and derivational morphology as two separate entities. This is because with respect to syntactic processes (e.g., control, pronominal binding) the possessive formation behaves as an inflectional process, whereas in other respects (e.g., change of word-class membership), it acts as a derivational process. In this paper, I show that Slavic possessives are in fact, well-behaved elements, formed by a regular, derivational morphological process that changes a noun into an adjective. The noun-like effects of possessives are explained if we assume that possessives have the semantics of nouns, inherited from the noun base from which possessives are derived.

The paper is organized as follows. Section 2 describes restrictions on the formation of Slavic possessives. In sections 3 and 4 data is presented that illustrate adjectival and nominal characteristics of possessives. In section 5, an agreement-based analysis is proposed that is able to capture two agreement patterns which possessives induce on various agreement targets. In section 6, a possessive formation schema is proposed, which further captures the mixed adjectival and nominal properties of possessives. Some interesting issues pertaining to disagreement in the noun phrase are pointed out in section 7. Section 8 concludes the paper.

2. Restrictions on Possessive Formation

Slavic possessives are derived from animate nouns by suffixing *–in/yn* or *–ov/-ow* to the noun stem, followed by an inflectional agreement suffix.[1] Some examples of prenominal possessives are shown in (1).[2]

(1) a. siastr -yn -y malunk-i (Belorussian)
sister-POSS-NOM.MASC.PL picture-NOM.MASC.PL
'the sister's pictures'

b. Boris -ov -a knig-a (Russian)
Boris-POSS-NOM.FEM.SG book-NOM.FEM.SG
'Boris' book'

c. mam -in -og brata-a (Serbo-Croatian)
mom-POSS-GEN.MASC.SG brother-GEN.MASC.PL
'of the mother's brother'

d. matč -in dom (Czech)

mother-POSS-NOM.MASC.SG house-NOM.MASC.SG
'the mother's house'

Although all Slavic languages have prenominal possessives, there is a variation with respect to their productivity and frequency of their use. For a detailed description, see Corbett (1987).

Possessives also require that their referent be singular and definite. In all examples in (1) possessives refer to a singular and definite entity. If the referent is a plural entity, one has to use an adnominal genitive, as the Upper Sorbian examples in (2) illustrate.

(2) a. *muž -ow -e praw-o
husbands-POSS-NEUT.SG right-NEUT.SG
'the husbands'right'
b. praw-o muž-ow
right-NOM.NEUT.SG husbands-GEN.PL
'the husbands' right'

The ungrammatical example in (2a) illustrates that a possessive cannot have a plural referent. Only the construction in (2b) is possible, where the adnominal genitive is used. A definite meaning of possessives can be observed by the following contrast.

(3) a. student-ov -a knjig-a (Serbo-Croatian)
student-POSS-NOM.FEM.SG book-NOM.FEM.SG
'a/the book of the/***a** student'
b. knjiga (nek-og) student-a
book-NOM.FEM.SG some-GEN.MASC.SG student-GEN.MASC.SG
'a/the book of **a** student'

The first example in (3) shows that the possessive *studentov* can only mean 'the student's' and not 'a student's'. In this sense, the possessive affix performs a function of the definite article. But, unlike the definite article, which marks the entire noun phrase definite, the possessive affix does not necessarily do so, as the English glosses in (3a) indicate. If one wants to refer to a non-specific student, the adnominal genitive must be used, as the second example in (3) shows.

Besides these semantic restrictions, there is a syntactic requirement which precludes the possessive from being modified. This is depicted in (4).

(4) a. sveska dobrog studenta (Serbo-Croatian)
notebook good-GEN.MASC.SG student-GEN.MASC.SG
'the/a notebook of a good student'
b. * dobr-og student-ov-a svesk-a
good-GEN.MASC.SG student-POSS-NOM.FEM.SG notebook-NOM.FEM.SG

The grammatical example in (4a) shows that the adnominal genitive *studenta* along with its modifier *dobrog* occur postnominally, where genitives normally appear. The ungrammatical example in (4b) illustrates that it is not possible to form a possessive if that possessive is modifed.[3] However, constructions like (4b) are permitted in two Slavic languages, namely, Upper Sorbian and Slovak, a fact which is discussed in section 7.

The following two sections illustrate adjectival and nominal characteristics of denominal possessives.

