

# The Beginning of the Syllable in Albanian

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## *Abstract:*

Looking at the syllable as a phonological description unit, we can highlight some basic features that characterize the segments that are part of it. The beginning of the syllable boundary is seen as a possible component of the syllable which shows some of the features associated with the way the units, which build it, are organized, and this is considered as the strongest consonantal position. Speakers of a language are able to identify possible consonant phonotactic combinations that may emerge at the beginning of the syllables and they assert that not every consonant sequence can form lasting onsets. The word-initial clusters in Albanian are various which depend not only on the number of elements, but also on the possibilities of their combination, and sometimes they are regulated by phonological constraints. What is to be noted is that, with regard to the ability to emerge in an onset position, there are no restrictions on the consonants of the Albanian language which can all occupy this position, either as a component or as a branched component. The Albanian language does not show any visible limitations not only in the number of elements that emerge at the beginning of the syllable, but also in their possible combinations to create such syllabic structures.

*Keywords:* Albanian, Consonant groups, Onset, Phonotactics, Syllable, Syllable boundary

## *1. Introduction*

Looking at the syllable as a phonological description unit, we can highlight some basic features that characterize the segments that are part of it.

The beginning of a syllable is seen as a possible component of the syllable which shows some features related to the way (i.e. organization of the units in which units are built) and is considered as the strongest consonantal position. Speakers of a language are able to identify possible phonotactic combinations of consonants that may occur at the beginning of the syllables and may also assert that not every consonant sequence can form long-lasting onsets.

The initial structures in Albanian are amazingly various which depend not only on the number of elements but also on the possibilities of their combination. What we should point out is that with regard to the ability to emerge in the onset position, there are no restrictions on the consonants of the Albanian language which can all occupy this position either as a one-consonant onset syllable or as a branched component (in two or more segments). Albanian language does not show any visible limitations both in the number of elements that emerge at the beginning of the syllable and in their possible combinations to create such syllabic structures. In Albanian language, all consonants can emerge in the initial position of a syllable.

When we talk about the beginning of a syllable, let us consider that the consonants or groups of consonants in the onset position emerge at the beginning of the word as well as in its body.

Among the syllable models, the first case is related to the typical CVC syllable, which can be represented either by a two- or three-consonant scheme.

Concerning the possible selections of consonant segments that may occur at the beginning of the syllable, let's observe the structure of some of the most important combinations, distinguishing the onsets at the beginning of the word and in its body, as well, which consist of one, two, three or four segments.

(1) <u>k</u> am [kam]	(2) <u>s</u> ti-në [stinë]	(3) <u>m</u> bledh [mbleð]	(4) <u>ç</u> mbreh [tʃmbreh]
<i>have</i>	<i>season</i>	<i>collect</i>	<i>unyoke</i>
<u>b</u> u- <u>k</u> ur [bu-kur]	la- <u>s</u> tar [la-star]	<u>sh</u> kri-j [ʃkrij]	<u>z</u> mbraps [zmbraps]
<i>nice</i>	<i>sprout</i>	<i>melt</i>	<i>repel(v)</i>
fa-qe [fa-ce]	trë-nda-fil [trëndafil]	kthjell [kθjet]	shndrit [ʃndrit]
<i>page</i>	<i>rose</i>	<i>clear(v)</i>	<i>shine(v)</i>

Figure 1.

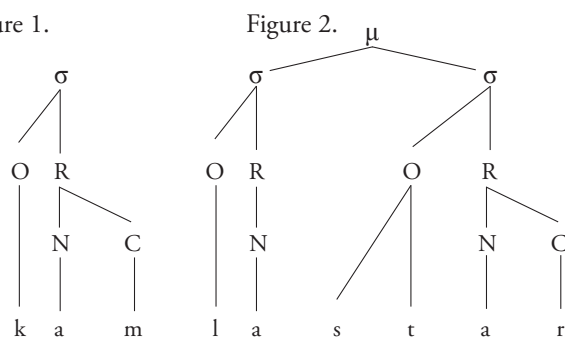


Figure 3.

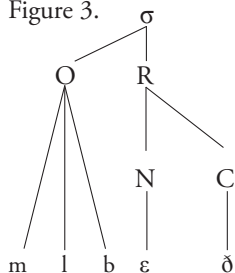
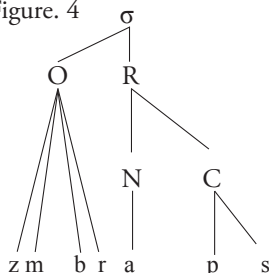


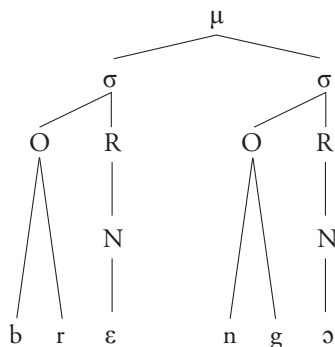
Figure. 4



The simplest sequences are the ones of the first type, mostly in simple syllables, or in two or more syllable words which has simple structures for each of the elements (composed of only one segment).

