

## Encoding tense and aspect in Nguu verbs

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<https://doi.org/10.51867/ajernet.7.1.34>

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### ABSTRACT

This research looks into the encoding of tense and aspect (TA) in Nguu, a lesser-studied Bantu language spoken in Tanzania, with the goal of improving descriptive and theoretical understanding of Bantu verbal morphology. Nguu makes a particularly strong case, demonstrating a variety of ways for identifying temporal and aspectual distinctions, such as pre-root, post-root, combination, and null-marked forms. The study's data were gathered using a combination of direct elicitation, organised translation tasks, and verb paradigm exercises, as well as naturalistic observation of spontaneous speech and storytelling. The fragmentation approach was used to analyse verb forms and their constituent morphemes to determine the distribution and function of TAM markers, where the analysis reveals that TAM markers are systematically distributed among different verbal morphemes. The data show that Nguu separates the recent and distant past using pre-root *na-/ne-* and post-root *-ag* markers, respectively, but present and future forms frequently use both pre- and post-root morphemes. Continuous and perfective aspects are typically conveyed using the auxiliary verb *'-nd-'* in conjunction with subject markers and consecutive morphemes, indicating a cumulative approach to temporal and aspectual decoding. Null marking is seen in present perfect forms, indicating a reliance on subject markers and contextual information rather than overt morphology. Furthermore, future tense forms use subjunctive marking, showing the connection between temporal reference and modality. These patterns demonstrate the adaptability and functional clarity of Nguu verbal morphology while also challenging rigid typological beliefs regarding Bantu TAM systems. Overall, this study emphasises the significance of underdescribed languages in developing typological and theoretical descriptions of tenses and aspects. The study recommends future studies with a broader empirical scope that include diverse Nguu-speaking communities to capture possible dialectal variations in encoding the tenseaspect. It also recommends comparative studies with related Bantu and Niger-Congo languages to better situate Nguu within the typology of tense and aspect systems.

**Keywords:** Aspect, Nguu, Pre-Root Slots, Post-Root Slots, Tense

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### I. INTRODUCTION

The study of tense and aspect (TAM) systems in Bantu languages has long attracted scholarly attention due to the richness of their verbal morphology and the intricate ways in which temporal and aspectual distinctions are grammatically encoded. Foundational typological work has established tense as the grammatical category that situates events in time, while aspect encodes the internal temporal structure of events, such as completion, duration, or habituality (Bybee, *et al.*, 1994; Comrie, 1976). Within Bantu linguistics, these categories are typically realized through complex agglutinative verb structures in which multiple morphemes interact to convey nuanced semantic contrasts (Nurse, 2008). As a result, Bantu languages have become central to broader theoretical debates on the universality and variability of tense and aspect systems.

While many Bantu languages have been studied in detail, they continue to reveal new patterns that challenge long-standing assumptions (Nurse & Devos, 2019). The Nguu language, a lesser-studied member of the Bantu family spoken in Tanzania, presents an especially compelling case for examining how tense and aspect are encoded. Its unique features highlight both the diversity within the Bantu family and the limitations of broad generalizations often applied to the group.

This paper investigates how tense and aspect are encoded in Nguu verbs, drawing on original field data to provide a detailed account of their formal realization and functional interpretation. The analysis reveals a system characterized by notable morphological flexibility, in which tense and aspect markers may occur in pre- or post-root slots and, in some contexts, may remain unmarked. Such variability complicates traditional assumptions about fixed TAM slots in Bantu verb morphology and raises important questions about the relationship between morphological

position, semantic scope, and grammatical interpretation. The Nguu data thus contribute to ongoing debates concerning the limits of structural uniformity within Bantu verbal systems.

By situating the Nguu tense and aspect system within a broader typological and comparative perspective, this study demonstrates the importance of incorporating under-described languages into theoretical discussions of tense and aspect. The findings not only enrich the descriptive record of Bantu languages but also offer insights relevant to cross-linguistic models of tense and aspect, particularly those that seek to account for optional marking, positional variation, and morphological underspecification. Ultimately, the study underscores the need to move beyond broad generalizations and to ground theoretical claims in detailed empirical evidence drawn from a diverse range of languages within the Bantu family and beyond.