3. Adjectival Characteristics of Possessives

With respect to NP-internal agreement, declension paradigm, and their distribution, Slavic possessives pattern like adjectives.

With respect to agreement, all the possessive forms in (1) agree with the noun they modify in case, number and gender features. For example, in (1c) the possessive *maminog* is inflected for genitive masculine singular features since it modifies the genitive masculine singular noun *brata*, despite the fact that the possessive *maminog* refers to a female individual. An identical agreement pattern is found with ordinary adjectives, as depicted in (5).

(5) a. staryj-a malunk-i (Belorussian)
old-NOM.MASC.PL picture-NOM.MASC.PL
'old pictures'

b. stary-a knižnic-a (Slovak)
old-NOM.FEM.SG library-NOM.FEM.SG
'old library'

c. dobr-og brat-a (Serbo-Croatian)
good-GEN.MASC.SG brother-GEN.MASC.SG
'of the good brother'

With respect to declension paradigm, possessives decline like adjectives rather than nouns. This is especially evident in oblique cases, as can be seen in the Serbo-Croatian examples in (1c) and (5c), where the genitive ending *-og* is the same for both the possessive and the ordinary adjective, but not for the modified noun, which has the ending *–a*.

Possessives also have a distribution of adjectives. Within the noun phrase, both ordinary adjectives and possessives precede the head noun, as seen in (1) and (5). This is unlike adnominal genitive nouns which follow the head noun, as was shown in (3b) and (4a) above.

Furthermore, possessives cannot occur in the subject position (cf. (6a)), or as the object of a preposition (cf. (6b)), indicating that they are not noun phrases, and therefore not nouns.[4]

(6) a. *Dobar/Jovanov je došao. (Serbo-Croatian)

good/John's-GEN.MASC.SG AUX came-MASC.SG
*'Good/John's came.'

b. *Dobila sam to od dobrog/Jovanovog.
got-1FEM AUX it from good/John's-GEN.MASC.SG
*'I got it from good/John's.'

Finally, just like ordinary adjectives, possessives can occur in a predicative position, as illustrated in (7).

(7) Knjiga je stara/studentova. (Serbo-Croatian)
book is old/student's
'The book is old/(of the) student's.'

In sum, the examples from this section have illustrated that in many respects, possessives behave like adjectives.

4. Nominal Characteristics of Slavic Possessives

In other respects, possessives pattern with nouns rather than adjectives. Like nouns, and unlike regular adjectives, possessives are used referentially. They can bear thematic roles, act as controllers or binders for anaphoric pronouns. The Serbo-Croatian example in (8) shows that possessives have a referential force.

(8) Ovo su žen -in –i_j kaput-i. Ona$_j$ ih je kupila juče.
this are woman-POSS-MASC.PL coat-MASC.PL she-FEM.SG them AUX bought yesterday
'These are the woman's coats. She bought them yesterday.'

In this example, the personal pronoun *ona* can refer back to the possessive *ženini*. More precisely, the pronoun refers to a component of the possessive, namely, the noun from which the possessive is derived, thus, violating the Lexical Integrity Principle, which states that "the syntax neither manipulates nor has access to the internal form of word" (Anderson 1992, p. 84). In (8), only a feminine singular pronoun, such as *ona* 'she', can be used to refer to the possessive *ženini,* even though *ženini* is inflected for masculine plural features in agreement with the modified noun *kaputi*.

The agreement pattern in (8) shows that possessives behave in two ways. Like ordinary adjectives, possessives trigger morphosyntactic agreement on the noun they modify, and like nouns, possessives have their own referential features, through which they can be linked to the discourse entities. This behavior of possessives is unlike that of other adjectives, even relational ones, which lack referential property, a fact which is depicted by the following Serbo-Croatian example.

(9) Ovo su žen -sk -i_j kaput-i.
this are woman-ADJ-MASC.PL coat-MASC.PL

'These are coats for women.'

a. Ona$*_j$ ih je kupila juče. #'She bought them yesterday.'

b. One$*_j$ su ih kupile juče. #'They(fem.) bought them yesterday.'

As the examples in (9a) and (9b) show, neither the feminine singular nor the feminine plural personal pronoun can refer back to the classificational adjective *ženski* 'woman-like', showing that ordinary adjectives have no referential force.

