

# A Comparative Study of Ideophones in Dagbani and Gurenɛ

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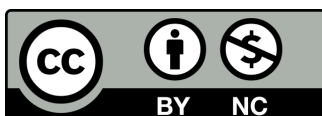
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## Abstract

Ideophones have been analysed in the linguistic literature as a class of words that depict sensory imagery; they are established in most natural languages, but particularly in African and Asian languages. They have gained popularity for their uniqueness in linguistic forms, including their peculiar phonological, morphological, syntactic, and semantic behaviour and rich sensory meanings. The question as to whether or not ideophones constitute a separate word class has attracted the attention of many researchers in recent years. This paper examines the linguistic characteristics of ideophones in Dagbani and Gurenɛ, two Mabia (Gur) Niger-Congo languages spoken in the Northern and Upper East Regions of Ghana, respectively. We demonstrate that ideophones in these languages exhibit peculiar phonological, morphological, syntactic, and semantic characteristics. Based on these peculiar characteristics, we assume that ideophones constitute a distinct word class in these languages. Ideophones in Dagbani and Gurenɛ have not received any systematic linguistic investigation. This study is therefore significant since it sheds new light on an area that has not received linguistic attention in the two languages under study.

**Keywords:** Comparative category, Dagbani, Gurenɛ, formal features, ideophones, Mabia

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## 1 Introduction

The objective of this paper is to investigate the formal properties of ideophones in two Mabia (Gur) languages, Dagbani and Gurenɛ, from a comparative perspective. We first provide a systematic analysis of the peculiarity of the formal features of ideophones, on the basis of which we propose that ideophones in these two Mabia languages should be analysed as belonging to a distinct lexical category.<sup>1</sup> Bodomo (2020, 5) asserts that Mabia languages number about 80 and are spoken by over thirty million people who are mainly located in the savanna grasslands of West Africa. He further states that speakers of the Mabia languages are also found in “the middle belt between the forest to the South and the Sahara desert to the North in present-day northern Ghana, northern Cote d’Ivoire, northern Togo, northern Benin, northwest Nigeria, Burkina Faso and Mali”. Bodomo (2020) identifies advanced tongue root, vowel harmony, syllabic nasality, tonal polarity, suffixal noun classes, time-depth particles, and SVOV serializing syntax as some salient grammatical properties that are shared by the Mabia languages. In this current paper, our focus is on the linguistic properties of ideophones in Dagbani and Gurenɛ, two Mabia languages that are spoken in Ghana.

Ideophones have of late become very central in linguistic investigations. However, there is no known literature that gives a systematic study of the formal properties of ideophones in these two languages. This paper is, therefore, crucial since it unravels the linguistic properties of ideophones from two languages in which this class of words has not received any linguistic attention. The main objectives of the study shall, therefore, be to (i) offer a systematic description of the linguistic properties of ideophones in Gurenɛ and Dagbani, i.e. phonological, morphological, syntactic, and semantic properties; (ii) propose that ideophones in these two languages should be analysed as a distinct word class based on the peculiarity of their formal linguistic features; (iii) outline the similarities and dissimilarities in the formal features displayed by ideophones in these two languages, and finally (iv) present the typological context of the place of ideophones in language.

The data used in this paper are based on recordings from fieldwork on language documentation of Dagbani and Gurenɛ. In all, we identified 81 ideophone-like words in Dagbani and 80 in Gurenɛ, respectively. 52 out of the 81 ideophones, representing 64% of the total ideophones in Dagbani, and 61 out of the 80 ideophones, representing 76% of the total ideophones gathered in Gurenɛ, are listed in the appendix. From our analysis, 20% of the ideophones used in the work are reduplicated in the languages under investigation. The sampled ideophones in the manuscript were randomly selected out of those collected from the fieldwork for this study. Beyond this section, this paper is organized as follows: Section 2 provides an overview of the definition of ideophones aimed at contextualizing our work within the existing literature on ideophones, while Section 3 is a review of existing works on ideophones in some selected works on the Mabia (Gur) languages. We focus on the linguistic properties of ideophones in these languages. In Section 4, we focus on the linguistic properties of ideophones in Dagbani and Gurenɛ. We discuss the typological characteristics of ideophones in the Mabia languages

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of Ghana based on insights from Dagbani, Gurene, and Kusaal in Section 5, and Section 6 concludes the paper.

## 2 On the definition of ideophones and their categorization

Ideophones have received varied definitions from linguists of different theoretical persuasions. One of the earliest known definitions of ideophones is that of Doke (1935, 118) who defines an ideophone as:

A vivid representation of an idea in sound, a word, often onomatopoeic, which describes a predicate, qualificative or adverb in respect to manner, colour, sound, smell, action, state, or intensity.

Trask (1993, 131–132), for his part, defines an ideophone as “One of a grammatically distinct class of words, occurring in certain languages, which typically express either distinctive sounds or visually distinctive types of action.” Crystal (1997, 189) also views an ideophone as a “term used in linguistics and phonetics for any vivid representation of an idea in sound, such as occurs through onomatopoeia.” Crystal further explains that in the study of Bantu linguistics, “it is the name of a particular word class containing sound symbolic words.” In this paper, we align our definition of ideophones with Doke (1935) as onomatopoeic expressions, which have the following features: (i) distinguished as a group by their phonological, morphological, and syntactic properties, (ii) tend to have an emotive function, and finally (iii) associated with spoken and dramatic registers of speech as articulated in Voeltz and Kilian-Hatz (2001). They are not known for having any kind of affixes, in contrast with what is generally observed in other word classes, for instance, nouns, verbs, adjectives, or even adverbs.

Typologically, ideophones are generally known for having no morphology (Childs 1994; Kilian-Hatz 2001; Nuckolls 1999). Matthews (1997, 169) also argues that “the term ideophone is used by Africanists of a distinct class of forms characterised by phonological structures that tend to be peculiar to them, e.g. by patterns of sound symbolism, reduplicative structures, or distinct patterns of tones”. Noss (2003, 180) defines ideophones as “a class of words that represent the full range of sensual experience including sound, sight, smell, taste, and feeling. Not only do they imitate noises (onomatopoeia), they also express action and motion; they portray colour, odour and texture; and they reveal manner, intensity and emotion.” Nsoh et al. (2010, 80) identify ideophones as very common literary devices found in songs. In addition, they claim that the use of ideophones by singers is attributable to the fact that ideophones employ sounds and tone for musical effects.

In the literature on ideophones, there is a debate as to whether or not ideophones should be treated as belonging to a specific lexical category. See, for instance, Abubakari (2017) for Kusaal, Dingemane (2011) for Siwu, Bodomo (2000) for Dagaare, Kulemeka (1997) for Chichewa, Newman (1968, 2000) for Hausa, and Agyekum (2008) for Akan. Further, there is considerable controversy as to whether or not they constitute a coherent class or are indeed distributed across many word classes. For instance, Noss (2003, 180) asserts, “ideophones may sometimes be identified as a distinct class of words by their phonemes. Sounds that are not otherwise found in the lexicon of a language often feature as part of ideophones’ patterns. Many ideophones have simple syllable structure that lends itself to lengthening and repetition.” Agyekum (2008, 108) also notes that “the word class of ideophones, if we can call them a word class, is often called phonosemantic to indicate that it is not a grammatical word class in the traditional sense of the word (like ‘verb’ or ‘noun’), but rather a grouping based on form and meaning.”

In some languages, special markers set ideophones apart, and in others, ideophones take minimal grammatical marking. The function of ideophones in a sentence is usually to describe actions or objects; sometimes, in an elliptical manner, they replace a noun or verb (Noss 2003, 180). In addition, Samarin (1971, 135) believes that it is normal in languages for phonemes to be “grammatically unbiased” except for interjections. These words are characteristically marginal in language. However, ideophones very often have special phonemes, that is, phonological units, which occur in no other part of speech in the language concerned. Based on the unique linguistic properties outlined for ideophones in Dagbani and Gurene, we show that the category of words classified as ideophones should better be analysed as a special part of speech, resembling the adverb to a certain extent in function and in terms of its syntactic distribution. Though the current orthographies of both languages do not recommend any marking, in this paper, we mark tone on the ideophonic data used since we consider tone a salient component of the grammar of the languages under investigation.

### 3 An overview of previous studies on ideophones in Mabia languages

In this section, we review existing works on ideophones within the areal languages, the Mabia (Gur) group of languages. It is to be noted that although not much work has been carried out on this topic in these languages, at least some works exist and are worthy of consideration. This is because it will be relevant to put our analysis in the context of what is already known of the Mabia languages. Our review is focused on Dagaare (Bodomo 2006) and Kusaal (Abubakari 2017). We particularly pay attention to the linguistic characterizations of ideophones, including their phonology, morphology, syntax and semantics. Bodomo (2006) discusses ideophones in Dagaare. According to him, ideophones are found in the lexicon of most African languages and often feature in translated texts; however, there are various problems with the translation of ideophones. Most translators are of the view that ideophones are best for spoken language (orality) and are unworthy of written text (Bodomo 2006, 115).

Abubakari (2017) also discusses the phonetic and phonological characteristics of ideophones and indicates that some syllable patterns are quite common in the characterization of Kusaal ideophones. The following are the syllable structures of ideophones identified in Kusaal by Abubakari (2017).

