Chapter 12

Syntax predicts prosody: Multi-purpose morphemes in Serbo-Croatian

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We consider four Serbo-Croatian suffixes which appear in various structural positions and display different prosodic behaviour in these positions. Such suffixes allow us to establish the effects of the structural context on prosody by constructing minimal pairs between e.g. derivation and inflection. All four suffixes are shown to fit the generalization that derivational morphology is more accented than inflectional morphology. We propose a formal explanation and discuss the functional benefits of a surface differentiation between the two uses.

Keywords: prosody, derivation, inflection, multi-purpose morphemes, Serbo-Croatian, Optimality Theory

1 Introduction

Morphemes in different structural positions have different phonological properties. This insight has been formalised within various frameworks in both phonology and syntax. In phonology, roots have long been recognised as allowing more phonological contrast than affixes, an observation which has been formalised within Optimality Theory as the constraint family Root Faithfulness (see e.g. McCarthy & Prince 1993 and Beckman 1997 for a discussion of roots as one of the privileged positions in phonology). In a related model, Revithiadou (1999) presents evidence for the prosodic dominance of syntactic heads (stems and

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derivational affixes can be heads, but inflectional affixes cannot). Several accounts couched in Distributed Morphology (Halle & Marantz 1993; 1994) deal with prosodic asymmetries of this kind. Doner (2017) argues that Spanish suffixes that express phi-features behave as prosodic adjuncts, which excludes them from the domain of stress assignment under certain circumstances. Marvin (2002) presents evidence for prosodic behaviour that is a function of syntactic phasehood.

To our knowledge, few analyses along these lines have been proposed of cases where the same morpheme appears in different environments, and virtually no analysis targets the same affix in its derivational and inflectional uses. Data involving the same affix are crucial because they constitute minimal pairs in which the only difference is the structural position of the affix. Such minimal pairs are the only type of evidence immune to alternative accounts that explain asymmetries between different structural positions as results of accident or functional pressures on lexicalisation, which do not need to be recorded in the grammar. In other words, while there are formal accounts of phonological asymmetries between inflection and derivation (e.g. McCarthy & Prince 1993; Beckman 1997; Revithiadou 1999) the fact that the derivational suffix X is accented whereas the inflectional suffix Y is not does not immediately strike researchers as a fact in need of a grammatical explanation. However, in cases where the same affix gets different prosodic treatment in different structural positions, we can be sure to see a grammatical mechanism at work.

The first analysis of the same morpheme in different structural environments we are aware of is a cursory discussion of nominalising *-ost* in Slovenian in Marvin (2002). This suffix seems to combine with the adjective *mlad* 'young' in two different nominalisations: in *mlad-óst* 'youth' and in *mlád-ost* 'youngness' (several other pairs of *-ost*-nominalisations are listed). For Marvin, the relevant distinction is that between root nominalisations and deadjectival nominalisations. In the root nominalisation *mlad-óst*, there is no adjectival head between the root and the nominal head *-ost*, so the root and the suffix are in the same syntactic phase. As a consequence, the suffix imposes its prosody (*mlad-óst*). In the deadjectival nominalisation *mlád-ost*, there is a (silent) adjectival head between the root and the nominal head *-ost*, which causes a separate spell-out of *mlád*. The suffix arrives "too late" to affect the stress pattern of the whole, so the resulting stress pattern is that in *mlád-ost*. Arsenijević & Simonović (2013) analyse the Serbo-Croatian cognate of the same suffix using the lexicalist mechanism of Lexical Conservatism (first proposed in Steriade 1997), a constraint which enforces copying the prosody of the base in all paradigm members. Lexical Conservatism has no influence on non-paradigm members. To stay with the same Slovenian

example, *mlád-ost* counts as part of the paradigm of the adjective *mlád* (based on semantic transparency and the fact that the pattern is productive). As such, *mlád-ost* copies the prosody of *mlád* due to the pressure of Lexical Conservatism. *Mlad-óst*, on the other hand, is a separate lexical item and its stress only depends on the general constraints (which in this case seem to enforce the faithfulness to the stress specification of the affix *-ost*). Simonović & Arsenijević (2014) present an analysis along the same lines of the Serbo-Croatian deverbal nominalisations, to which we will turn in §4.1.

Marvin (2002) and Arsenijević & Simonović (2013) use different formal tools, but both account for the targeted data sets. Given this background, our main goal is to expand the data set. We achieve this by discussing the influence of the structural position on prosody in cases of maximal MULTI-FUNCTIONALITY: those cases where one of the structures in which the affix surfaces is clearly inflection whereas the other one is derivation. Furthermore, we observe various cases of such multi-functionality within the same language in order to establish generalisations which hold across morphemes.

The main focus of this paper lies on the prosodic behaviour of affixes which occur both in inflection and derivation and have different prosodic effects in the two domains. To the best of our knowledge, while multi-functional affixes are relatively frequent, so far, this kind of systematic dichotomy at the level of prosody has only been attested in Serbo-Croatian. This is why the empirical focus of this paper will be on data from this language.

The rest of this paper is organised as follows. §2 addresses the issue of identifying affixes which can surface in both inflection and derivation as well as predictions concerning the prosodic effects of such affixes. Based on the existing literature, the prediction is put forward that the derivational uses of the affixes should go hand in hand with more accentedness, whereas the inflectional uses should be characterised by less accentedness. In §3 we present the key features of Serbo-Croatian prosody and its notation. We then list four ways in which the prosodic pattern of the base can be influenced by an affix in Serbo-Croatian. §4 presents a detailed overview of four Serbo-Croatian affixes which appear in both inflection and derivation. We keep track of their SURFACE DISTINGUISHABILITY and ACCENTEDNESS ASYMMETRIES in the two contexts. In §5 we identify the common patterns in the data presented in §4, observing that the prosodic pattern in the derivations seems to be the same at least across the suffixes performing the same function. In §6 we consider the theoretical consequences of the observed asymmetries. §7 concludes this paper.

2 Multi-functional affixes

Cases of the same affix appearing in both derivation and inflection are not hard to come by. Below we quote examples from English and Italian. Both English *-ed*$_{\text{A}}$ and Italian *-uto*$_{\text{A}}$ appear as regular past/passive participle endings when combined with verbs, but also as adjectivisers when combined with nouns.

