

Original Article

Variations in Dagbanli Dialects

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Abstract - This paper examines segmental variation among Tomosili, Nayahili, and Nanunli, the three major dialects of Dagbanli, a Maba language spoken in northern Ghana. Drawing on the framework of Generative Phonology, the study examines sound correspondences and alternations across these dialects, with particular attention to segmental differences based on primary linguistic data. The analysis identifies the phonological features that account for dialectal variation in Dagbanli and highlights the linguistic elements that distinguish the dialects from one another. The findings reveal that vowel alternations, particularly [a]~[ɔ], [a]~[o], and [i]~[u], constitute the primary source of variation among the dialects. In addition, consonantal correspondences such as /z/ → [dʒ] before /v/ and /ɲ/ → [n] outside the environment of /i/ provide further evidence of dialectal differentiation. To explain these variations, the study employs the models of realizational, selectional, and distributional differences. The paper argues that differences in vowel quality represent the chief source of segmental variation in Dagbanli. Furthermore, it demonstrates that dialectal variation is grounded in systematic linguistic evidence rather than speakers' subjective perceptions of dialect differences.

Keywords - Dagbanli, Dialects, Variation, Model, Segments, Selectional.

1. Introduction

Dagbanli is a Maba language spoken mainly in the Northern Region of Ghana by Dagbamba (plural) and Nanumba (plural). Its major dialects, which are reflected in all linguistic parameters, including phonology, are Tomosili, Nayahili and Nanunli (Hudu 2010). Tomosili, which is the Western Dialect, is spoken in Tamale, the northern regional capital. Nayahili, which is the Eastern Dialect, is spoken in Yendi, the traditional capital of Dagbanli and Nanunli, which is described as the Northern Dialect, is spoken in Bimbila, the traditional capital of Nanumba. Each of the three dialects has sub-dialects spoken in some towns and villages, and the phonological differences between the dialects in prosody are more pronounced (see Inusah 2021). Dagbanli dialects are social varieties of the language that emerge from differences in pronunciation, vocabulary and other linguistic features among speech communities. A dialect represents a form of a language distinguished by local peculiarities in speech and usage (Hawkins 1993). The distinction between language and dialect, however, has long posed challenges for linguistic classification due to the ambiguities associated with both terms. Hasselbring (2006:14) notes that "a dialect has distinctive characteristics phonologically, lexically, syntactically or semantically, which sets it apart from other dialects of the same language."

Haugen (1966) characterizes language as the superordinate category and dialect as its subordinate variety. Thus, if language Y comprises dialects X and Z, then X and Z are regarded as varieties of Y, rather than Y being a variety of X. From a linguistic perspective, every dialect constitutes a complete language system in its own right, although not every language functions as a dialect of another language.



This paper describes dialectal variation in Dagbanli, focusing on the three major dialects: Tomosili, Nayahili, and Nanunli. Specifically, it examines segmental variation among these dialects and seeks to identify the phonological features that account for their differences. Segments are psychological entities that provide the link between cognitive representation of speech and its physical manifestation and are composed of features (smaller units) which play crucial phonological roles (Honeybone 2009, Hall 2007). Dobrosvolsky (1997) defines a segment as an individual speech sound. The analysis is grounded in primary linguistic data and employs the framework of Generative Phonology, drawing on the concepts of realizational, selectional, and distributional differences to explain the observed patterns of variation. The study demonstrates that the dialects differ primarily at the segmental level, where individual sounds exhibit systematic correspondences and alternations. By documenting and analyzing these differences, the paper contributes to the growing body of research on dialectology and variation studies in Dagbanli.

Considering the three major dialects collectively, Dagbanli has an inventory of thirty-three consonant segments and fourteen vowel segments as in (1). The consonant system includes both shared and dialect-specific realizations, with variant forms indicated in square brackets.

1. Dagbanli Consonants (Inusah 2021:52)

p	b	t	d[r]	k	g	kp[tp]	gb [db]	[ʔ]
	m		n		ŋ		ŋm[nm]	
	f	v	s	ʃ	ʒ	[x]	[ɣ]	[h]
			z	ʧ	ɗ			
		l						
w[v]			j					

Similarly, the vowel system is organized into two harmonic classes based on the Advanced Tongue Root (ATR) feature: Class I [+ATR] vowels and Class II [-ATR] vowels, as in (2) (Mahama & Inusah 2023). These phonemic inventories provide the foundation for understanding the segmental correspondences and alternations discussed in this study.