## 1.2 Research Objectives

This study examines how Nguu verbs encode tense and aspect in pre- and post-root slots. Particularly, the study also aimed to look at the morphological and syntactic processes that relate and differentiate tense and aspect within Nguu verb template. Through this linguistic description we hope to contribute to the theoretical awareness on how tense and aspects are encoded in under-described Bantu languages.

## II. LITERATURE REVIEW

### 2.1 Theoretical Review

Linguistic typology traditionally recognizes tense and aspect as central categories of verbal morphology, essential for situating events in discourse. Tense anchors an event in time, typically past, present, or future, while aspect conveys the internal temporal structure of an event, distinguishing ongoing, habitual, iterative, or completed actions (Bybee *et al.*, 1994; Comrie, 1976). These categories are grammatical universals but vary widely in their encoding strategies across languages. Dahl (1985) highlights this cross-linguistic diversity, noting that while tense may be obligatory in some languages, aspect often plays a more prominent role in others. Such variation underscores the theoretical importance of examining how different language families implement tense-aspect-modality (TAM) systems.

In many languages worldwide, tense and aspect are marked predominantly through post-root morphology, with affixes or periphrastic markers following the verb. Indo-European languages, for instance, frequently employ suffixation or analytic auxiliaries to signal temporal reference. By contrast, Bantu languages are morphologically distinctive for employing both pre-root (prefixal) and post-root (suffixal) strategies to encode TAM (Hyman, 2007b; Nurse, 2008). This structural flexibility, often intertwined with subject agreement and derivational extensions, makes Bantu verb morphology among the most complex in the world (Mchombo, 2004). Moreover, the use of multiple TAM slots has led scholars such as Kimenyi (1980) to argue that Bantu systems often blur the traditional tense–aspect divide, since markers may simultaneously convey temporal location, aspectual contour, and discourse functions. Nguu, being among lesser-studied Bantu languages, offers a compelling case that challenges and enriches typological accounts of TAM encoding. Unlike well-documented languages such as Swahili, Zulu, or Chichewa, Nguu reveals patterns of morpheme placement that defy uniform categorization. For instance, both pre-root and post-root slots are employed, with positional alternations sensitive to aspectual distinctions and pragmatic contexts. This observation aligns with Botne's (2006) work on Bantu tense-aspect systems, where he highlights semantic shifts between tense-like and aspect-like interpretations, as well as Seidel's (2008) findings on overlap between perfective and stative meanings in Chaga. Such complexities in Nguu suggest that tense and aspect categories are not discrete but instead operate along a continuum shaped by morphology, semantics, and discourse.

The present study situates Nguu within the broader typological and Bantu-specific discourse on TAM encoding. It builds on foundational insights from Comrie (1976) and Dahl (1985), while also engaging with Nurse (2008), Hyman (2007), and (Mchombo (2004). By demonstrating how Nguu uses positional flexibility and category fluidity in its TAM system, the study highlights both the diversity and the theoretical significance of Bantu morphosyntax. The findings reinforce the view advanced by Botne (2006) that Bantu TAM systems cannot be neatly subsumed under rigid typological categories. Instead, they must be understood as dynamic and innovative systems, where temporal and aspectual meanings emerge from the interaction of morphology, syntax, and discourse.

### 2.2 Empirical Review

Empirical studies conducted on Bantu languages establish significant flexibility in tense and aspect interpretation. Comparative data from Botne (2006) show that, based on semantic context, morphemes that mark tense and aspect can flexibly shift between tense-like and aspect-like readings. This fluidity has also been noted in other Bantu languages, where the interpretations of 'perfective' and 'stative' can systematically overlap (Seidel, 2008). While validating the previous empirical studies on Bantu tense and aspect systems, we, in this study, also extend them.