Similarly, like nouns and unlike adjectives, possessives can act as binders for reflexive and reciprocal pronouns:

(10) Jovan$_i$ je slušao [NP opisivanje sebe$_i$]. (Serbo-Croatian)
John AUX listened description self
'John was listening to the description of himself.'

(11) Jovan$_i$ je primetio [NP **profesorovu$_j$** lošu brigu o sebi$*_{i/j}$].
John AUX noticed professor-POSS bad caring about self
'John noticed the professor's poor caring for himself.'

Slavic anaphoric pronouns, being morphologically simple in form, are subject oriented, i.e., they tend to favor subjects as their antecedents, where the term subject refers not only to clausal subjects, as in (10), but also to the subject of the noun phrase. In (11), the subject of the noun phrase is expressed by the possessive *profesorovu*, which is the only possible binder for the reflexive *sebi*. This example clearly shows that the possessives do not always denote possession, but can bear other thematic roles.

If we replace the possessive *profesorovu* in (11) with the classificational adjective *profesorski* 'professorial', the anaphoric binding between such adjective and the reflexive is impossible, indicating that such adjectives have no referential indices through which they can bind anaphors. This is shown in (12).

(12) [NP **profesorska$_j$** loša briga o sebi$*_j$/njemu$*_j$]. (Serbo-Croatian)
professor-ADJ bad caring about self/him
'professorial poor caring for himself'

To summarize, the data presented in this section show that possessives have noun-like properties. It is these facts that have led some linguists (e.g., Babyonyshev 1997, Rappaport 1998) to classify possessives as nouns rather than adjectives. In what follows, I offer an analysis of possessives that can capture their adjectival and nominal properties.

8. An Agreement Based Analysis of Possessives

In accounting for the mixed, adjectival and nominal agreement behavior of Slavic possessives I assume a theory of agreement proposed by Wechsler & Zlatić (1998a, to appear) and Kathol (1999), whereby nominal objects are specified for

two kinds of agreement features: the morphosyntactic CONCORD feature and the semantic, referential INDEX feature. CONCORD is a syntactic head feature, while INDEX is part of the semantic content of a nominal. As an illustration, the Serbo-Croatian noun *knjiga* 'book', would have the following specification for its agreement features.

(13)
$$\begin{bmatrix} \text{PHON } /knjig\text{-}a/ \\ \text{DECL II} \\ \text{SYNSEM} \begin{bmatrix} \text{CATEGORY} \parallel \text{CONCORD} \begin{bmatrix} \text{NUM } [1]sg \\ \text{GEND } [2]f \\ \text{CASE } nom \end{bmatrix} \\ \text{CONTENT} \begin{bmatrix} \text{INDEX} \begin{bmatrix} \text{NUM } [1] \\ \text{GEND } [2] \\ \text{PERS } 3rd \end{bmatrix} \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

This attribute-value matrix describes the appropriate feature structures of a noun, consisting of the following attributes: PHON(onlogy), DECL(ension) and syntax and semantics (SYNSEM). The noun *knjiga*, being a referring expression, is specified for both kinds of agreement features, morphosyntactic CONCORD and semantic INDEX feature. The number and gender values specified on the CONCORD and INDEX features match for most nouns, as is the case for the noun *knjiga* in (13). This identity of features is formally represented by the numerals enclosed in square brackets, called tags.

Unlike nouns, non-referential elements, such as determiners and adjectives, have the morphosyntactic CONCORD feature but not the INDEX feature, for indices are properties of referential expressions. I propose that Slavic possessives, being referential expressions, have both types of agreement features on a par with nouns. But unlike nouns, whose values of the CONCORD and INDEX features generally match (as in (13)), Slavic possessives have different values for CONCORD and INDEX features, hence, inducing mixed agreement with different elements.

I claim that Slavic possessives are syntactically adjectives and semantically nouns. As adjectives, Slavic possessives show 'CONCORD' agreement with the modified noun, as in (1). Like nouns, Slavic possessives also have the semantic INDEX feature, inherited from the noun from which they are derived. Hence, a coreferential pronoun agrees with the INDEX (and not the concord) features of the possessive, as in (8) above. A diagram in (14) depicts how the two agreement patterns are achieved in examples such as (8).