2. Dagbanli Vowels (Hudu 2018)

	Class I			Class II	
i i:		u u:		i	ʊ
e e:		o o:	ɛ	a a:	ɔ ɔ:

The long vowel segments [i: e: a: ɔ: o: u:] are orthographically represented by doubled vowel symbols <ii, ee, aa, ɔɔ, oo, uu> in Dagbanli. In certain contexts, the second vowel may also function as a marker of number. By contrast, the short vowel segments [i, e, a, o, u] constitute the basic underlying vowel forms across the dialects. An examination of the distribution and realization of these vowels, together with the consonantal correspondences, provides important insights into the nature of dialectal variation in Dagbanli and the phonological mechanisms that underlie it.

1.1. Data

The primary data for this paper reflect the speech patterns of speakers of Nayahili, the eastern dialect of Dagbanli spoken in Yendi and its surrounding communities. Data were collected through interviews conducted with native speakers of Dagbanli. To elicit naturally occurring linguistic forms, participants were placed in communicative contexts designed to prompt the use of specific words and expressions relevant to the study. This

procedure enabled the collection of authentic speech data for phonological analysis. In addition to the primary data, secondary data were obtained from written sources (Blench 2004, 2006; Olawsky 2002; Hudu 2010, 2013, 2014). The primary and secondary datasets were subsequently cross-checked and validated through consultation with five (5) key informants. The informants were all native speakers of Dagbanli with extensive knowledge of the language. The sample comprised 2 male and 3 female speakers, ranging in age from 45 to 70 years. Adult participants were intentionally selected because they were considered more likely to possess stable linguistic competence and extensive experience in the use of the language within diverse social contexts.

2. Segmental Variations

This paper is grounded in Distinctive Feature Theory, a central component of Generative Phonology, which posits that the sound segments of a language can be analyzed in terms of a limited set of phonological features. Rather than treating segments as indivisible units, the theory views them as bundles of distinctive properties that differentiate one sound from another. These features establish the connection between the mental representation of speech and its physical realization in spoken language (Hawkins, 1993). By decomposing speech sounds into feature matrices, Distinctive Feature Theory provides a systematic framework for explaining phonological patterns and variations across related speech forms.

Within this framework, segmental variation among the major Dagbanli dialects, Tomosili, Nayahili and Nanunli, can be analyzed through linguistic models that account for differences in the realization, selection and distribution of phonological segments. These variations are reflected in the pronunciation of words both in isolation and in connected speech. Although the forms may differ across dialects, the phonological processes responsible for such differences are generally regular and predictable, making them amenable to systematic analysis. The present study employs the concepts of realizational differences, selectional differences and distributional differences to explain the observed patterns of dialectal variation.

The analysis focuses on segmental differences, which involve variation in the realization of individual consonants and vowels. Evidence from the data indicates that the most significant source of dialectal variation in Dagbanli lies in vowel quality, where corresponding lexical items exhibit systematic alternations across dialects. These vowel alternations, together with selected consonantal correspondences, provide important insights into the phonological structure of Dagbanli and the mechanisms underlying dialect differentiation. Consequently, the paper demonstrates that dialectal variation in Dagbanli is governed by identifiable phonological principles rather than by arbitrary or impressionistic differences among speakers.

2.1. Realisational Differences

Realizational differences constitute the most common type of dialectal variation in Dagbanli and are primarily manifested in the pronunciation of particular vowel segments. Such differences involve variations in the phonetic realization of the same underlying phoneme across dialects without altering the overall vowel system of the language. A clear example is found in the pronunciation of the vowel occurring in the words /bɛ̀li/ 'accompany', /bɛ́/ 'be', and /ʃɛ̀li/ 'some'. In Tomosili, this vowel is realized as [ia], a dialect-specific variant that typically occurs following palatalized consonants. In Nayahili, the corresponding vowel is realized as [ɛ], whereas in Nanunli it is pronounced as the relatively more open vowel [e]. Consequently, the same underlying vowel may surface as [ia], [ɛ], or [e] depending on the dialect.

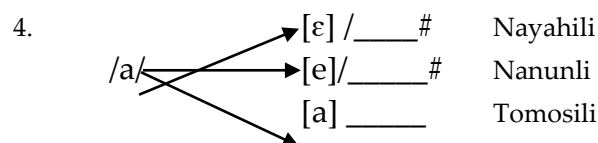
The focus of this type of variation is on the precise phonetic realization of speech sounds rather than on phonemic differences. These realizations can be accurately described by reference to the Dagbanli vowel system, whose phonemic values remain relatively stable across dialects. Importantly, realizational differences do not result in changes to the vowel inventory itself; rather, they represent alternative phonetic realizations of existing phonological units. Evidence from Dagbanli demonstrates that vowel contrasts are maintained despite dialectal

variation in pronunciation. For example, lexical distinctions such as [tɪm] ‘send’, [tàm] ‘forget’, and [tèm] ‘filter’ remain intact across the dialects, even though the phonetic realization of certain vowels may differ. The vowel /a/ is particularly frequent in all three dialects, yet its surface realization varies in specific lexical items. In the data examined, it is realized as [ia] in Tomosili, [e] in Nanunli, and [ɛ] in Nayahili. These systematic and predictable correspondences illustrate how realizational differences contribute to dialectal variation while preserving the underlying phonological structure of Dagbanli.

