Structure and Types of Pashto Syllable

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ABSTRACT

The syllable is the phonological element that plays a vital role in the formation of the word. A complete and standard syllable consists of the Onset, Nucleus, and Coda, but at the same time, the Onset or Coda part of the syllable can also fall down. No syllable can be constructed without Nucleus and vowel sounds. The vowel in the syllable structure has as much value as the syllable has in the word formation. These vowels play a fundamental role in the syllable’s distribution and types. This article explores the intricate structure and various types of syllables found in the Pashto language, primarily spoken in Afghanistan. Syllables play a fundamental role in linguistic analysis, as they constitute the building blocks of words and affect the rhythm, stress, and intonation patterns in speech.

The findings of this study contribute to a comprehensive understanding of the Pashto language's syllable structure, shedding light on its unique phonological features. This knowledge holds significance for various fields, including linguistics, language teaching, and speech pathology, enabling researchers and language professionals to better analyze and comprehend the complexities of Pashto syllables.

Keywords: Syllable Identification, Syllable Structure, Syllable Formation Parts, Syllabification and Types, Syllable Principles

Introduction

Language is a means of conveying ideas, thoughts, and knowledge by sound, image or gesture. Linguistics is the knowledge that scientifically studies the sound, oral, syntactic, and semantic systems of the language. According to the opinions of linguistics and linguists, linguistics has many general and sub-disciplines. Linguistics has a close and inseparable relationship with other sciences and other sciences with linguistics. Here, we are not discussing relationships to other sciences, we are only discussing linguistic relations. The grammar of a
language is constructed of the sound, verbal, semantic and syntactic systems of that language and these systems are complementary and closely related to each other. This piece of work is on the phonetic form of words and examples are written based on the International Phonetic Alphabets so that the words can be correctly pronounced and correct meanings can be taken.

The above title seems to be related to the sound system of linguistics. So, in this short article, the readers will find complete and comprehensive input on the Pashto language’s sound and phonological system with the structure of the syllable, the formation parts, the structures of one-syllable words and the types of the syllable. The written words are very helpful for the lovers and readers of the Pashto language and especially for those who are interested in linguistics. Library, analytical and descriptive methodology have been used in the writing and every small part has been explored as much as possible.

**Syllable Introduction**

The syllable is as important as the backbone or the heart in phonology and it is the important element on the basis of which the entire constructive system of phonology is modeled, that is why it is called a phonological phenomenon. A syllable is not considered a grammatical or semantic unit by itself, but when we add a sound (independent or independent) to a syllable that may be derived from a morpheme, it creates semantic differences in the meaning of words and morphemes. For example, /khan/ is a word that is formed from one syllable, if we add a vowel sound or morpheme /khani/ so one syllable word is changed to a two-syllable word, and also the meaning is changed. (Katamba, 1989, p.153).

From the identification of the syllable, counting it in words, poems and speech is easy and anyone can do it. Every literate or illiterate person can easily count the syllables of their words or other words, but according to phonology, syllables play a constructive and fundamental role in phonological principles, laws and changes (increase and decrease) in words. The syllable has a special value in the transition of words in tonal languages, that is, in tonal languages, if there are two words that are written and gesture in the same way, then the main difference of meaning is known from the syllable stress. In other words, if the first syllable of such words is stress, it gives one meaning and if stress occurs in the second syllable, then the meaning of the word changes completely. (Hayes, 2009: p. 250).

Pashto Sapa (syllable) is a word synonymous with Persian and Arabic (heja) and English syllables. A syllable is considered a very important element in phonetics or phonology. Syllable and syllable structure and division are important phenomena for phonetic analysis of any language. Independent or vowel sounds are the heart of the syllable structure. As no word can be formed without a syllable or syllables, no syllable can be formed without the presence of a vowel sound. A syllable means a syllable, or a flood and it is a linguistic unit that is either a vowel or consists of a vowel and several consonants and comes out of the mouth at once. Vowel sound plays a fundamental role in the formation of a syllable, meaning that without vowel sound, a syllable cannot be formed. (Khushki, P.21).