(14) 'CONCORD'_AGREEMENT_____

$$\begin{bmatrix} \text{CONC } [1]\, nom.m.pl \\ \text{INDEX } [2]\, 3rd.f.sg \end{bmatrix} \quad \begin{bmatrix} \text{CONC } [1]\, nom.m.pl \\ \text{INDEX } 3rd.m.pl. \end{bmatrix} \qquad \begin{bmatrix} \text{CONC } nom.f.sg \\ \text{INDEX } [2]3rd.f.sg \end{bmatrix}$$

ženinij kaputi …. Onaj

INDEX AGREEMENT

As the diagram shows, the NP-internal agreement involves 'concord' agreement whereas pronominal agreement is an instance of index agreement. While ordinary nouns and pronouns, whose number and gender values for both concord and index generally match (as in in (14)), the possessive *ženini*, has different values for these two types of agreement features. Specifically, the possessive in (14) is specified for the masculine plural concord but the feminine singular index features. The masculine plural concord values on the possessive are the result of merging information encoded on the head noun and the possessive. More precisely, the possessive, through its MOD(ified) head feature, requires that the modifed noun has compatible concord features, i.e., those that match the possessive's features. When the noun combines with the possessive, the noun's concord features will unify with those of the possessive, as formally indicated by the numeric tag [1] appearing on both the possessive and the noun.

The agreement between the personal pronoun and the possessive is not enforced by syntactic structure, but rather, by discourse representation structure. Specifically, for the two elements to corefer, i.e. to be identified in the discourse, their person, number and gender features should match, which means that their referential indices must be compatible.[5]

To summarize, under the assumption that possessives are syntactically adjectives and semantically nouns, we can capture two agreement patterns that posssessives induce on various elements.

6. Morphological Derivation of Possessives

I further postulate that the formation of Slavic possessives is a proper of derivational morphology, rather than being a matter of syntactic derivation, as assumed by Chvany (1977) and Babyonyshev (1997). I adopt a theory of morphology which assumes that affixes have no life of their own, i.e., they have no independent lexical entries, but only play a role during the processes of word formation, when they combine with specific stems (cf. Aronoff 1976, Anderson 1992).[6]

The Slavic possessive affixes *–ov* and *–in* are combined with the noun stem of the appropriate type in order to produce an adjective. Roughly, the possessive adjective has the following morphological structure:

(15) $[_{A}\ [_{N}\ \text{stem}]\ \text{poss_affix}]$

Specific constraints and lexical restrictions imposed on possessive adjectives can be described by the means of a derivational matrix shown in (16) below.

(16) Possessive Derivation Schema

$$\begin{bmatrix} \textit{poss} - \textit{adj} \\ \text{PHON } F_{ov}([1]) \\ \text{STEM} \begin{bmatrix} \textit{noun - stem - decl } x \\ \text{PHON } [1] \\ \text{SYNSEM} \begin{bmatrix} \text{CAT} \mid \text{HEAD } \textit{Noun} \\ \text{CONT} \mid \text{INDEX } [2] \begin{bmatrix} \text{PERS } [5] \textit{3rd} \\ \text{NUM } \textit{num} \\ \text{GEND } [4] \textit{masc} \end{bmatrix} \\ \text{RESTR } [3] \ \{\textit{animate}([2])\} \end{bmatrix} \end{bmatrix} \\ \text{SYNSEM} \begin{bmatrix} \text{CAT} \mid \text{HEAD } \textit{Adj} \\ \text{CONT} \begin{bmatrix} \text{INDEX} \begin{bmatrix} \text{PERS } [5] \\ \text{NUM } \textit{sing} \\ \text{GEND } [4] \end{bmatrix} \\ \text{RESTR } [3] \end{bmatrix} \\ \text{DEF } + \end{bmatrix} \end{bmatrix}$$

This matrix describes the feature structures of a possessive-adjective type of object consisting of phonological (PHON), morphological (STEM), syntactic and semantic (SYNSEM) information. The relationship between the nominal stem and the derived word is described through structure sharing of their respective features.