3. /a/ Realisations Dagbanli Dialects

S/N	Tomosili	Nayahili	Nanunli	Gloss
a.	làbí	lèbì	lèbì	‘change’
b.	bàlì	bèlì	bélì	‘accompany’
c.	pám	pêm	pém	‘arrow’
d.	táhì	téhì	téhì	‘think’
e.	tàlì	tèlì	tèlì	‘flood’
f.	jàlì	ǰèlì	ǰélì	‘some’
g.	zájá	ǰéjá	ǰéjá	‘stand’

The data in (3) demonstrate that dialectal differences in the realization of the vowel /a/ are systematic and therefore largely predictable. As shown in the examples, the underlying vowel /a/ is realized as [ɛ] in Nayahili and as [e] in Nanunli in specific lexical items. These regular correspondences illustrate a pattern of realizational variation across the dialects and can be formally captured by the realization rule presented in (4).



Importantly, these phonetic differences do not affect the phonemic structure of the language. The contrast between /a/ and /ɛ/ remains intact because the realization of /a/ as [ɛ] is conditioned and predictable rather than phonemically distinctive. In other words, although the surface pronunciation varies from one dialect to another, the underlying vowel contrast is preserved. This demonstrates that the observed variation represents a realizational difference rather than a change in the phonological inventory of Dagbanli. Consequently, speakers of the different dialects maintain the same underlying vowel system despite differences in phonetic realization.

2.2. Selectional Differences

Selectional differences occur when two or more dialects share the same phonemic inventory but differ in the phonemes selected for particular lexical items. In such cases, the variation is not the result of different phonological systems but rather of dialect-specific choices in the realization of individual words. For example, Tomosili exhibits a phonemic contrast between /a/ and /ɔ/ in words such as [dɔ̀yɪm] ‘birth’ versus [dayɪm] ‘try’ and [sɔ̀m] ‘bitter’ versus [sam] ‘mix’. Similar contrasts are also found in Nayahili and the other major Dagbanli dialects.

A defining characteristic of selectional differences is that they are often lexically specific and unpredictable. Unlike realizational differences, which may be explained by regular phonetic or phonological processes, selectional differences generally do not allow speakers to predict which lexical items will exhibit a particular variant. Moreover, the number of affected words is often relatively limited, making the variation more idiosyncratic in nature.

In the Dagbanli dialects, selectional differences are evident in recurrent sound correspondences involving the vowels [a]~[ɔ], [a]~[o], and [i]~[u]. These alternations occur in specific lexical items across the dialects and reflect different phoneme choices rather than differences in phonetic realization. The data presented below illustrate these patterns of sound alternation and demonstrate how selectional variation contributes to the distinct phonological identities of the major Dagbanli dialects.

5. /a/ → [ɔ] / ____ #

Nayahili	Nanunli	Tomosili	Gloss
báɽĩm	bahĩm	bɔɽĩm	'learn.sg'
váɽ-ó	váh-ó	vɔɽ-ó	'leaf.sg'
dáɽ-ó	dáh-ó	dɔɽ-ó	'stick.sg'
káɽ-ó	káh-ó	kɔɽ-ó	'antelope.sg'

The data in (5) illustrate how differences in vowel quality contribute significantly to dialectal variation in Dagbanli. The examples show that the underlying vowel /a/ in Nayahili is realized as [ɔ] in Tomosili when it occurs before a stem-final coda consonant /ɽ/, whereas Nanunli retains the vowel /a/ in the same phonological environment. Although Tomosili is generally regarded as the standard dialect, the occurrence of [ɔ] in this context represents a dialect-specific realization of the underlying vowel /a/. Consequently, the same lexical item may surface with different vowel qualities across the dialects while maintaining the same underlying representation.

Comparative evidence from Dagaare, a closely related Mabia language, provides further support for this pattern. For example, the Dagbanli form [paɽa/ 'woman' corresponds to [pɔka] in Dagaare. This correspondence suggests that the realization of /a/ as [ɔ] may be associated with the rounding feature of the vowel rather than being solely conditioned by the immediate phonological environment.