One, two, three or more consecutive sounds, one of which must be a vowel and produced by opening the mouth once are called a syllable. In other words, one or more vowel, consonant and semi-consonant sounds that are produced with one breath by opening the mouth once make a syllable. A syllable is a linguistic unit that is a vowel sound or consists of a vowel and one or more consonants and comes out of the mouth at once or a syllable is a simple or compound sound unit composed of one or several chains and one or more non-chain units. No matter how
many consonant sounds are joined together and the vowel sound is not accompanied as a nucleus, it cannot be made into a syllable nor can it be spoken or pronounced. In the linguistic structure, every syllable is not meaningful, so if several syllabic words divided into syllables, then each syllable will not have any meaning separately. But if there is one word made up of several phonemes and one syllable, then it has an independent and definite meaning. The word /kor/ which is made up of three phonemes and a syllable has an independent meaning. (Ziyar, pp.31-32).

The syllable takes different forms depending on the position in the word and the speech. The syllable may have one form at the beginning of the word, another in the middle of the word and another form at the end, which will be brought out in the examples later. It all has to do with the order and sequence of sounds in a word. The change, increase, and decrease of the sounds in a word and a syllable directly affects the structure of the syllable and the meaning of the word, and also creates differences in the visual form of the word. During syllable division, if there is a syllable, the sound and morphology change, then the number of syllables also increases, and the structure changes.

The General Structure of the Pashto Syllable

In general, the division of syllables on global level or according to the phonetic alphabet is separated from one syllable by points or dots. This means that if a word is made up of several syllables and we want to divide it into syllables, then one syllable is separated from the other by the dots/./ or the best way to divide words on syllables is the Branching Structure also has its own special value and the division that deserves the attention of many linguist is this branching and branching structure. In this type of division, each part of the syllable (onset, nucleus, and coda) separates the branching structure to a certain branch. In general, the syllable is represented by the Latin symbol sigma (σ). (Hayes, 2009. p. 250).

If we look at the above figure, it seems that the key to the Pohantun (university) is three syllables. In other words, the first syllable is from a consonant (p) in the onset and a vowel (o)
in the nucleus. The second syllable again has consonant (h), in the onset, a vowel (a) in the nucleus at the coda consonant (n), and also the third syllable has the consonant sound (t) in the onset, the vowel (u) in the nucleus and the consonant sound (n) in the coda. Like other languages of the world, the Pashto syllable also takes different forms depending on the different vowels, but if we pay attention to it as a whole, Pashto has a syllable structure: V, VC, VCC, CV, CVC, CVCC, CCV, CCVC, CCCV, CCCVV, CCCVC, CCCVCC).

![Figure: Shows the Pashto Syllable Structure](image)

<table>
<thead>
<tr>
<th>Accept consonant</th>
<th>Accept vowel</th>
<th>Accept consonant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonetic Example</td>
<td>Syllable symbol</td>
<td>No.</td>
</tr>
<tr>
<td>Dre</td>
<td>dre</td>
<td>CCV</td>
</tr>
<tr>
<td>Prot</td>
<td>Prot</td>
<td>CCVC</td>
</tr>
<tr>
<td>Drund</td>
<td>Drund</td>
<td>CCVCC</td>
</tr>
<tr>
<td>Xwri</td>
<td>Khuri</td>
<td>CCCV</td>
</tr>
<tr>
<td>xwrəi</td>
<td>Khrei</td>
<td>CCCVV</td>
</tr>
<tr>
<td>sxwāɾ</td>
<td>Sakbur</td>
<td>CCCVC</td>
</tr>
<tr>
<td>ʃxwand</td>
<td>Shakhund</td>
<td>CCVCC</td>
</tr>
</tbody>
</table>

Table: Example of Pashto Syllable Structure

The figure above shows that in the structure of a complete syllable, which is made up of the onset, nucleus and coda, it is possible to have at least zero onset or from one consonant sound to three consonant sounds in its structure. The nucleus of the syllable which plays a constructive and fundamental role in the syllable may come in the form of a vowel sound or a diphthong. Syllable coda, which is another constructive part, can be a gap (zero) or one or more than two syllables in its structure. In other words, the Pashto syllable can accept up to three vowels (consonants) in its structure in the onset part and cannot accept more than that, but the number of vowels in the coda part does not exceed two. In the formation of the syllable, one or both of them may fall from the onset or coda; But the nucleus of the syllable is the basic ingredient in the formation of the syllable without which the syllable cannot be constructed. In the Pashto syllable structure, the first two onsets can be any consonant sound, but the third consonant sound must be approximant or semivowel (w). But when there are two consonants
at the onset and the first consonant is a stop or an antiphonal sound, then the second sound will be all-round, consonant, fricative, semi-vowel and diphthong. If the Coda of the syllable structure ends with two consonants, then most of the last consonant sounds are stop, but sometimes consonants and fricative sounds can also occur. (Katamba, 1989. P.154).