(1)	<b>Ideophones</b>	<b>Gloss</b>	<b>Syllable type</b>
a.	<i>ki'</i>	‘quietly’	CV
b.	<i>limmm</i>	‘dim, darkish’	CVN:
c.	<i>filímm-filímm</i>	‘dishonest’	CVCVN:
d.	<i>fiánn-fiánn</i>	‘whizz’	CVVN:
e.	<i>ilililí</i>	‘rain drops’	VCVCV
f.	<i>pánr-pánr</i>	‘crackle’	CVNR
g.	<i>póra-póra-póra</i>	‘clap’	CVCV
h.	<i>fárr-fárr</i>	‘very white’	CVR:
i.	<i>tát-tát-tát</i>	‘sound of walking’	CVC

(Abubakari 2017, 47)

Abubakari (2017, 51) further observes that ideophones in Kusaal resist any form of deletion, be it vowel or consonants, for the reason that they mostly mimic specific sounds. Any form of deletion will distort the exact representation of the target sound. Ideophones that end with

vowel, nasals, and the trill /r/ resort to the lengthening of these sounds instead of deleting them. Ideophones in Kusaal, therefore, show revealing morphological features that separate them from other lexical categories.

Though Kusaal is a tonal language, ideophones are all mono-tonal. They are either high or non-high, and again there are hardly any instances where oppositions in the tonal qualities correlate with oppositions in meaning qualities (Abubakari 2017, 48). Abubakari further outlines the following examples of the phonemic nature of tone in Kusaal.

- |     |    |                            |                         |                         |
|-----|----|----------------------------|-------------------------|-------------------------|
| (2) | a. | <i>bùg</i>                 | ‘to powder’             |                         |
|     | b. | <i>bóg</i>                 | ‘drunk’                 |                         |
|     | c. | <i>bōg</i>                 | ‘to divine or soothsay’ |                         |
|     | d. | <i>pánr-panr</i>           | ‘lightning’             |                         |
|     | e. | <i>pànr-pànr?</i>          | <i>pānrpānr?</i>        |                         |
|     | f. | <i>sílímm</i>              | ‘silently’              |                         |
|     | e. | <i>sílímm ? sīlím̄m̄ ?</i> |                         | (Abubakari 2017, 48–49) |

Closely related to this is the phonological assumption by Abubakari (2017, 47) that the syllable structure of Kusaal ideophones is predictable, and that they are susceptible to the violation of all phonotactic constraints in the language.

On the discussion of morphological properties of ideophones in Kusaal, Abubakari (2017, 51) notes that, unlike other lexical categories, ideophones usually lengthen vowels and consonants in word final positions, while the other word classes rather license the deletion of vowels in word final positions. In her analysis, the fact that ideophones resist any form of deletion favours her analysis that this morphological feature distinguishes them from other word classes. She further notes that, unlike nouns, adjectives and verbs in Kusaal, ideophones are unable to inflect for any grammatical category. We will later examine these morphological characteristics with the aim of establishing how they manifest in Dagbani and Gurene ideophones.

In discussing the morphology of ideophones, Bodomo (2006, 206) notes that in most African languages, ideophones “tend to be longer words to describe repetition or the intensity of an action or event they lexicalise.” The morphology of Dagaare ideophones is quite distinct from that of words with similar morphological appearances. Bodomo (2006, 106) posits that ideophones in Dagaare, unlike those of comparative word classes, do not lend themselves to morphosyntactic modifications, nor enter into phrase structure constructions with other words, as, for instance, adjectives and nouns do.

- |     |    |                         |                     |                                 |
|-----|----|-------------------------|---------------------|---------------------------------|
| (3) |    | <b>Noun</b>             | <b>Adjective</b>    | <b>NP</b>                       |
|     | a. | <i>zú</i><br>‘head’     | <i>fáá</i><br>‘bad’ | <i>zú-fáá</i><br>‘bad head’     |
|     | b. | <i>zú-rí</i><br>head-PL | <i>fáá</i><br>‘bad’ | <i>zú-fáá-rí</i><br>‘bad heads’ |

The data in (3) is contrasted with (4) where we see that, unlike the other word classes, ideophones disallow syntactic modification with other categories in the language.

(4)	Noun	Ideophone	Noun Ideophone
a.	<i>zú</i> 'head'	<i>bɔnggɔɔɔɔng</i> 'unwieldy-like, big'	<i>zu-bɔnggɔɔɔɔng</i> unwieldy-like head'
b.	<i>zú-ri</i> head-PL	<i>bɔnggɔɔɔɔng</i> 'unwieldy-like, big'	* <i>zú-bɔnggɔɔɔɔng-ri</i> (Bodomo 2006, 206–207)

Syntactically, some ideophones in Kusaal modify verbs. They occur post verbally (5a, 5c), where *wíém wíém* and *tɔ'ɔtɔ* 'quickly' occur in the post-verbal slot. However, the ideophones can also undergo displacement to sentence initial positions, in which case they require the focus marker *kà* (see 5b & 5d) to follow them immediately (Abubakari 2017: 52).

(5)	a.	<i>Bà zɔ</i> 3PL run.PFV	<i>yí</i> go_out.PFV	<i>wíém wíém.</i> IDEO				
		'They swiftly ran out (vanished in thin air).'						
	b.	<i>Wíém, wíém</i> IDEO	<i>kà</i> FOC	<i>yà</i> 2PL	<i>zɔ</i> run	<i>yí.</i> go_out	Command	
		'Run out immediately/Vanish like the wind!'						
	c.	<i>Bà</i> 3PL	<i>tóm</i> work.PFV	<i>tó'ómà</i> work.NOM	<i>lá</i> DEF	<i>tɔ'ɔtɔ.</i> quickly		
		'They did the work quickly.'						
	d.	<i>tɔ'ɔtɔ</i> quickly	<i>kà</i> FOC	<i>yà</i> 2PL	<i>tóm</i> work	<i>tó'ómà</i> work.NOM	<i>lá.</i> DEF	Command
		'Quickly do the work!' (Abubakari 2017, 52)						

We will later show that the syntactic characterization of Kusaal ideophones, as shown in (5), is valid for Dagbani and Gurene since their ideophones occur post-verbally or in the sentence initial position, where they require focus markers.

Within the semantic domain, ideophones tend to depict rich sensory scenes. For instance, Abubakari (2017, 53) asserts, "the unique feature that sets ideophones in Kusaal apart from other lexical categories is their semantics". Following Dingemanse (2015b), Abubakari (2017, 53) further claims that "ideophones among other characteristics are words that convey sensory imageries and efforts at explaining them involve more depiction than descriptions." It is further argued in the literature (Akita 2012) that it is not so much the sensory semantic domains that set ideophones apart but the sheer of *specificity* of the meaning of ideophones. It is further noted by Akita (2012, 71) that "if mimetics are 'vivid' and 'specific' in meaning, then their collocation should be highly restricted."

As shown in (6), Akita (2012) demonstrates that Japanese mimetics (ideophones) do not only deal with the auditory in the expression of specificity but also with visual/textural and bodily/emotional experiences.

(6)	a.	<i>Suzume-ga</i> sparrow-NOM	<i>tyuntyun</i> MIM	<i>nai-te</i> cry-CONJ	<i>i-ru.</i> be-NPST	(auditory, animate)
		'Sparrows are crying tweet-tweet.'				

- b. *Beru-ga rin-to nat-ta.* (auditory, inanimate)  
 bell-NOM MIM-quot sound-PST  
 ‘The bell sounded jingle.’
- c. *Taiyoo-ga giragira kagayai-te i-ta.* (visual)  
 sun-NOM MIM shine-CONJ be-PST  
 ‘The sun was shining glaringly.’ (Akita 2012, 68)

This depiction of sensory scenes by ideophones is illustrated by the Kusaal data in (7).

- (7) a. *gbévu* ‘overhanging cliff, mountains about to fall’  
 b. *tât-tât-tât* ‘sound of acting hurriedly’  
 c. *sɔndòg sɔndòg* ‘in separate groups’  
 d. *sɔé* ‘disappearing completely’  
 e. *faán* ‘puff/sound of a suddenly expelled breath’  
 (Abubakari 2017, 53)

Drawing data from Kusaal, Abubakari (2017, 54) further argues that the interpretation of ideophones is appreciated when it is tied to the context of usage. This is why she argues that “a sensory iconic ideophone is best conveyed in context for the most effective meaning to be derived.” This, she argues, is valid in both stories and written narratives. She demonstrates that this explains why ideophones are prevalent in descriptive writings, conversations, narratives, folktales, and stories in Kusaal. We shall show later in our analysis that this same property is valid for our observations in Dagbani and Gurene. The examples below are sentences from some folktales in Kusaal.

- (8) a. *Bvribíg yé gbír-gbír’ kà nwíig kénsìgìd*  
 billygoat say IDEO CONJ rope breaks  
 ‘Billygoat says IDEO and the rope breaks.’
- b. *Ká Asúmbú á’án íánkí nwé píp-píp-píp.*  
 LINK Mr\_Rabbit again jump beat IDEO
- n gílīg tiig la gbín wósa wósa*  
 N roam tree DEF under all all  
 ‘Mr Rabbit got up and repeated the search IDEO roaming all over under the tree again.’ (Abubakari 2017, 45–46)

Bodomo (2006, 207) makes a similar proposal that “to fully understand the denotational meaning of an ideophone, one would have to glean hints from various contextual cues.” In our analysis, we shall try to establish the validity or otherwise of this claim for the two Mabia languages under study.