However, we cannot say that only figure (1) predominates in Albanian language, as the use of the segments with two or three consonants is frequent, which is noticed by the different groups that are created and the positions in which they emerge, both at the beginning of the word and in its body. For example, in the word [brɛŋgə] (*grief*), we have a complex structure of the onset that appears both in the initial position and inside of the word, thus obtaining two compound schemes of the beginning of the syllable, as follows:

Figure 5.



In addition to the onsets with the binary branching, we have also observed structures with three or four consonants, missing structures in several other languages, such as Italian, English (Kaye, Lowenstan, Vergnaud 1990: 204) or Spanish (Harris 1983: 14), in which the three-segment onsets are isolated cases with the status of so-called structures /sCC/, or, in other words, syllables which have the consonant "s" combined with two other consonant segments, e.g. It. */strano/* (i çuditshëm) [tʃuditʃəm]/'strange' or Eng. 'spring' [prɪŋvɜː] etc. This kind of behavior makes the phoneme "s" very special as it is related to some specifications of its use not only in the three-consonant groups but

also in the variety of combinations of simple onsets, thus creating groups of two consonants such as:

*sm-, sn-, sl, sp-, st, sk-*. (A. Spencer 1996: 85)

The status of sC (cluster) structures in Albanian depends on the combination of s + C structures.

The presence of the s+C in the body of the word has two types of reflexes in Albanian. First of all, when words in Albanian start with these groups, the s+C structures are inseparable, for example:

[la-star]-[sti-nə], [da-sma]-[smi-rə], [mu-skul]-[sku-tə], otherwise the s+C structures are separable between the two main syllabic components, the onset and the relevant coda.

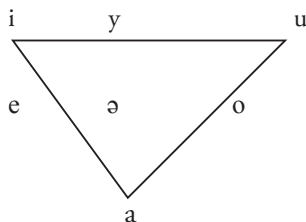
But, in the Albanian language, the consonant “s” does not seem to have any particular status within the structures at the beginning of the word, either at its end. Yet, many of its positions remain to be seen.

As we will see below, these sequences can be either part of the root of the word or part of a word formation whose positioning is certainly made in accordance with the phonological features of the linguistic system. A typical case is that of the word formation prefixes, *s-/z-*, *sh*[ʃ]/*zh*[ʒ]-, *ç*[tʃ]-, whose placement at the beginning of words is based on the phonological oppositions that the phonemes within the system can create in accordance with the principle of the voiced or voiceless (*s-* and *sh*-[ʃ] are used before the silent consonants whereas *z-* and *zh*-[ʒ] before the voiced ones), and the affricate *ç*[tʃ]- is used before the sonorant and vowels.

The liquids in Albanian do not serve as syllabic-nucleus structures as it occurs in some languages. In standard Albanian, only vowels can serve as the nucleus of the syllable. (R. Memushaj 2014: 146)

Albanian is part of the languages in which each grapheme is given with a special phoneme. Since the graphs/graphemes have the same value regardless of the positions they originate, most of the words are read the same way they are written (Memushaj 2014: 210).

The phonetic transcription of the Albanian vowels, as we will see below, is provided through the symbols of simple oral vowels. Unlike the basic vowel system, the vocal system of the Albanian language has only three degrees of openness (close(d) [i, y, u] close(d)-mid [ɛ, ə, o] and open [a]) and three rows of formation (front [i,y,e], central [ə] and back [u,o,y]).



For this reason, the phonetic symbols of the vowels in the transcription of the following examples will be given through such sounds. (Buchholz, Fiedler 1987: 28; R. Memushaj 2014: 39).

### 1.1 *CC-initial clusters*

The structure of the syllable in Albanian language is open to phonotactic combinations, thus allowing the formation of a number of consonant groups, which emerge either as the initial structures of the syllables or as structures in the body of a word.

There are no universal phonological rules regarding the possibilities of combining the consonant segments in this position; each language develops specific principles by adhering to its phonological structure. However, some general principles, such as the principle of sonority or the limitations related to the physiological and acoustic nature of sounds, should not be excluded, since not every sound union can create onsets, limitations which are imposed by the phonological system of the language.

The sonority hierarchy suggests that sounds with higher sonority stay closer to the vocal nucleus, while lower sonority sounds are positioned at the edges of the syllable. But it is noticed that the application of this principle is not so categorical because in the combinations of the consonant segments there are selections that overcome some of the phonotactic rules of the language and are related to higher levels including genuine phonological processes (examples of assimilation) as well as the construction of a number of structures of lexical phonology {such as the selection of the prefixes and suffixes and their correct positioning, suffixes of the first or second level, e.g. [i pa-pər-çakt-(ø)-uar] ‘undefined’}.

