

THE ROLE OF PROSODIC UNITS IN THE STUDY OF GIHA

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Abstract. The term “prosody” has quite ordinarily been used to mean such things as stress, tone, accent, pitch, intensity, loudness and syllabicity. Even though the precursors of Bantu languages like Bleek (1862), Meinhof (1989), Guthrie (1962, 1967, and 1970) paid courtesy to “Prosodic units” marvels but they did not give it the gravity it deserves. This study aims at giving the deserved gravity of the prosodic units in analyzing any phonological aspect of Giha linguistic. Therefore, the study argues that any serious analysis of Giha phonology is ought to consider the prosodic units of this language. The data presented here in were collected from five native speakers of Giha and analysed autosegmentally.

Keywords: Prosodic Unit, Syllable, Vowel Length, Tone, Autosegmental Model

Languages: Giha

1. INTRODUCTION

Vowel length and tone are referred to in recent literature as types of prosodic units. Since prosodic units are realized in various forms, it will not be possible to show them all in a single paper. Therefore, in this paper we will address only vowel length and tone while citing examples specifically from the Giha language.

2. THE ROLE OF VOWEL LENGTH IN GIHA

Before considering the Giha exemplars, clear distinctions must be made among vowel length, vowel lengthening, and double vowel. Massamba (2005:88) defines vowel length as the duration of a vowel, short or long. Contrary to that, he defines vowel strengthening as a process of making a once short vowel increase in length. Thus, vowel lengthening usually is a compensatory act. Massamba (2005:88-89) argues that some linguists are of the opinion that the concept of vowel lengthening is not confined to compensatory lengthening alone, that in cases where we have prenasalized consonants, the vowel that precedes the nasal is “lengthened.” According to him, in cases where there is a prenasalized consonant, the vowel that precedes the nasal is predictable—in the sense that it is always long and not lengthened. In this paper we support this view because in Bantu languages, where there are both short and long vowels, it is difficult to say that the vowel preceding prenasalized consonant was once short and has been lengthened by the context that surrounds it. What we want to insist in this paper is that with the compensatory vowel lengthening one can simply say that the short vowel is lengthened by virtue of its appearance in the context. So, in this paper we strongly agree with Massamba that a vowel of a prenasalized consonant is treated as a long vowel and not a lengthened one. Consider the following examples in (1a-c) from the Giha language, which clearly demonstrate the process of vowel lengthening.

1. /imiungu/	[imju:ngu]	“pumpkins”
/imiamba/	[imja:mba]	“rocks”
/umuami/	[umwa:mi]	“king”

In the examples above we can see that the vowel is lengthened to compensate for the duration of the vowel of the noun prefix, which is changed into a glide.

Yet, Massamba (2005:89) lays clear another difference between vowel length and vowel lengthening. He says that while both short and long vowels are included in a lexicon, a lengthened vowel is one of the results of a phonological process. This means that short and long vowels are listed in the lexicon, but lengthened vowels are not. On the other hand, double vowels refer to the situation where there is a cluster of two identical vowels which do not count as a single entity (Massamba 2005:89). This means, however, that the two vowels are identical: Each one performs a different function.

From the above clarification, this paper intends to deal with vowel length and double vowels in such a way that the two concepts are signposted differently. A single vowel is going to represent a short vowel, and identical vowels (not to be confused with *double vowels*) to represent the long vowel as opposed to the use of a colon, which represents a lengthened vowel. Also, we will use double vowels to represent double vowel. In Giha long vowels differ from short vowels in a way that triggers different meanings.

2. /ukubhiha/	[ukubhiha]	“to give”
/ukubhiiha/	[ukubhi:ha]	“to be bad”
3. /ugusibha/	[ugusibha]	“to wipe off/out”
/ugusiibha/	[ugusi:bha]	“to be absent”
4. /ukurabha/	[ukurabha]	“to faint”
/ukuraabha/	[ukura:bha]	“to see”
5. /umusivyi/	[umusivyi]	“one who seals a hole”
/umusiivyi/	[umusi:vyi]	“one who does not attend somewhere”

From the data above, we can note two points. First, all the Giha words provided have low-toned stems. Second, in each of the given pairs of words, vowel length has an important role. Short vowels differ from long vowels in the meanings provided. As the forms used in the data above are low toned, high-toned stems must now be considered.