In addition, in the description of the semantics of ideophones in Kusaal, Abubakari (2017, 43) is of the view that they are words that create specific mental imagery as well as echo specific sounds and movements in a way that is not characteristic of any other class of words. Ideophones in Kusaal are further argued to modify either nouns or verbs, although they are unable to stand on their own. Finally, Abubakari (2017) notes that the meaning and pragmatic



function of ideophones in Kusaal contributes significantly to distinguishing them from all other major word classes in the language. The difficulty of getting exact paraphrases in attempts to interpret ideophones compared to other lexical categories cannot be overemphasized. It is difficult if not impossible to paraphrase ideophones with other words in Kusaal without an extensive resort to the additional use of gestures, facial expressions, mimicry, or sensory imagery.

While it might be appropriate for us to assume that this paper is one of the first descriptions of the ideophone systems in these two Mabia languages, it should be noted that for Dagbani, the status of ideophones and their relation to verbs and adjectives have been briefly discussed in earlier grammatical works. For instance, Olawsky (2004) mentions ideophones and characterizes them as “type B” adjectives that are often imitative, reduplicated, and exhibit peculiar morphology. He further shows that they also have peculiar phonology. An example that (Olawsky 2004, 138) cites to illustrate the unique phonological characterization of these “type B” adjectives is *paratete* ‘immaculate white’, which “is phonologically unusual because of its length (most Dagbani words are disyllabic).” Based on this, Olawsky (2004) concludes that the majority of Type B adjectives are ‘irregular’ in the sense that they are either loans or ideophones (Olawsky 2004, 138). This is indeed, established as being characteristic of the lexical class of ideophones across the languages of the world.<sup>2</sup>

In addition, in the typological work of Dixon (2004, 29), Dagbani has been mentioned as possessing a ‘non-prototypical’ adjective system. This current paper deviates from this earlier account and rather proposes that Dagbani should be characterized as a language with a sizable class of ideophones. This, we assume, is valid given that the typological literature characterizes these ideophonic words as ‘non-prototypical’ adjectives. Likewise, Purvis (2008, 205) has also discussed ideophone-like words in Dagbani, noting that “a large proportion of what are identified as ideophones in Dagbani behave as adverbs.” He further notes that “ideophones are largely onomatopoeic sounds that are used to express manner and quality” and illustrates this syntactic claim with the data in (9).

- (9) a. *yiyi-ri*      *fanaƆana*      *ku*      *lebi*      *nooƆa*. [adverbial]  
 fly-IMPERF      flapflap      NEG.FUT      turn\_into      bird  
 ‘Jumping “flapflap” will not turn [you] into a bird.’
- b. *ka*      *di*      *vu*      *ni*      ‘*taaiin!*’      [interjection]  
 CONJV      3SG/INAM      thunder      QUO      pow  
 ‘And it [rifle] thundered, “pow”.’ (Purvis 2008, 206)

Thus, we need to address the contention of previous works on Dagbani, which has treated the ideophones as either adverbial or adjectival elements. This is especially relevant given that the mention of at least three adjacent word classes (verbs, adjectives, adverbs) that may or may not overlap with the class of ideophones calls for a resolution in typological terms. In addressing this, we rely on the work of Dingemans (2021) and Ameka (2001), who contend that verbs, adjectives, adverbs, and no other word classes often turn up in the vicinity of ideophones.<sup>3</sup> Thus, in line with the proposal of Ameka (2001, 27), we contend that “ideophones are a phonosemantic class of words with expressive and imaginistic semantics” (Kita 1997). In the light of this

<sup>2</sup> We are grateful to an anonymous reviewer for pointing this out to us.

<sup>3</sup> Our attention was drawn to this analysis by one of the anonymous assessors and we are grateful for the suggestion, which has been instrumental in sharpening our arguments in this work.

account, our argument is in consonance with the claims of Newman (1968) that ideophones “are primarily a type of words – a lexical class of words – which need not belong to the same grammatical word class in a particular language nor across languages” (cited in Ameka 2001, 26). This is why Ameka assumes that ideophones “are like deictic words with a particular semantic function but which can fall into different grammatical word classes – nominal, adverb, verb, or adjective etc. – in a particular language.” Ameka (2001) further claims that scholars could avoid confusion if ideophones are thought of first and foremost as a *type* of words (Ameka 2001) and that, as a *lexical class*, they may or may not show affinities and behavioural similarities with other classes in the business of modification and predication. Therefore, we assume that if some subset of ideophones shows behaviour similar to other major word classes, there is sufficient linguistic evidence in both languages to recognize the existence of a distinct *lexical class* of ideophones. The Ewe data below is taken from Ameka (2001):

- (10) *E-wɔ*                      *tsi / tukuf-dé/*                      *legbee*  
 3SG-do                      water small-ADV                      long  
    noun    adverb                      ideophonic adverb  
    ‘It is watery/small/long.’                      (Ameka 2001, 27)

In summary, this section has offered a review of studies on the linguistic characteristics of ideophones in Dagbani and Gurene, the two Mabia (Gur) languages which form the focus of the rest of this paper. We also reviewed the literature on other languages, including Ewe, Japanese, Dagaare, and Kusaal. It is observed from the review that although ideophones share some linguistic characteristics with other word classes, they also exhibit peculiar linguistic characteristics, which make them a distinct category of words. We further show that although there is currently no exhaustive work on the two languages, in the case of Dagbani, there is at least some cursory work that is centred on this topic in the study of Dagbani grammar. In the next section, we make a close examination of the characterization of ideophones in Dagbani and Gurene, focusing on their phonological, morphological, syntactic, and semantic properties.

#### 4 Linguistic properties of Dagbani and Gurene ideophones

In the study of parts of speech, distinct formal linguistic features within the realm of phonology, morphology, syntax, and semantics are the basis for categorizing some sets of words as belonging to particular parts of speech. This group of words would, therefore, normally display uniqueness in its linguistic features. This section investigates the formal properties of ideophones. In doing this, we take a systematic look at such formal features as their phonology, morphology, syntax, and semantics. It is on the basis of the peculiarity of the phonological, morphological, syntactic, and semantic features of ideophones in these two Mabia languages that we propose that ideophones should be set up as constituting a word class of their own.

##### 4.1 The phonology of Dagbani and Gurene ideophones

There is quite a body of literature on the phonological characteristics of ideophones. Some of these works include Bodomo (2006), Childs (1988), Dingemane (2011), Essegbey (2013), and Mphande (1992), among others. In the literature, various authors have admitted that despite the fact that there are some cross-linguistic phonological properties of ideophones, which include tone, vowel length, reduplication, and nasality, they recommend that the investigation

of these features should be motivated at the language-specific level (Bodomo 2006; Childs 1988; Dingemanse 2011; Essegbey 2013; Mphande 1992). This subsection discusses the sound system of ideophones in Dagbani and Gurene, bringing out the peculiar sound system of the group of words that fall into the category of ideophones. We establish that there are clear differences between the sound system of ideophones and the rest of the language, and that there are equally clear phonotactic differences. We discuss the following phonological peculiarities: (i) syllable structure and word length, (ii) vowel quality and distribution in ideophones, and (iii) the suprasegmental feature of tones.

When we consider the syllable structure of ideophonic words, it becomes conspicuous that they are different from other word classes. Olawsky (1999, 164) asserts that typical simple nouns in Dagbani are at least disyllabic, including those surfacing as CVV or CVN, as mentioned before. Non-lexical categories in Dagbani tend rather to be short, i.e., they typically have a CV structure. Olawsky further claims that the commonest syllable structure in Dagbani includes CV, CVC, CVV, and N. In the discussion of the syllable structure of ideophones that follows, we argue that there are clear phonotactic differences (segmental) between ideophones and other word classes, although we admit that there are ideophones, which may display the unmarked syllable forms. The following syllable structures are identified in ideophonic words in Dagbani.

(11)	a.	CVV	<i>chàà</i>	‘pouring out of liquid’
	b.	CV.CV	<i>liti</i>	‘absolute darkness’
	c.	CV.CV.CV.CV	<i>pàtipàti</i>	‘walking lazily’
	d.	CVN.CVN	<i>támtám</i>	‘walking foolishly’
	e.	CVN.CV.CVN	<i>kpánḡilán</i>	‘falling in a noisy manner’
	f.	CVN	<i>bám</i>	‘sound from slumbering of something’

In terms of syllable structure, the pattern observed in Dagbani (11) is not that distinct from what we have observed in Gurene ideophones, as shown in (12). Below are possible syllable structures identified so far of ideophones in Gurene.

(12)	a.	CVV	<i>sàà</i>	‘pouring out of liquid’
	b.	CV.CVN	<i>ligám</i>	‘absolute darkness’
	c.	CV.CV.CV.CV	<i>pàtipàti</i>	‘walking lazily’
	d.	CVN.CVN	<i>támtám</i>	‘walking foolishly’
	e.	CVN.CV.CVN	<i>kpánḡlán</i>	‘falling in a noisy manner’
	f.	CVN	<i>bám</i>	‘sound from the slumbering of something’

The six ideophonic syllable types identified in Dagbani and Gurene, as in (11) and (12), are prevalent, although we do not deny possible correlations with the general syllable structure of the languages. For instance, CVV, CV.CV and CVN are also attestable in the other word classes. The syllable structure form CV.CV.CV.CV, as in (11c) and (12c), is peculiar, especially in terms of word length, and is analysed as a complex ideophone syllable structure brought about by the morphological process of reduplication. Reduplicated ideophones will be argued later to differ from non-reduplicated ones in terms of their semantic properties. Strikingly, the unmarked syllable form in Dagbani, CV, is completely missing in this class of words, an observation

that is worthy of mention. Thus, although the syllable structures of Dagbani and Gureɛ are predominantly monosyllabic, ideophones diverge from this phonological property. Ideophones are generally more flexible, allowing more diversified syllable forms. Closely related to the syllable structure is the uniqueness of word length displayed by ideophones in Dagbani and Gureɛ. They tend to be longer words, with the majority of them being at least disyllabic. They probably tend to be longer words because they are used to describe actions that are recurrent or to mark the degree of intensity of the action or state being described.