The PHON(ology) attribute of the complex word says that possessive adjectives ending in *-ov* are formed by appending this affix via some function F, to the phonological string of the appropriate noun stem.[7]

The information about the stem type is encoded in the STEM attribute. It says that *-ov* adjectives are formed from the animate noun stems of the declension class whose referential index has the values [*3rd masculine*] and whose value for number feature is unspecified, i.e., undetermined. A declension class of the nominal stem is stated as a variable *x*, since that depends on the specific language. In Serbo-Croatian, for example, the affix *–ov* would attach to the first declension class, a class reserved for masculine nouns. It is important to note that a declension class, rather than the semantic gender of the stem, is a determining factor for the choice of the possessive suffix. This can be observed in Serbo-Croatian, where male denoting nouns that are classified in the declension class reserved for feminine nouns get the possessive feminine affix *–in* rather than *–ov*, as in *Stev-in* 'Steve's'.[8]

The information about the derived object is contained in the SYNSEM attribute. The syntactic category of the resulting word is an adjective, indicating that possessive formation is a category changing morphological process, changing a noun into an adjective. The gender and person values of the possessive adjective are inherited from the noun stem, as indicated in the semantic

CONT(ent) of the possessive adjective. The referential index of the possessive is restricted to animate objects, as indicated by the identical tags appearing on the RESTR(iction) attribute of the possessive and the nominal base. Slavic languages which require further restrictions (e.g., a human referent, kinship terms) should specify these restrictions in their language-specific derivational matrices.

The requirement that a possessive always has a definite referent is captured by the information contained in the semantics of a denominal possessive adjective. Specifically, the possessive adjective is positively specified for the semantic Boolean feature DEF(inite). In other words, the possessive adjective morpheme *–ov,* when combined with the noun stem, makes the derived word definite. In this sense, the adjective morpheme *-ov* performs the function of a definite article.

We noted above that the nominal stem has no value specification for the number feature. However, the number value of the derived possessive adjective is specified as singular. This means that the possessive affix, when combines with the noun stem, imposes a requirement that the noun refers to a singular entity. It is not unusual to include restrictions imposed by the affixes when they combine with other morphological material. One such restriction was the definiteness requirement, mentioned above.

To summarize, in this section I claimed that the possessive formation belongs to a morphology proper, with the following morphological structure:

(17) $[_{A}\ [_{A}\ [_{N}$ noun_stem] poss_affix] infl_agr_affix]

As this structure shows, possessive derivation 'precedes' inflectional affixation. There is a convincing piece of evidence that possessive formation is indeed a matter of derivational morphology, not inflection and syntax, as argued by Babyonyshev (1997) and Rappaport (1998). The evidence comes from indeclinable nouns found, for example, in Upper Sorbian and Serbo-Croatian. Although these nouns do not take inflectional endings, they do form possessive adjectives, as depicted in (18).

(18) a. *$[_{N}\ [_{N}$ Džjen]-u] b. $[_{A}[_{A}\ [_{N}$Džjen]-in]-u]
Jane-ACC.FEM.SG Jane-POSS-ACC.FEM.SG
'Jane's'

The example in (18a) shows that a single inflectional suffix, marking number, gender, and case, cannot attach to the indeclinable, loan female name 'Jane'.[9] However, this is possible for a possessive affix *-in* in (18b), showing that the possessive affix is not an inflectional affix. Interestingly, after the possessive affix has been appended to the indeclinable noun, the inflectional affix *–u* can apply, thus, making the resulting word declinable, as shown in (18b). The analysis presented in this paper can easily explain this fact since the newly formed possessive name is syntactically an adjective, not a noun, as the corresponding labels in (18b) indicate.

7. Some Residual Issues: Disagreement in the Noun Phrase

It was noted earlier that possessives are limited to one word, i.e., they cannot occur in the structure in which the possessive is modified or has its own complements. The possessive derivation schema in (16) captures this fact, since possessive formation applies to a single lexical item, namely the stem.

If the possessive is modified, the adnominal genitive noun phrase must be used, as shown by the Serbo-Croatian example (4), repeated in (19).

(19) a. sveska dobrog studenta
notebook good-GEN.MASC.SG student-GEN.MASC.SG
'the/a notebook of a good student'
b. * dobr-og student-ov-a svesk-a
good-GEN.MASC.SG student-POSS-NOM.MASC.SG notebook-NOM.MASC.SG

However, in two Slavic languages, Upper Sorbian and Slovak, the structure like (19b) is fully grammatical. The Upper Sorbian examples in (20), reprinted from Corbett (1987: 300) illustrate this fact.