**Pashto One Syllable Words**

Phonetically, the number of syllables in linguistic expressions is different from one another. The structure of each language is the feature that distinguishes it from other languages. The structural characteristics of consonants (clusters) in a language are what separates the syllable structure of one language from another language. The structure of one syllable in any language forms the basis of the other syllables of that language. This means that other independents are added to the structure of this first syllable and the number of syllables is extended and increased. In general, one-syllable words in the Pashto language are structured in the following forms according to phonetic analysis and agreement:

- Only one vowel syllable that does not have vowels in the beginning (Onset) and the end (Coda) and consists only of the heart or vowel (Nucleus). Such as: a/ ā/ /, e /e/, and o /o/ (V). These types of syllables are called Onset Less Syllables in phonology because the initial part of the vowels does not have a straight syllable. It is started independent who has the status of the nucleus of the syllable.
  - A syllable formed from a vowel sound in the onset and a consonant sound in the coda  
    e.g: ār / ār /, or /or/, /an/ /ān/ (VC)
  - A syllable formed from an independent sound in the heart and two consecutive sounds in the fall  
    e.g: arg /arg/, art /art/ (VCC)

- A syllable consisting of one vowel sound at the onset and two consecutive consonant sound at the nucleus.
  - A syllable formed from a consonant sound in the onset and a vowel sound in the nucleus  
    e.g: ta /ta/, za /za/, kha /şa/, ka /ka/, pa /pə/ (CV)
  - A syllable formed from a consonant sound in the onset, and vowel in the nucleus, and a consonant sound in the coda.  
    e.g: tor /tor/, por /por/, kor /kor/ (CVC)

- A consonant sound in the onset, a vowel sound in the nucleus and a syllable formed from two consecutive consonant sounds in the coda.  
  - A syllable consisting of two consecutive consonant sounds in the onset, one vowel sound in the nucleus and two consecutive consonant sounds in the coda.  
    e.g: pand /pənd/, dand /dənd/, wakhat /wəxt/ (CVCC)
  - A Syllable Consisting of two consecutive consonant sound in the onset, one vowel sound in the nucleus and one consonant in the coda.  
    e.g: bret /brət/, prot /prət/, dreim /drem/ (CCVC)

- Consisting of two consecutive consonant sounds in the onset, a vowel in the nucleus and two consecutive consonant sounds in the coda.
  - Consisting of two consecutive consonant sounds in the onset, one vowel sound in the nucleus and two consecutive consonant sounds in the coda.  
    e.g: drond /dənd/, gond /gwənd/, kond /kwənd/ (CCVCC)
- A syllable consisting of three consecutive consonant sounds in the onset and one vowel sound syllable in the nucleus
  e.g: khuri /xwri/, Khure /xwre/, khuro /xwru/ (CCCV)
- A syllable composed of three consecutive consonants in the onset and two consecutive vowel sounds in the nucleus.
  e.g: khuria /xwria/ (CCCVV)
- Syllable composed of three consecutive consonant sound in the onset, one vowel sound in the nucleus and one consonant in the coda.
  eg: sakhwar /sxwāɽ (CCCVC)
- A syllable formed from three consecutive consonant sound in the onset, one vowel sounds in the nucleus and two consecutive consonants in the coda.
  eg: shkhund /ʃxwand/ (CCCVCC).

If one focuses on the above keywords, then something becomes clear; That is, Pashto words generally accept up to three consonant in the Onset part of the syllable and cannot exceed it, but after the Nucleus, the Coda part of the syllable only accepts two consonant and more than that cannot be accepted.

![Coda Nucleus Onset](image)

**Figure: Showing sound from onset to nucleus**

In the Pashto syllabic structure, the sound increases from the onset to the nucleus and decreases back to the coda, which is called maximum sonority in phonological terms. For example: ghar /ɣār/, zai /dzāi /, teer /tir/, kar /kār/....

If the above words are performing, repeated and observed carefully, then it appears that the voice starts in a normal form at the onset and reaches a height in the nucleus, and falls again in the coda.

**General Principles of Syllable Division**

According to grammar, the visual structures of one language are different from the other and according to the linguistic type, the words are also different from each other due to the division of syllables. The pronunciation of words from a foreign language to a second language speaker is not necessarily free of errors in pronunciation. So it is clear from this that every language has its own special and separate rules for syllable division. However, here we briefly touch on the principles that are applicable among all languages. (Hayes, 2009; p.252-254).