When we consider the syllable structure of ideophonic words, it becomes conspicuous that they are different from other word classes. This proposal of unique phonotactic properties of Dagbani ideophones parallels the claims made by Childs (1988), who argues that the sound system and phonotactics of ideophones in Kisi, a West Atlantic language belonging to the Niger-Congo family spoken primarily in the Republic of Guinea, significantly differ from the phonological system of the rest of the language. This, therefore, confirms the similarity of Dagbani ideophones to similar word classes in other languages.

#### 4.1.1 Vowel qualities and distribution in Dagbani and Gureɛ ideophones

Another phonologically striking feature of Dagbani and Gureɛ ideophones is the distribution of the vowel qualities within ideophones. It is observed that, phonologically, the distribution of vowels in the ideophones is restrictive in that majority of them have one vowel sound within the word. In most cases, we have one vowel quality throughout the word. This is what Dingemanse (2011, 135) observes of Siwu, referring to monovocalic ideophonic words. This feature is indeed not very common in word classes such as nouns, verbs, etc. It also affects both reduplicated and non-reduplicated ideophones in the language, suggesting that it is a pervasive phonological feature of the class of words that are called ideophones. The scenario is illustrated in (13) for Dagbani and (14) for Gureɛ.

- |      |    |                     |   |
|------|----|---------------------|---|
| (13) | a. | <i>bìbìbìb</i>      | ‘flowing of water (liquid) with pressure’ |
|      | b. | <i>kìtìkìtì</i>     | ‘to walk with might’                      |
|      | c. | <i>nyàmnyàm</i>     | ‘quietly/slowly’                          |
|      | d. | <i>kìrìbìkìrìbì</i> | ‘manner of chewing something hard’        |
|      | e. | <i>kìtìkìtì</i>     | ‘manner of walking with might’            |
|      | f. | <i>gìrìgìrì</i>     | ‘to be unstable (of living things)’       |
|      | g. | <i>bààbàà</i>       | ‘to speak softly’                         |
|      | h. | <i>chùlùm</i>       | ‘manner of something falling in water’    |
|      | i. | <i>kìlìŋ</i>        | ‘falling of small metal’                  |
|      | j. | <i>sùrùm</i>        | ‘absolute silence’                        |
|      | k. | <i>bàsàà</i>        | ‘disorderly manner’                       |
|      | l. | <i>dèdè</i>         | ‘exactly’                                 |
|      | m. | <i>zìbìzìbì</i>     | ‘of blazing fire’                         |

(14)	a.	<i>bìbìbìb</i>	‘flowing of water (liquid) with pressure’
	b.	<i>kìm kìm</i>	‘to walk with might’
	c.	<i>bàlàbàlà</i>	‘quietly/slowly’
	d.	<i>kírìbí kírìbí</i>	‘manner of chewing something hard’
	f.	<i>gìrì gìrì</i>	‘to be unstable (of living things)’
	g.	<i>bààlám bààlám</i>	‘to speak softly’
	h.	<i>làmlám</i>	‘manner of walking embarrassingly’
	i.	<i>lùmlùm</i>	‘very soft’
	j.	<i>fàgàm</i>	‘very light’
	k.	<i>básàà</i>	‘disorderly manner’
	l.	<i>dèdè</i>	‘exactly’
	m.	<i>fùm fùm</i>	‘bloated’

Even though ideophones are generally monovocalic, there are a few of them which are also multi-vocalic, meaning they contain vowels of more than one quality. Based on the data used, for now, we observe that there are no ideophones with vowels of more than two different qualities. Examples of multi-vocalic ideophones are given in (15) for Dagbani and (16) for Gurene, respectively.<sup>4</sup>

(15)	a.	<i>dùyídùyí</i>	‘dusty manner’
	b.	<i>fùyífùyí</i>	‘foamy nature’
	c.	<i>làlìng</i>	‘very light’
	d.	<i>kɔyítikɔyítí</i>	‘walking in a noisy manner’
	e.	<i>sálisáli</i>	‘slippery manner’
	f.	<i>chárìchári</i>	‘water (slowly) coming out of pipe’
	g.	<i>pátìpátì</i>	‘act carelessly’
	h.	<i>wáriríwári</i>	‘falling singly, fruits /stones’
	i.	<i>búribúri</i>	‘of liquid, following with speed’
	j.	<i>márimári</i>	‘to be very full’
(16)	a.	<i>dùgí dùgí</i>	‘dusty manner’
	b.	<i>fùgífùgí</i>	‘foamy nature’
	c.	<i>pìlám pìlám</i>	‘of blazing fire’
	d.	<i>kɔgítí kɔgítí</i>	‘walking in a noisy manner’
	e.	<i>sáalí saalí</i>	‘slippery manner’
	f.	<i>kárirí kárirí</i>	‘water (slowly) coming out of pipe’
	g.	<i>pátì pátì</i>	‘act carelessly’
	h.	<i>wárirí wárirí</i>	‘falling singly, fruits /stones’
	i.	<i>búrirí búrirí</i>	‘of liquid, following with speed’
	j.	<i>márirí márirí</i>	‘to be very full’

There are also some striking observations about these multi-vocalic ideophones in terms of the positions that particular vowels can take. It seems that the second vowel is invariably the front high unrounded vowel /i/, suggesting that in multi-vocalic ideophones, the second vowel

<sup>4</sup>We take cognizance of the fact that our corpus might not be large enough to generalize.

in terms of quality is prespecified as /i/. When we consider the vowel qualities and distribution in Dagbani and Gurene ideophones, we note that, for the latter, a similar observation has been made in Nsoh and Adongo (2020, 185), who demonstrate that in Gurene, when we have diphthongs, the front high /i/ ends the vowel sequences. They illustrate their claim in words such as *púí* ‘sound from hitting a hard object that results in cracks’, *súí* ‘full to the brim’, *búí* ‘sound from hitting a loose object’, and *wúí* ‘a deep cry’.

#### 4.1.2 The suprasegmental feature of tones in Dagbani and Gurene ideophones

Another unique phonological property of ideophones is their tonal pattern. The tonal melodies observed in Dagbani and Gurene ideophones are equally restrictive, just as observed above for vocalic distribution. It is observed that in terms of tonal melodies, there are ideophones that are monotonal, either being [+LOW] as in (17), or [+HIGH] as in (18). There are also instances in which ideophones have alternating tonal features, as in (21) for Dagbani and (22) for Gurene.

(17)	a.	<i>dèdè</i>	‘exactly’	DGB
	b.	<i>tìmtì</i>	‘very dark/black’	
	c.	<i>chàà</i>	‘water noisily pouring’	
	d.	<i>bààbàà</i>	‘to speak softly’	
	e.	<i>nyàmnyàm</i>	‘quietly’	
(18)	a.	<i>dèdè</i>	‘exactly’	DGB
	b.	<i>tìmtì</i>	‘very dark/black’	
	c.	<i>sàà</i>	‘water noisily pouring’	
	d.	<i>bààlim bààlim</i>	‘to speak softly’	
	e.	<i>sim sim</i>	‘quietly’	
(19)	a.	<i>pímpím</i>	‘pointed objects’	DGB
	b.	<i>wáá</i>	‘heavy rain falls’	
	c.	<i>páw</i>	‘sound of a gunshot’	
	d.	<i>gbáw</i>	‘sound of a knock on the head’	
(20)	a.	<i>pímpím</i>	‘pointed objects’	GUR
	b.	<i>wáá</i>	‘heavy rain falls’	
	c.	<i>pów</i>	‘sound of a gunshot’	
(21)	a.	<i>chúlùm</i>	‘something falling in liquid’	DGB
	b.	<i>kìlìḡ</i>	‘sound of falling of small metal’	
	c.	<i>lìtì</i>	‘absolute darkness’	
	d.	<i>chàrichàri</i>	‘coming out in bits’	
(22)	a.	<i>súlùm</i>	‘something falling in liquid’	GUR
	b.	<i>kìlìm</i>	‘sound of falling of small metal’	
	c.	<i>lìgàm</i>	‘absolute darkness’	
	d.	<i>kókìkókì</i>	‘dropping in bits, of liquid’	

There are no observed ideophones in which the tonal pattern differs from what is discussed above. We pursue an analysis according to which the seeming regularity in both segmental and suprasegmental features of ideophones is phonologically relevant, as we analyse this as a form of feature harmony peculiarly displayed by ideophones.

Dingemane (2011, 136), in addressing this issue of vowel harmony and related phonetic phenomena in Siwu, a Ghana-Togo Mountain language, argues that;

Since vowels often depict suprasensory attributes like intensity, magnitude and quality (Marks 1978), and since these attributes often vary across, but rarely within, one would expect them to vary across, but not so much within ideophones – as indeed they do in Siwu, and also as it seems, in most other ideophonic languages. One could then go further to hypothesise that ideophones or monotonals focus on change and variation in the construal of the depicted sensory event. All this gets us into the much broader issue of iconic form-meaning mappings in ideophones. The important thing to note here is that the form of ideophones tells us something about their nature as depictions in speech.