Let’s look at the possible combinations of the segments at the beginning of the syllables in the Albanian language. Regarding the likelihood of consonant sounds to join in the formation of this component of the syllable, some possible combinations are clearly noticed:

#### 1.1.1 *Occlusive + Occlusive*

The groups of consonants formed from such segments are not numerous and largely emerge at the beginning of the second syllables (or in the body of the word) and are mainly double combinations. They are:

In the beginning of the word			In the body of the word		
tk	tkurr[tkur]	(shrink)	-tk-	pe- tku [pe-tku]	(gown)

Table 1

The binary features that define these sound groups are:

- [- syllabic]
- [- sonorant]
- [± coronal]

1.1.2 *Fricative + fricative*

These are sound combinations that have a lower usage density. They are seen more in the body of the word and partly in the initial position:

In the beginning of the word	In the body of the word
------------------------------	-------------------------

Table 2

1.1.3 *Occlusive + fricative*

These groups are not numerous in number and are mainly found in initial position.

In the beginning of the word			In the body of the word		
ks-	ksi-stër [ksi-stər]	(dough)	-ks	o-ksi-gjen [o-ksi-gjən]	(oxygen)
gdh [gð]-	gdhend [gðend]	(sculpt)			
kth [kθ]-	kthe-tër [kθe-tər]	(claws)	-kth [kθ]	an-kthi [an-kθi]	(anxiety)
kth [kθ] -	kthi-në [kθi-nə]	(scullery)	-ps-	ka-pso-llë [ka-pso-lə]	(fuse)
ps-	pso-nis [pso-nis]	(buy)			

Table 3

The binary features that define these segment combinations are:

- [-syllabic]
- [-sonorant]
- [±coronal]

1.1.4 *Fricative + occlusive*

The combination of these segments is most frequently observed and presents a greater variety. While approaching such segments, we can discuss

whether the theory of sonority can be implemented or not, along with the possible “violations” the theory can occur. Possible groups are:

In the beginning of the word			In the body of the word		
ft-	ftoj [ftoj]	(invite)	-ft-	na-ftë [na-ftə]	(oil)
fq-	fqinj [fciɲ]	(neighbor)	-sk-	bi-sko-të [bi-sko-tə]	(biscuit)
sk-	skua-dër [skua-dər]	(squad)		di-sku-tim [di-sku-tim]	(discussion)
sp-	spec [spets]	(pepper)			
sq-	sqep [sɛp]	(beak)	-st-	bi-stu-ri [bi-stu-ri]	(scalpel)
st-	sta-cion [sta-tsiɔn]	(station)		la-star [la-star]	(sprout)
	sti-në [sti-nə]	(season)	-shk-	ba-shko [ba-ʃko]	(unite)
shk-	shkë-ndi-jë [tʃkə-ndi-jə]	(spark)		ndë-shko [ndə-ʃko]	(punish)
shp-	shpi-në [ʃpi-nə]	(back)	-shp-	pë-shpë-rit [pə-ʃpə-rit]	(whispers)
	shpend [ʃpɛnd]	(poultry)	-shq-	u-shqej [u-ʃɛj]	(feed)
shq-	shqep [ʃɛp]	(skein)	-shtr-	la-shtë [la-ʃtə]	(ancient)
shtr-	shtë-pi [ʃtə-pi]	(house)		dë-shtoj [də-ʃtoj]	(fails)
shth-	shthur [ʃθur]	(untwist)			
vd-	vde-kje [vdɛ-kjɛ]	(death)	-vd-	la-vdi [la-vdi]	(glory)
zb-	zbardh [zbarð]	(whiten)	-zhd-	go-zhdë [go-ɖʒə]	(nail)
zg-	zgalem [zga-lɛm]	(petrel)		va-zhdë [va-ɖʒə]	(furrow)
zhd-	zhduk [ɖʒduk]	(disappear)	-zhg-	vë-zhgo [və-ɖʒo]	(observe)
zhg-	zhgun [ɖʒgun]	(woolen gown)			
zgj-	zgjua [zju-a]	(hive)			

Table 4

Presenting the above mentioned groups, we face some essential features:

First, all the occlusive-fricative groups are closed so that none of them can be expanded by adding a third element.

Secondly, the principle of sonority is applied only to some of these groups, and precisely to the groups of the occlusive-fricative sounds. Generally speaking, in initial syllables of the word as well as in the onsets formed by consonant groups but not in the initial syllables, the principle of sonority is not applied.

Thus, in the linear rankings of the sounds there is a noticeable change in the degree of sonority since, especially in the fricative-occlusive groups, this principle is not applied. Only in the occlusive-fricative combinations (*gdh*, *kth*) this principle is concertized.

In determining the syllabic boundaries, a widely accepted criterion is followed, according to which, the groups consisting of two voiced consonants form syllables with the subsequent vowel when words of language begin with these groups. (A. Spencer 1996: 94).

### 1.1.5 Sonorant (nasals) + occlusive

The combinations among the sonorant consonants and voiced (clusters) ones (whether occlusive or fricative) form the dominant groups of the onset in Albanian. Combinations may be voiced + sonorant, or vice versa.