6. /ugusáma/	[ugusáma]	“to snatch”
/ugusááma/	[ugusááma]	“to mock”
7. /ugusúka/	[ugusúka]	“to pour out”
/ugusúúka/	[ugusúúka]	“to plait hair”
8. /ugushénya/	[ugushénya]	“to cut firewood”
/ugushéénnya/	[ugushéénnya]	“to beat cruelly”

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|----|------------|------------|----------------------|
| 9. | /ugusíga/ | [ugusíga] | “to leave something” |
| | /ugusííga/ | [ugusííga] | “to smear” |

From the data presented in (2)-(9) above, we can say that vowel length triggers differences in meaning regardless of the tones associated with them. We can generally say that vowel length is among the prosodic units that should not be ignored in Bantu languages.

2.1 THE INTERFACE BETWEEN TONE AND VOWEL LENGTH IN GIHA

We have tried to show that vowel length as a prosodic unit cannot be ignored in the case of the Giha language. Another prosodic unit which also needs serious consideration is tone. Harjula (2004:26) points out that any serious attempt to provide an analysis of Giha must consider the behavior of tones. This is in line with Massamba (2005:92), who argues that any attempt to analyze ci-Ruuri (a typical Bantu language) whether be it phonological, morphological, syntactic, or semantic will be futile if reference to tone is not made. In fact, in Giha tone and vowel length interrelate in a fascinating way. The interface between such prosodic units yields certain morphological effects, as in the data below.

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|-----|------------|------------|---------------------------|
| 10. | /ukuima/ | [ukwima] | “to bend” |
| | /ukuíma/ | [ukwíma] | “to deny” |
| | /ukuííma/ | [ukwííma] | “to copulate (animals)” |
| 11. | /ugukura/ | [ugukura] | “to grow up” |
| | /ugukúra/ | [ugukúra] | “to remove something” |
| | /ugukuura/ | [ugukuura] | “to inherit” |
| | /ugukuúra/ | [ugukuúra] | “to fail” |
| 12. | /ukugira/ | [ukugira] | “to do something” |
| | /ukugiira/ | [ukugiira] | “to go for something” |
| | /ukugííra/ | [ukugííra] | “(for human) to copulate” |
| 13. | /ugusura/ | [ugusura] | “to fart” |
| | /ugusuura/ | [ugusuura] | “to visit someone” |
| | /ugusúúra/ | [ugusúúra] | “to inspect” |

The data above disclose two vital points to note. First, we note that there is a clear dissimilarity between short and long vowels in terms of the meaning they trigger. For example, this is seen in the two-way distinction in (10) and the four-way distinction in (11). Second, there are some occasions in which vowel length cannot discriminate meaning; as a result, tone functions necessarily as a disambiguating prosodic unit, and it is here where we see the interaction between vowel length and tone.

Another issue that we must discuss is the concept of double vowel. We said earlier that double vowel refers to the cluster of two identical vowels in which each vowel performs a distinct function, as in (14).

14. /uwiimana/ /uwiimana/	[uwiimana] [uwiimana]	“of God” “miser”	
15. /ukubhuungá/ /ukubhuunga/	[ukubhuungá] [ukubhuunga]	“to join it” “to	decay”
16. /ukuuzá/ /ukuuzá/	[ukuuzá] [ukuuzá]	“to belch” “to come”	

The data above demonstrate that identical vowels are separated by morpheme boundaries and support the argument that double vowels are fundamentally two isolated syllables (Massamba 2005:96).

From the view we have gotten, I now argue that the two prosodic units (vowel length and tone) ought to be taken in the precarious way. This means that I strongly contend that vowel length and tone are vital prosodic units in the study of Bantu languages. Nevertheless, we need to ask ourselves if these units have such significance, why has there been a tendency to disregard them? In this study I wish to argue that this tendency is an outcome of the way traditional linguists have considered them. Consequently, I contend that there must be a misrepresentation of these units traditionally. This study attempts to discuss such phenomena.

2.2 THE THEORETICAL REPRESENTATION OF PROSODIC UNITS

Goldsmith (1976) cautions that phonologists in the Standard Model did not treat aspects like stress, accent, tone, and vowel length as parts of word. He claims that, for them, words were formed only from segments. From this opinion I contend that this is where the problem of misrepresenting vowel length and tone starts.