This study reveals the distributional sensitivity of tense and aspect markers wherein, in Nguu verbs, their distinction can be realised in both pre- and post-root slots. It has also revealed that the markers can alternate their

positions depending on the event, whether it is bounded, ongoing or pragmatically foregrounded. This positional variability reflects patterns observed in other Bantu languages but demonstrates language-specific constraints that have not been recorded in the literature.

These empirical patterns support the view that Nguu TAM categories operate along a functional continuum rather than as discrete grammatical oppositions. Consistent with Botne's (2006) conclusions, the Nguu data suggest that temporal and aspectual meanings emerge from the interaction of morphology, semantics, and discourse, reinforcing the need for fine-grained, language-internal analysis in Bantu TAM studies.

### III. METHODOLOGY

The data used in this study were obtained through a combination of direct elicitation and naturalistic observation with native speakers of Nguu. Direct elicitation included structured translation tasks, narrative prompts, and verb paradigm exercises designed to test how speakers encode tense and aspect distinctions in everyday speech. This approach follows common practices in descriptive linguistics, where carefully prepared tasks help to uncover contrasts that might not easily emerge in casual conversation (Bower, 2015; Crowley, 2007). Naturalistic observation, on the other hand, involved listening to spontaneous interactions and storytelling, which provided a more authentic context for how tense-aspect markers appear in actual usage. Together, these methods ensured that the data captured both controlled responses and natural variation in speech.

Once the data were collected, examples were subjected to close analysis to identify the presence, position, and morphological form of tense-aspect-modality (TAM) markers. The fragmentation method was used to break down verb forms into their constituent morphemes for more precise analysis, a technique widely used in Bantu language research (Meeussen, 1967; Nurse, 2008). This enabled the researcher to determine whether markers occurred pre-root or post-root, and to trace possible interactions between tense, aspect, and derivational morphology. Such systematic analysis not only highlighted the unique strategies employed in Nguu verbal morphology but also provided a basis for comparison with broader patterns reported in Bantu linguistic typology (Hyman, 2007b; Schadeberg, 2003).

### IV. FINDINGS & DISCUSSIONS

#### 4.1 Marking TA in Pre-Root Slots

##### 4.1.1 Recent Past (*na-/ne-* + SM.....-FV)

In Nguu, recent past tense is commonly marked in pre-root slots by morphemes *na-* and *ne-* with final vowel. These markers often used to distinguish recent past from more distant past events. The recent past is usually reserved for actions that occurred earlier the same day or within a short timeframe, reflecting the temporal distinctive characteristic of Nguu tense-aspect systems. The morpheme *ne-* is used for 1SG and IPL while *na-* is used for the remaining persons (consider examples 1 and 2 below).

1) *Nadyeleka matunda yedi.*

<b>na-</b>	di-	elek	-a	matunda yedi
<b>PST-</b>	3SG-	bear	-FV	good fruits
'It bore good fruits.'				

2) *Nekigeza.*

<b>ne-</b>	ki-	gez	-a
<b>PST-</b>	1SG-	try	-FV
'I tried.'			

As demonstrated in examples 1 and 2 above, the combination of morphemes *na-/ne-* (in pre-root slots) with the final vowel *-a* are used to describe events that took place more recently and have memories that are more vivid and detailed.

##### 4.1.2 Present Continuous (SM+ *a*.....-FV)

The morpheme *a-*, in the pre-root slots with the final vowel, functions as a grammatical marker of the present continuous aspect in Nguu. This construction specifically occurs in the affirmative form of the verb, signaling that an action is ongoing or in progress at the time of speaking. The combination of the prefix *a-* and the final vowel, is therefore an important morphosyntactic feature that distinguishes the present continuous from other tense-aspect forms in the language. Such usage is clearly illustrated in examples 3 and 4 below:

- 3) *Asunt'ha vint'hu.*<sup>1</sup>  
 a- a- sunt'h -a vint'hu  
 3SG- PRES- wash -FV dishes  
 'She is cleansing dishes.'
- 4) *Wasoma*  
 wa- a- som -a  
 3PL- PRES- read -FV  
 'They are reading.'