Additional evidence is presented in (7), where selected lexical items reveal a different pattern of vowel selection across the dialects. In these examples, Tomosili preserves the vowel /a/ before consonants such as the coronal /ɾ/ and the labial /b/, whereas Nayahili and Nanunli select /ɔ/ in the same environment. As a result, the underlying vowel /a/ may surface as [ɔ] in certain dialects, further demonstrating the role of vowel quality in distinguishing the major Dagbanli dialects. This systematic correspondence can be represented by the following realization rule:

6. /a/ → [ɔ] / ____ C#

In the, C# represents a word-final consonant. This rule captures the tendency for the underlying vowel /a/ to be realized as [ɔ] in particular dialects and phonological environments, thereby accounting for one of the recurrent patterns of dialectal variation observed in Dagbanli.

7. /a/ → [ɔ] / ____ #

Tomosili	Nayahili	Nanunli	Gloss
bár-gí	bór-gí	bór-gí	'lost'
lár-gá	lór-gá	lór-gá	'corner'
lár-gí	lór-gí	lór-gí	'untie'
dáblĩm	dɔblĩm	dɔblĩm	'bravery'
záb-rí	zɔb-rí	dʒɔb-rí	'hair'
sáb-lí	sɔb-lí	sɔb-lí	'rat'

Another illustration of this pattern of vowel rounding is found in the realization of the vowel /a/ in Tomosili, which corresponds to [o] in Nayahili and Nanunli in certain lexical items. This correspondence provides further

evidence that vowel quality plays a significant role in distinguishing the major Dagbanli dialects. While Tomosili retains the low central vowel /a/, speakers of Nayahili and Nanunli select the more rounded mid-back vowel [o] in the same lexical environment. The variation is therefore not a result of differences in meaning but rather a reflection of dialect-specific phonological preferences. As with the alternation between [a] and [o], the correspondence between [a] and [o] demonstrates a systematic pattern of dialectal variation. The underlying lexical item remains unchanged across the dialects, but the surface realization of the vowel differs. Such alternations reinforce the argument that vowel quality constitutes one of the principal sources of segmental variation in Dagbanli. Examples of this correspondence are presented below:

8. /a/ → [o] / ____ #

Tomosili	Nayahili	Nanunli	Gloss
sàkól-ó	sòkól-ó	sòkól-ó	'fufu'
gár-ó	gór-ó	gór-ó	'bed'
zàb- rí	zòb-rí	ɖzòb- rí	'hair'
pàl-ó	pòl-ó	pòl-ó	'plot'
sál-ó	sól-ó	sól-ó	'crowd'
kaʎó	kól-ó	kól-ó	'enamel ware'

Another example of a selectional difference is found in the alternation between the high vowels /i/ and /u/ across the major Dagbanli dialects. In this case, lexical items that contain /i/ in Tomosili may correspond to forms with /u/ in Nayahili and Nanunli. This pattern provides further evidence of the role of vowel rounding in dialectal differentiation. While Tomosili speakers select the unrounded high front vowel /i/, speakers of Nayahili and Nanunli prefer the rounded high back vowel /u/ in the same lexical items. This type of variation exemplifies a selectional difference because the dialects share the same phonemic inventory but differ in their choice of phoneme for particular words. As with other instances of selectional variation, the alternation is largely lexical and cannot be predicted solely from the phonological environment. The correspondence between /i/ and /u/, therefore, reflects dialect-specific phonological preferences rather than differences in the underlying structure of the language. The examples presented below illustrate this recurring alternation and further demonstrate how vowel quality contributes to the segmental variation observed among the major Dagbanli dialects.

9. /i/ → [u] / ____ #

Tomosili	Nayahili	Nanunli	Gloss
tĩl-gá	túl- gá	túl- gá	'pestle'
dĩńĩ	dúnĩ	dúnĩ	'knee'
dĩńǎli	dúnǎlĩ	dúnǎlĩ	'door'
dĩl-gó	dúl-gó	dúl-gó	'headache'
tím-ó	túm-ó	túm-ó	'messenger'

The data in (9) reveal a systematic pattern of dialectal variation involving the high vowel /i/. In certain lexical items, Tomosili speakers select /i/ when it occurs before the voiced consonants [l, n, m], whereas speakers of Nayahili and Nanunli select /u/ in the same phonological environment. Under this analysis, /i/ represents the underlying form, while [u] is regarded as its dialect-specific surface realization. This correspondence can be formalized by the following realization rule:

10. /i/ → [u] / ____ [l, n, m] #

In this rule, # represents a word boundary. The rule accounts for the occurrence of [u] in Nayahili and Nanunli in environments where Tomosili retains /i/. The variation is not attributable to positional allophony, since the

alternation is not conditioned solely by phonological position within a word. Rather, it reflects a form of dialectal allophony, whereby different dialects systematically realize the same underlying segment in different ways.

It is important to note that this rule is intended only to explain the specific data presented in (9). Taken together, however, the realization patterns illustrated in (5)-(9) reveal a broader tendency toward dialect-specific variation in vowel quality. These patterns can therefore be generalized by the rule presented in (11), where # represents a segment specified as [+anterior, –strident]. This generalized rule captures the recurring phonological correspondences that characterize selectional differences among the major Dagbanli dialects.