(1) English *-ed*$_{\text{A}}$

a. fear fear-ed (Inflection)

b. beard beard-ed (Derivation)

(2) Italian *-uto*$_{\text{A}}$

a. tem-ere tem-uto (Inflection)
fear-INF fear-PASS.PTCP
'to fear' 'feared'

b. barba barb-uto (Derivation)
beard beard-uto

Serbo-Croatian has several suffixes which behave in a similar way. Moreover, Serbo-Croatian pairs of this type are often characterised by surface distinguishability by means of prosody. In (3) and (4) we show how Serbo-Croatian *-at*$_{\text{A}}$ and *-an*$_{\text{A}}$ appear in different constellations.

(3) Serbo-Croatian *-at*$_{\text{A}}$

a. prìzna-ti prȉzna-at (Inflection)
recognise-INF recognise-PASS.PTCP
'recognise' 'recognised'

b. pȓs-a prs-at (Derivation)
bust bust-at
'bust' 'busty'

(4) Serbo-Croatian *-an*$_{\text{A}}$

a. pòsla-ti pȍsla-an (Inflection)
send-INF send-PASS.PTCP
'to send' 'sent'

b. gȉps-a gips-an (Derivation)
plaster-GEN plaster-an
'plaster' 'made of plaster'

We will discuss the details of the prosodic representation of Serbo-Croatian in §3. For the moment, suffice it to say that both suffixes systematically display different prosodic patterns in the two uses and, previewing our findings, that the derivational endings are more accented. This asymmetry is in the same direction as those observed in Marvin (2002) and Arsenijević & Simonović (2013), and it also matches the cross-linguistic tendencies that will be discussed below.

Before moving on, we briefly address one potential objection to this presentation of the data. There is an obvious alternative: accidental homonymy between unrelated affixes. So English *-ed*, Italian *-uto*, as well as Serbo-Croatian *-at* and *-an* may be not a single affix but pairs of unrelated affixes which happen to have the same form or, more precisely, the same segmental content. Our arguments against this view can be summarised as follows:

- Whether inflection or derivation, the category of the word resulting from affixation is the same (adjective in all the cases discussed above). On the accidental homonymy analysis, this would be another accident.
- Most of these suffixes are old in both uses, without a diachronic tendency to phonologically split into two different suffixes – which is what would be expected were they different items.
- In Serbo-Croatian, the two uses of the same affix are systematically distinguished by different prosodic patterns, as discussed in this paper.
- Finally, it would be quite surprising for a Germanic, a Romance and a Slavic language to have an accidental homonymy between the suffixes with exactly the same purposes: the passive participle and an adjectival suffix.

Once we accept that the derivational and inflectional affixes in question are indeed the same affix, prosodic asymmetry is predicted to exist in some language. This follows from the cross-linguistic generalisation that derivational affixes are phonologically more prominent than inflectional affixes (see e.g. Beckman 1997; Revithiadou 1999). Based on facts from several languages from different language families, Revithiadou (1999) proposes two constraints that favour prosodic prominence of derivational affixes. HeadFaith is a faithfulness constraint which protects lexical prominence of syntactic heads (derivational affixes and stems are argued to be syntactic heads, unlike inflectional affixes). HeadStress is a markedness constraint that militates against stress on non-heads. This constraint is violated whenever inflectional affixes are stressed.

The observed asymmetry predicts that there should exist two types of languages:

- languages such as Italian in which both derivational and inflectional affixes can be stressed (or otherwise prosodically strong) and
- languages such as English or Dutch in which derivational affixes can be prosodically prominent but inflectional affixes cannot.

To our knowledge, there is no language which is a mirror image of English and Dutch. In such a language, inflectional suffixes would be more stressed than derivational affixes.

In Serbo-Croatian, both derivational and inflectional affixes can be either accented or accentless (but accented inflectional suffixes are becoming rare, see Simonović & Kager 2020 [this volume]). Prosodic prominence in Serbo-Croatian involves stress, tone and vowel length and the lexical sponsor of the surface prosody is not easily determined. This is why we first turn to Serbo-Croatian prosody and its representation in the following section.

3 Standard Serbo-Croatian prosody

Serbo-Croatian is traditionally classified as a PITCH-ACCENT system in which the distribution of stress is predictable from that of HIGH TONE (Inkelas & Zec 1988; Zec 1999). Every prosodic word is characterised by a single TONAL ACCENT headed by the single stressed syllable of the word. Classical descriptions distinguish between falling and rising tonal accents. In the FALLING ACCENTS, stress and high tone co-occur on the same syllable, which is typically the first syllable of the word. Depending on the length of the stressed syllable, there are long falling and short falling accents (in *lâđa* 'boat' and *krȁđa* 'theft', respectively). The RISING ACCENTS are traditionally analysed as spans of two adjacent syllables which both have a high tone, whereas only the first syllable also carries stress (but see Zsiga & Zec 2013 for arguments that in some varieties the first syllable of the rising accents only carries stress but no high tone). The rising accents can also be long or short, depending on the length of the stressed syllable (as in *báka* 'grandmother' and *màča* 'sword.GEN', respectively).

Most accounts of Serbo-Croatian prosody share some central assumptions. The rising accents are generally assumed to have a lexical sponsor in the rightmost syllable of the span, which automatically spreads onto the preceding syllable: the rising accent in *màča* 'sword.GEN' then derives from /ma$\widehat{\text{ʧ}}$a$_{\text{H}}$/. This spreading accounts for the fact that rising accents do not occur in monosyllables, where only falling accents are possible. Falling accents are the realisation of high tones that cannot spread to the left: those on the initial syllables. This also accounts for

the fact that falling accents are restricted to initial syllables. The falling accents are assumed to get assigned to the initial syllable as a default in the absence of lexically specified prosody: /novine/ will become *nŏvine* 'newspaper' if no high tone gets assigned in the derivation.

An obvious disadvantage of the traditional diacritics is that they do not mark the second part of the rising accent, so the reader needs to memorise the diacritics and 'imagine' a high tone after every rising-accent diacritic. A disadvantage of using an IPA notation is that it has some overlap with the traditional notation, which confuses those Serbo-Croatian speakers who are used to the traditional notation. This is why we use a different, more transparent notation in this paper: high tone is marked by capitalisation and vowel length by doubling. Stress is not marked, as it predictably falls on the leftmost high-toned (= capitalised) syllable.