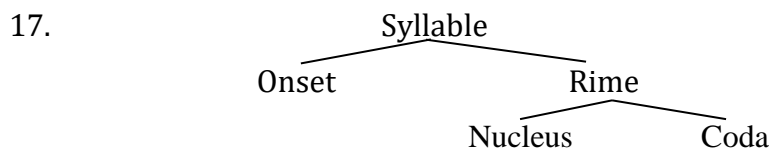
The phonologists in the Standard Model believed that human speech should be represented in a linear arrangement (Chomsky and Halle 1968). This conveys the problem of how to represent Prosodic units which are not part of segments. I do question myself, if only segments are counted as parts of words and that segments are in linear representation then where to place prosodic units? Are they invented to endure flopping in the air? No matter, even if we say they are flopping in the air, we still need to demonstration how we can link them with segments.

We should remember that in the Standard Model of Generative Grammar, phonologists treated tones as part and parcel of segments that were associated with them. Leben (1973), in his work on West African languages, claimed that it is not correct to treat prosodic units as parts of segments associated with them. Although he did not point out the proper way of treating these units in an autonomous modus, he managed at least to speculate that the linear representation had shortcomings. This was the beginning advocacy for a multilinear model of analyzing phonological data. This model basically claimed that phonological units are autonomous; thus, they should be represented in tiers (Goldsmith 1976).

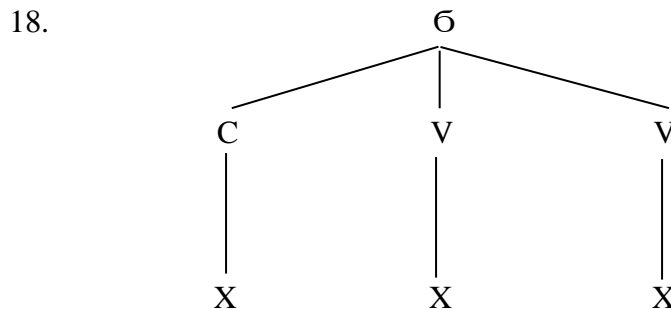
2.3 THE REPRESENTATION OF VOWEL LENGTH IN GIHA

In opposition to the Standard Model of Generative Grammar, current literature talks about vowel length in reference to the syllable, since vowels form the peak of syllables. As a result, the syllable is a vital unit in the establishment of higher levels of prosodic units, and it is the typical stress-bearing unit that serves as a starting point for the construction of feet and phonological phrases (Lieberman and Prince 1977; Serlkirk 1980; Hayes 1981). From this point we can say that vowel length is best explained by examining its function within the structure of the syllable.

The question here is on how best to present the internal structure of the syllable. In this point phonologists differs. Pike (1947) defines a syllable as a branching structure consisting of an *onset* and *rime*, the latter which consists of a nucleus and coda. Massamba (2011:147) contends that this statement is true only in reference to theory, but it may not always be true practically. I agree with Massamba that the basic structure of a syllable is a branching structure, but it is not true that whenever it occurs it must have an onset: Some onsets remain unfilled. On the other hand, it is not possible to have a rime without a nucleus, while the coda is optional.



The model in (17) is different from the one suggested by Clements and Keyser (1983). According to their suggestion, a syllable consists of three tiers, as in (18) below.



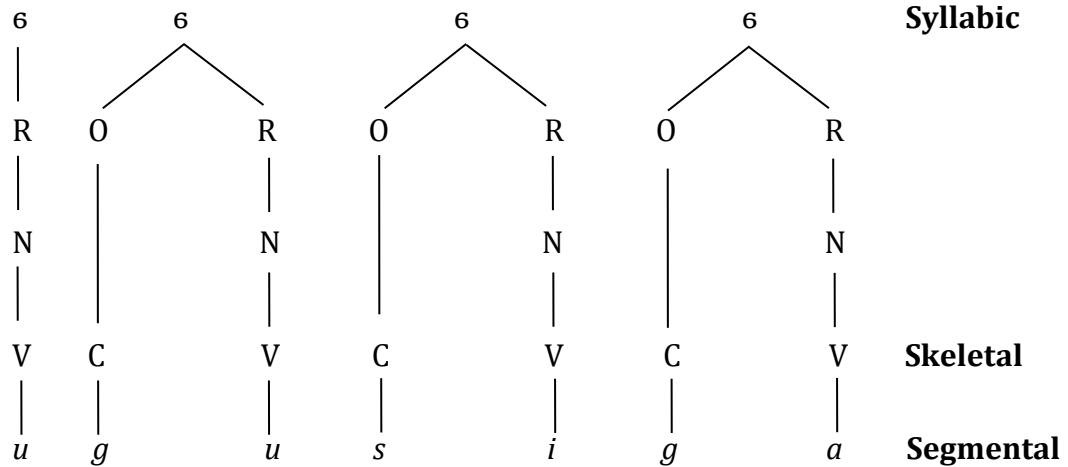
What we have to note here is that, the model suggested by Clements and Keyser does not show the internal structure of the syllable. In this model we will adopt the former model.