11.

$$\left(\begin{array}{c} - \text{ back} \end{array} \right) \rightarrow \left(\begin{array}{c} + \text{ back} \end{array} \right) / - \#$$

2.2.1. Selectional Differences and Nasal Place Assimilation

Selectional differences also provide an explanation for Nasal Place Assimilation (NPA) in the Dagbanli dialects. This phonological process operates internally within words, particularly at morpheme boundaries, where the place of articulation of a stem-final nasal is influenced by the consonant that follows it in the suffix. As a result, the nasal segment assimilates to the place features of the following consonant, producing a homorganic nasal-consonant sequence. In addition to nasal assimilation, the stem vowel /a/ may be realized as [ɔ] when it occurs before a coda consonant in certain dialects. These processes collectively contribute to the phonological differences observed among the major Dagbanli dialects while maintaining underlying morphological relationships.

Nasal Place Assimilation is attested across Tomosili, Nayahili, and Nanunli, occurring systematically between stems and suffixes. The process reflects a tendency toward articulatory harmony, whereby adjacent segments become more similar in their phonetic properties. Although the specific phonetic realizations may vary slightly across dialects, the assimilatory pattern itself is common to all three varieties of Dagbanli. The examples presented below illustrate how stem-final nasals undergo place assimilation at morpheme boundaries and how this process contributes to dialectal variation in the language.

12. Word-Internal Assimilation: /m/ → [n] / ___/d/

Root.SG	Tomosili	Nayahili	Nanunli	Gloss
bàhîm	bàhîń-dí	bàhîń-dá	bàhîń-dá	'learning'
lâhim	lâhîń-dí	lâhîń-dá	lâhîń-dá	'put together'
kâríim	kâríń-dí	kârin-dá	kârin-dá	'reading'
sâhîm	sâhîń-dí	sâhîń-dá	sâhîń-dá	'spoiling'

Example (12) illustrates a case of word-internal nasal place assimilation in which the stem-final nasal /m/ is realized as [n] before the voiced alveolar stop /d/ across all major Dagbanli dialects. As the data show, this assimilatory process occurs in polysyllabic verb forms at the morpheme boundary between the verb stem and the suffix. In Tomosili, the stem-final nasal precedes the suffix [-di], while in Nayahili and Nanunli the corresponding suffix appears as [-da]. Under these conditions, the bilabial nasal /m/ changes to the alveolar nasal [n], adopting the place of articulation of the following consonant.

Interestingly, this process is restricted in its application. The data indicate that the change from /m/ to [n] does not occur in monosyllabic verb stems before the suffixes [-di] in Tomosili and [-da] in Nayahili and Nanunli. This suggests that the assimilation process is sensitive not only to phonological environment but also to morphological or prosodic structure. The pattern exemplifies a regular and predictable assimilatory process whereby a nasal segment becomes homorganic with a following consonant at a morpheme boundary. The nasal place assimilation observed in the data can therefore be captured by the following general realization rule:

13.

$$\left[\begin{array}{c} +\text{nasal} \end{array} \right] \rightarrow \left[\begin{array}{c} \alpha \text{ place} \end{array} \right] / - \left[\begin{array}{c} \alpha \text{ place} \end{array} \right]$$

This rule is interpreted as stating that a nasal segment assimilates to the place of articulation of a following consonant, resulting in a homorganic nasal-consonant sequence. In other words, the nasal adopts the articulatory features of the adjacent consonant so that both segments are produced at the same place of articulation. The rule captures the general pattern of Nasal Place Assimilation (NPA) observed across the Dagbanli dialects and accounts for the various assimilatory processes attested in the language.

Further evidence of this process is provided by the data below, where a stem-final dorsal nasal /ŋ/ is realized as the coronal nasal [n] before a suffix-initial coronal consonant /s/. In this environment, the dorsal place feature of the nasal is replaced by a coronal place feature under the influence of the following consonant. As with the examples discussed above, the assimilation occurs across morpheme boundaries and reflects a regular phonological process that enhances articulatory ease. The examples, therefore, demonstrate that nasal place assimilation in Dagbanli is not limited to bilabial nasals but extends to other nasal segments, further supporting the generality of the rule proposed for the dialects.

