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## Syllabic Patterns in South-Eastern Europe<sup>1</sup>

As in the whole of Europe, including the Balkans, the so-called one-peak syllable pattern dominates. The one-peak syllable pattern is the one where sonority increases towards the nucleus of the syllable and then falls away<sup>2</sup>. This means that the inherent degree of sonority of a segment cannot be in contradiction with its position within the syllable. The sequence of sounds from higher to lower sonority is as follows: vowels, sonants (and among sonants: glides, liquids, nasals), sibilants and other consonants. Consonants are constituted on the syllable onset following this order and in the reverse order on the coda.

The one-peak syllable pattern occurs in the Balkans in two versions: symmetrical and asymmetrical (i.e. the open one). If, as a result of derivation or in loans, a two-peak syllable is formed, processes changing it into the one-peak

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<sup>1</sup> This paper constitutes a short summary of my numerous works on syllable patterns of the Slavic, Balkan and Romance dialects and languages. This is why I do not give any sources here.

<sup>2</sup> Syllable patterns are presented according to the sonority theory.

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syllable form start immediately. In the Balkans, such a situation is usually associated with the reduction of unstressed vowels (Northern Greek dialects, Albanian, Slavic languages where it used to be a result of the loss of the so-called reduced vowels). These processes consist in inserting a non-etymological vowel into the consonant cluster in the place where the etymological vowel was lost or elsewhere in the cluster or after the cluster, cf. Common Slavic \**dobrǫ* > *dobr* > Serbian *dobar*, Bulg. *добръ*, \**mǫgla* > *mgl*a > Serbian *magla*, Bulg. *мъгла*<sup>3</sup>, Northern Greek [pateras mu] > [paterazm] > [paterazum]. Nowadays such processes are characteristic first of all of codas.

The one-peak symmetrical syllable pattern is obligatory in all Southern Slavic languages, contrary to most of the northern Slavic ones (with certain exceptions, however).

In some Balkan languages, there occur deviations from the one-peak syllable pattern of a systemic nature. These concern mainly the distribution of nasal consonants. Deviations occur in the onset in Albanian, where clusters of a nasal sonant + homorganic stop are very frequent (*mbret*, *ngushtë*, *nxënës*, *nga*), the same in local Slavic dialects (*mbleko*, *mbravja*), in the emotionally marked Greek utterances ([*mbes epitelus*], [*ndisu ipa*] instead of “normal” [*bes epitelus*], [*disu ipa*]), in Italian dialects (*mpetrunitu* < *inpadronito*, *mbrellu* > *ombrello*) and in some Arumanian dialects (*ndreptu*, *mpartu*, *ndires*). Balkan Romani also accepts such onsets, although generally they are not numerous in Romani (mainly in loans). Since there are no other initial clusters with other sonants before an obstruent in these languages, we can assume that they have the one-peak syllable pattern, but we have to include nasal sonants in the distributional class of obstruents, e.g. Alb. *mbret*, *nga*, *nder*, *ngushtë* but *lëkurë* (in dialects *likur*, *ëlkur* < \**lkur*), *lëbardhë*, *rrëgjull* (in older dictionaries we can sometimes find forms such as *lbardhë*, *lkur*, *rrëgjull*, *lter* < Latin *altare*), etc. The fact is, however, that the assumption of a functional obstruential value of nasal sonants, in this case, does not fully solve the problem, because in these languages the reverse order of sounds in the coda is not admissible. Such clusters in Albanian are always broken by the vowel *ë* (in dialects there occur forms with [i], [e] and [u], for example, *vetëm* / *vetum*, *lëkura* / *likura*).