In summary, we have demonstrated that Dagbani and Gurene ideophones have distinctive phonological characteristics. In the next section, we explore the morphological properties of ideophones.

#### 4.2 The morphology of Dagbani and Gurene ideophones

Ideophones exhibit unique morphological patterns. As Beck (2008) points out, one of the peculiar characteristics of ideophones that distinguishes them from other word classes is their morphology. According to Beck, ideophones do not license affixation, either of inflectional or derivational morphemes. There are, however, exceptions to this morphological generalization, as Voeltz (1971) and Doke (1963) demonstrate that in Zulu, ideophones inflect for the grammatical categories of tense and aspect. However, Ameka (2001, 26) notes that the morphological claim of ideophones not accepting affixation is only valid for languages that have a rich morphological system (inflecting ones), not for a language that is an “isolating language (with agglutinative features)” as is the case of Ewe. Thus, there is disagreement in the literature on the potential for affixation of ideophones. In the case of Dagbani and Gurene ideophones, we shall show that they do not accept affixation. In terms of morphological composition, we propose that ideophones in Dagbani and Gurene do not accept any affixation in the morphology. This conforms with the claim of Agyekum (2008, 102), who posits that Akan ideophones do not make use of affixation; however, it is possible to have two ideophones merging to form a compound, such as *wabam*, formed from *wam* (a sound that one hears because of slap) and *bam* (sound that comes out when one hugs another).

Thus, grammatical properties do not occur on ideophones in the form of affixation, unlike in the case of nouns, verbs, and adjectives. This is probably one of the salient features established as being cross linguistically pervasive in ideophones. Though reduplication is found in other word classes such as verbs (Issah 2011; Atintono 2004, 2005, 2006, 2011, 2013; Nsoh 1997, 2002, 2010) or nouns and adjectives (Olawsky 1999), there is a difference concerning their phonological behaviour in different word classes. For instance, Issah (2011) argues that,

for verbs, there is a restriction imposed on the prosodic size of the reduplicant, which must obligatorily be bimoraic. He further asserts that when full reduplication would result in a word being longer than the bimoraic requirement of the reduplicant, there is deletion, while in cases when full reduplication would result in a size shorter than the bimoraic size, there is an insertion. He argues that these insertion and deletion strategies are repair strategies employed to ensure that there is no violation of the bimoraic prosodic size requirement of verbal reduplicants. We demonstrate here that ideophones do not have any prosodic size requirements in reduplication and that full reduplication is a very active morphological feature of ideophones. Nor does Olawsky (1999) seem to suggest any restrictive size requirements for nouns and adjectives in Dagbani. Some Dagbani ideophones can undergo reduplication; therefore, there does not seem to be any phonological rule governing which form of reduplication should be present in which syllabic types of ideophones. We illustrate this morphological manifestation of ideophones in (23) for Dagbani and (24) for Gurene.

- |      |    |                     |                      |
|------|----|---------------------|----------------------|
| (23) | a. | <i>pìtí</i>         | ‘tasteless’          |
|      | b. | <i>pìtípìtí</i>     | ‘very tasteless’     |
|      | c. | <i>tìm</i>          | ‘dark/black’         |
|      | d. | <i>tìmtìm</i>       | ‘very dark/black’    |
|      | e. | <i>wùrá</i>         | ‘running in a group’ |
|      | f. | <i>wùráwùrá</i>     | ‘running in a group’ |
|      | g. | <i>sùrùm</i>        | ‘silence’            |
|      | h. | <i>sùrùmsùrùm</i>   | ‘absolute silence’   |
|      | i. | <i>dèdè</i>         | ‘exactly’            |
|      | j. | <i>dèdèdèdè</i>     | ‘more exactly’       |
| (24) | a. | <i>tìm</i>          | ‘dark/black’         |
|      | b. | <i>tìmtìm</i>       | ‘very dark/black’    |
|      | c. | <i>wùrá</i>         | ‘running in a group’ |
|      | d. | <i>wùráwùrá</i>     | ‘running in a group’ |
|      | e. | <i>sùrà̀m</i>       | ‘silence’            |
|      | f. | <i>sùrà̀msùrà̀m</i> | ‘absolute silence’   |
|      | g. | <i>dèdè</i>         | ‘exactly’            |
|      | h. | <i>dèdèdèdè</i>     | ‘more exactly’       |

Agyekum (2008, 105) notes that “reduplication is predominant in ideophones and often brings in a sense of repetition or plurality.” There are, however, ideophones that obligatorily occur only in the reduplicated forms. Out of the 52 Dagbani ideophones used in this paper, five were found to be obligatorily reduplicated ideophones, representing 9.6% of the total ideophones used in the paper; in Gurene, we have five of the total of 61 ideophones occurring in reduplicated forms and this represents 8.19% of the total ideophones in the database. This suggests that they never occur in base forms and are always in reduplicated forms. When reduplicated and non-reduplicated forms do occur, the reduplicants refer to different words with completely different meanings in the language. This observation further highlights the argument that ideophones be categorized as a word class as there is no



other word class in which words occur in reduplicated forms. This category of ideophones is illustrated in (25) and (26).

(25)	a.	<i>dùyídùyí</i>	‘dusty manner’	DGB
	b.	* <i>dùyí</i>	‘dusty manner’	
	c.	<i>yèréyèré</i>	‘disorganized manner’	
	d.	* <i>yèré</i>	‘disorganized manner’	
	e.	<i>fùyífùyí</i>	‘foamy nature’	
	f.	* <i>fùyí</i>	‘foamy nature’	
	g.	<i>bùribùri</i>	‘of liquid coming out’	
	h.	* <i>bùri</i>	‘of liquid coming out’	
	i.	<i>bìràbìrá</i>	‘manner of walking in darkness’	
	j.	* <i>bìrá</i>	‘manner of walking in darkness’	
(26)	a.	<i>dùyídùyí</i>	‘dusty manner’	GUR
	b.	* <i>dùyí</i>	‘dusty manner’	
	c.	<i>yiramyiram</i>	‘disorganized manner’	
	d.	* <i>yiram</i>	‘disorganized manner’	
	e.	<i>fùgífùgí</i>	‘foamy nature’	
	f.	* <i>fùgí</i>	‘foamy nature’	
	g.	<i>bùribùri</i>	‘crumbling of a cake’	
	h.	* <i>bùri</i>	‘crumbling of a cake’	
	i.	<i>bìràmbìrá</i>	‘manner of walking in darkness’	
	j.	* <i>bìrá</i>	‘manner of walking on darkness’	

Phonologically, ideophones that occur only in reduplicated forms and never occur in their base forms are all four-syllable words made up of the syllable structure CV.CV.CV.CV. This also buttresses our proposal that ideophones generally have longer forms than other words. However, we have encountered Dagbani and Gurene ideophones that are obligatorily required to occur in base forms only, which are non-reduplicated ideophones.

Reduplicated and non-reduplicated ideophones do not only differ at the phonological and morphological levels but also at the level of semantics. When ideophones are reduplicated, they semantically show the intensity of the action, event, or object described, unlike non-reduplicated ideophones forms, which lack these semantic properties. Agyekum (2008, 102) rightly notes, based on his work on Akan, that ideophones can be monosyllabic or polysyllabic, but that when these ideophones are reduplicated, they are used to indicate repeated or multiple actions and intensity. The observation that reduplication is a common property of ideophones in these two Mabia languages parallels the claim by Agyekum (2008, 104), for Akan, a Kwa language.

From the preceding, it is apparent that the claim of Childs (1994, 185) that “ideophones display very little morphology” is valid for the two languages under consideration. In the next subsection, we focus on the syntactic properties of ideophones, drawing data from Dagbani and Gurene.

### 4.3 The syntax of Dagbani and Gurene ideophones

Beck (2008, 4–5) argues that, syntactically, ideophones in Upper Necaxa Totonac, a Mesoamerican language, pattern with adverbs in that they precede the verb, usually occupying

clause-initial position. He adds that ideophones can serve adverb-like functions by specifying the manner and other characteristics of an event, generally used with less generic verbs. Agyekum (2008) also believes that ideophones can perform adverbial functions and occur with verbs; he adds that ideophones normally occur in adjunct positions in Akan. Thus, they function as adverbs. Agyekum (2008, 109) posits that “ideophones emphasise the meaning of the verbs and hence evoke some concrete imagery in the minds of the audience.” This, according to him, makes it possible for ideophones to bridge the gap between abstract and concrete notions.

In terms of syntactic distribution, Dagbani ideophones generally occur in clause final positions, where they modify the verb phrase (27a). Thus, syntactically, ideophones can pattern with adverbs in that they immediately follow the verb, as in (27c), and modify the actions of those verbs. This modifying function falls in line with the claims of Beck (2008) that, in terms of syntactic characterization, ideophones resemble adverbs, since the former can serve an adverbial function by qualifying the action or event that is denoted by the verb.

- (27) a. *Bi-hi maa lo dari maa kirikiri* DGB  
 child-PL DEF tie firewood DEF IDEO.very\_hard  
 ‘The children tied the firewood very firmly.’
- b. *Ninkurigu bi yeri pátípátì* DGB  
 elderly person NEG speak IDEO.carelessly  
 ‘An elderly person does not speak carelessly.’
- c. *Kɔma la lu dɔɔɔ la kɪkɪkɪ* GUR  
 child.PL DEF tie firewood DEF IDEO.very hard  
 ‘The children tied the firewood very firmly.’