#### 4.1.3 Negative Present Continuous (NEG- + SM- + *ku-* .....-FV)

The infinitive marker *ku-* in Nguu plays an important role in the expression of progressive negation. In negative constructions it specifically appears before the verb root to indicate that an action is in progress but is being negated. In both cases, as it can be seen in 5 and 6 below, the infinitive *ku-* combines with the negative marker *ha-* and the subject marker to yield a construction that conveys a denied ongoing action.

- 5) *Hawakufunga.*  
 ha- wa- ku- fung -a  
 NEG- 3PL- INF- fast -FV  
 'They are not fasting.'
- 6) *Hawakudya*  
 ha- wa- ku- di -a  
 NEG- 3PL- INF- eat -FV  
 'They are not eating.'

The presence of the infinitive marker *ku-* in negative progressive constructions illustrates how Nguu manipulates verbal morphology to encode both aspectual and polarity distinctions. The morpheme does not merely serve its general infinitival function but also becomes an important element within the negative verbal template to block the expression of a positive progressive meaning.

## 4.2 Marking TA in Post-Root Slots

### 4.2.1 Distant Past (*SM*.....-ag + -FV)

On the other hand, distant past tense is typically marked in post-root slots to indicate actions that took place long ago, ranging from previous days to remote historical events. The imperfective *-ag* resides in post-root TAM to indicate the distant past in Nguu (consider example 7 below).

- 7) *Alongaga.*  
 a long -ag -a  
 3SG- say -IPFV -FV  
 'He said.' (long time ago)

In contrast to the recent past illustrated in examples 1 and 2, where the morphemes *na-/ne-* (in pre-root slots) and the final vowel denote more recent events, the imperfective *-ag* in post-root slots, as demonstrated in example 7, refers to events that occurred a long time ago and may be associated with less detailed memories. This entails that the positioning of past tense markers in Nguu is determined by the degree of recency or remoteness of the action being referred to in the past. In other words, the language does not treat all past events uniformly; instead, it distinguishes between actions that occurred recently and those that took place in the more distant past.

## 4.3 Marking TA in both Pre- and Post-Root Slots

### 4.3.1 Simple Present (*SM* + *a-* +.....-ag + -FV)

In Nguu verbal morphology, the simple present tense is encoded through a combination of markers distributed across both the pre-root and post-root slots of the verb structure. In the pre-root position, the tense is typically marked by the morpheme *-a*, which serves as the primary indicator of present tense. Complementing this, the post-root slot hosts the imperfective aspect marker *-ag*, which is inserted immediately before the final vowel. The presence of *-ag* signals the ongoing or habitual nature of the action, thereby refining the temporal interpretation provided by the pre-root tense marker as shown in examples below:

<sup>1</sup> The realisation of the tense marker *-a* in surface form has been affected by the vowel deletion process, which specifically focuses on the low front vowel /a/, which serves as a subject marker when it directly follows another vowel, creating a sequence that would otherwise position two vowels adjacent to each other.

- 8) *Nawandikaga*  
 ni- a- wandik -ag -a  
 1SG- PRES- write -IPFV -FV  
 'I write.'
- 9) *Chavunaga*<sup>2</sup>  
 ki- a- vun -ag -a  
 1PL- PRES- harvest -IPFV -FV  
 'We harvest.'
- 10) *Awegulaga*  
 a- a- wegul -ag -a  
 3SG- PRES- shave -IPFV -FV  
 'He shaves'

In Nguu, as it is the case to many Bantu languages, the simple present tense often overlaps with the habitual aspect. Rather than expressing an action occurring strictly "right now", the simple present in Bantu languages frequently conveys general truths, customary actions, or ongoing states. This means that forms glossed as present tense can naturally imply habitual meaning, such as daily routines, cultural practices, or permanent characteristics. This functional overlap reflects the broader Nguu pattern in which tense and aspect are closely intertwined, and where aspectual distinctions such as habituality emerge more from discourse context than from rigid morphological separation.