The situation is somewhat different in Albanian dialects, especially the northern Albanian ones which, due to the stronger vocalic reductions, allow more two-peak structures on the onset. These dialects show the situation after

<sup>3</sup> Earlier scholars usually spoke about irregular vocalization of the weak jers.

the reduction in short unstressed vowels, resulting in the formation of the two-peak syllable patterns but only at the onset. As far as the liquidifying of such onsets is concerned, the individual dialects differ. However, the preservation of such patterns is the most frequent case in Northern Albanian, for example, *lshon*, *lkun*, *rrćeth* (examples from Shala e Bajgores).

As far as the coda is concerned, all Albanian dialects in the Balkans have the one-peak pattern, even in the north where we have forms as in gen., dat. *luges* / *lugs* but acc. *lugen* / *lugĕn*.

The situation in Rumanian is quite the opposite. In Rumanian there are only one-peak onsets, whereas codas admit final clusters with a nasal sonant after an obstruent, such as in *malign*, *istm*, *ritm*, *logaritm*, *marasm*, *sadism*, *regn*, etc.

Two-peak final syllables with a liquid sonant after an obstruent are quite exceptional, they happen basically beyond the Balkans: in rare southern Italian dialects (e.g. in the dialect of Bari where we have *Cipr*, *sepuolkr* pronounced with a non-syllabic and even voiceless final vibrant) or rare northern Greek dialects where after the loss of high unstressed vowels, two-peak syllables emerged and were accepted ([paterazm], [xtipizn]). Such rare structures can sometimes also be met in Arbĕresh (cf. [bukr], [katr], [vogl], [rrvuan] < It. *arrivano* and others – standard forms are: *bukur*, *katĕr*, *vogĕl*). We can find such forms also in Turkish, for example, *atavizm*, *dinamizm*, *fotr*, *monocl*, *albatr*, *sĕmestr* (and *sĕmester*), though generally on the Turkish coda processes occur which result in avoidance of the two-peak syllables – the same as in the other Balkan languages (and generally in most European languages where either a non-etymological vowel is inserted into the “wrong” cluster or a sonant in the „wrong” position is pronounced as syllabic, or the consonant cluster is simplified or reformulated), cf. Turkish. *litre*, *metre*, *filtre*, *kalibre*, *řifre*, *tiyatro*, *kadro*, *manevra*, *kadavra*, *pudra*, *logaritma*, Rum. *litru*, *teatru*, *titlu*, It. dial. *Cipro*, *Cipre*, *Ciper*, *Cipri*, Serb. *Петар*, *метар*, *литар*, *добар*, *реализам*, *атавизам*, *ансамбал* and *ансамбл* with the syllabic final sonant, *лагати*, *магла*, Bulg. *Петър*, *метър*, *добър*, *реализъм*, *мѳгла*, Mac. *метар*, *театар*, *реализам*, *магла*, Alb. *metĕr*, *realizĕm* etc.<sup>4</sup>

Other differences concern the distribution of obstruents and they are not directly related to the syllable pattern. They concern clusters of two stops and clusters with a stop + a fricative, which are common in Greek and Albanian,

<sup>4</sup> Compare with Polish forms with non-syllabic sonants *Piotr*, *metr*, *litr*, *realizm*, *atawizm*, *mĳla*, *ĳgać* i in.

and very rare in the remaining Balkan languages (in Italian clusters of two stops occur only in the form of geminates).

Other restrictions are local in nature, for example, in three Arbëresh villages there are no clusters with [l] on the second position (we have, for instance, *prak*, *frutur* instead of *plak*, *flutur*). This is of course a result of the Italian influence, which does not tolerate clusters with [l] (cf. It. *chiara* < Lat. *clara* etc.).

It is also worth mentioning that in Turkish and Spanish there are some traces of the restriction on the distribution of the consonant [s] which are certainly related to Arabic. I am talking here about the non-tolerance of the initial clusters of the type [s] + an obstruent, which is associated with the relatively high loudness (sonority) of [s], cf. Spanish *espada*, *escuela*, Turkish *spor/ıspor//sıpor*, *sfenks//ısfenks*, *istasyon*, *istatistik*.