However, ideophones can also occur in other positions, such as clause initially, although only in focused constructions, as is evident in the grammaticality of (28a) and the illicitness of (28b) for Dagbani, and in the grammatical sentence of (29a) and the illicit structure in (29b) for Gurene.

- (28) a. *Kirikiri ka bi-hi maa lo dari maa* DGB  
 IDEO.very\_hard FOC child-PL DEF tie.PFV firewood DEF  
 ‘The children have tied the firewood VERY HARD.’
- b. \**Kirikiri bi-hi maa lo dari maa*  
 IDEO.very\_hard child-PL DEF tie.PFV firewood DEF  
 Intended: ‘The children have tied the firewood VERY HARD.’
- (29) a. *Kɪkɪkɪ ti kɔma la lu dɔɔɔ la.* GUR  
 IDEO.very\_hard FOC child.PL DEF tie.PFV firewood DEF  
 ‘The children have tied the firewood VERY HARD.’
- b. \**Kɪkɪkɪ kɔma la lu dɔɔɔ la*  
 IDEO.very\_hard child.PL DEF tie.PFV firewood DEF  
 Intended: ‘The children have tied the firewood VERY HARD.’

Strikingly, the category of adverbs, as in (27–29), shares some syntactic similarities with adverbials in the sense that they canonically occur clause finally and can be omitted from the sentence without affecting its grammaticality. Accordingly, we argue that the optional use of ideophones suggests that though the ideophone is part of the prosodic unit of the sentence, it is in a sense different from the rest of the sentence since its absence does not affect grammaticality.

Just as observed in the syntactic characterization of the Dagbani ideophones, which can modify verbs, a similar pattern is available in Gurene in the sense that ideophones do modify the actions of the verbs with which they co-occur. This is illustrated in the data in (30).

- (30) a. *Baṅa la lui la páribá*  
 lizard DEF fall.PFV FOC IDEO-flat  
 ‘The Lizard fell very flat.’
- b. *Ko’om la tɔgesi la kókikóki*  
 water DEF drop.PFV FOC IDEO  
 ‘The water drops very slowly.’
- c. *Naba pɔgesariga la de la mɔlega lói*  
 chief wife.junior DEF COP FOC red IDEO  
 ‘The chief’s junior wife is very fair.’

In (30a), the ideophone *páribá* modifies the verb *lúi* ‘fall’, while *tɔgesi* ‘drop’ is modified by *kókikóki* in (30b). Finally, in (30c), the ideophone *lói* modifies the copula verb *de* ‘is’. We show that, morphosyntactically, ideophones do not behave entirely as one would expect any major classes other than ideophones to behave, and specifically not like adverbs. For instance, few ‘proper’ adverbial and adjectival words are as susceptible to reduplicative processes as is the case for ideophones, as shown in the data in (27)–(30). Consequently, we claim that the ideophones in this utterance-final or utterance-initial (focus) position are free to undergo the kind of reduplicative processes and expressive lengthening described in Dingemans (2015a).

Though ideophones are phonologically and morphologically unique from other word classes, as well as in terms of their syntactic and semantic features, some scholars argue that they seem to be a class of adverbs. However, we do not share this traditional notion of analysing them as adverbs because our data do not present these ideophones simply as adverbs. There are also instances in which Dagbani ideophones occur as modifiers of nouns within the sentence. In such cases, the ideophones are post-nominal linguistic elements with modifying functions and are embedded within the NP. They therefore modify the NP they follow and cannot be dislocated alone to clause initial position (31b, 32b, 33b) since this results in the derivation of illicit sentences. The placement of the ideophone in the clause initial position is only allowed when it is extracted together with the NP it modifies, as seen in the grammaticality of the following sentences (31c, 32c, 33c).

- (31) a. *Nyeyam dui bindir’ pítí DGB*  
 N. cook.PFV food IDEO.tasteless  
 ‘Nyeyam has cooked tasteless food’
- b. *\*Pítí kà Nyeyam dúi bindirigu.*  
 IDEO.tasteless FOC N. cook.PFV food

- c. *Bindir'* *piti* *ka* *Nyeyam* *duyi*  
 food IDEO.tasteless FOC N. cook.PFV  
 'Nyeyam has prepared TASTELESS FOOD.'<sup>5</sup>
- (32) a. *Bi-hi* *maa* *be* *du'* *liti* *maa* *ni* DGB  
 child-PL DEF there.be room IDEO.dark DEF LOC  
 'The children are in the dark room'
- b. *\*Liti* *ka* *bi-hi* *maa* *be*  
 IDEO.dark FOC child-PL DEF there.be
- c. *Du'* *liti* *maa* *ni* *ka* *bi-hi* *maa* *be*  
 room IDEO.dark DEF LOC FOC children DEF there.be  
 'The children are in the DARK ROOM.'
- (33) a. *Kɔma* *la* *boi* *deo* *lika* *puan* DGB  
 children DEF be\_at room dark inside  
 'The children are in the dark room.'
- b. *\*Lika* *ti* *kɔma* *la* *boi* *deo* *puan*  
 IDEO.dark FOC children FOC be\_at room LOC
- c. *De* *lika* *puan* *ti* *kɔma* *la* *boi*  
 room IDEO.dark LOC FOC children DEF be\_at  
 'The children are in the DARK ROOM.'

We have demonstrated that although ideophones cannot be modified themselves, they can serve as modifiers of nouns and verbs. When they are used to modify nouns, as illustrated in (32)–(34), the NPs typically occur in a pre-modifier position. The nouns also typically lose part of their endings when they occur with this type of ideophones. We have also shown that these ideophones are embedded in the NPs because they cannot be fronted alone, unlike their counterparts that modify verbs. In the next section, we focus on the semantics of ideophones.

#### 4.4 The semantics of Dagbani and Gurene ideophones

In this section, we focus on the semantic characteristics of ideophones in Dagbani and Gurene. Finnegan (1970, 64) is of the view that “ideophones are specifically introduced to heighten the narrative or add an element to the drama. They also come in continually where there is the need for a particular lively style or vivid description and are used with considerable rhetorical effect to express emotions and excitement”. According to Beck (2008, 6), based on semantics, ideophones do not refer to specific objects, events, or manners, but instead evoke entire scenes with specified types of actors participating in specific manners in particular types of events. The meanings are, however, surprisingly consistent across speakers and are easily elicited without context.

<sup>5</sup>The sentences in (31c), (32c), and (33c) are translated with capital letters for the expressions ‘dark room’ and ‘tasteless food’ as an indication that they are in focused positions.

One of the key semantic characteristics of ideophones is the fact that there is always a difficulty in assigning them an exact meaning. This difficulty is probably what explains why ideophones are usually accompanied by gestures in communication. Abubakari (2017, 53) makes a similar observation for ideophones in Kusaal and asserts that “it is difficult if not impossible to paraphrase ideophones with other words in Kusaal without an extensive resort to the additional use of gestures, facial expressions, mimicry or sensory imagery.” This appears to be a widely known semantic characteristic of ideophones; Diffloth (1972, 441) examines the semantic properties of ideophones in Asian languages and concludes that “many speakers cannot find exact paraphrases and prefer to repeat the ideophone with a more distinct elocution, accompanied by facial expressions and body gestures if appropriate.”

In explaining the meaning of other lexical categories such as verbs, nouns, adjectives, and adverbs, speakers do not generally face this same difficulty. While ideophones are words (contrary to Okpewho 1992), they are liable to attract gestures and facial expressions more than other types of words because they are characteristically depictive words. Therefore, the argument that ideophones should not be analysed as words but simply as items depicting sounds to which meanings cannot be easily assigned may have been hampered by a relatively narrow view of ‘words’ and ‘meanings’. Ideophones open our eyes to the need to look at language as including both speech and gestures, as well as other nonverbal aspects of communicative behaviour. This is particularly relevant in the context of the literature that stresses the need to move beyond traditional conceptions of language, words, and meaning (Ngué Um 2020; Ameka & Terkourafi 2019; Ameka 2001).

In addition, ideophones exhibit this unique semantic property in being accompanied by the use of facial expressions, gestures, mimicry, and sensory imagery. This is reported in Kusaal (Abubakari 2017). This semantic property makes ideophones distinct from other lexical categories in Dagbani. Our observations fall in line with the assertion of Agyekum (2008, 109) that “ideophones share features like gestures and movement to support the verbal components represented by the other word classes. Most ideophones are accompanied by gestures, movements, and facial expressions and snapping of fingers.” It is on the basis of this unique semantic property that Agyekum (2008, 109) concludes that ideophones can be best considered as a special word class in Akan. Dingemanse (2015b) proposes that the use of ‘depictive gestures’ and the repetition of the ideophone in context are strategies employed in arriving at a definition or interpretation, which enhances a deeper understanding of the ideophone. The languages under study possess some gestures that are employed by the speakers along with the ideophones during conversations, as illustrated in Table 1 for Dagbani and Gurene.