14. Word-internal assimilation: /ŋ/ → [n] / ____ /s/

Root.SG	Tomosili	Nayahili	Nanunli	Gloss
dán-á	dán-sí	dán-sí	dán-sí	'mosquitoes'
lón-á	lón-sí	lón-sí	lón-sí	'drums'
bón-á	bón-sí	bón-sí	bón-sí	'donkeys'
lán-á	lán-sí	lán-sí	lán-sí	'nets'
tín-á	tín-sí	tín-sí	tín-sí	'towns'
jín-á	jín-sí	jín-sí	jín-sí	'homes'

The data in (14) illustrate a case of word-internal nasal place assimilation in which the stem-final dorsal nasal /ŋ/ is realized as the coronal nasal [n] before the coronal suffix [-si]. This assimilatory process occurs consistently across all three major Dagbanli dialects, reflecting a tendency for the nasal segment to adopt the place of articulation of the following consonant. Consequently, the dorsal nasal loses its velar quality and surfaces as a coronal nasal in anticipation of the suffix-initial coronal consonant.

Many of the phonological differences observed between Tomosili, Nayahili, and Nanunli can be classified as selectional differences. These involve the choice of different phonemes in particular lexical items, despite the dialects sharing the same phonemic inventory. For example, Tomosili tends to select /a/ before voiced coronal consonants, whereas Nayahili and Nanunli select /ɔ/ in the same environment, as illustrated by [bar-gí] 'lost' and [bɔr-gí] 'lost'. Similarly, Tomosili prefers /i/ where Nayahili and Nanunli use /u/, as seen in [tíl-gá] 'pestle' and [túl-

gá] ‘pestle’. Another example is the selection of [a] in Tomosili versus [o] in Nayahili and Nanunli, as in [sál-ô] ‘crowed’ and [sól-ô] ‘crowed’.

These examples demonstrate that the vowel pairs [a]~[ɔ]; [i]~[u] and [a]~[o] are present in all the dialects. Therefore, the variation does not indicate differences in the phonemic systems of the dialects; rather, it reflects differences in the selection of phonemes for specific lexical items. While consonants may also participate in segmental variation, their contribution is comparatively limited in Dagbanli. Most consonantal variation involves the presence, absence, or realization of individual segments, whereas the most pervasive source of dialectal differentiation lies in vowel quality. The discussion in the following section examines consonantal variation and the role it plays in distinguishing the major Dagbanli dialects.

2.3. Distributional Differences

Distributional differences arise when two or more dialects share the same phonemic inventory but differ in the environments in which particular segments occur. The distribution of a segment refers to the positions or phonological contexts in which it can appear, such as word-initial, word-medial, or word-final position. In the Dagbanli dialects, the most significant distributional differences involve consonant segments rather than vowels.

One of the most prominent examples concerns the coronal fricative /z/. In Tomosili, which is generally regarded as the standard variety of Dagbanli, /z/ occurs in both word-initial and word-medial positions but is typically absent in word-final position. In Nanunli, however, the corresponding segment is frequently realized as the palato-alveolar affricate [dʒ] when it occurs before vowels in the same word-initial and word-medial environments. Thus, while the dialects share related phonological forms, they differ in the distribution and realization of this consonantal segment.

Unlike realizational and selectional differences, which primarily involve variations in vowel quality, distributional differences are concerned with the occurrence and positional behavior of segments within words. The alternation between /z/ in Tomosili and [dʒ] in Nanunli, therefore, represents a clear example of how consonantal distribution contributes to dialect differentiation in Dagbanli. The examples below illustrate this pattern of correspondence across the dialects.

15. /z/ → [dʒ] / ____ [v] in Nanunli

Tomosili	Nayahili	Nanunli	Gloss
zɔʔ-ɔ	zɔʔ-ɔ	dʒú-hɔ	‘head’
zòn-zɔ-lí	zòn-zɔ-lí	dʒòn-dʒɔ-lí	‘warm’
zɔɲ	zɔɲ	dʒɔɲ	‘bats’
zòm	zòm	dʒòm	‘blind’
zón-ɔ	zón-ɔ	dʒón-ɔ	‘alien’
záb-rí	záb-rí	dʒáb-rí	‘hair’
zĩm	zĩm	dʒĩm	‘flour’

The data presented above reveal an important distributional difference involving the consonant /z/ across the major Dagbanli dialects. While Tomosili and Nayahili maintain the segment /z/ in identical phonological environments, the segment is generally absent in Nanunli, where it is typically realized as the palato-alveolar affricate [dʒ]. This pattern suggests that /z/ has a more restricted distribution in Nanunli than in the other dialects. Nevertheless, some Nanunli speakers occasionally produce /z/ in rapid or casual speech, indicating that the segment has not been entirely eliminated from the dialect.

The absence of /z/ is even more pronounced in Jimansili, a sub-dialect of Nanunli, where the segment is completely lacking (Inusah, 2026, 2021). In this variety, forms that contain /z/ in Tomosili and Nayahili consistently correspond to forms with [ɖʒ]. For example, the contrast between /k/ in [zĩm] and /ɖʒ/ in [ɖʒĩm] ‘flour’ illustrates a systematic phonological difference between the major dialect and its sub-dialect. This represents a case of systemic variation, where the distribution of a consonant is restricted or replaced by another segment in a particular dialect.