In this group, most of it consists of unions between nasal and occlusive consonants. The building of such beginnings is a deviation from the principle of sonority because these groups in the Albanian language are not separated during pronunciation. In most cases they are noticed in the internal structures of words. They are:

In the beginning of the word			In the body of the word		
mb	mbaj [mbaj]	(keep)	-mb-	kë-mbë [kə-mbə]	(leg)
mp	mpij [mpij]	(numb)	-mp-	ka-mpi [ka-mpi]	(camp)
nd	ndaj [ndaj]	(seperate)	-nd-	ve-ndi [vɛ-ndi]	(place)
ng	ngar-ke-së [ngar-kɛ-sə]	(cargo)	-ng-	pra-nga [pra-nga]	(cuffs)
ngj	ngja-lë [nɟa-lə]	(eel)	-ngj-	më-ngjes [mə-nɟɛs]	(morning)
nx	nxë-nës [nɔxə-nəs]	(pupil)	-nx-	ve-le-nxa [vɛ-lɛ-nɔxə]	(rugs)

Table 5

The binary features of the sonorant + occlusive groups are as follows:

[-syllabic]

[±sonorant]

[±coronal]

### 1.1.6 Occlusive + sonorant

In the beginning of the word			In the body of the word		
bj-	bje-shkë [bjɛ-ʃkə]	(mountains)	-bj-	o-bjek-ti [o-bjɛk-ti]	(object)
bl-	ble-të [blɛ-tə]	(bee)	-br-	li-bri [li-bri]	(book)
bll-	bllok [blɔk]	(block)	-bl-	pu-bli-ku [pu-bli-ku]	(public)
br-	bre-nda [brɛ-nda]	(within)	-cj-	për-cjell [pər-tsɛɭ]	(convey(v))
cj-	cjap [tsjap]	(goat)	-dr-	a-dre-sa [a-drɛ-sa]	(address)
çj-	çjerr [tʃjɛr]	(scratch)	-kr-	a-krep [a-krɛp]	(scorpion)
çl-	çliroj [tʃli-roj]	(release)	-gl-	ve-gla [vɛ-gla]	(tools)
çm-	çmoj [tʃmoj]	(apprize)	-gr-	a-gru-me [a-gru-mɛ]	(citrus)
çn-	çnde-roj [tʃndɛ-roj]	(dishonor)	-pl-	di-plo-mat [di-plo-mat]	(diplomat)
çnj-	çnje-rë-zor [tʃɛ-rə-zor]	(inhuman)	-pr-	ka-proll [ka-proɭ]	(deer)
çr-	çre-gji-stroj [tʃrɛ-ɟi-stroj]	(deregister)	-tj-	a-tje [a-tjɛ]	(there)
dj-	dja-lë [dja-lə]	(boy)		ve-tjak [vɛ-tjak]	(own)
dr-	dra-më [dra-mə]	(drama)	-tr-	pa-triot [pa-triot]	(patriot)
dhj-	dhja-më [ðja-mə]	(fat)			



kr-	kresh-nik [krɛʃ-nik]	(highlander)
kl-	kla-së [kla-sə]	(classroom)
kl-	klla-pi [kɫa-pi]	(delirium)
kth-	kthe-së [kθɛ-sə]	(turn)
gl-	glob [glob]	(globe)
gll-	gllënj-kë [gɫɛɲ-kə]	(sip)
gr-	gra-ckë [grats-kə]	(deadfall)
pj-	pje-së [pjɛ-sə]	(part)
pl-	pla-kë [pla-kə]	(old woman)
pll-	lla-kë [ɫa-kə]	(slab)
pr-	pra-në [pra-nə]	(nearby)
tj-	tjerr [tjɛr]	(spin)
tk-	tkurr [tkur]	(shrink)
tr-	tro-ndis [tro-ndis]	(shock)

Table 6

As it can be seen from the above presentation, the combinations of sonorant + occlusive groups and vice versa, constitute a considerable number of onsets in Albanian. These groups are noticed mostly in the initial syllable structure and less frequent in the body of the word, or at the beginning of the second syllables.

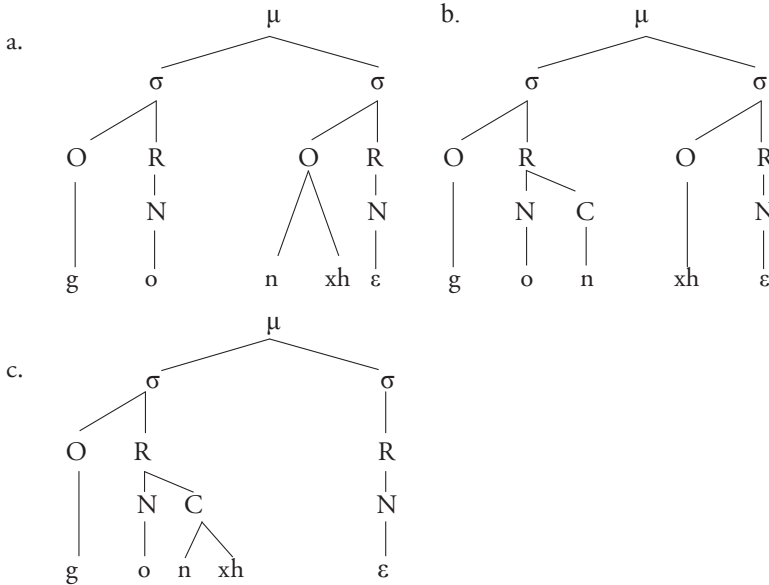
Between the two groups, the initial and in-the-body-of-the-word group, there is a kind of asymmetry, since some of the initial onsets are not used in internal position.