(20) a. dzećі mojeho bratra
children-NOM.PL my-GEN.MASC.SG brother-GEN.MASC.SG
'the children of my brother'
b. mojeho **bratrowe** dzećі
my-GEN.MASC.SG brother-POSS.NOM.PL children-NOM.PL

The first example in (20) corresponds to the grammatical structure in (19a), whereas (20b) corresponds to the ungrammatical (19b). As Corbett (1987) suggests, in languages that allow structures like (20b), the process of possessive formation applies to the entire phrase rather than to a single lexical item. In this sense, the possessive affix acts as the English genitive marker 's' which attaches to the noun phrase, as in (21).

(21) [$_{NP}$ the small boy]'s shoes

Under this phrasal analysis, the 'disagreeing' structure in (20b) does not pose a problem for the theory of agreement adopted here. The possessive adjective being the head of the adjective phrase, agrees with the noun it modifies, as predicted. Inside the possessive phrase, however, the possessive's modifier agrees with the gender and number features of the possessive's nominal base (masculine singular in (20b)), and is invariably marked for genitive case. This genitive case might well be a default genitive since there is no element within that possessive phrase that can assign case. A default genitive case is also found with prenominal modifiers in quantified noun phrases, i.e., the noun phrases headed by the indeclinable quantifiers (for details see Zlatić 1997 and Wechsler & Zlatić 1999).

Corbett (1987) also mentions the structures in which the possessive modifier takes on the same features as the possessive and the head noun, a process known as 'attraction'. The example from Upper Sorbian given in (22), illustrates this agreeing structure, which is in accordance with the agreement theory adopted in this paper.

(22) w našej nanowej cheži
in our.LOC.FEM.SG father.POSS.LOC.FEM.SG house.LOC.FEM.SG
'in our father's house'

8. Conclusion

By analyzing possessives as syntactically adjectives and semantically nouns, it now becomes possible to explain mixed adjectival and nominal properties of possessives, and to account for two types of agreement patterns that possessives induce on various agreement targets. This analysis also resolves the long standing controversy about the categorial status of Slavic possessives (cf. Ivić 1986, Corbett 1987, Babyonyshev 1997, Rappaport 1998). The morphological, derivational analysis presented in this paper is consistent with the Lexical Integrity Principle, whereas the syntactic derivational analyses of possessive formation found in Babyonyshev (1997) and Rappaport (1998) are not.

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Notes

[1] This is not a complete description, since some Slavic languages allow possessives to be derived from certain nonanimate nouns. For example, in Serbo-Croatian, possessives can be derived from nouns denoting herbs or plants, as in: *zovin čaj* 'elder tea, *maslačkovo mleko* 'the dandelion's milk'; or the names of the stars, as i*n mesečevo svetlo* 'the moon's light'. These possessives have no referential properties, unlike animate possessives described in the paper.

[2] The following abbreviations are used throughout the paper:

NOM	nominative	GEN	genitive	FEM	feminine	AUX	auxiliary
ACC	accusative	MASC	masculine	PL	plural	A	adjective
LOC	locative	NEUT	neuter	SG	singular	N	noun

[3] Some kinship terms can make a compound word, like *baba-Mara* 'grandma Mara', in which only the second compound stem inflects (cf. i.)

i. Video sam baba-Maru.
saw-1SG AUX grandma Mara- ACC
'I saw grandma Mara'.

Such compounds act as one word for the purpose of taking the possessive ending:

ii. baba Marino unuče
grandma Mara-POSS grandchild
'the grandchild of grandma Mara'

[4] It should be noted that (6a) is acceptable only as an instance of nominal ellipsis.

[5] Wechsler and Zlatić (1998b) have shown that this rule of featural identity between two discourse referents must be an optional rule, since pragmatic factors can override it.

[6]As Riehemann (1998) points out, due to the fact that affixes have no independent lexical entries, the problem with describing zero-affixes (affixes with no phonology) doesn't arise.

[7] Language specific morphophonemic rules would also apply to account, for example, for the alternation between –*ov* and –ev affixation.

[8] Corbett (1987) remarks that some Slavic languages are moving into a direction of choosing a possessive suffix based on the natural gender of the root noun rather than its declension type. In such cases only the gender specification of the nominal root is necessary.

[9] For further details on morphosyntactic behavior of these nouns, see Wechsler and Zlatić (1999).

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