#### 4.3.2 The Future (*na-/ne* + SM-.....-*SBJV*)

Nguu uses specific markers attached to the verb root to indicate that an action will take place later. The structure of future tense in Nguu, especially in simple future, is marked in both pre- and post- root slots. The morphemes *na-* in pre-root slots (preceded by subject marker), and the subjunctive *-e*, are used to denote future in Nguu (see 11 and 12 below).

- 11) *Nawanigambe*.  
 na- wa- ni- gamb -e  
 FUT- 3PL- 1SG- tell -SBJV  
 'They shall tell me.'
- 12) *Nekimole*.  
 ne- ki- mol -e  
 FUT- 1PL- demolish -SBJV  
 'We will demolish.'

The presence of subjunctive *-e* makes Nguu verbs under this category better analysed as a modal rather than a temporal category, since it denotes more wishes, suggestions, demands, necessity, obligation or permission than future events.

#### 4.4 Marking TA using Auxiliary Verbs

Auxiliary verbs, all with the root *-nd* are essential for marking all aspects in Nguu, except the present continuous aspect which is morphologically unmarked. Aspect are often encoded by the use of auxiliary verbs before the main verb, whereas tense distinctions are mainly communicated through verbal morphology. Instead of indicating the precise moment of occurrence, these auxiliaries serve to place an action within a particular temporal framework in relation to its completion or continuity. As such, they indicate whether an event is repeated, ongoing, or finished—often in conjunction with other verbal markers. Although Nguu displays its own morphosyntactic preferences in their placement and usage, this dependence on auxiliaries for aspectual distinctions is a common pattern among Bantu languages.

##### 4.4.1 Past Continuous (AUX + SM *-ka*-.....-*FV*)

The marking of past continuous aspect in Nguu verbs, is featured by an auxiliary verb, *-nd-* which is formed with other morphemes depending on the aspect and a subject marker present in the main verb.

The main verb is featured by the consecutive *ka-*, which occurs before the subject marker.

- 13) *Nakanda akasoma*.  
 Na- wa- nd -a wa- ka- som -a  
 PST- 3PL- AUX -FV 3SG- CONS- read -FV  
 'They were reading.'

<sup>2</sup> Although the sound /ki/ is realized in underlying form for many speakers, the sound is still retained in surface form by some speakers, especially the old ones. This variation may constitute evidence of an ongoing sound shift from /k/ to the affricate /tʃ/, is possibly influenced by contact with neighboring languages such as Kagulu and Zigula, which employ the morpheme *cha-* as the first-person plural marker (Petzell, 2008; Petzell & Hammarström, 2013).

14) *Nekinda kikavuna.*

Ne- ki- **nd** -a ki- **ka-** vun -a  
 PST- 1PL- **AUX** -FV 1PL- **CONS-** harvest -FV  
 'We were harvesting.'

The Nguu data thus reveal a morphologically complex yet functionally transparent system for encoding the past continuous aspect. In marking past continuity, the auxiliary *-nd-* co-occurs with consecutive *ka-* situates the main verb within a sequential or ongoing framework. Together, these elements reflect the broader Bantu tendency to distribute tense and aspect across multiple morphological slots. This aligns with cross-linguistic findings that progressive and continuous aspects are frequently expressed through auxiliary-plus-main-verb constructions (Bybee *et al.*, 1994; Dahl, 1985), while also stressing the uniquely Bantu characteristic of cumulative TAM marking (Nurse, 2008; Hyman, 2007).

**4.4.2 Past Perfect (AUX + Ø + SM.....-FV)**

The past perfect aspect functions to project actions that had been completed before another past event. In Nguu, the past perfect is marked with an auxiliary marker *-nd-* occurring before the main verb.

15) *Nakanda kakomola.*

na- ka- **nd** -a ka- komol -a  
 PST- 3SG- **AUX** -FV 3SG- open -FV  
 'He had opened.'