Table 1: Traditional diacritics and the notation used here

	monosyllables	polysyllables
long falling	grâd = grAAd 'town'	lâđa = lAAđa 'boat'
short falling	grȁd = grAd 'hail'	krȁđa = krAđa 'theft'
long rising	/	báka = bAAkA 'grandmother'
short rising	/	màča = mAčA 'sword.GEN'

Serbo-Croatian suffixes display varying behaviour with respect to prosody. Table 2 illustrates four suffixes interacting with bases which have a rising accent, i.e. they have an underlying high tone in their representation. The behaviour of these four affixes can be described as:

- ACCENT-BEARING (*-ana* deletes the accent of the base and imposes its own),
- ACCENT-ATTRACTING (*-iji* moves the accent closer to itself),
- ACCENT-NEUTRAL (*-oost* does not change the prosody of the base) and
- ACCENT-ERASING (with *-aaj*, the high tone of the base is deleted, but no other high tone is added by the suffix).

Note that in the fourth example, the accent-erasing suffix leads to default prosody i.e. to the initial short falling accent.

Table 2: Prosodic effect of suffixes in Serbo-Croatian

Base	šEćEr 'sugar'	rAnjIv 'vulnerable'	rAnjIv 'vulnerable'	pOkUš-ati 'try.INF'
Derivation	šećer-AnA 'sugar factory'	ranjIv-Ijii 'more vulnerable'	rAnjIv-oost 'vulnerability'	pOkuš-aaj 'attempt'
Behaviour	accent-bearing	accent-attracting	accent-neutral	accent-erasing

4 Case studies

In this section we present a detailed overview of the prosodic behaviour of four Serbo-Croatian affixes which appear both in inflection and derivation: the nominal *-VVje*$_{\text{N}}$ and the adjectival *-en*$_{\text{A}}$, *-an*$_{\text{A}}$, *-at*$_{\text{A}}$.

Throughout the discussion of the affixes, we will keep track of two aspects of their behaviour. One is SURFACE DISTINGUISHABILITY: to what extent are the two uses of the suffix distinguishable in the surface form? The other concerns the formal status of the relevant uses of the suffix in relation to protypical derivation or inflection. In each case we consider the PROSODIC DOMINANCE (accentedness), PRODUCTIVITY and SEMANTIC TRANSPARENCY of the suffixes. In line with the typological generalisations and what we found in Serbo-Croatian in Arsenijević & Simonović (2013) and Simonović & Arsenijević (2014), the general expectation is that inflectional uses should be prosodically non-dominant, productive and semantically transparent, whereas the derivational uses should be more prosodically dominant, less productive and less semantically transparent.

In the literature on Serbo-Croatian, the affixes under scrutiny here, especially the adjectival *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$, are analysed as different morphemes in their derivational and inflectional uses. Since we are proposing a new unified analysis of the suffixes in question, we limit our attention to those cases where the presence of the suffix is unquestionable. We therefore restrict our corpus to the cases of concatenation of morphemes without any irregular over- or underapplication of phonological or morphological processes e.g. unexpected intervening segments or consonant mutation. We do make an exception regarding one process, as it is fully productive in at least one of the contexts, that of so-called *iotation*. Iotation is a consonant palatalisation, typically before a *j*, e.g. in /sxʋati+en/ which surfaces as *sxvaʧ͡en* 'understood' via the intermediate /sxʋatjen/, as *tj* is palatialised to *ʧ͡*.

In the rest of the paper, we distinguish between derivational and inflectional versions using the following notation: *affix*$_{\text{DERIV}}$ will be used for the derivational

versions, whereas *affix*$_{\text{INFLECT}}$ will be used for the inflectional versions of the same affixes. In §4.1 the nominal suffix *-VVje*$_{\text{N}}$ is discussed, whereas in §4.2 the adjectival suffixes *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$ are in focus.

4.1 Case study 1: *-VVje*$_{\text{N}}$

This case study summarises some of the findings presented in Simonović & Arsenijević (2014), placing them in the context of this paper. The suffix *-VVje*$_{\text{N}}$ consists of a vowel length that gets realised on the last syllable of the base and the segmental content *-je*. It combines with verbal bases, as well as with phrasal units, mainly VPs, N(um)Ps and PPs. In this paper, we only focus on its application in the verbal domain, where it derives neat minimal pairs depending on the aspectual properties of the base.

When combined with imperfective verbs, the suffix *-VVje*$_{\text{N}}$ derives event-denoting deverbal nominalizations. This pattern is fully productive (the suffix combines with all imperfective verbs), typically semantically transparent (fully compositional), and the suffixation does not affect the prosody of the base. This type of derivation hence shows a number of properties typical for inflection and the suffix can therefore be represented as *-VVje*$_{\text{N.INFLECT}}$ (Table 3).

Table 3: *-VVje*$_{\text{N.INFLECT}}$

unapređIIvAti	'promote.IPFV.INF'	unapređIIvAAnje	'promoting.IPFV'
sAAdIti	'plant.IPFV.INF'	sAAđEEnje	'planting.IPFV'
čEkati	'wait.IPFV.INF'	čEkaanje	'waiting.IPFV'
psOvAti	'swear.IPFV.INF'	psOvAAnje	'swearing.IPFV'

When combined with perfective verbs, suffix *-VVje*$_{\text{N}}$ derives factitive nominalizations. The derivation is idiosyncratic, barely productive, frequently lexicalized and imposes its own prosodic shape. It is hence much closer to prototypical derivation and the suffix can be represented as *-VVje*$_{\text{N.DERIV}}$ (Table 4, see also Simonović & Arsenijević 2018).

Summarising the prosodic bahaviour of *-VVje*$_{\text{N}}$ when combined with vebal participles, we can establish two patterns with a clear divide between them: *-VVje*$_{\text{N.INFLECT}}$ behaves as accent-neutral as illustrated in Table 3 above, whereas the nominalisations with *-VVje*$_{\text{N.DERIV}}$ predictably have penult stress. In other words, the *-VVje*$_{\text{N.DERIV}}$ behaves as accent-attracting.

There is full surface distinguishability between the productive and transparent pattern, which shows properties of inflectional morphology, on the one hand and

Table 4: *-VVje*$_{\text{N.DERIV}}$

unaprEEdIti	'promote.PFV.INF'	unapređEEnjE	'promotion'
zasAAdIti	'plant.PFV.INF'	*zasađEEnjE	
sAčEkati	'wait.PFV.INF'	*sačekAAnjE	
opsOvAti	'swear.PFV.INF'	*opsovAAnje'	

the idiosyncratic pattern, which acts like prototypical derivation, on the other hand. This asymmetry fits the typological generalisation that the properties of inflection are more likely to coincide with prosodic inactivity, and the properties of derivation go hand in hand with prosodically active behavior.