Furthermore, there is a difference between “heavy” and “light” syllables (Jacobson 1931, 1937; Trubetzkoy 1939; Newman 1972; Allen 1973; Chene 1979). A heavy syllable consists of either a consonant and a long vowel (CVV); or a consonant, a short vowel, and another consonant (CVC). On the other hand, a light syllable consists of a single short vowel (V), a consonant with a short vowel (CV), or a syllabic consonant (C). A syllable that ends with a vowel is an open syllable while that ends with a consonant is called a closed syllable. It is only from this theoretical background

that we can better grasp how vowel length is handled in the Giha language. As a typical Bantu language, it has no words with closed syllables; as a result, all words in Giha have open syllables.

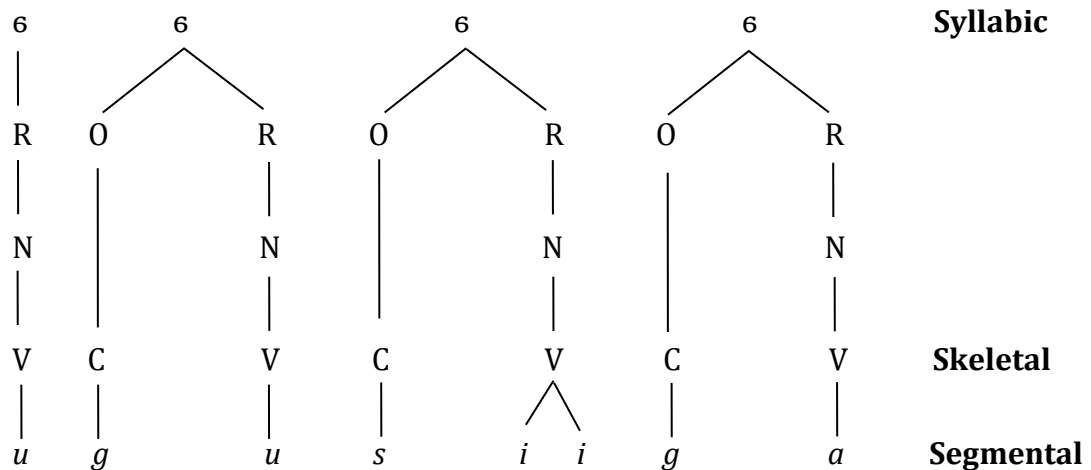
The two Giha examples in (18) and (19) below illustrate how vowel length as a prosodic unit can be linked to segments. The diagram will show the internal structure of the different syllables and how the different tiers are linked.

18. **ugusiga** (u \$ gu \$ si \$ bha) “to leave something”