16) *Nawanda walima.*

na- wa **nd** -a wa- lim -a  
 PST- 3PL- **AUX** -FV 3PL- cultivate -FV  
 'They had cultivated.'

Unlike other tense–aspect constructions that are typically marked overtly on the main verb, the past perfect construction in Nguu demonstrates a systematic use of the auxiliary *-nd-* in combination with subject markers to signal that an action was completed prior to another past event. The main verb remains unmarked, underscoring the central role of the auxiliary in encoding temporal relationships.

**4.4.3 Future Continuous (AUX (Future) + Ø + SM.....-FV)**

Future continuous occurrences are indicated using the future form of an auxiliary verb preceding the main verb. This construction highlights ongoing or progressive actions that are projected to occur at a specified time in the future.

17) *Nawande wawandika.*

na- wa- **nd** -e wa- wandik -a  
 FUT- 3PL- **AUX** -SBJV 3PL- write -FV  
 'They will be writing.'

18) *Nekinde kihanda mbeyu.*

ne- ki- **nd** -e ki- hand -a mbeyu  
 FUT- 1PL- **AUX** -SBJV 1PL- sow -FV seeds  
 'We will be sowing seeds.'

The examples analyzed demonstrate that the auxiliary precedes the main verb, while the main verb retains its finite form, reflecting a clear structural pattern in the encoding of future continuous actions in Nguu.

**4.4.4 Future Perfect (AUX (Future) + Ø + SM.....-FV)**

As demonstrated below, the future form of an auxiliary verb is used before the main verb without a TA marker to indicate acts that will have been done before a specified future point:

19) *Naande katamba.*

na- a- **nd** -e ka- katamb -a  
 FUT- 3SG- **AUX** -SBJV 3SG- travel -FV  
 'She will be travelling.'

20) *Nekinde kilunja.*

ne- ki- **nd** -e ki- lunj -a  
 FUT- 1PL- **AUX** -SBJV 1PL- collect -FV  
 'We will be collecting.'

**4.5 Null TAM Marking****4.5.1 Present Perfect (Ø ...SM- .....-FV)**

The present perfect in Nguu is characterised by the absence of a dedicated aspect marker, with the main verb retaining its base form and only subject agreement markers signaling person and number as shown in examples below:

- 21) *Kalonga*  
 ka- long -a  
 3SG- say -FV  
 'He has said.'
- 22) *Wagona*  
 wa- gon -a  
 3PL- sleep -FV  
 'They have slept.'
- 23) *Kigeza*  
 ki- gez -a  
 1PL- try -FV  
 'We have tried.'

This null-marking strategy highlights the language's reliance on context and subject marking to convey the completion of an action relative to the present. Such a system highlights the efficiency and economy of Nguu verbal morphology.

#### 4.6 Discussion

The investigation of tense and aspect (TA) in Nguu reveals a sophisticated and adaptable verbal system that both agrees with and contradicts Bantu linguistic generalisations. Nguu illustrates that Bantu TAM systems frequently use both pre-root and post-root affixation, as well as auxiliary constructs, to encode temporal and aspectual distinctions, which is consistent with the findings of Nurse (2008). The choice of marker location in Nguu is not arbitrary, but rather depends on temporal immediacy, habituality, or aspectual distinction. For example, the differentiation between recent past (pre-root *na-/ne-*) and distant past (post-root *-ag*) demonstrates a finely graded temporal system in which morphological placement indicates not just tense but also relative temporal distance between occurrences. This is consistent with the broader Bantu pattern highlighted by Botne (2006), who observes that semantic interpretations in TAM systems frequently result from interactions between affix placement, aspectual meaning, and discourse context.