4.2 Case study 2: *-en*$_{\text{A}}$, *-an*$_{\text{A}}$, *-at*$_{\text{A}}$

Serbo-Croatian has a set of three different suffixes which are equivalent in relevant respects to the English *-ed* and the Italian *-uto* discussed in §2, i.e. which are used both for the passive participle and for the derivation of adjectives. These suffixes are *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$. We applied the following selection criteria in assembling our data set of forms which contain *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$. Regarding the passive participle use, we only included in our corpus verbs in which *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$ can clearly be reconstructed as the PASS.PTCP morphemes (app. 90% of all the verbs). A detailed overview of verbal paradigms with prosodic information can be found in Klaić (2013).

Our corpus of non-participial adjectives derived by *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$ was assembled using the Reverse dictionary of the Serbian language (Nikolić 2000) and various available descriptions of Serbo-Croatian (Babić 2002; Stevanović 1979; Barić et al. 1995). As explained at the beginning of this section, we restricted our corpus to the clearest cases of the use of the suffixes in question. Only words which have a clear structure stem+*en*$_{\text{A}}$/*an*$_{\text{A}}$/*at*$_{\text{A}}$ were included. Specifically, words with a more complex suffix structure (e.g. *papir*$_{\text{N}}$+*n*$_{\text{A}}$+*at*$_{\text{A}}$ 'made of paper'), and words with stems synchronically lacking a semantic relation to the derivation (e.g. *iskr*$_{\text{N}}$+*en*$_{\text{A}}$ 'honest', synchronically not related to *iskra* 'sparkle') were excluded from the corpus. Additionally, words with stem modifications other than iotation (e.g. *stamben* 'residential' which is clearly related to *stan* 'apartment') were excluded as well.

For the prosodic specification of the bases and results of suffixation, we have consulted the prosodic intuitions of modern Serbo-Croatian speakers. The full set of words with the derivational versions of *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$ can be found

in the Appendix. The inflectional versions of these suffixes are productive (especially for the first two), which is why we worked with verb classes rather than a corpus. We discuss each of the three suffixes in a separate subsection, including a quantitative overview of their prosodic behaviour.

4.2.1 *-an*

Adjectives in *-an*$_{\text{DERIV}}$ are mostly denominal and have the interpretation of being made of the material denoted by the base noun, or having a property related to its semantics to a large extent. Their distribution in the corpus is shown in Table 5.

Table 5: Adjectives in *-an*$_{\text{DERIV}}$ in the corpus

Base type	N	V	A	Phrase
Example	Ulj-An 'made of oil' (UUlj-e 'oil')	pIj-An 'drunk' (pI-ti 'drink')	mEk-an 'soft' (mEk 'soft')	/ / /
Prosodic behaviour	Attracting	Attracting	Attracting Neutral	/
Number of items	33	1	2	0

-an$_{\text{DERIV}}$ virtually always surfaces as the second part of the rising accent (the only exception being the adjective *mEk-an* illustrated in Table 5). It is therefore prosodically active and overwrites the prosody of the base. *-an*$_{\text{DERIV}}$ is only attested with monosyllabic bases.

-an$_{\text{INFLECT}}$ shows a prosodically inactive behavior. Without exceptions, passive participles in *-an*$_{\text{INFLECT}}$ have a prosodic pattern that exists elsewhere in the verbal paradigm, as illustrated in Table 6, where the other form with the same prosodic pattern is represented in bold. In other words, it does not affect the prosody of the base, and therefore we classify it as unaccented (i.e. neutral).

Even though they are segmentally identical, the two uses of *-an*, the participial *-an*$_{\text{INFLECT}}$ and the denominal adjectivizer *-an*$_{\text{DERIV}}$, are surface-distinguishable:

- *-an*$_{\text{DERIV}}$ is always part of a rising span (*UljAn* 'made of oil').
- *-an*$_{\text{INFLECT}}$ is never part of a rising span (*pIItaan* 'ask.IPFV.PASS.PTCP').
- *-an*$_{\text{DERIV}}$ never surfaces in a long syllable (UljAn 'made of oil').
- *-an*$_{\text{INFLECT}}$ always surfaces in a long syllable (*pIItaan* 'ask.IPFV.PASS.PTCP').

Table 6: Participles in *-an*$_{\text{INFLECT}}$

INF	PRES.1SG	PST.PTCP	PASS.PTCP	Gloss
pIItAti	**pIItaam**	pIItAo	**pIItaan**	'ask.IPFV'
zapIItiAti	**zApIItaam**	zapIItAo	**zApIItaan**	'ask.PFV'
čItAti	čItAAm	**čItao**	**čItaan**	'read.IPFV'
pročItAti	pročItAAm	**prOčitao**	**prOčitaan**	'read.PFV'

The prosodic behaviour of the two uses of the suffix *-an* thus fully complies with the generalizations in §2. Suffix *-an*$_{\text{DERIV}}$ is prosodically active: it always imposes the same pattern, overwriting the prosody (including the vowel length) of the stem (*UljAn* 'made of oil' vs *UUlje* 'oil'). Suffix *-an*$_{\text{INFLECT}}$ is accentless, i.e. neutral: the result of suffixation bears a prosodic pattern which has already been present in the paradigm of the base.

4.2.2 *-at*

-at$_{\text{DERIV}}$ derives denominal adjectives with the structure base$_{\text{N}}$*-at*, and the interpretation of having the denotation of the base noun to a large extent. It has the following quantitative distribution in the corpus.

Table 7: Adjectives in *-at*$_{\text{DERIV}}$ in the corpus

Base type	N	V	A	Phrase
Example	zUb-At	/	/	/
	'toothy'	/	/	/
	(zUUb 'tooth')	/	/	/
Prosodic behaviour	Attracting	/	/	/
Number of items	17	0	0	0

The use of *-at*$_{\text{DERIV}}$ is additionally constrained by one phonotactic and one semantic restriction on bases: the bases are strictly monosyllabic, and all denote body parts. The participial *-at*$_{\text{INFLECT}}$ always has a prosodic pattern that exists elsewhere in the verbal paradigm (typically in the past participle).