**Table 1:** Ideophones and their accompanying gestures in Dagbani and Gurene.

<b>Ideophone</b>	<b>Gloss</b>	<b>Gesture(s)</b>
<i>sùràmsùrà̀m</i> GUR	absolute silence	both hands are brought together and used to ‘block’ the mouth to prevent it from opening
<i>bùribùrì</i> GUR	of liquid, flowing with speed	the continuous movement of the fingers (of both hands)
<i>kə̀gitì kə̀gitì</i> GUR	walking in a noisy manner	walking in a noisy manner with a downward movement of both hands
<i>kin̩kin̩</i> DGB	to tie tightly	closing the right palm tightly together with a frowning facial expression

<i>pátípátì</i> DGB	to speak carelessly	both hands are moved towards the mouth and thrown away haphazardly
<i>búribúri</i> DGB	of liquid, following with speed	the continuous movement of the fingers (of both hands)

Dingemanse (2015b) also argues that ideophones convey sensory imageries, and efforts at explaining them involve more depiction than description. For instance, these examples below were elicited to illustrate the ideas expressed by the ideophones: *baalambaalam* ‘to move majestically’, *nyàmnyàm* ‘quietly/slowly’, *pátípátì* ‘speak carelessly’ for Dagbani, and *gɔlɔlɔlɔlɔ* ‘very slim’ *kokikoki* ‘dropping of water/liquid’ and *loi* ‘very fair’ for Gurene.

Moreover, ideophones are often the only means of expressing concepts such as buzzing, heartbeats, and dripping, among other sounds. Thus, many ideophones have the semantic content of entire clauses and frequently combine with generic verbs to express highly specific types of events. Childs (1994, 191) argued that ideophones might depict such semantics as feeling, emotions, intensity, and duration as physical movement and sound. This assertion is demonstrated to be valid for Dagbani as the ideophones express such semantics as manner (34a) and sound (35b). We, however, further propose that these semantics are usually accompanied by gestures of some kind, for a full understanding of the semantics of ideophones to be achieved. This is what Agyekum (2008, 102) also observes when he argues that ideophones “are often accompanied by bodily stance, mimetic movement, gesture and facial expressions.” Noss (2003, 181) also notes that “a speaker may use ideophones to reveal their attitude towards what they are describing”. This is illustrated in (34) for Dagbani and (35) for Gurene.

- (34) a. *Dunia balinda, Gbewaa zuu, bálìmbálim* DGB  
 world intercessor N. first\_son IDEO.majestically
- ka tiŋa’ maai.*  
 FOC ground cools  
 ‘The intercessor of the earth, first son of Gbewaa, walks majestically and cools the earth.’<sup>6</sup> (Zakaria 2015, 57)
- b. *Ka<sup>7</sup> bu-hi maa guui wùráwùrá*  
 LINK goat-PL DEF run IDEO  
 ‘And the goats run away noisily’
- (35) a. *Sakua zoi bààlámbààlám nyɔkɛ sagiriga la* GUR  
 cat run IDEO catch mouse DEF  
 ‘The cat ran very quietly to catch the mouse.’

<sup>6</sup>The first son of Gbewaa is a revered personality among the Dagbamba of northern Ghana. This is because he is a potential overlord of the Dagboŋ Kingdom in the event that the father passes on. Indeed, the first son of Gbewaa is the intercessor of the earth in the Dagbamba socio-cultural setup.

<sup>7</sup>The particle *ka* in Dagbani occurs as both a focus marker and a linker. For details on the particle and its functions, readers are referred to Issah (2012) and Hudu (2012).

- b. *A de la baalega gɔlɔblɔ*  
 3SG COP FOC slim IDEO.slim  
 ‘He/she is very very slim.’
- c. *Bia la zometo la ani la vùkám*  
 child DEF hair DEF COP FOC IDEO.shady  
 ‘The child’s hair is very bushy.’

The Dagbani ideophone *bálìmbálim* in (34a) describes the majestic manner in which the first son of Gbewaa is expected to walk, whereas the Gurene ideophone *baalam baalam* in (35a) describes the manner in which the cat walks to catch the mouse. The Dagbani sentence in (34a) is an excerpt from an appellation and suggests the might/power of the first son of Gbewaa. The general cultural belief is that his failure to walk softly/gently could cause harm to the land. In the same vein, the ideophonic word *wùráwùrá* in (34b) also denotes the sound produced as the animals run in their numbers. It should further be pointed out that *wùráwùrá* is the reduplicated form of *wùrá*. As argued in Issah (2011), in Dagbani, reduplication indicates plurality, intensity, and frequency. It is, however, also possible for a single ideophonic expression to convey more than just one semantic connotation. The reduplication probably tallies with the claims of Agyekum (2008, 107) that “lengthening gives a supportive and vivid meaning” to ideophones. Most ideophones also have the functions of adverbs and are used as intensifiers since they emphasize the meaning of the verbs with which they occur. Ideophones also enhance the image-ries we form of actions and events. These functions are not known to be associated with any other kind of lexical categories in the language. This, therefore, makes unique the semantics of ideophones and thus adds to the justification for setting them up as a lexical category in Dagbani. Regarding the semantics, the data available in Gurene indicate that, just like Dagbani, the Gurene ideophones provide vivid descriptions of the events that they modify. This semantic property of ideophones is what Kabuta (2001) refers to as their expressivity, arguing that this function is the main motivation for the use of ideophones in discourse.

What we observe of Dagbani is not too different from the proposal of Abubakari (2017) on the semantics of Kusaal ideophones. With data from Kusaal, she proposes that “a sensory iconic ideophone is best conveyed in context for the most effective meaning to be derived” (Abubakari 2017, 54). According to her, the meaning of such words can only be understood when they are used to depict a certain scenario in casual conversation.

- (36) a. *Sáá ián’ádi tãnsīd pànr-pànr.*  
 rain fly/jump shout.IMPERF crickle-crackle.IDEO  
 Lit.: ‘Rain falling and shouting very loudly *pànr-pànr*.’
- b. *Bà kpém zān’ās ká tãnsīd búŋ-búŋ.*  
 3SG continue refuse CONJ shout-IMPERF IDEO  
 Lit.: ‘They kept shouting back very loudly *búŋ-búŋ*.’ (Abubakari 2017, 54).<sup>8</sup>

A similar observation can be made for Dagbani as for Kusaal, as the semantic interpretation of ideophones can only be made by associating meaning with situations that are connected with

<sup>8</sup>The addition of ‘very loudly’ as translations (descriptions) of the ideophones *búŋ-búŋ* and *pànr-pànr* are my modifications of the free translations.

the subject matter of the conversation by speakers. The meanings of the ideophones *pànr-pànr* and *búŋ-búŋ* are best understood in terms of the situation in which they are used.

## 5 Typological characteristics of ideophones in the Mabia languages of Ghana

Having provided a comparative study of ideophones in Dagbani and Gurene, with an in-depth review of Abubakari (2017) and Bodomo (2006), we find it prudent to provide a brief discussion that ties together the major observations on the properties of ideophones in Dagbani, Dagaare, Gurene, and Kusaal. This section is relevant because we consider it crucial to make generalizations that may reflect the characteristics of ideophones in Mabia languages. We offer an account of these typological characteristics based on the pervasive phonological, morphological, syntactic, and semantic properties as established in this paper.

First, we established that the Mabia ideophones have unique phonological characteristics. This peculiar phonological property was established as being common among the three Mabia languages that are investigated in this paper. We showed that typologically, Mabia ideophones have: (i) restrictive vowel distribution in that the majority of ideophones have only one vowel sound within the word, (ii) peculiar syllable structure and word length, (iii) restrictive tonal melodies. These phonological attributes were established as being pervasive among the Mabia languages

Typologically, we further show that ideophones in the Mabia languages (i) do not accept any affixation in the morphology, and (ii) they are prone to reduplication. These two morphological properties were established as being pervasive morphological characteristics of the ideophones in the Mabia languages under study in the current paper, that is, in Dagbani, Gurene, and also in Dagaare and Kusaal (based on a review of the previous studies on Mabia ideophones). It is worthy of note that these morphological properties have been shown to be quite pervasive as morphological feature of ideophones in languages other than the Mabia languages that are being investigated here. As shown in Section 4.2, reduplication is such a salient key of Mabia ideophones that there are obligatorily reduplicated ideophones. We further showed the percentage of the ideophones that were identified as being obligatorily reduplicated in the Dagbani and Gurene corpus used.

Regarding their syntactic distribution, Mabia ideophones generally occur in clause final positions. This syntactic property was noted to be one that patterns with adverbs in the sense that, just like adverbs, ideophones also immediately follow verbs in the clause structure and, thus, modify the actions of the verbs. Not only do they occur in the canonical clause structures, but it was further shown that it is characteristic of Mabia ideophones to be moved to the left periphery of the clause structure in order to mark them for focus.

We established that ideophones in the Mabia languages generally require to be accompanied by gestures. Gestures are also needed in paraphrasing ideophones with other words in languages across the world. Note that this claim is prominent for Dagbani, Gurene, and also Kusaal, as evident in the findings of Abubakari (2017, 53). Thus, the interpretation of the Mabia ideophones requires the use of facial expressions, gestures, mimicry, and sensory imagery. This was seen to be a distinct property of ideophones in the Mabia languages of Ghana. It was further shown that, consistently with Agyekum's semantic characteristics (Agyekum 2008, 109), most ideophones are accompanied by gestures, movements, and facial expressions in their interpretation.