Another notable distributional difference among the major Dagbanli dialects involves the labial consonants /b/ and /m/. In Nayahili and Nanunli, the voiced bilabial stop /b/ frequently occurs in word-final (coda) position in certain lexical items. In the corresponding forms in Tomosili, however, the same position is often occupied by the bilabial nasal /m/. Thus, in some CVb roots, Nayahili and Nanunli preserve a final /b/, whereas Tomosili exhibits /m/ in the equivalent lexical items (see Inusah 2026).

It is important to note that this distributional pattern does not imply that /b/ is entirely absent from coda position in Tomosili. The consonant does occur word-finally in a number of lexical items, such as [sáb] ‘write’. Rather, the variation reflects differences in the distribution of /b/ and /m/ in specific lexical environments across the dialects. These patterns illustrate how consonantal distribution contributes to dialect differentiation in Dagbanli, complementing the vowel-based realizational and selectional differences discussed in the preceding sections.

16. /b/ → [m] in CVb root

Nayahili	Tomosili	Nanunli	Gloss
zĩb-sĩm	zĩm-sĩm	ɖʒĩb-sĩm	‘darkness’
tĩb-sĩm	tĩm-sĩm	tĩb-sĩm	‘heaviness’
kũb-sĩm	kũm-sĩm	kũb-sĩm	‘cry.nom’
dáb-lĩm	dám-lĩm	dáb-lĩm	‘bravery’

Another notable distributional difference among the Dagbanli dialects concerns the realization of the palatal nasal /ɲ/. In both Tomosili and Nayahili, the segment /ɲ/ occurs in word-initial and word-medial positions, although it is generally absent in word-final position. In Nanunli, however, the corresponding segment is frequently realized as the alveolar nasal [n], particularly when it occurs before front vowels in the same phonological environments.

This correspondence reflects a distributional variation rather than a difference in phonemic inventory. The dialects share related lexical forms, but they differ in the environments in which the palatal nasal is maintained or replaced. Whereas Tomosili and Nayahili preserve the palatal articulation of /ɲ/, Nanunli favors the alveolar variant [n] in comparable contexts. As a result, words that contain /ɲ/ in Tomosili and Nayahili often correspond to forms with [n] in Nanunli (see Inusah 2021, 2016).

The alternation between /ɲ/ and [n] provides further evidence of the role of consonantal distribution in distinguishing the major Dagbanli dialects. Unlike the vowel-based selectional differences discussed earlier, this variation involves a change in the place of articulation of a consonant while preserving the lexical identity of the word. Examples of this correspondence are presented below.

17. /ɲ/ → [n] / ____ [front vowels]

Tomosili	Nayahili	Nanunli	Gloss
ɲé:	ɲé:	né:	‘nostril’
ɲám	ɲám	ném	‘clean’
ɲĩn-á	ɲĩn-á	nĩn-á	‘teeth’
ɲám-á	ɲám-á	ném-á	‘clothes’
ɲú	ɲú	*nú	‘drink’

As illustrated in (17), the palatal nasal /ɲ/ is retained in both Tomosili and Nayahili, whereas in Nanunli it is regularly realized as the alveolar nasal [n] when it occurs before front vowels in comparable phonological environments. This correspondence represents a systematic distributional difference among the dialects, since the variation is conditioned by the phonological context in which the segment occurs.

A key characteristic of distributional differences is that they can be described through general phonological statements. For example, one may state that /z/ occurs in word-initial and word-medial positions in certain dialects, or that [dʒ] appears in corresponding environments in another dialect. Similarly, it can be observed that /ɲ/ is retained in Tomosili and Nayahili but corresponds to [n] before front vowels in Nanunli. The possibility of formulating such generalizations distinguishes distributional differences from selectional differences.

By contrast, selectional differences cannot be predicted from the phonetic or phonological environment. For instance, although Tomosili may use /a/ where Nayahili and Nanunli employ /ɔ/, there is no general phonological rule that predicts which lexical items will exhibit this alternation. Thus, one cannot formulate a broad statement that Tomosili always has /a/ while Nayahili always has /ɔ/ in a particular environment. Instead, alternations such as [a~ɔ], [a~o] and [i~u] occur only in a limited set of lexical items and must therefore be treated as selectional differences rather than distributional ones.

The distinction between these two types of variation is important for understanding dialect differentiation in Dagbanli. Distributional differences arise from systematic patterns governing where particular segments may occur, whereas selectional differences involve dialect-specific choices of phonemes in individual words. Together with realizational differences, these patterns provide a comprehensive account of segmental variation among the major Dagbanli dialects. The principal realizational, selectional and distributional differences identified in this study are summarized in the table below.