This situation leads to the same generalisation as with the suffix *-an*. The two uses of the same suffix, *-at*$_{\text{DERIV}}$ and *-at*$_{\text{INFLECT}}$ are surface-distinguishable:

Table 8: Participles in *-at*$_{\text{INFLECT}}$

INF	PRES.1SG	PST.PTCP	PASS.PTCP	Gloss
prepOznAti	prepOznAAm	**prEpoznao**	**prEpoznaat**	'recognise'
prOdAti	prOdAAm	**prOdao**	**prOdaat**	'sell'
porAvnAti	porAvnAAm	**pOravnao**	**pOravnaat**	'flatten'

- *-at*$_{\text{DERIV}}$ is always part of a rising span (*zUbAt* 'toothy'), while *-at*$_{\text{INFLECT}}$ never is (*prOdaat* 'sell.PASS.PTCP');
- *-at*$_{\text{INFLECT}}$ is always part of a long syllable (prOdaat 'sell.PASS.PTCP'), whereas *-at*$_{\text{DERIV}}$ always surfaces in a short syllable (*zUbAt* 'toothy').

All in all, the prosodic behaviour of *-at* is as expected: *-at*$_{\text{INFLECT}}$ is accentless and *-at*$_{\text{DERIV}}$ always imposes the same prosodic pattern, deleting the prosody of the stem (e.g. removing the vowel length of *zUUb* 'tooth' in *zUbAt* 'toothy').

4.2.3 *-en*

The two adjectival suffixes that we have considered so far display prosodic behaviour that neatly fits the tendencies outlined in §2. The situation is somewhat less black-and-white with the suffix *-en*, which shows relatively higher productivity in derivation.

-en$_{\text{DERIV}}$ derives adjectives from bases of different categories and yields four different prosodic patterns. With phrasal bases, the stress falls on the final syllable of the first member of the phrasal base (*jednO-clfr-en* 'one-digit'), which indicates that the initial syllable of the second member, which heads the construction, bears a high tone. We only found one example with an adjectival base, and it is a rather unique form that is in a suppletion relation with its own base (*mAl-En* 'little' cf. the definite form *mAAl-ii* 'little'). This one example, as well as a vast majority of denominal adjectives derived by the suffix *-en*$_{\text{DERIV}}$, show a stress-attracting behavior of the suffix similar to that of *-an*$_{\text{DERIV}}$ and *-at*$_{\text{DERIV}}$. All such cases involve a monosyllabic base. In six cases – all with polysyllabic nouns as bases – *-en*$_{\text{DERIV}}$ shows a neutral behavior (the derived adjective has the accent pattern of the base). Tellingly, in all such cases, the stress pattern of the base is not stem-final (e.g. *IzlOžb-a* 'exhibition', *IzlOžb-en* 'related to an exhibition'), so that the accent-attracting property of the suffix would have caused a stress shift (**izlOžb-En*). Finally, in two cases *-en*$_{\text{DERIV}}$ erases the lexical specification of the prosody of the base – hence the derived adjective receives the default

prosody (short falling initial accent). In sum, *-en*$_{\text{DERIV}}$ displays several patterns, out of which the most frequent one is the same as that of *-an*$_{\text{DERIV}}$ and *-at*$_{\text{DERIV}}$.

Table 9: Adjectives in *-en*$_{\text{DERIV}}$ in the corpus

Base type	N	V	A	Phrase
Example	rAž-En 'made of rye' (rAAž 'rye')	/ / / /	mAl-En 'little' (mAAlii 'little')	dvOsmIsl-en 'ambiguous' (dvAA smIIsla 'two senses')
Prosodic behaviour	Attracting (59) Neutral (6) Erasing (2)	/	Attracting	Pre-stressing
Number of items	67	0	1	10

This behavior suggests an interplay between syntactic and phonological factors in the assignment of prosody. On the syntactic side, there seems to exist a sensitivity to complexity (phrasal vs. simplex bases) and to categorial specifications (nouns vs. adjectives). On the phonological side, the length of the base seems to play a role. Taking a more detailed look reveals another generalisation: *-en*$_{\text{DERIV}}$ never shifts the stress of the base to another syllable (but it can delete the H and the vowel length of the base). This is also true of all cases of *-an*$_{\text{DERIV}}$ and *-at*$_{\text{DERIV}}$, simply due to the fact that these two always combine with monosyllabic stems.

Passive participles derived using *-en*$_{\text{INFLECT}}$ always have a prosodic pattern that exists elsewhere in the verbal paradigm, as illustrated in Table 10. The only exception is formed by four 'rising' classes, where the suffix seems accent-erasing, yet without affecting vowel length. These are illustrated in Table 11.

Table 10: Participles in *-en*$_{\text{INFLECT}}$

INF	PRES.1SG	PST.PTCP	PASS.PTCP	Gloss
vAditi	**vAdiim**	**vAdio**	**vAđen**	'take out'
stvOrIti	**stvOriim**	stvOrIo	**stvOren**	'create'
otvOrIti	**OtvOriim**	otvOrIo	**OtvOren**	'open'
odlUUčIti	**OdlUUčiim**	odlUUčIo	**OdlUUčen**	'decide'

Table 11: Participles in *-en*$_{\text{INFLECT}}$ in 'rising' classes

INF	PRES.1SG	PST.PTCP	PASS.PTCP	Gloss
lOmIti	lOmIIm	lOmIo	**lOmljen**	'break'
žElEti	žElIIm	žElEo	**žEljen**	'want'
trUUbIti	trUUbIIm	trUUbIo	**trUUbljen**	'honk'
žIIvEti	žIIvIIm	žIIvEo	**žIIvljen**	'live'

In accounting for this pattern, we should take into account that in most analyses *-en*$_{\text{INFLECT}}$ attaches to verbal bases that include the theme vowel *-i-* which becomes consonantal and causes iotation of the stem-final consonant. The standard analysis is that *lomljen* corresponds to the underlying /lomi+en/ which first becomes /lomjen/. As in these verbs the underlying H seems to originate on the theme vowel *-i-*, it seems plausible for the H to disappear together with the syllabicity feature of the vowel. As a result, the form remains without an underlying H and therefore surfaces with a short falling accent: *lOmljen*. A functional gain of such a change is that distinguishability is improved: participles are kept different from denominal forms with *-en*$_{\text{DERIV}}$, such as *rAžEn* 'made of rye'.