In line with the findings of Agyekum (2008, 109), we contend that ideophones are often the best way of expressing certain concepts in the Mabia languages. For instance, such concepts



as buzzing, heartbeats, and dripping, are best communicated using ideophones. This property was established as being prominent in all the Mabia languages. Closely linked with this typological feature of the Mabia ideophones is the fact that they also enhance the imageries that are formed of events and actions in communication. In summary, this section has briefly outlined some typological characteristics of the Mabia ideophones, focusing on their pervasive phonological, morphological, syntactic and semantic characteristics.

## 6 Conclusion

The paper provided a comparative study of the linguistic characteristics of ideophones in Dagbani and Gurenɛ, two Mabia (Gur) languages spoken in the Northern Region and Upper East regions of Ghana, respectively. Our research has shown ideophones to be a separate lexical class in Dagbani and Gurenɛ, and this is a major contribution of our paper. We have discussed the phonological, morphological, syntactic, and semantic properties of ideophones in Gurenɛ and Dagbani. We have also demonstrated that for Dagbani and Gurenɛ, the following can be identified as salient linguistic properties of ideophones in the two languages: (i) phonologically, ideophones have unique syllable structures and vowel sequences in both languages; (ii) morphologically, they make productive use of reduplication; (iii) they are generally longer words; (iv) they have mainly monovocalic/bivocalic segmental features; (v) they permit no affixation; (vi) syntactically they can occur clause finally but also clause initially for focusing; (vii) syntactically, ideophones can also occur with NPs, in which case they modify the nouns; (viii) the ideophones in NPs cannot be fronted alone, only with the NPs that they modify; and (ix) semantically, they have an emotive function, generally require gestures as communication buffers, and it is difficult to assign them an exact meaning. This research, it is hoped, would encourage more research to be carried out on this aspect of the Mabia languages as ideophones have been largely neglected in previous research.

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**Appendix on Dagbani and Gurene ideophones corpus**

**Part 1: Gurene corpus**

1.	pui	‘sound from hitting a hard object that results in cracks’
2.	sui	‘full to the brim’
3.	kui	‘very close to’
4.	bui	‘sound from hitting a lose object’
5.	wui	‘a deep cry’
6.	saa	‘pouring out of liquid’
7.	tamtam	‘walking foolishly’
8.	kpaŋlaŋ	‘falling in a noisy manner’
9.	wam	‘warm’
10.	kimkim	‘to walk with might’
11.	baalambaalam	‘quietly/slowly’
12.	kiribikiribi	‘manner of chewing something hard’
13.	girigiri	‘to be unstable (of living things)’
14.	baalambaalam	‘to speak softly’
15.	lamlam	‘manner of walking embarrassingly’
16.	lumlum	‘very soft’
17.	fagam	‘very light’
18.	basaa	‘disorderly manner’
19.	fumfum	‘bloated’
20.	dugidugi	‘dusty manner’
21.	fugifugi	‘foamy nature’
22.	pilampilam	‘of blazing fire’
23.	kɔgitikɔgiti	‘walking in a noisy manner’
24.	saalisaali	‘slippery manner’
25.	karikara	‘water (slowly) coming out of pipe’
26.	patipati	‘act carelessly’
27.	wariwari	‘falling singly, fruits /stones’
28.	marimari	‘to be very full’
29.	pimpim	‘pointed objects’
30.	waa	‘heavy rain falls’
31.	pɔw	‘sound of a gunshot’
32.	sulum	‘something falling in liquid’
33.	kilim	‘sound of falling of small metal’
34.	ligam	‘absolute darkness’
35.	kokikoki	‘coming out in bits, of liquid’
36.	tintim	‘very dark/black’
37.	wurawura	‘running in a group’
38.	suramsuram	‘absolute silence’
39.	yiramyiram	‘disorganized manner’
40.	fugifugi	‘foamy nature’
41.	birambiram	‘manner of walking in darkness’
42.	foi	‘to be extremely quiet’
43.	moi	‘to smile’
44.	loi	‘to be very ripe’
45.	wam	‘to look warm’

46.	tai	‘to be in a reasonable quantity’
47.	fai	‘to be relaxed’
48.	lai	‘not at all’
49.	wai	‘all of something’
50.	toi	‘the sparkling of light in the sky’
51.	mɔi	‘to open and close’
52.	kɛw	‘almost the edge of something’
53.	kiŋikiŋi	‘very hard’
54.	pariba	‘flat’
55.	kokikoki	‘very slowly’
56.	buriburi	‘of liquid, flowing with speed’
57.	kɔgitikɔgiti	‘walking in a noisy manner’
58.	baalambaalam	‘very quietly’
59.	gɔlɔlɔlɔ	‘very slim’
60.	vukam	‘very shady’
61.	sāisāi	‘the sound that accompanies a slap’
62.	limlim	‘walking without concentration’
63.	pampam	‘sound associated with biting an object’
64.	zimzim	‘walking in an unconcerned manner’
65.	pɔipɔi	‘appear fresh/nice’
66.	gbiregbire	‘acting in a disturbing manner’
67.	wariwari	‘to act in a fast manner’
68.	patripatri	‘manner of something falling from above/muddy manner’
69.	wuriwuri	‘acting without following due process’
70.	zaamzaam	‘careless walking on the ground’
71.	lɔlɔi	‘very tiny’
72.	fɔw	‘very far away’
73.	fui	‘a sudden silence’
74.	tewtew	‘a fast growing person’
75.	kikakika	‘small space’
76.	mɔpimɔpi	‘very firm’
77.	tapitapi	‘following someone’s footsteps closely’
78.	kɔlumkɔlum	‘a very soft one’
79.	kipikipi	‘a sudden stop of something’
80.	teratera	‘very weak’

**Part 2: Dagbani corpus**

1.	pimpim	‘in a pointed or sharp manner’
2.	layilayi	‘extremely white’
3.	yerayera	‘disarranged’
4.	duyiduyi	‘dusty manner’
5.	fuyifuyi	‘foamy’
6.	petipeti	‘muddy/disorderly manner’
7.	marimari	‘completely full’
8.	yomyom	‘quickly’
9.	bielabiela	‘slowly’
10.	timtim	‘very dark/black’



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11.	yirinɲirin	‘recklessly’
12.	wuuwuu	‘the sound associated with mighty wind’
13.	yariyari	‘the falling of solid substances in singles’
14.	kpumpkum	‘heavy sound of multiple gunshots’
15.	kpawkpaw	‘sound that accompanies breaking of sticks’
16.	gbulingbulin	‘walking of a heavy animal’
17.	chuu	‘the flowing of liquid’
18.	paau	‘the width of a river’
19.	suu	‘the falling of rain’
20.	gbilingbiling	‘the walking of a disabled person’
21.	paratete	‘the whiteness of a material’
22.	wuu	‘the fly of birds’
23.	nyaa	‘the arrival of an airplane’
24.	kirikiri	‘the vigorous nature of human activity’
25.	wɔwɔwɔ	‘the backing of a dog’
26.	kpum	‘the sound of a gun’
27.	fuu	‘the falling of an object from the sky’
28.	wuriwuri	‘the disappearance of’
29.	kpaw	‘the breaking of stick’
30.	puu	‘a sudden arrival of a person’
31.	chein	‘the sound of a slap on someone’
32.	barinyabarinya	‘the nature of shoddy work’
33.	kui	‘the sound of a bite on someone’
34.	parigili	‘the flooring of someone by another’
35.	namnam	‘the working of a flatfooted person’
36.	zuu	‘something beyond description’
37.	fab	‘overtaking another in a race’
38.	baribari	‘the falling of plenty of liquid’
39.	nyayabinyayabi	‘a state of bad eating habits’
40.	puchaa	‘the falling into water’
41.	tatitati	‘stepping into mud’
42.	buin	‘the sound of an explosion’
43.	chaa	‘pouring out of liquid’
44.	liti	‘absolute darkness’
45.	patipati	‘walking lazily’
46.	tamtam	‘walking foolishly’
47.	kpaŋgilaŋ	‘falling in a noisy manner’
48.	bam	‘sound from slumbering of something’
49.	bibibib	‘flowing of water (liquid) with pressure’
50.	nyamnyam	‘quietly/slowly’
51.	kiribikiribi	‘manner of chewing something hard’
52.	kitikiti	‘manner of walking with might’
53.	baabaa	‘to speak softly’
54.	surum	‘absolute silence’
55.	basaa	‘disorderly manner’
56.	zibizibi	‘of blazing fire’
57.	fuyifuyi	‘foamy nature’

58.	laliŋ	‘very light’
59.	kɔyitikɔyiti	‘walking in a noisy manner’
60.	salisali	‘slippery manner’
61.	charichari	‘water (slowly) coming out of pipe’
62.	patipati	‘act carelessly’
63.	wariwari	‘falling singly, fruits /stones’
64.	marimari	‘to be very full’
65.	dede	‘exactly’
66.	baalimbaalim	‘to speak softly’
67.	simsim	‘quietly’
68.	pimpim	‘pointed objects’
69.	waa	‘heavy rain falls’
70.	paw	‘sound of a gunshot’
71.	gbaw	‘a sound of a knock on the head’
72.	chulum	‘something falling in liquid’
73.	kiliŋ	‘sound of falling of small metal’
74.	pitipiti	‘tasteless’
75.	wurawura	‘running in a group’
76.	surumsurum	‘absolute silence’
77.	duyiduyi	‘dusty manner’
78.	yereyere	‘disorganized manner’
79.	birabira	‘manner of walking in darkness’
80.	vum	‘good aroma from food’
81.	vayivayi	‘eating hurriedly’