Table 1. Categories of dialectal differences (cf. Inusah 2021)

1. Realisational	Tomosili	Nayahili	Nanunli
/a/ ɲàlí 'any'	[a]	[ɛ]	[e]
2. Selectional			
/a/ bàr-gí 'lost'	[a]	[ɔ]	[ɔ]
/i/ til-gà 'pestle'	[i]	[u]	[u]
/a/ pàl-ó 'plot'	[a]	[o]	[o]
/m/ bàhím 'learn'	[m]	[n]	[n]
4. distributional			
/z/ zólí 'hill'	[z]	[dʒ]	[z]
/b/ zīb-sím 'darkness'	[m]	[b]	[b]
/ɲ/ ɲé: 'nostril'	[ɲ]	[ɲ]	[n]

Table 1 summarizes the principal dialectal differences identified in this study and classifies them according to the three analytical models discussed: realizational, selectional, and distributional differences. The table provides a concise overview of the phonological features that distinguish the major Dagbanli dialects and highlights the recurrent patterns of segmental variation observed in the data.

It should be noted, however, that the patterns presented in the table do not imply complete uniformity among speakers of a particular dialect. Not all speakers consistently exhibit every dialectal feature associated with their dialect, and the extent to which these features occur may vary according to factors such as age, social background, education and linguistic experience. Furthermore, some speakers are capable of code-switching or dialect-shifting, especially when interacting with speakers of other dialects or in situations where the standard variety is preferred.

As a result, individual speakers may alternate between dialectal forms and standard forms depending on the communicative context.

Therefore, while the features summarized in Table (1) represent broad tendencies that characterize the major Dagbanli dialects, they should not be interpreted as rigid or categorical distinctions. Rather, they reflect predominant phonological patterns that contribute to dialect differentiation while allowing for variation at the individual speaker level. This observation underscores the dynamic nature of dialect use in Dagbanli and highlights the importance of viewing dialectal variation as a continuum rather than a set of fixed and mutually exclusive categories.

3. Conclusion

This paper has examined dialectal variation in Dagbanli, focusing on the three major dialects—Tomosili, Nayahili and Nanunli. Particular attention was given to segmental variation, with the aim of identifying and explaining the phonological processes that account for differences in the distribution and realization of consonants and vowels across the dialects. Drawing on primary linguistic data, the study provided evidence for the systematic nature of dialectal variation in Dagbanli and demonstrated how these variations can be analyzed within a phonological framework. The study makes an important contribution to the description of Dagbanli dialects by offering a detailed account of the phonological characteristics that distinguish Tomosili, Nayahili and Nanunli. The analysis shows that realizational differences, selectional differences, and distributional differences constitute the principal models through which dialectal variation in Dagbanli can be explained. These three models provide a useful framework for understanding both the regular and the less predictable aspects of variation among the dialects.

The findings further reveal that the major Dagbanli dialects share essentially the same phonemic inventory. For example, all three dialects maintain the contrast between long vowels, as in [gbé:] 'hoe', and short vowels, as in [gbé] 'sleep over'. The principal differences among the dialects, therefore, do not stem from differences in their phoneme systems but rather from differences in the realization, selection, and distribution of particular segments. Such differences are evident in vowel correspondences such as /a/→[ɔ] in certain dialectal environments and consonantal correspondences such as /z/→[ɖ] before vowels in Nanunli. The analysis indicates that the chief source of segmental variation in Dagbanli lies in vowel quality. Although consonantal variation is also attested, its role in distinguishing the dialects is comparatively limited. The recurrent alternations [a~ɔ], [a~o] and [i~u] constitute some of the most salient features of dialectal differentiation. However, these alternations occur only in a restricted set of lexical items and cannot be accounted for solely by phonological environment. Consequently, they are best analyzed as selectional differences rather than distributional differences.

At the same time, the study shows that not all dialectal variation is random. Certain consonantal correspondences, such as [z]~[ɖ] and [ɲ]~[n], display systematic distributional patterns that can be captured through general phonological rules. This distinction highlights an important continuum in linguistic behavior: some forms of variation are highly regular and rule-governed, while others are more lexically restricted and resistant to generalization. The evidence presented in this paper demonstrates that dialectal variation in Dagbanli is shaped by both systematic phonological processes and lexicalized patterns of variation.

Overall, the study underscores the importance of examining dialectal variation on the basis of linguistic evidence rather than speaker perceptions alone. The findings confirm that Dagbanli dialects are unified by a common phonological system while exhibiting systematic differences in the realization, selection and distribution of particular segments. These patterns not only enhance our understanding of the internal structure of Dagbanli but also contribute to broader discussions of dialect variation and phonological change in Mabia languages.

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