The problems associated with the identification of the syllable components and the boundaries between them, obviously affect the sonorant + occlusive groups. This is because almost all the syllables containing these consonant groups do not apply the principle of sonority. Each of the structures first contains the sonorant consonant and then the occlusive one, thus, disrupting the hierarchy of the sound sonority, since the occlusive, being less sonorant, and stands near the vocal nucleus.

As far as the division of the words into syllables in these formations, the boundaries between the assumed coda of the first syllable and the beginning of the second syllable are very relative. In addition to the nasal-occlusive consonant groups, (*nd*, *ng*, *ngj*[ɲj], *nk*, *nxb*[ndʒ], *mb*, *mp* etc.) which is phonologically inseparable in Albanian, and in any position, they emerge into a single starting structure. Other liquid + occlusive groups do not have the same status and the division of words into syllables of such groups in the VCCV structures is somewhat free, i.e. it is not excluded from various combinations, whether VC-CV or V-CCV.

But such a division poses a problem with the defining of the consonant groups that we have presented as the onsets since we will no longer have a





Obviously, from the three ways, the first one should be taken as the most accurate. The reason for such a claim is related to the internal features of the phonological system of the language. The definition of the syllable boundary when the group consists of two consonants is related to a general rule of the phonetic division of the word in syllables in the Albanian language (A. Dodi 2004: 134). The VCCV structures, in most cases the consonant group goes with the following vowel, thus gaining open syllables that make up the most common pattern of syllables in Albanian. These groups consist mainly of the combination of voiced-sonorant, or occlusive-fricative consonants.

Along with the formation of the two consonant groups observed above, in the Albanian language there are also combinations of fricatives and sonorant as follows:

### 1.1.7 Fricatives-sonorant

In the beginning of the word			In the body of the word		
dhr-	dhrim [ðrim]	(a very old woman)	-dhr-	ku-dhra [ku-ðra]	(anvil)
dhj-	dhjamë [ðjamə]	(fat)	-dhj-	mi-dhje [mi-ðje]	(mussel)
fj-	fja-lë [fja-lə]	(word)	-fj-	shpi-fje [ʃpi-fje]	(slander)
fl-	fletë [fle-tə]	(foils)	-fl-	çi-flig [tʃi-flig]	(hacienda)
fl-	flu-skë [flu-skə]	(bubble)	-fr-	re-fren [re-fren]	(chorus)
fr-	fre-skët [fre-skə]	(fresh)	-sj-	do-sje [do-sje]	(folder)

sj-	sjell [sjeł]	(bring)	-sm-	da-smë [da-smə]	(wedding)
sm-	smirë [smirə]	(envying)			
shm-	shmang [ʃmang]	(avoid)			
shl-	shly-ej [ʃly-ɛj]	(liquidate)			
thj-	thjesht [θjɛʃt]	(simply)			
vj-	(i) vje-tër[vjɛ-tər]	(old)			
vl-	vle-rë [vle-rə]	(value)			
vr-	vri-më [vri-mə]	(hole)	-vr-	lë-vro [lə-vro]	(cultivate)
zj-	zjarr [zjar]	(fire)			
zm-	zmadhoj [zma-ðoj]	(zoom)	-zm-	ka-zmë [ka-zmə]	(mattock)

Table 7

Consonant groups composed of a voiced (which can either be occlusive or fricative) and a sonorant, as seen, make up the bulk of the double onsets in the Albanian language.

The binary features of these groups are as follows:

[-syllabic]

[±sonorant]

[±coronal]

[±continuant]

#### 1.1.8 Sonorant + Sonorant

The last binary combination of the consonants emerging as the onset is the case when two sonorants come together. In general, we can only talk about onsets for a part of them because not all of these groups form onsets in the Albanian language. The sonorant segments in the body of the word, considerably, are divided between the two distant components of the syllable, such as:

*‘laj-mi’* (news), *‘baj-rak’*, *‘lej-lek’* (stork), *‘ar-më’* [ar-mə](gun) etc.; but, according to A. Dodi, when the sonorant j, m, l, “appear” *as the second element of the group, the whole group goes with the following vowel, i.e. it does not split*”.(A. Dodi, J. Gjinari 1983: 118)

Since Dodi’s rule does not stand, this also appears from the examples he brings for illustration, which although they have j, m or l as a second element, he still divides them, eg.

*‘laj-mi’* (news), *‘for-ma’* (shape), *‘gaj-le’* (no worry) etc. So, the rule we have followed so far is worth practicing.

Noticeably in these sonorant groups, there are rare cases when these groups serve as onsets, but the symmetry is complete. The same groups emerge as initial structure onsets as well as the onsets in the body of the word.

	In the beginning of the word	In the body of the word
rrj-	rrjedh [rjɛð] (flow)	-rrj- bje-rrje [bjɛ-rjɛ] (wastage)
mj-	mjel[mjɛl] (milking)	-mj- pa-mje [pa-mjɛ] (view)
ml-	mlysh[mlyʃ] (pickerel)	
mll-	mllef [mɫɛf] (rancor)	
mr-	mriz [mriz] (a shadowy place, where the cattle stay when it is too hot)	

Table 8

### 1.1.9 Features of the two-segmented onsets

From the analysis of the consonant groups in the onset position we notice that their use occurs in all positions, some of them emerge in an initial position whereas some at the beginning of the second (or even third) syllable of the words. From features' observations of the two-segmented onsets, it turns out that not all the combinations are possible. This is related to the segmental composition of these groups. Thus, occlusive +occlusive, fricative +fricative and sonorant + sonorant combinations are less common, since not every union of these segments can form a two-segmented onset.

Regarding the placement of syllable boundaries between elements of non-initial structured onsets, Albanian phoneticians do not follow the same criteria. Therefore, in A. Dodi's *"Phonetics and Phonology"* (A. Dodi 2004: 135), as noted above, some of the consonant groups in the body of the word are taken as onsets even though they are not really such. Dodi does not even give any criteria to support this division. There are no words in Albanian that begin with the onsets that this author accepts; regarding the sonority, the ordering of their sounds contradicts this principle, as closer to the nucleus lies a less voiced sound.

The elements that enter into the initial structure of the syllable, necessarily contain [+ consonant] and [-syllabic] features. What other binary characteristics should the consonants of each pair have?

Considering all the double combinations of the consonant segments of the beginning of the syllable, the distinctive features of the sounds that form part of this structure are the followings (R. Memushaj 2016: 102-104)

[-syllabic], where the onset segments are only consonant, and as such can never emerge as the climax/peak of the syllable;

[±sonorant], where the first element of the onset may be a sonorant or even a voiced consonant according to the combinations noted above.

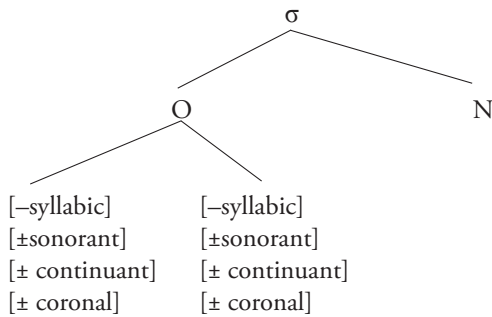
[±continuant], where the long lasting sounds can be the sonorant and the fricatives. The occlusive are unrecognized by this feature. Depending on the combinations of these segments, the feature may be positive or negative.

[±coronal], where the sounds are articulated with the tip or the blade of the tongue. This feature characterizes a certain sound class, so the dental,

alveolar, palato-alveolar and retroflex segments are [+ coronal]. From this feature, the labial, palatal and velar are excluded.

As for the [±voiced] feature, it depends on the [±sonorant] feature: if both group consonants are [-sonorant], both will be either [-voiced] or [+voiced], i.e. they must be either voiced or silent. We can say that for the voiced consonants this feature cannot have different values.

The binary features for each of the two consonant components of the syllable onsets in the Albanian language are:



1.2 CCC-initial clusters

An important place in the onsets of the Albanian language also includes the groups composed of three consonants. They come as combinations of different segments either in the initial structure position, or in the body of the word. The ‘selected’ segments for the creation of these units are mainly the voiced ones (occlusive or fricatives) and the sonorant ones. As we will see in the inventory of these groups, we do not have a group of three voiced consonants; we always notice the presence of a sonorant, in an initial, central or final position, where a [-sonorant] consonant cannot emerge.

The three-consonant onsets encountered in Albanian at the beginning and in the body of the word are these:

Groups at the beginning			Groups in the body		
çnd-	çndero [tʃ ndɛroj]	(dishonor)			
mbj-	mbjell [mbjɛʃ]	(plant)	-mbj-	hu-mbje [hu-mbjɛ]	(loss)
mbldh	mbledh [mbʎɛð]	(collect)	-mbldh	për-mbledh [pɛr-mbʎɛð]	(summarize)
mbr-	mbreh [mbreh]	(harness)	-mbr-	o-mbre-llë[o-mbrɛ-lə]	(umbrella)
mpr-	mpreh [mpreh]	(grind)	-mpr-	ko-mpre-së[ko-mpɾɛ-sə]	(stupe)
mpl-	mplak [mplak]	(getting older)	-mpl-	ko-mplo-ti [ko-mplo-ti]	(conspiracy)
ndj-	ndjell [ndjɛʃ]	(evoke)	-ndj-	e-ndje[ɛ-ndjɛ]	(weave)
	ndjek [ndjek]	(follow)			

ndr-	ndri- ço [ndri-tʃo]	(shine)	-ndr-	ku-ndroj [ku-ndroj]	(contemplate)
	ndreq [ndrɛç]	(fix)			
nxj-	nxjerr [nɔɟjɛr]	(exhale)			
ngr-	ngri- tës [ngri-təs]	(hoist)	-ngr-	ko-ngres [ko-ngrɛs]	(congress)
skr-	skru-pull [skru-puɫ]	(scruple)			
skll-	skllav [skɫav]	(slave)			
str-	stru-kturë [stru-ktu-rə]	(structure)	-str-	pa-stroj [pa-stroj]	(cleanse)
spr-	spraps [spraps]	(back off)			
shfl-	shfle-to [ʃflɛ-to]	(browse)			
shfr-	shfry-j [ʃfryj]	(grumble)			
shkr-	shkri j [ʃkrij]	(melt)	-shkr-	për-shkrual [pər-ʃkruaj]	(describe)
shnd-	shndërro [ʃndə-ro]	(convert)			
shpl-	shpleks [ʃ plɛks]	(unravel)			
shpr-	shpreh [ʃprɛh]	(express)			
shtj-	shtje-lloj [ʃtjɛ-lɔj]	(explicate)	-shtj-	kë-shtje-lla [kə-ʃtjɛ-lə]	(castle)
shtr-	shtroj [ʃtroj]	(lay)	-shtr-	vë-shtroj [və-ʃtroj]	(look)
skr-	skru-pull [skru-puɫ]	(scruple)			
zbr-	zbres [zbres]	(subtract)			
zdr-	zdrukth [zdrukθ]	(plane)	-zdr-	la-zdro [la-zdro]	(caress)
zgr-	zgrip [zgrip]	(the brink)			
zvj-	zvjer-dhje [zvjer-dhjɛ]	(weaning)			
zhdr-	(i) zhdrej-të [ɟɔdrɛj-tə]	(oblique)			

Table 9

The three-element onsets, as noted in the above examples, do not appear as isolated cases in Albanian; on the contrary, they occupy an important place in this syllable structure, being quite frequent, especially in the initial structure syllables of the words.

Identifying three-segment onsets in the body of the word when these are part of the four consonant groups is much more difficult. To determine in which of these groups we have onsets, we must apply the following rule: “The first consonant of the four consonant groups goes with the vowel before it”.

However helpful this rule might be in identifying the bulk of the triple onsets still are not inclusive. Thus, while *ab-strakt* [ab-strakt], *ek-stra-va-gant* [ek-stra-va-gant] etc. are divided in accordance with the rule, the implementation of this rule in the four consonant groups which start with mb, nd, ng e ngj, would separate the nasal one from the following voiced one, for example, *e pashmangshme* [paʃmangʃme] (inevitable) would be divided as “*e pa-shmang-shme*” [e pa-ʃmang-ʃme]. This not only contradicts the nature of the Albanian language but also the other rule which says that a group of consonants in the body of speech may be onset, if words in Albanian start with it (R. Memushaj 2014: 148)

The principle of the sonority of sounds is applied in the second or third syllable of the words, while the initial structure syllables are excluded from

this principle and bear a free choice of the combination of the segments. Considering this fact, it is very natural to divide consonant groups into the body of words, because in all cases the first element is a sonorant one (followed by a voiced one) and as such it should stay closer to the vocal nucleus, being attached to the final component of the preceding syllable, to the coda.

Thus, the division of consonant groups into the body of the word would be in accordance with the application of the degree of the sound sonority, e.g. *'par-tner'* (partner), *'kon-kret'* (concrete), since /t/ and /k/ have a lower level of sonority than /r/ and /n/ and we should stay away from the peak of the sonority so that the first segment of the group becomes part of the coda of the first syllable. The same happens with other words although the ratio of the sonorant and the voiced ones can be shifted (the above groups have such structures:

- sonorant + sonorant + voiced,
- sonorant + voiced + sonorant,
- sonorant + voiced + voiced.

It should be noted that in other languages (in Italian and English for e.g.) similar three-segment initials are found and they appear as isolated uses and are related to the particular status of the phoneme which is the only consonant that can precede a bi-consonant beginning composed of a voiced + a sonorant but having some conditions:

-First, the phoneme /s/ should always be found at the beginning of the consonant group emerging as an onset component; then, the /sCCs/ groups are mainly found in the initial position and rarely in the second syllable of words. In Albanian, this phoneme does not have such a specific status as in other languages. The only formations of consonant groups, which have this segment as their element, position it in the middle of the group and in most cases the group is divided.

The most controversial case in the Albanian language is the case of a fricative, which often appears in the initial position, with the status of the prefix, and in the body of the word, too. The groups that have this segment appear not only in the initial position (such as *'shfle-toj'* [ʃfle-toj] (turn the page), *'shndë-rroj'* [ʃndə-roj] (to transform), but also in the body of the word (such as *'kë-shtje-llë'* [kə-ʃtje-lə] (castle), *'vë-shtroj'* [və-ʃtroj] (stare) etc.)

However, it is noted that in some of the three element groups, whether initials or in the body of the word, the principle of the consonant order according to the degree of sonority is not respected, which in some cases can be explained by the fact that the first element of the group is a prefix, such as in case of: *'shpleks'* [ʃpleks], *'shfryj'* [ʃfryj], *'shfletoj'* [ʃfletoj], *'ndriçoj'* [ndritʃoj], *'ngre'* [ngre], *'mplak'* [mplak] tc., while in other cases we may be satisfied with the claim that the sibilant consonants /s/ and /sh/ are behaving more differently than others.

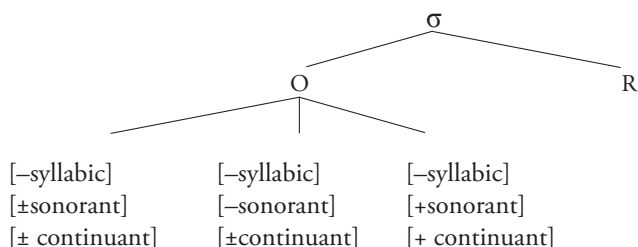


In the initial use of the consonant groups, it is noted that they are genuinely part of the branched onset structures in the Albanian language and they are excluded from the implementation of the hierarchy of sonority.

So let's bring some examples of these 'free' formation units by distinguishing possible ways of combining them:

1. Sonorant +occlusive + sonorant *mbł, sj, mpl, ndr, ndj, ngr* etc;
2. Affricative + occlusive + sonorant *scl, str, melt, shfl, shpl* etc.

Observing the checklist of the three-initial groups, it turns out that the first element of the group may be a voiced or silent consonant, or an occlusive or affricative consonant. But in the second and third position, a random consonant cannot emerge as it can be seen more clearly in the following scheme:



From this we see that in the three element groups there are no restrictions on the first element of the group, which may be sonorant or voiced or occlusive or affricative. For the second and third element there are limitations.

Thus, a voiced consonant can only emerge as a second element of the group, whereas a consonant segment with the characteristics of + sonorant, + continuant, i.e. a fricative sonorant or vibrant consonant can emerge as a third element. An exception to this rule is just the *çnd-* group 'çnderoj' [tʃnderoj] (dishonor), where the second element of the onset is [+sonorant], while the third [-sonorant, -continuant]. This can be explained by the fact that this group is secondary and is created by the union of the prefix ç[tʃ]- with the onset nd.

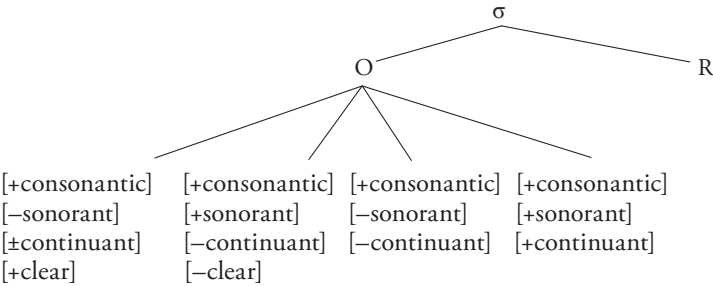
### 1.3 CCCC groups of onset structures

The last consonant formation in the onset structure is composed of four segments. Though being more specific and fewer in numbers, they make the beginning of syllable in Albanian very diverse in terms of the number of consonant segments and their combinatorial possibilities.

çmbł-	çmbledh [tʃmbłɛð]	(scatter)	çndr	çndryshk [tʃndryʃk]	(renew)
çmbr-	çmbreh [tʃmbrɛh]	(unyoke)	shndr	shndrit [ʃndrit]	(shine)
çmpr-	çmpreh [tʃmpɹɛh]	(blunt)	zmbr	zmbraps[zmbɹaps]	(repel(v))

Table 10

The four-segment onsets can be seen as exceptional cases, as they all occur in words derived from prefixes, which means that a fourth element, which belongs to another morph/morpheme, joins the three-segment onset of the root morpheme. The prefixes sh[ʃ]-/ç[tʃ]- and z- are to be added as the fourth consonant element.



From this scheme, it appears that there are no restrictions on the first and third consonants of the group, which may be voiced, or sonorant, occlusive or fricative. But there are restrictions on the second and fourth consonant segments: the third consonant can be neither fricative nor vibrant, it can only be voiced or sonorant occlusive; and the fourth element can be nothing but a sound [+sonorant] and [+continuant], i.e. the ending segment of the four group onset (CCCC groups of onsets) should be a sonorant affricative. The initial complex structures are an important feature of the phonological system of the Albanian language. Although a part of them are created as a result of morphological processes, the way in which segments are structured is of interest.

This is related to the segmental composition of these groups, which include all classes of consonant segments, though not with the same densities of use. Thus, combinations of the voiced of the same class (O + O or F + F) are rare compared to the combinations between voiced and sonorant, or the combination between voiced consonants which have different ways of formation (O + F or F + O).

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