Another syllable pattern present in the south-east of Europe is the asymmetrical pattern. This pattern admits only very simple consonant clusters on syllable onsets. These are simple syllabic structures, the so-called one-peak syllables. The coda usually consists of a vowel, while rare words end in a single consonant, usually a sonant. The repertoire of consonants that occur in the coda is limited and different in each of the languages in question. Final consonant clusters are extremely rare, usually they occur in loanwords, such as Greek *vamp*, Italian *senf*, *ovest*.

Such a syllable pattern is characteristic of the standard Greek and southern Greek dialects. Greek words usually end with a vowel, [n] and [s], and [n] in colloquial speech is usually omitted. In grecano (a Greek dialect in southern Italy) the final [s] is also lost. Other final consonants or consonant clusters occur very rarely in loans.

In Italian and in most of the southern Italian dialects there occur consistently only open codas. Similar to Greek, Italian standard has only several words with final consonant clusters. The reduction of the unstressed final vowel is possible only after a sonant and only in the case of a close syntactic link between two words, which phonetically fuse into one prosodic unit (as *bel canto*, *buon giorno*, etc.). In borrowings the pronunciation of final consonants is always precise and final consonants usually end with a small quasi-vocalic segment. In southern dialects it often develops into a full vowel e.g. *lapisse* < *lapis*, *tramme* < *tram*, *gasse* < *gas*.

Spanish and Portuguese native words end in a vowel, rarely a single consonant, usually [r], [l] or [s]; in Portuguese [n] can also stand word finally. In Spanish, in a careful pronunciation [n] may also occur, and in extremely

careful pronunciation [θ], [d] and [x] may also occur at the end of a word. As in other Romance languages of the Mediterranean, loans are the source of final consonant clusters. However, the pronunciation of word final consonants is usually almost syllabic, and in Portuguese they are generally clearly syllabic, as in *club* [klubə].

The open pattern is also characteristic of Aromanian syllables. Usually, after a final consonant a reduced vowel occurs (probably under the influence of Greek?), cf. *sund<sup>u</sup>*, *cânt<sup>u</sup>*, *ngust<sup>u</sup>*, *mpart<sup>u</sup>*, *ncarc<sup>u</sup>* – Rum. *sînt*, *cînt*, *gust*, *împart*, *încarc*.

These are the dominant patterns of the very southern European extremity. Worth mentioning is that Arabic words begin and end with a vowel or a single consonant.

Other syllabic structures in the southern parts of the Mediterranean peninsulas are exceptions, as in the dialect of Bari, where we find forms such as [tʃipr] 'Cyprus', [sepwolkr] 'grave'. In other dialects of southern Italy we usually find *Cipre*, *Cipri* or *Cipro*.

South Slavic languages do have word final consonants, but they are fewer and simpler than in the northern Slavic languages.

In the northern parts of the Mediterranean Sea peninsulas, closed syllables emerged after the loss of unstressed vowels, and sometimes they are accepted. This is true of Catalan and Occitan, and the Northern Greek dialects, where we meet two-peak syllable patterns, cf. Northern Greek [paterazm], [xtipizn] etc. However, generally, such structures tend to be eliminated (see above).

A special case of interference is the influence of Italian on Čakavian. Croatian dialects, including Čakavian, generally have a symmetric syllable pattern (i.e. they allow both initial and final consonant clusters of very simple one-peak structures). Italian has an open syllable pattern. The influence of Italian on Čakavian manifests itself in the simplification of final clusters or loss of final consonants (cf. *milo(s)* < *milost*, *pe* < *pet*, *riba(r)*) and in the introduction of some restrictions specific to Italian consonant clusters; thus, in Italian there are no clusters of two stops (with the exception of geminates) and no clusters of a stop + fricative (see *amministrazione* < \**dm*, *direttiva* < \**kt*, *psicologia* – dialectal *pissicologia* et al.). Such clusters do not occur in Čakavian – they do not undergo gemination or breaking, but instead one segment is consistently replaced by a sonant or the cluster is simplified, e.g. *vojka* < *vočka*, *polkova* < *potkova*, *liši* < *lipši*, and others.