Summarising the picture, *-en*$_{\text{INFLECT}}$ and *-en*$_{\text{DERIV}}$ are not surface-distinguishable either in polysyllables (*OtvOr-en* 'open.PASS.PTCP' vs. *OpOrb-en* 'related to opposition') or in monosyllables (*smIšljen* 'conjecture.PASS.PTCP' vs. *smIslen* 'meaningful'). At the same time, in short *en*-participles there seems to exist an active process that enforces distinguishability between them and the main pattern in denominal derivations. The prosodic behaviour of *-en*$_{\text{INFLECT}}$ and *-en*$_{\text{DERIV}}$ shows a partial overlap. *-en*$_{\text{INFLECT}}$ is neutral or erasing, whereas *-en*$_{\text{DERIV}}$ is neutral, erasing or attracting. The observed pattern still exhibits an asymmetry and still in the expected direction since the derivational suffix *-en*$_{\text{DERIV}}$ is more accented than the inflectional *-en*$_{\text{INFLECT}}$.[1]

[1]Accent-attracting and accent-bearing *-en*$_{\text{INFLECT}}$ are attested in some of the inherited verbal classes which lack a theme vowel, which were excluded from our corpus due to the fact that the morphological structure of the participle is opaque. The peculiar pattern which we report without analysing it here is that, at least for some speakers, perfective verbs display accent-bearing *-en*$_{\text{INFLECT}}$, whereas their imperfective counterparts display an accent-attracting version of *-en*$_{\text{INFLECT}}$. In the example below, we show the feminine version of the passive participle in order to illustrate the contrast.

(i) a. 'grind.PFV': sAmlEti sAmEljeem sAmlEo samlev-En-A
INF PRES.1SG PST.PTCP PASS.PTCP

b. 'grind.IPFV': mlEti mEljeem mlEo mlEv-En-a
INF PRES.1SG PST.PTCP PASS.PTCP

5 Common pattern

The prosodic behaviour of the four affixes analysed in §4 fits the generalisation that derivational affixes are more prosodically dominant than inflectional affixes. However, the commonalities seem to go even further. The dominant prosodic behavior is essentially the same for the four observed suffixes: it can be modelled by assuming an underlying representation with a high tone and the capacity to erase (parts of) the prosody of the stem. As mentioned above, this ability is somewhat more limited for the adjectival suffixes *-an*$_{\text{DERIV}}$, *-at*$_{\text{DERIV}}$ and *-en*$_{\text{DERIV}}$, which can delete the length and tone of the base, but cannot cause a stress shift. On the other hand, *-VVje*$_{\text{DERIV}}$ seems to leave no traces of the base prosody whatsoever, also shifting the stress position of the base. The representation of the four suffixes would then be along the following lines:

- /-VVje$_{\text{H}}$/ + deletion of base tone, vowel length and stress,
- /-an$_{\text{H}}$/ + deletion of base tone and vowel length,
- /-en$_{\text{H}}$/ + deletion of base tone and vowel length,
- /-at$_{\text{H}}$/ + deletion of base tone and vowel length.

Implementing such representations would account for the fact that e.g. the base *unaprEEdIti* /unapreedi$_{\text{H}}$ti/ 'promote.PFV.INF' loses both its vowel length and its H in *unapređEEnjE* /unapređeenje$_{\text{H}}$/ 'promotion'. Such a solution would be similar to what Marvin (2002) proposes as the underlying representation of the Slovenian nominalising suffix *-ost*, which we repeat in (5). Note that this bracket insertion amounts to overwriting the stress of the base.

(5) -ost
Delete stress on the stem, insert a bracket at the right edge of the stem:
…* * *(

In addition to these very elaborate underlying representations, we would need another mechanism that prevents these lexical prosodic specifications from surfacing in inflection. In Marvin (2002), this is spell-out which proceeds in phases, in Arsenijević & Simonović (2013), this is Lexical Conservatism which enforces the preservation of the base prosody in paradigm members. However, what both approaches seem to leave unaccounted for is the fact that all the derivational uses of different suffixes cause the same pattern: in Slovenian it is stem-final stress, in

Serbo-Croatian it is stem-final H. Given the strikingly similar prosodic behaviour in the four suffixes, a prefered explanation would be that the prosodic behavior of the suffix depends entirely on the structure in which this suffix occurs, not only in the case of inflectional uses, but also in the derivational ones. According to such an explanation, all the suffixes we consider here would underlyingly be without any prosodic prominence and they would behave as accented (Slovenian) and accent-attracting (Serbo-Croatian) due to prominence which they receive when occurring in a particular structure. In the next section, we consider what the implementation of such a solution would entail.

6 Theoretical implementation

Distributed Morphology offers an insightful way to distinguish between morphological structures. As outlined in Marvin (2002), the difference between *nóvost* 'newness' and *novóst* 'novelty' would be in their structural complexity, as shown in Figure 1. The difference in prosody would then naturally follow due to the phasal spell-out.

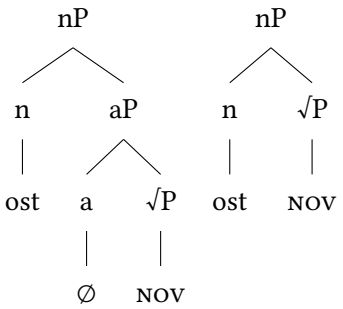

Figure 1: *nóvost* 'newness' and *novóst* 'novelty'

Two important predictions that this approach makes are:

- In root nominalisations (e.g. *novóst*), the suffix can impose (idiosyncratic) selectional requirements on bases with which it combines and the pattern therefore has limited productivity.
- The meaning of the root nominalisations cannot be compositionally derived from the meanings of their parts.

Both of these predictions seem to be born out. However, the same model makes some less desirable predictions:

- The nouns derived by means of the unstressed *-ost* are expected to have a compositional interpretation. There are, however, clear exceptions, e.g. *znán-ost* 'science' is clearly related to *znán* 'known' but its meaning cannot be derived from that of *znán* compositionally.

- The root nominalisation analysis predicts relative freedom of the stressed *-ást* in combining with roots which otherwise surface as verbs, nouns or do not surface independently. This is unfortunately not born out. Out of the very few *-ost*/*-ást* nouns which have roots which do not surface as independent adjectives, some have the stressed *-ást* (e.g. *krepást* 'virtue') but others have the unstressed *-ost* (e.g. *kakóvost* 'quality').