1. The number of syllables in a word depends on the number of vowel sounds in that word.
   For example: The word of the kitab /kitāb/ has two syllables, because two vowel sounds (i and ā) are included in the structure of the word.
2. Any two sounds that are produced as one sound and represent one sound also come together in the syllable division. Such as: ج /dʒ/, چ /dз/, ڪ /ts/, ڪ /ʧ/ in the words jawar /dʒwāɾ/, zawan /dзwān/, salor /sa.lor/, chaman /ʧə.man/.
3. In a word, the sounds (r and ŋ) come together with each subsequent independent sound during syllable division. 
   Like: khural /xwā.rl/, khawri /xāw.re/, ghuari /ɣwa.ɾi/, ghawari /ywā.ɾi/

4. During syllable division, a compound word is divided into syllables between the constructed words that made up the word, or first each word is divided separately and then the whole word is divided into syllables.
   Such as: Babar Ban /bā.bar.ban/, Huzuri Chaman /hu.zu.ɾi.ʃə.man/

5. If there are two consecutive vowels between two consonant sounds during the syllable division, then the syllable division is done in two ways. In other words, in the first type of division, both of the consonant come in one syllable, and in the second type of division, one consonant comes in one syllable and the second consonant comes in the second syllable. E.g: khwara /xā.wra or xāw.ra/, wawra /wāw.ra or wā.wra/, rawara /rāw.ɾa or rā.wɾa/

6. A syllable word is never divisible into syllables, such as: Kan /kān/, Luesht /lweʃt/, Shakhund /ʃxwand/

7. If the word is derived from the prefix and the main root, then the root of the word is separated and the morphemes are divided into separate words, such as: na roghtia /nā.roɣ.tyā/, likwalan /lik.wālān/, pohantounna /po.han.tu.nu.na/, be fikra /be.fek.ɾa/, ma kawa /mə.kə.ɾa/

8. If the word is make up from suffix and the root, then the division is done between the root and the suffix such as: likwali /lik.wāli/, na roghtia /nā.roɣ.tyā/ likwalan /lik.wālān/, pohantunna /po.han.tu.nu.na/, be fikra /be.fek.ɾa/, ma kawa /mə.ɾa.wa/

9. If a consonant sound falls between two vowel sound during syllable division, the consonant sound usually comes together with the vowel sound of the second syllable. E.g: ananar /a.nār/, eman /i.mān/, orona /o.ru.ɾa/

10. If a vowel sound is pronounced alone during a syllable division, then this vowel sound alone constitutes a syllable. Like: uba /u.ɾa/, ura /u.ɾə/, aba /a.ɾa/

Types of Syllables

The syllable is divided into different types from different aspects, the most important of which is the division of syllables according to the types and forms of vowel sounds. First, the syllable is divided into two types, one of which is called an open syllable that ends with a vowel sound and the second is a closed syllable that ends with a consonant sound. In Pashto, it is usually stated that every syllable that ends with a vowel sound is called an open syllable and every syllable that ends with a consonant sound is called a closed syllable; But like other languages, Pashto also has the following types of open syllable.

1. Strong Syllable: Any syllable that ends with (a/ā/, w/u/, and y/i/) is called a strong syllable. This syllable is pronounced with a little force and stress compared to the others, and this syllable is also called a heavy syllable.
   Like: Anna/anā/, Salo/sālu/, Sadi/ʃādi/, Mochi/moʃti/

2. Weak Syllable: Any syllable that ends in (e/ə/,ei/e/, O/o/, and stressed a/a/) and does not need to be emphasized more in the pronunciation is weak. It is called a weak syllable. This syllable is also called a light syllable.

In syllabic division, each syllable is first divided into two branches, one of which has an onset, usually one, two or three vowels or zero, that is, a vowel sound, and the other is the syllable's rhyme. The syllable’s rhyme part comes as the nucleus which usually contains a vowel sound or cluster and the coda, which contains a consonant sound and clusters.
3. Onset less Syllable: Any syllable that starts with a vowel sound and ends with a consonant sound is called an onset less syllable. Most of these syllables start with \( \bar{\text{a}}, \text{a}, \text{o}, \text{u}, \text{e}, \text{i} \).
Such as: Ar/\text{\textacute{a}}r/, ur/or/, uba/ub\acute{a}/, Ab\acute{a}/ab\acute{a}/, eman/im\text{"an}/ elan/el\text{"an}/
4. Coda less Syllable: It is a syllable that ends with a vowel sound, but it can take one, two or three syllables at the onset. This syllable is called a no-fall syllable or this syllable is also called open syllable. Eg: ta/\text{t\textacute{a}}/, zama/zm\acute{a}/, khula/xwl\acute{a}/