Romani has an even more reduced coda, final clusters in Romani are exceptional.

To sum up, the standard forms of Balkan languages present the following patterns: 1. non-symmetrical open syllable pattern (Greek, Arumanian) or similar with a simplified coda (Romani, Čakavian) – this pattern is linked with other “Mediterranean” languages, 2. a symmetrical pattern occurs in the remaining Balkan languages. In this pattern deviations from the “one-peak” principle occur, which that are associated with the distribution of nasal consonants: in Albanian and Arumanian – in the onset, in Rumanian – in the coda. The Albanian dialects have more exceptions but only at the beginning of the word – where additional peaks of sonority appear within one syllable.

It is worth mentioning that such deviations also occur in northern Slavic languages. Generally the “two-peak” model is gradually disappearing. In Slavic it is a centuries-long process. Initial two-peak structures are relatively stable, whereas codas change much faster. Albanian material conforms to the same pattern.

It should also be noted that in the Balkan languages geminate consonants do not occur (with the exception of very strong morphological boundaries, as in compound words). However, on both sides of the Balkans geminates are extremely frequent - in Italian and Turkish. The restriction on geminates seems to be very stable. This feature is the last one to yield to any kind of influence. Dialects, which were or are under constant Italian influence do not have it. This is the case with Čakavian or the Croatian dialect of Aquaviva Colle Croce in Italy, and is the case with nearly all Arbëresh dialects. The only one which accepted geminates is the dialect of San Marzano, which is in a stage of decline. It seems that the Greek language more easily accepts gemination. Geminate consonants are common in the Greek dialect of Cyprus and they occur in grecano.

Table 1. Syllable patterns in south-eastern Europe

the (relatively) open syllable pattern	pattern with a considerably simplified coda	symmetrical syllable pattern
Italian Greek Spanish Portuguese	Čakavian Romani	Albanian Serbian Bulgarian Macedonian northern Greek dialects Rumanian Catalan Occitan

Table 2. One-peak vs. two-peak pattern in the Balkans

deviations from the one-peak syllable pattern	one-peak syllable pattern
Albanian and some Italian and Arumanian dialects (ND clusters in onset) Rumanian (ON clusters in coda) part of the northern Greek dialects (mainly ON clusters in coda) other deviations (initial SO- and/or final – OS): some Albanian and Italian dialects	remaining Balkan languages/dialects

## Struktury sylabiczne południowo-wschodniej Europy

Podczas gdy zdecydowana większość języków świata preferuje tzw. sonorycznościowy (jednoszczytowy) model sylaby, to południowo-wschodnia Europa jest pod tym względem dość zróżnicowana. Odstępstwa od zasady jednoszczytowości występują w językach północnosłowiańskich. Na Bałkanach natomiast odstępstwa takie dotyczą głównie dystrybucji sonantów nosowych i występują albo w nagłosie, albo w wygłosie. Samo południe Europy (dialekty występujące na południowych częściach półwyspów Morza Śródziemnego) ma natomiast niesymetryczny model sylaby – w wygłosie wyrazów występują głównie sylaby otwarte.

**Słowa kluczowe:** modele sylaby; teoria sonorności; południowo-wschodnia Europa

## Syllabic Patterns in South-Eastern Europe

Whereas in most of the world's languages syllable patterns are built according to the principles of sonority theory (they have the one-peak syllable pattern), in some Balkan languages, there occur deviations from the one-peak syllable pattern of a systemic nature. They mainly concern the distribution of nasal consonants and appear either in the onset (Albanian) or coda (Romanian). Such deviations occur also in the northern Slavic languages. At the very south of Europe the open syllable pattern occurs.

**Keywords:** syllable patterns; sonority theory; south-eastern Europe

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