The same problems of the root-derivation analysis extend to our Serbo-Croatian data. The three adjectival suffixes whose base category we examined show a clear tendency to select nominal bases. Finally, and most importantly, a phasal-spellout account seems unable to model the assignment of prominence by the structure and leaves us with several suspiciously similar underlying representations of different affixes.

What is necessary, then, is an alternative which would allow for the prosody of the derivational versions of the affixes to be assigned by the structure. We believe that a viable alternative can be offered by Revithiadou (1999). If the distinction between derivational and inflectional affixes is in headhood (only derivational affixes being heads), then HeadFaith (a faithfulness constraint which protects lexical prominence of syntactic heads) is already sufficient to produce the asymmetry between inflectional and derivational uses. This would still mean that we have to stick to all the affixes having an underlyingly specified H, and the account would be as strong as those presented by Marvin (2002) or Arsenijević & Simonović (2013). However, HeadStress (a markedness constraint that militates against prominence on non-heads) can get us further. In stress systems, this constraint can enforce adding epenthetic stress to a head that has no lexically sponsored prominence (e.g. in the Slovenian *nov-ást* 'novelty'). In Serbo-Croatian, this constraint can enforce the epenthesis of a high tone, in e.g. *unapređEEnjE* 'promotion'.

A final piece of the puzzle is the fact that at least in our Serbo-Croatian data set, the nominal affix-*VVje*$_{\text{N}}$ overrides the prosodic specification of the base more radically than the adjectival affixes *-en*$_{\text{A}}$, *-an*$_{\text{A}}$ and *-at*$_{\text{A}}$: the former is able to cause stress shifts with respect to the surface prosody of the base. We believe that this is a consequence of a cross-linguistic tendency for nominal content to receive more prominence than other categories, which has been discussed in the

literature under the rubric of Noun privilege (see Smith 2011 for a discussion). While constraints enforcing Noun privilege have been proposed for roots which surface as nouns, there is no reason not to extend them to nominalising affixes.

7 Conclusions

We have analysed four Serbo-Croatian affixes which occur both as derivational and as inflectional. We provided an account that mutually relates their most prominent semantic, structural and prosodic properties in a systematic way, thus supporting the view that these cases indeed manifest different uses of the same suffix rather than pairs of homonymous suffixes. In each of the four cases, we compared the inflectional and the derivational uses of the suffix, sharing the same target category, yet with differences in interpretation that can be derived from the different contexts. The prosodic patterns of the derived words confirm the initial generalization that derivational affixes are more prosodically prominent than inflectional affixes. We speculated about both functional and formal mechanisms behind this regularity. Our tentative analysis lends support to the interface model presented in Revithiadou (1999).

Abbreviations

√	root	IPFV	imperfective
1	1st person	N	noun
2	2nd person	*n*	nominal category
3	3rd person	NOM	nominative
A	adjective	PASS	passive
a	adjectival category	PCPT	participle
DERIV	derivational	PFV	perfective
GEN	genitive	PRES	present
H	high tone	PST	past
INF	infinitive	PL	plural
INFLECT	inflectional	SG	singular

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Appendix

This appendix contains the annotated corpus material for the observed adjectival suffixes.

Table 12: *an*-adjectives with nominal bases and no segmental change

an-adjective		Base	
brOnz-An	'made of bronze'	brOOnz-a	'bronze'
zEmlj-An	'made of soil'	zEmlj-A	'soil'
grOžđ-An	'made of grape'	grOOžđ-e	'grape'
Ulj-An	'made of oil'	UUlj-e	'oil'
cIgl-An	'made of brick'	cIIgl-A	'brick'
tAft-An	'made of taffeta'	tAft	'taffeta'
plEh-An	'made of tin'	plEh	'tin'
gIps-An	'made of plaster'	gIps	'plaster'
cIc-An	'made of textile'	cIc	'textile'
plIš-An	'made of velvet'	plIš	'velvet'
rAž-An	'made of rye'	rAAž	'rye'
štOf-An	'made of cloth'	štOf	'cloth'
zvjEzd-An	'starry'	zvijEEzd-A	'star'

Table 13: *an*-adjectives with nominal bases and iotation

an-adjective		Base	
sUnč-An	‘sunny’	sUUnc-e	‘sun’
žIvč-An	‘nervous’	žIIvAc	‘nerve’
dAšč-An	‘made of bars’	dAsk-A	‘bar’
kOnč-An	‘made of thread’	kOnAc	‘thread’
brOnč-An	‘made of bronze’	brOOnc-a	‘bronze’
lAnč-An	‘chain-like’	lAAnAc	‘chain’
nOvč-An	‘related to money’	nOvAc	‘money’
pUpč-An	‘umbilical’	pUpak	‘belly button’
pUšč-An	‘related to rifle’	pUšk-a	‘rifle’
tRšč-An	‘made of cane’	tRsk-a	‘cane’
nEpč-An	‘palatal’	nEpc-E	‘palate’
brOjč-An	‘made of numbers’	brOOjk-a	‘number’
sRč-An	‘brave’	sRc-e	‘heart’
mOžd-An	‘brain-related’	m(O)Ozak	‘brain’
žIč-An	‘made of wire’	žIc-a	‘wire’
svEč-An	‘celebrative’	svEEtAk	‘holiday’
vOšt-An	‘made of wax’	vOsak	‘wax’
kOšt-An	‘related to bones’	kOOst	‘bone’
zUpč-An	‘geary’	zUUbAc	‘gear’
pjEšč-An	‘made of sand’	pijEEsAk	‘sand’

Table 14: *an*-adjective with a verbal base

an-adjective		Base	
pIj-An	‘drunk’	pI-ti	‘drink’

Table 15: *an*-adjective with an adjectival base and no segmental modifications

an-adjective		Base	
mEk-an	‘soft’	mEk	‘soft’

Table 16: *an*-adjectives with an adjectival base and iotation

an-adjective		Base	
mlAđ-An	'young'	mlAAd	'young'

Table 17: *at*-adjectives with nominal bases and no segmental changes

at-adjective		Base	
nOg-At	'who has big feet'	nOgA	'foot'
krAk-At	'who has big limbs'	krAAk	'limb'
Uh-At	'who has big ears'	Uho	'ear'
brAd-At	'who has a big beard'	brAAdA	'beard'
bRk-At	'who has a big mustache'	bRRk	'mustache'
rOg-At	'who has big horns'	rOOg	'horn'
glAv-At	'who has a big head'	glAAvA	'head'
gUz-At	'who has a big bottom'	gUUz	'bottom'
lEđ-At	'who has a big back'	lEEđA	'back'
plEć-At	'who has big shoulders'	plEćA	'shoulder'
nOs-At	'who has a big nose'	nOOs	'nose'
pRs-At	'who has a big chest'	pRsa	'chest'
sIs-At	'who has big tits'	sIsa	'tit'
zUb-At	'who has big teeth'	zUUb	'tooth'
krIl-At	'who has big wings'	krIIlO	'wing'
rEp-At	'who has a big tail'	rEEp	'tail'