**Syllabification**

Every language has many dialects. Differences in dialects in a language cause it to be performed and produced differently by the speakers of different regions of that language. The differences in speed have many reasons among which we can mention mountains, rivers, forests and others as examples. The Pashto language also has three or four total dialects along with many sub-dialects. In these dialects, one word may be pronounced in one way and in another dialect, the same wording creates differences in the syllabification; because in this verbal difference, the speakers of the language unconsciously make a series of sound additions and omissions. (Hayes, 2009. P.251)

In linguistics, increasing vowel sounds are called additions, and decreasing is called omissions. For example jaghra [\text{ʤag}.\text{ɽa}/ or /\text{ʤa}.ga.\text{ɽa}/], ramdan [ /\text{ra}.ma.z\acute{a}n/ or /\text{ram}.z\acute{a}n/], if we look closely at these words, both are in Pashto language. It is performed by the speakers of two different traditions with different dialects. First, syllable division of the first word (Jaghra) is the pronunciation of the speakers of Bara Pakhtunkhwa and the second syllable division of the same word shows the pronunciation of the speakers of Koza Pakhtunkhwa. A vowel sound (a) has been added after (g), so the number of syllables has also increased.

If we look at the second word (Ramadan), then the first pronunciation is that of the speakers of Bara Pakhtunkhwa, who divide the word into three syllables; But the second syllable division is the speakers of Koza Pakhtunkhwa who pronounce the word in two syllables. Similar to this, we can find dozens of other examples, which differ in terms of the wording and the number of syllable due to differences in customs.

**Syllable Principles**

Syllable structure and division in any language are done by taking into account a number of principles. The Pashto language also has a number of rules for syllable division, which we will discuss briefly below.

**Maximum Onset Principle:** According to the principles of syllable division in this type of syllabification, we can make several syllables from the onset of the first syllable. So, that's why it's called the principle of maximization onest. E.g. Kukryan [ /\text{kuk}.\text{ry\acute{a}n}/ or /\text{ku}.kry\acute{a}n/], sakhti [ /\text{sa}.xti/ or /\text{sa}.xti/], waria [ /\text{wa}.y\acute{a}/ or /\text{wa}.ry\acute{a}/]

If we go to the syllabic division of the above keywords, it is easy to find that in the second syllabification of the mentioned words, a consonant sound from the first syllable added to second syllable’s nucleus, as a result of this syllabification. That's why this is called Maximum Onset Principle.

**Sonority Sequence Principle**

The division of the syllable, based on this principle, like many other languages, in Pashto, the voice rises from the onset towards the nucleus of the syllable, which is usually a
vowel sound, and the voice decreases again at the coda, which is a consonant sound. Syllables of this nature are called sequential acoustic syllables. Such as: Nak /nāk/, Pir /pir/, Khyāl /xyāl/... If these words are spoken with care, then it is clear from the voice that the rise from the syllable onset (consonant sound) towards the syllable nucleus (vowel sound) and later on fallen in coda (consonant sound). So according to the principles of the syllables, this process is called Sonority Sequence as in the following figure:

![Sonority Sequence](image)

Conclusion

Words are composed of syllables and syllables are composed from vowel and consonant sounds and vowel sounds plays vital role in word formation. One, two or more sounds, one of which must be a vowel sound, coming out of the mouth in one breath is called a syllable. A vowel is an important element in a language because babies produce one or two vowels before uttering a completely independent word; therefore, the study of the syllable and having information about it is necessary for linguists, writers and especially for phonologists.

This multi-page article was written to achieve this goal. First of all, the readers were introduced to the introduction of the syllable and also read that the vowel sound has a fundamental role in the structure of the syllable. A normal and standard syllable is made up of three parts (the onset, the nucleus and the coda) from which the onset and the coda can be deleted, but without the nucleus (vowel sound), no syllable can prove its existence. Also it turns out that in the Pashto language, one syllable or several syllables of words have different types due to the continuity of the onset, nucleus and coda.

After that, we briefly discussed the types of syllables in Pashto. From that group, we identified strong, weak, open, closed, onset less and coda less syllables and explained them in examples. How a word is divided into syllables in different ways and what the reason was briefly highlighted. We have started the article by explaining the principles of the Pashto syllabary from which we briefly explained the principles of the Maximum Onset and Sonority Sequence.

References:


