

Elision in Dagbani

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Abstract

This paper gives an account of elision in Dagbani, a Gur language spoken in the Northern Region of Ghana. The analysis is done using autosegmental phonology as an analytical tool. I show that elision is a prominent syllable structure process in Dagbani. I further demonstrate that there are several morphological phenomena that motivate elision: identified to be compounding involving noun-noun, noun-adjective and a few verb-verb compounds. The other environment in which elision is found to be productive in the language is in plural formation. The paper shows that the segments that are affected by this elision process may include a vowel, a nasal consonant or an entire syllable. The paper demonstrates that elision in Dagbani which occurs at word boundaries is always leftward elision and never to the right; and that the intervening segments to the right are consonants and not vowels as it has always been for most languages. I observe that whereas elision is entirely a morpho-phonological phenomenon since its occurrence is motivated by both phonological and morphological considerations. I argue that elision in Dagbani is motivated by both phonological and morphological factors. The paper concludes based on these evidences that there is an interface between the phonology and morphology of Dagbani when accounting for elision in the language.

Keywords: Elision, Compounding, Plural formation, Syllable structure

1. Introduction

This paper gives an account of elision in Dagbani, a Gur language spoken in the Northern Region of Ghana. The main objective of the paper is to show that elision is a prominent syllable structure process in Dagbani. I further demonstrate that there are some morphological phenomena that motivate elision in Dagbani. I observe for instance that elision is triggered by compounding, that is noun-noun combination and noun-adjective formations. It is also demonstrated that it is possible to have elision in the marking of plurals. The environments observed to be triggering elision make me conclude that there is a close relationship between the phonology and morphology of the language. The paper will be basically descriptive in nature. However, analysis of the data will be done within the theoretical framework of autosegmental phonology; Goldsmith (1976). A central claim of this theory is that tonal features should be seen as being represented on tiers different from segmental features. This paper will, however be silent on the tonal features of the language since it does not intend to centre the discussion on tone in Dagbani.

The main motivation for the investigation into this topic is the environments in which elision occurs in Dagbani. Generally, elision has been widely studied among languages of the world including African languages. To a greater extent, elision in many languages including dialects of Akan (Abaka, 2004) has been seen to occur at word or morpheme boundaries involving vowel sequences and word medial. I will demonstrate here that elision in Dagbani which occurs usually at word boundary is mostly leftward elision and never to the right. I describe the phenomenon in Dagbani as leftward elision in the sense that the elided segment or syllable is usually at the word final position of the first word of the compound. More so, intervening segments to the right are consonants and not vowels as it has always been for most languages.

Even as the language has seen an appreciable amount of study into its structure and usage, both teachers and students of the language still question the reasons that can account for the phonological process of elision in the language. To the best of my knowledge there is as yet no attempt to give a detailed study to the topic in Dagbani. The vacuum created by this situation is what this paper seeks to fill.

The rest of the paper is structured as follows: Section 2 of the paper gives an overview of the Dagbani syllable structure. Section 3, gives literature review on elision as a syllable structure process and comes out with a working definition. Section 4, on the other hand, looks at elision in Dagbani within the context of noun-noun and noun-adjective compounding and pluralisation. Finally, Section 5 draws a conclusion to the discussion.

2. Overview of Dagbani Syllable Structure

Considering the fact that knowledge of the syllable structure will be essential to the discussion in this paper, I start by giving an overview of the syllable structure of Dagbani. Dagbani basically operates an open syllable system. The few syllables that have codas usually have nasals in the coda positions or the lateral /l/. Syllabic nasals also do occur in Dagbani. According to Olawsky (1999:19) and Fusheini (2002:10), “the Dagbani syllable

structure permits coda positions to be occupied by /m, l, ŋ/, and /n/ in CVVN words plus a small number of CVN words...” Olawsky further states that “whereas /ŋ/ and /m/ are found as affixes in some nominal as well as in some verb final positions, /l/ and /n/ do not occur in word final position in words of lexical categories” Olawsky (1999:19). Segments that are allowed in word internal coda positions are: /m, n, ŋ, r, l, b, ʋ/ as in bim.ba.li (tributary of a river), kan.li (number countered), gbaŋ.gu (a thick bush), gbar.zam (a kind of hawk), kul.pala (fisherman), kɔb.li (bone), and kɔʋ.si (to grow lean, to lose weight), whilst in word final position we can have: /m, ŋ/ Olawsky (1999:171) as for instance, in words like: kɔpam (oil) dan (family). Vowel initial words in the language are either loan words or interjection and not lexical items. Such items begin with vowels such as /a/, /e/, /i/, and /o/. These four vowels do occur without consonantal onsets mostly in loan words. Olawsky (1999) identifies seven syllable types in Dagbani, namely CV, CVN, CV: CV:I, CVC, V and VC. I observe that the VC syllables identified by Olawsky are either the loans or the interjections.

3. Defining Elision

Sequences of vowels are frequently avoided cross linguistically, and deletion of the first of two vowels is the most common way in which they are avoided, Casali (1997) and Rosenthal (1997). Elision has been defined differently by different scholars. In the study of phonology, terminologies that have been identified as having same meaning with elision are: truncation and deletion.

According to Matthews (1997:111), elision is “a process by which a vowel at the end of a word is lost, or elided, before another vowel at the beginning of a word that follows.” I argue here that this definition falls short of what happens in Dagbani since the segment at the beginning of the following word is often a consonant. Abakah (2004:182) however, suggests that elision be seen as a “phonological process by which a vowel, consonant and sometimes a syllable, which is an intrinsic property of a morpheme in an isolated style is dropped in a combinative style”. The definition by Abakah (2004) seems to capture the phenomenon as it operates in Dagbani and so shall be the working definition in this paper. Now that we have given our working definition, we shall take a look at the various contexts in which elision has been identified in Dagbani.

4. Elision in Dagbani

As pointed out in the preceding section, elision has been perceived as a phonological process by which a vowel, consonant and sometimes a syllable, which is an intrinsic property of a morpheme in an isolated style, is dropped in a combinative style. In this section, I will show the various environments in which elision occurs in Dagbani and attempt to offer reasons for their occurrence. I identify two types of compounds as productive ways by which segments are elided in Dagbani. This could either be noun-noun compounding or noun-adjective compounding.

My definition of compounding here refers to the putting together of two or more lexical items to form a new word.

4.1 Noun-Noun Compounding

The Dagbani language, like many other languages, allows the combination of two or more monomorphemic nouns to form another noun. Data set 1 provides examples of nouns formed by the putting together two existing nouns. In each of these examples, it is seen that the deleted segments are vowels in the words. All of them are, however, motivated by the need to satisfy some syllable structure constraints in the language.

(1) N+N compounding

A	B	C (A+B)	≠
a) lu.ɲa (drum)	do.lɪ (stick)	lun.do.lɪ (drum stick)	* luɲadoli
b) noo.ɲa (bird)	tʲɛ.ɣʊ (nest)	noon.tʲɛ.ɣʊ (bird nest)	* nooɲatiɛɣʊ
c) sa.a (rain)	gba.nɪ (cloud)	sa.gba.nɪ (rain cloud)	* saagbani
d) sa.a (rain)	ta.hən.ga (shouting)	sa.ta.hən.ga (thunder)	* saatahinga
e) ba.a (stream)	ya.ɣə.ri (clay)	ba.ya.ɣə.ri (muddy earth)	* baayaviri
f) no.o (fowl)	gal.lɪ (egg)	no.gal.lɪ (fowl egg)	* noogalli

A look at the data set 1 which is ([N+N]) compounding, suggests that among the columns labeled **A**, **B** and **C(A+B)**, elision takes place in **C(A+B)** as a result of the compounding of the isolated words in **A** and **B**. The segments that are dropped or lost are intrinsic properties of syllables in the first words and are mostly vowel segments. In this set of data, some word final vowels are preceded by nasal segments as in **luɲa** (drum) + **dolɪ** (stick) = **lundolɪ** (drum stick). Apart from the deletion of the nucleus of such syllables, the preceding consonant which is a velar consonant assimilates to the place of articulation of the following segment which is an alveolar. The consonantal sounds that are adjacent each other in the combinative form therefore must obligatorily have the same place of articulation. Speakers of the language have the knowledge of these phonological processes and will avoid the ill-formed compounds such as ***luɲadolɪ** and ***nooɲatʲɛɣʊ**. The observation here is that when a nasal consonant immediately precedes another consonant, that nasal has the same place of articulation as the following consonant. This phenomenon is termed nasal place assimilation. When a sequence of two consonants have same place of articulation they are said to be homorganic. The phonological process involved in the syllable structure can be illustrated by the following matrical representation.

The resultant derived output gives us the syllable structure **CVN.CV.CV**. It can be seen that the first noun which had the syllable structure **CV.CV** in isolative style becomes a close syllable **CVN**. After the final vowel in the second syllable has elided, the onset of that syllable becomes the coda to the hitherto initial **CV** syllable. The observation here is that the close syllable (**CVN**) is the stem of the **CV.CV** word.

(2)

C V C V # C V C V underlying representation

| | | | | | | |

l u ŋ a d o l i

C V C V # C V C V [+Vowel] V₁ deletion

| | | | | | | |

l u ŋ a d o l i

Homorganic assimilation /ŋ/ → [n] /___ [d]

C V C C V C V

derived output: [lundoli]

| | | | | | |

l u n d o l i

In the other ([N+N]) compound that has the syllable structure CV.V, the onsetless syllable deletes in the combinative form. This suggests that compounding in Dagbani does not allow the existence of an onsetless syllable in the compounding template.

The phonological process that the syllable structure undergoes in the combinative style can be represented on the autosegmental/timing tier as follows:

(3)

C V V # C V C C V underlying representation

| | | | | | | |

n o o g a l l i

C V V # C V C C V [+Vowel] V₁ deletion

| | | | | | |

n a a g a l l i

C V C V C C V

derived output: [napava]

| | | | | | |

n o g a l l i

The knowledge of the phonological processes involved here implies the knowledge of a rule. Based on the derivation in (3) above, the vowel deletion process can be captured by the following rule:

(4) VOWEL DELETION RULE

V_1	#	C_2
+		
[+ Affix]		[+ Noun]

Thus the segment that is deleted V_1 is the final vowel and a number affix in the first noun and the following segment C_2 which is a consonant precedes a noun word.

4.2 Noun-Adjective co-occurrence

Nouns and adjectives do co-occur in Dagbani. When this happens the noun is usually the head and the adjective is the modifier. In such sequencing, it is also possible for elision to take place. In Dagbani adjectives are postmodifiers in the sense that they come after the noun phrase. In noun-adjective sequence, there is a need always to delete some segments of the noun which precedes the adjective. The deleted segment could be a vowel or even an entire syllable. This is illustrated in data set 5 below.

5 N+Adj

A	B	C (A+B)	≠
a) do.o	(man) ɔ̃i.a (short)	do.ɔ̃i.a (short man)	*doojia
b) na.a	(chief) pal.lɪ (new)	na.pal.lɪ (new chief)	*naapalli
c) bi.a	(child) bʲɛ.vu (ugly)	bi.bʲɛ.vu (ugly child)	*biabiɛvu
d) la.a	(dish) ŋmaŋ (broken)	la.ŋmaŋ (broken dish)	*laaŋmaŋ

The deletion process that takes place in the Dagbani noun-adjective combination is not different from the vowel elision discussed in section 4.1. The data shows a final vowel deletion in the nouns while the adjectives stand unaltered morphologically. The observation here is that the deleted part of the nouns does not only occur as segment elision but also as syllable elision since the final vowel in the examples are onsetless syllables.

4.3 CV Syllable Elision

As pointed out already, the syllable continues to be an essential unit in the study of phonology. When phonological units occur in isolation, the syllable composition is different from when they are combined. This difference in syllable structure of those two environments in Dagbani is based principally on deletion. In this case, certain parts of the phonological unit as an independent system may be lost as a result of co-occurrence with other forms or combination with other forms. Dagbani allows syllable elision in either noun-adjective compounds or noun adjective sequence. In the former type of construction, the lexical item

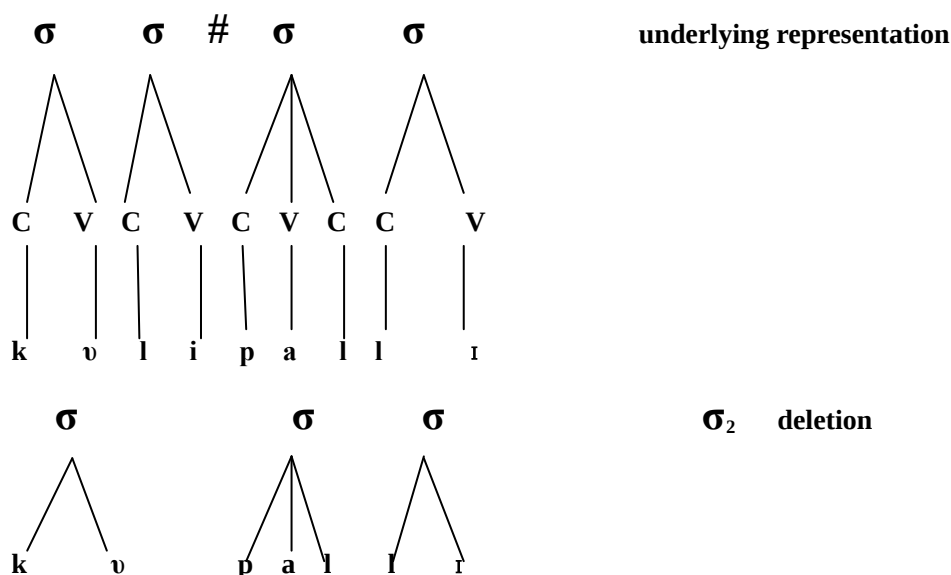
formed does not base its meaning on the individual words in the sense that one does not serve as the modifier of the other while in the later we always have a head modifier construction. In both cases, the elision occurs in the preceding noun. The data under discussion in this study shows that no CVC syllable deletion occurs in Dagbani since the language lacks word final CVC syllables. This is illustrated in the examples below.

6. Syllable elision

A	B	C (A+B)	≠
a) bɔ.ʋʊ (farmland)	p ^j ɛ.lɪ.gu (whitish)	bɔ.p ^j ɛ.lɪ.gʊ (savannah)	*bɔʋupiɛligu
b) da.ʋʊ (stick)	kuŋ (dry)	da.kuŋ (dried stick)	*daʋukuŋ
c) pa.ʋa (woman)	gɔ.rə.lɪ (wanderer)	pa.gɔ.rə.lɪ (promiscuous lady)	*paʋagɔrili
d) sɔ.ʋʊ (broom)	pal.lɪ (new)	so.pal.lɪ (new broom)	*sɔʋupalli
e) zu.ʋʊ (heard)	pi.lə.gu (cover)	zu.pi.lə.gʊ (cap)	*zuʋupiligu
f) b ^j ɛh.gʊ (life)	yo.lɪ (bad)	b ^j ɛh.yo.lɪ (bad character)	*biɛhigu yoli
g) ku.lɪ (funeral)	pal.lɪ (raw)	ku.pal.lɪ (fresh funeral)	*kuli palli
h) su.lɪ (anger)	yo.lɪ (bad)	su.yo.lɪ (bad anger)	*suliyoli

In the isolative forms, all the examples under **A** of data set 6 are disyllabic words; however, in the combinative style in **C(A+B)** with examples in **B**, each base word loses a syllable giving the resultant pronunciation in **C(A+B)**. The elision that occurs in the data here is motivated by the weakening of penultimate syllables in **A**. The syllables either have a glottal or lateral consonant at the onset position. Below is a syllable structural illustration of the phonological process that takes place in the data.

(7)



The illustration shows the word boundary in the underlying representation. It goes further to

illustrate that the deletion occurs on the second syllable of the base word. That is, the syllable [li] is deleted.

4.4 Nasal /m/ Elision

Monosyllabic nouns with the syllable structure **CVN** will usually have the syllabic nasal deleted when the nouns are to be combined with adjectives. This is what I refer to as nasal deletion. This is a very productive phonological process in Dagbani. Out of the three syllabic nasals that occupy the coda position in Dagbani, the commonest is the bilabial nasal. This phenomenon is illustrated in the data below:

8. Nasal Elision data

	A	B	C (A+B)	≠
a)	dam (alcohol)	ʒ ^j ɛ.ɣu (reddish)	da.ʒ ^j ɛ.ɣu (pito)	*damʒ ^j ɛɣu
b)	kom (water)	b ^j ɛ.ɣu (dirty)	ko.b ^j ɛɣu (dirty water)	*kombiɛɣu
c)	dam (pito)	ka.hə.lɪ (raw)	da.ka.hə.lɪ (unfermented pito)	*damkahili
d)	kpam (oil)	b ^j ɛ.ɣu (bad)	kpa.b ^j ɛ.ɣu (bad/dirty oil)	*kpambiɛɣu

When we consider the data set **8** above, we observe that in an isolative style, the pronunciation of **A** and **B** differ from the pronunciation in **C(A+B)**. The result is the elision of the bilabial nasal /m/. Since the nasal is a tone bearing unit, it has the potency of being a syllable on its own which is prohibited in the combinative form just like the onsetless vowel syllable; hence the motivation for the nasal deletion. The phonological process involved in this type of nasal deletion can be illustrated by the following matrical representation.

(9)

C	V	N	#	C	V	V	C	V	underlying representation
d	a	m		ʒ	i	ɛ	ɣ	u	
C	V	N	#	C	V	V	C	V	[+Nasal] C ₁ deletion
d	a	+		ʒ	i	ɛ	ɣ	u	
C	V	C	V	V	C	V			derived output: [daʒiɛɣu]
d	a	ʒ	i	ɛ	ɣ	u			

The matrical representation shows the delinking of a segment from the autosegmental/timing tier results to an automatic deletion. Based on the derivation above the nasal deletion process can be captured by the following rule:

(10) NASAL CONSONANT DELETION RULE

$$C_1 \quad \# \quad C_2$$

$$\begin{array}{|c|c|} \hline + & | \\ \hline \end{array}$$

[+ Affix] [+ Adj.]

The rule disassociates the first member C_1 at a word boundary provided the second member begins an adjective. I regard the deletion process here as morphophonological since the nasal segment deleted represent a number affix in the noun words.

Dagbani allows two or more adjectives to follow a noun. In such constructions the number affixes in both the noun and the first adjective elides before attaching to the second adjective. Consider the set of data below:

(11)

a) **noo** + **3ee** + **tɪtalɪ** → **no3etetalɪ**

b) **doo** + **d3ia** + **sabənɪ** → **dod3isabənɪ**

c) **laa** + **bɪla** + **3ee** → **labɪl3ee**

4.5 Verb – Verb Compounds

It is also observed that verb-verb combinations in Dagbani occur as compounds. In isolation, the verbs that are referred to have the syllable structures CV:i+CV.CV. In this type of compounds, the final /i/ in the first word elides as the two verbs are put together, and the resultant new word becomes a nominal. Some examples of the verb-verb compounds that show deletion are presented below in (12):

(12) a) **daai** (to push) + **luhɪ** (to fall) = **daaluhɪ** (promiscuous lady) ***daailuhɪ**

b) **kpaai** (to empty) + **bahɪ** (to leave) = **kpaabahɪ** (smth poured away) ***kpaabahɪ**

The derived nouns in the data in (12) appear in idiomatic expressions such as **Maama nysla daaluhi** translated as *Maama is a promiscuous lady* and **Kpaabahi bi vari zaa** translated as *Something that is lost cannot be fully regained.s*

The verbs in the first sentence are **daai** (to push) and **luhɪ** (to fall), and in the second, the verbs are **kpaai** (to empty) and **bahi** (to leave).

The phonological process involved in this type of deletion can be illustrated by the matrical representation in (13) below.

The difference between the underlying representations and the derived forms is that in the derived form, the final high vowel in the first verb is deleted or truncated. The phonological process here is to ensure that an onsetless syllable does not occur word medial in the compound word.

(13)

C	V	V	V	#	C	V	C	V	underlying representation
d	a	a	i		l	u	h	i	
C	V	V	V	#	C	V	C	V	[- Low] V ₁ deletion
d	a	a	i		l	u	h	i	
C	V	V	C	V	C	V			derived output: [daaluhi]
d	a	a	l	u	h	i			

This phenomenon confirms that fact that no word medial syllable **V** is permitted in the language.

4.6 Elision in Pluralisation

As mentioned briefly at the introductory stage, elision is also productive in instances of plural formation in Dagbani. In this instance, the combination is always between a nominal and a bound morpheme (plural suffix). Dagbani exhibits a variety of number affixes including vowels and consonants among others. Examples **16(a) - (l)** below illustrate elision of number affixes as the stem of each noun takes up a bound plural affix.

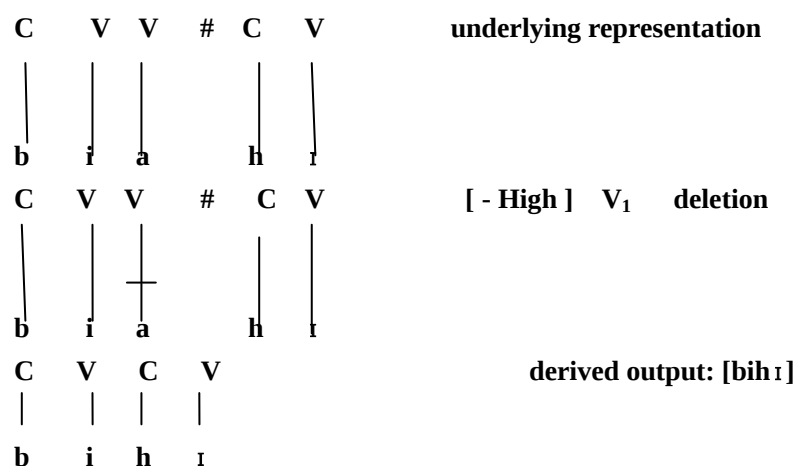
(16) Elision in pluralisation

Singular		Plural	Gloss
a) bi-a	–	bi-hɪ	(children)
b) ti-a	–	ti-hɪ	(trees)
c) ga-a	–	ga-hɪ	(ebony trees)
d) no-o	–	no-hɪ	(fowls)
e) do-o	–	do-hɪ	(dawadawa trees)
f) du-u	–	du-rɪ	(rooms)
g) sooŋ-a	–	soon-sɪ	(hares)
h) baan-a	–	baan-sɪ	(singers)
i) nooŋ-a	–	noon-sɪ	(birds)
j) luŋ-a	–	lun-sɪ	(drums)
k) bunzoŋ-Ø	–	bunzo-na	(goat pens)
l) loŋ-Ø	–	lo-na	(frogs)

We observe that the deleted portion are not merely segments but are syllables due to their morphological status. Apart from the deletion process observed in the data, we will observe that data numbered **(g)** to **(j)** also have assimilatory processes. The homorganic nasal

assimilation that takes place is to ensure that the /ŋ/ which is velar nasal agrees in place of articulation with the plural marker **-si** or **-na**. Thus /ŋ/ becomes /n/. The phenomenon observed here agrees with Schane's (1973: 52) assertion that, "syllable structure processes affect the relative distribution of consonants and vowels within a word". The metrical representation below captures the phonological process involved in plural formation in some Dagbani nouns:

(17)



In this example, the singular marker **-a** is deleted before the plural marker **-hi/-si** is attached to the bound stem **bi-** to give the plural form **bihi**.

5. Conclusion

This paper has attempted to give an account of elision in Dagbani using the theoretical claims of autosegmental theory as an analytical tool. I made the observation that elision does occur in different environments in Dagbani. Some of the contexts in which elision was found to be predominant included pluralisation, noun-noun combinations, and noun-adjective combinations. The environment of occurrence is mostly at word boundaries. I also discovered that segments which could undergo elision in the language include the vowels **[a, o, u]**, final nasals **[m, ŋ]** in coda positions and even entire syllables. In all environments that have triggered elision, the rightward intervening segment has been found to be a consonant and not a vowel as observed in most languages.

The phonological reasons that underpin elision in Dagbani include the fact that the syllable process in Dagbani does not allow an onsetless syllable to attach to an intervening compound; as a result, in **CV.V** nouns, the final **V** elides leaving only the **CV** syllable which attaches to the compound; be it another noun or an adjective. Secondly, elision involving **CV.CV** nouns have demonstrated that the nucleus of the second syllable is elided leaving its onset to form a coda to the initial **CV** syllable resulting into a **CVC** syllable before the intervening compound is attached. It is also observed that in the environment of pluralisation, a bound singular suffix deletes to take a bound plural suffix.

It has also been further observed that when the syllable structure has the composition **CV.V**, it is the case that the onsetless syllable, that is, the final vowel is deleted at the word boundary

prior to the attachment of the following item.

Finally, the observation that the final vowel of the deleted segment in Dagbani is always a number marker makes me to conclude that there is a tight relationship between the morphology and phonology of the language.

Native speakers observe these elision rules without difficulty. A speaker is seen to have competence of the language if he or she is able to follow these rules in everyday discourse and reading. Those who are not able to delete such segments in their speech or reading are said to speak or read like a non-native speaker of the language.

This paper is relevant from both the descriptive and theoretical perspectives. For instance, it is the known work that has attempted a detailed account of syllable structure processes in the language. Theoretically, it has also applied a well-known phonological theory to the analysis of data from a less described language. I must admit however, that the topic is not comprehensively studied. For instance, understanding syllable structure processes in Dagbani will need an in-depth knowledge of the morphological motivation behind the syllable structure processes. I hope this work will however; lay the foundation for future detailed research into the topic in Dagbani.

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