Table 18: *at*-adjectives with iotized nominal bases

at-adjective		Base	
kOšč-At	'who has big bones'	kOska	'bones'

Table 19: *en*-adjectives with monosyllabic nominal bases and no segmental changes

en-adjective		Base	
bAkr-En	'made of copper'	bAkAr	'copper'
bOrb-En	'related to fight'	bOrb-A	'fight'
tvOrb-En	'related to making'	tvOrb-A	'making'
drUštv-En	'sociable'	drUUštv-O	'society'
dvOjb-En	'related to dilemma'	dvOjb-A	'dilemma'
glAzb-En	'related to music'	glAzb-A	'music'
hImb-En	'pretentious'	hImb-A	'pretending'
kRzn-En	'made of fur'	kRRzn-O	'fur'
kOpn-En	'related to soil'	kOpn-o	'soil'
pApr-En	'related to pepper'	pApAr	'pepper'
jEčm-En	'made of barley'	jEčAm	'barley'
Ovs-En	'related to oat'	OvAs	'oat'
Ognj-En	'made of fire'	OgAnj	'fire'
plAtn-En	'made of canvas'	plAAtn-O	'canvas'
slUžb-En	'official'	slUžb-A	'service'
stAkl-En	'made of glass'	stAkl-O	'glass'
sUkn-En	'made of cloth'	sUUkn-O	'cloth'
svOjstvE-n	'characteristic'	svOOjstv-O	'property'
vApn-En	'made of limestone'	vAApn-O	'limestone'
vAtr-En	'made of fire'	vAtr-a	'fire'
dRv-En	'made of wood'	dRv-o	'wood'
glln-En	'made of clay'	glIIn-A	'clay'
gUm-En	'made of rubber'	gUm-a	'rubber'
lAn-En	'made of flax'	lAn	'flax'
lEd-En	'related to ice'	lEEd	'ice'
slAm-En	'made of straw'	slAm-a	'straw'
lIm-En	'made of tin'	lIm	'tin'
mEd-En	'made of honey'	mEEd	'honey'
svIl-En	'made of silk'	svIIl-A	'silk'
vOd-En	'made of water'	vOd-A	'water'
vUn-En	'made of wool'	vUn-a	'wool'
pUt-En	'fleshy'	pUUt	'flesh'

Table 20: *en*-adjectives with monosyllabic nominal bases and no segmental changes (cont'd)

en-adjective		Base	
sAn-En	'related to dream'	sAn	'dream'
mIsl-En	'related to thought'	mIIsao	'thought'
pAkl-En	'related to hell'	pAkAo	'hell'
cRkv-En	'related to church'	cRRkv-a	'church'
gRl-En	'related to throat'	gRl-o	'throat'
Igl-En	'related to needle'	Igl-A	'needle'
jEtr-En	'made of liver'	jEtr-a	'liver'
rAž-En	'made of rye'	rAAž	'rye'
kAzn-En	'related to punishment'	kAzn-a	'punishment'
kIčm-En	'related to spine'	kI(I)čm-a	'spine'
svAdb-En	'related to wedding'	svAdb-A	'wedding'
Usn-En	'related to lips'	Usn-a	'lip'
zdrAvstv-En	'related to health'	zdrAvstv-O	'health'
žAlb-En	'related to complaint'	žAlb-A	'complaint'
žRtv-En	'related to sacrifice'	žRRtv-a	'sacrifice'
kAv-En-ii/kAf-En-ii	'related to coffee'	kAv-A/kAf-A	'coffee'
zOb-En	'made of oat'	zOOb	'oat'
mArv-En	'related to cattle'	mAArv-a	'cattle'
pIsm-en	'literate'	pIIsm-O	'letter'
smIsl-en	'sensible'	smIIsao	'sense'

Table 21: *en*-adjectives with polysyllabic nominal bases and no segmental changes

en-adjective		Base	
božAnstv-En	'wonderful'	božAnstv-O	'deity'
jedInstv-En	'unique'	jedIInstv-O	'unity'
dostojAnstv-En	'with dignity'	dostojAnstv-O	'dignity'
veličAnstv-En	'great'	veličAnstv-O	'greatness'
knjigovOdstv-En-ii	'related to bookkeeping'	knjigovOdstv-O	'bookkeeping'
prvEnstv-En	'primary'	prvEnstv-O	'priority'
ubIstv-En	'related to murder'	ubIIstv-O	'murder'
kOsItr-en	'made of tin'	kOsItar	'tin'
mOlItv-en	'related to prayer'	mOlItv-a	'prayer'
OdrEdb-en	'specificational'	OdrEdb-a	'specification'
pOrEdb-en	'comparative'	pOrEdb-a	'comparison'
IzlOžbe-n	'exhibitional'	IzlOžb-a	'exhibition'
OpOrb-en	'oppositional'	OpOrb-a	'opposition'

Table 22: *en*-adjective with a nominal bases and iotation of the base

en-adjective		Base	
gvOzd-En	'made of iron'	gvOOžđ-e	'iron'

Table 23: *en*-adjective with an adjectival base

en-adjective		Base	
mAl-En	'small'	mAAl-ii	'small'

Table 24: *en*-adjectives with phrasal bases

en-adjective		Base	
bezAzl-En	'harmless'	bez zlA	'without evil'
dvOsmIsl-en	'ambiguous'	dvAA smIIsla	'two meanings'
bEskIčm-en	'spineless'	bez kI(I)čmee	'without spine'
lakOmIsl-en	'impetuous'	lAka mIIsao	'light thought'
bEsmIsl-en	'senseless'	bez smIIsla	'without sense'
bEspOsl-en	'idle'	bez pOslA	'without job'
zApOsl-en	'employed'	za pOslOm	'for job'
UpOsl-en	'busy'	u pOslU	'in job'
jednOcIfr-en	'single-digit'	jEdnA cIfra	'one digit'
dvOcIfr-en	'double-digit'	dvEE cIfre	'two digits'