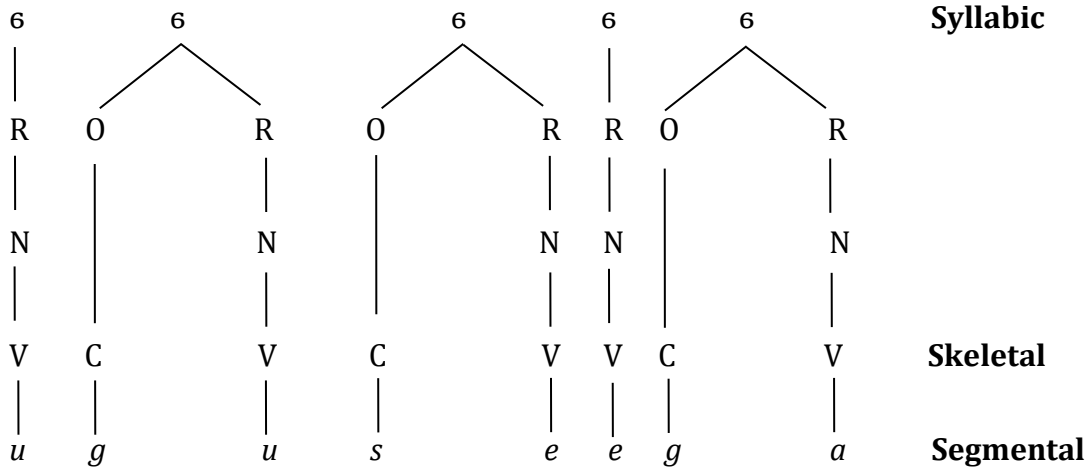
In this representation we can see three main tiers: the Syllabic Tier, the Skeletal Tier (also called the template tier) and the Segmental Tier. The lines drawn show how the different tiers are linked, taking into consideration their internal relations. Therefore, the word “*ugusiga*” has four syllables. The first syllable has a rime (R) but no onset (O). Likewise, the R has a nucleus (N) but no coda (C). The other remaining syllables have both an onset and rime, but the rime has no codas. The example below in (19) demonstrates the situation where long vowels are present.

19. **ugusiiga** (u \$ gu \$ sii \$ ga) “to smear/ spread something”



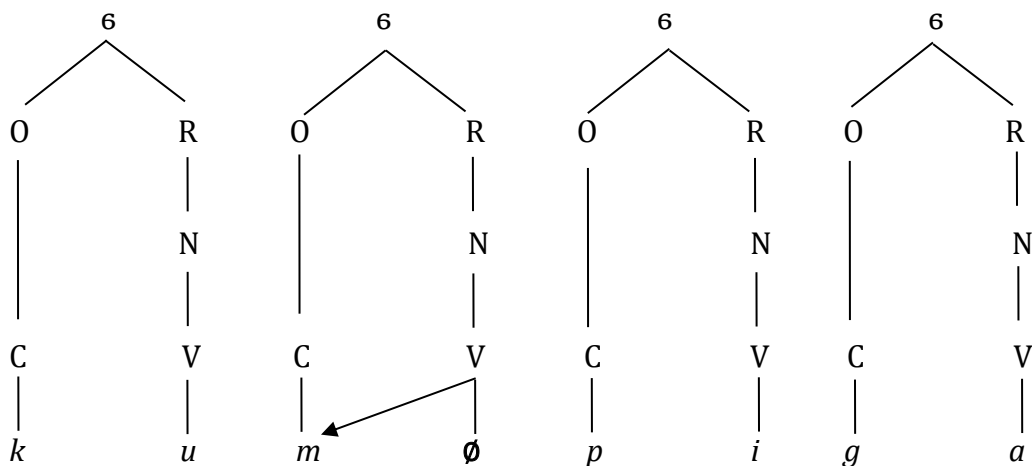
While the long vowel in (19) is represented as equal parts of a single nucleus, the context in which a double vowel occurs is different, as (20) demonstrates below. Although the two vowels /e/ and /e/ are identical below, they clearly represent and belong to two separate syllables.

20. uguseega (u \$ gu \$ se \$ e \$ ga) “to request/ask for something”



Unlike Swahili, the second language for many East Africans, the Giha language does not have syllabic consonants. As such, in the case of languages with syllabic consonants, the representation would follow that in (21).

21. kumpiga (ku \$ m \$ pi \$ ga) “to beat him/her”

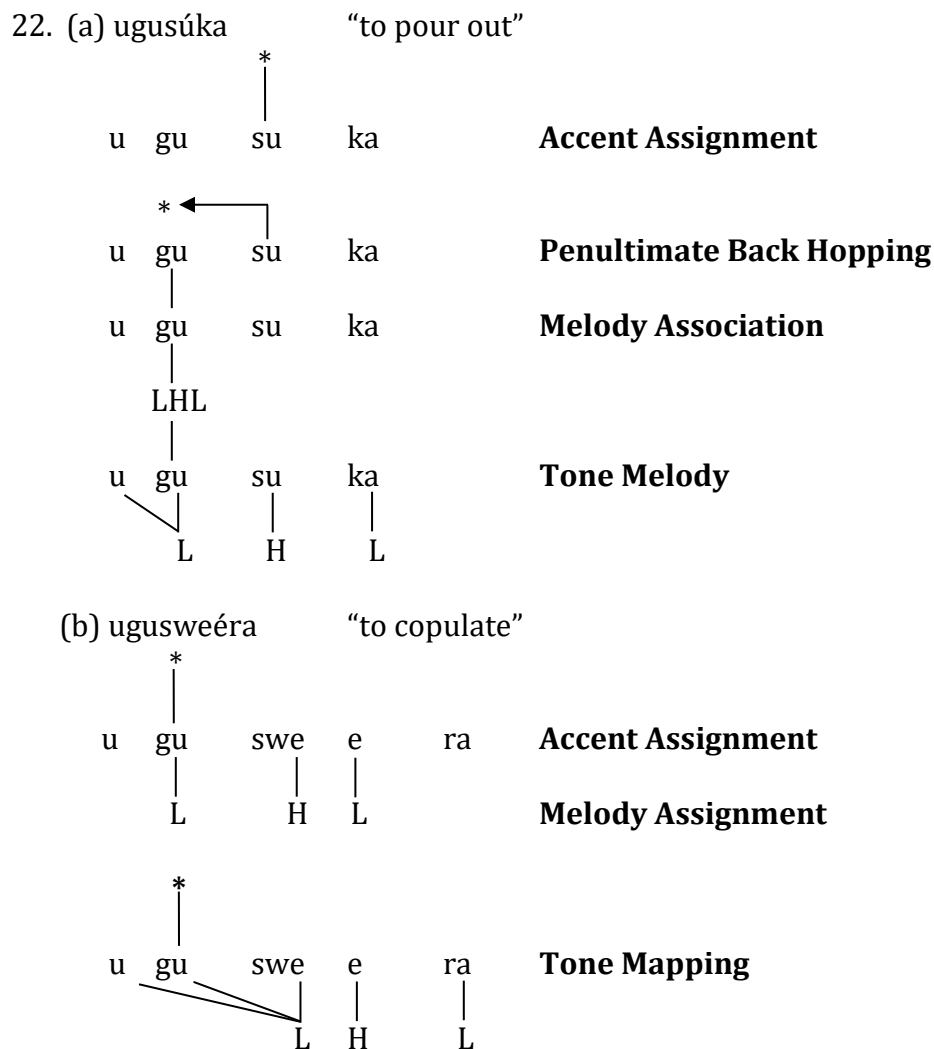


The onset in the second syllable has become a syllabic consonant after a phonological process known as deletion has occurred. The syllable is underlyingly /-mu-/, but the nucleus is deleted when followed by a consonant, i.e. /mu/ → [m] / _ C (p)

2.4 THE REPRESENTATION OF TONE IN GIHA

We saw earlier that there is a complementary relationship between vowel length and tone. We would like to reiterate Massamba’s (2005:102) argument that ignoring tone in any phonological analysis of a Bantu language will lead to serious mistakes in the conclusions drawn.

First, Giha is a tone-accent language with a tone melody of low, high, low (Bichwa 2016). Additionally, its tone is triggered by accents and, therefore, the tones are predictable. Second, there are two types of stems: Accented and unaccented stems. Third, in the accented stem the accent is associated with the left low tone and the syllable of the infinitive mark. Fourth, if the accent falls on the penultimate syllable, it hops back onto the immediate syllable by a rule known as *Penultimate Back Hopping*. Fifth, the tones are mapped from left to right; if there are any segments that are unassociated on the left, they will be associated with the first tone on the left and likewise to segments in the right. Sixth, underlying unaccented stems are assigned low tones on the surface structure by a rule called *Surface Low Tone Assignment*. The examples below in (22a-b) illustrate the interaction and representation of tone.



3. CONCLUSION

In this study we have considered the role of prosodic units in the Giha language. It has been pointed out that while earlier scholars of Bantu linguistics and Bantu studies took seriously the phenomena of prosodic units, there has been a tendency to marginalize them in the current literature. We have argued that prosodic units are not only vital but necessary and that the term itself is inappropriate as it tends to suggest that these are things that are beyond segments and not as important as the segments themselves. Using Giha data we have shown that aspects like vowel length and tone are crucial in any study of Giha phonology. We have argued for the multilinear model rather than the linear representation of phonological phenomena as the only way that can accommodate prosodic units as being of equal importance.

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