The tendency for forms glossed as present tense to imply habitual meaning aligns with broader patterns observed in Bantu languages, where tense and aspect frequently operate as intertwined semantic domains. In Nguu, present-marked constructions readily encode habitual actions such as routines, cultural norms, or stable traits, demonstrating that aspectual values emerge strongly from context rather than from discrete morphological distinctions. This observation resonates with Botne's (2006) analysis of motion-based grammaticalization pathways, which shows that many Bantu languages blur the boundaries between tense and aspect through context-dependent interpretation. Similarly, Nurse's (2008) typological overview highlights that Bantu TAM systems often privilege semantic flexibility, allowing present forms to cover a continuum of meanings from immediate present to generalized habitual. Taken together, these insights support the conclusion that Nguu's TAM system is best understood as a semantically fluid network in which habituality is inferred pragmatically rather than encoded morphologically, reinforcing the central role of discourse in shaping temporal and aspectual interpretation.

Furthermore, Nguu shows a complex connection between morphological marking and auxiliary constructs, particularly in the continuous and perfective features. Past continuous, past perfect, and future continuous forms all use the auxiliary *-nd-*, either alone or in conjunction with consecutive markers such as *ka-*, indicating a cumulative technique for temporal and aspectual encoding. This pattern reflects Bybee *et al.*'s, (1994) cross-linguistic finding that progressive and perfective meanings are frequently dispersed across many morphosyntactic slots. Unlike more rigid systems, such as Indo-European languages, the Nguu system allows for various paths to convey identical temporal or aspectual degrees, implying that TAM categories function as a continuum rather than discrete grammatical pieces. This finding is supported by Seidel (2008), who highlight the flexibility of tense-like and aspect-like interpretations in Bantu languages.

Furthermore, the null marking seen in Nguu's present perfect forms demonstrates the economy of verbal morphology in understudied Bantu languages. Nguu preserves intelligibility while decreasing morphological duplication by using subject marking and contextual signals instead of explicit aspectual morphemes. This phenomenon contrasts with more overtly marked Bantu systems and is consistent with the typological principle that aspect can frequently be inferred from syntactic, semantic, or pragmatic cues rather than obligatory affixation (Dahl, 1985). Similarly, the existence of the subjunctive *-e* in future tense constructions indicates that mood and modality overlap with temporal reference, echoing a larger tendency in Bantu morphosyntax in which TAM marking cannot be totally isolated from modality or discourse function (Hyman, 2007a; Mchombo, 2004).

Collectively, these findings highlight Nguu's contribution to the study of Bantu verbal morphology. Its approach reveals that tense and aspect marking are not absolutely linear or uniform, but rather are influenced by a variety of morphological, syntactic, and pragmatic elements. The observed flexibility calls into question rigid typological assumptions and emphasises the need of including underdocumented languages in comparative studies. From a

theoretical approach, Nguu agrees that TAM categories in Bantu are gradient, multifunctional, and context sensitive, supporting Botne's (2006) and Nurse (2008) claims about the dynamic character of Bantu verb systems.

## V. CONCLUSION & RECOMMENDATIONS

### 5.1 Conclusion

Research on Nguu verbal morphology contributes to a better understanding of TAM encoding in Bantu languages. Nguu exhibits Bantu verbs' morphological creativity and functional transparency by employing a variety of pre-root, post-root, auxiliary, and null-marking methods. These findings highlight the need for broader typological research that include similar under-described languages in order to refine TAM encoding models. Going forward, such research can guide the development of more robust cross-linguistic frameworks that better capture the full range of TAM systems in Bantu and beyond. Future research should look into the interplay between tense, aspect, mood, and negation, as well as comparative analyses with closely related languages, to see if the morphological flexibility observed in Nguu is a local innovation or a feature shared by many Bantu languages. Additionally, future studies may integrate experimental, computational, or corpus-based methods to test how these morphological patterns operate in natural discourse. Finally, Nguu highlights how important it is to study lesser-known languages in order to verify theoretical assumptions and gain a better knowledge of the morphosyntactic diversity inherent in all languages. Continued documentation and analysis of Nguu therefore has the potential to shape emerging theoretical models and inspire new questions in Bantu morphosyntax research.

### 5.2 Recommendations

We recommend that future studies base on broader empirical scope. More diverse samples that cover different Nguu-speaking communities should be involved so as to capture possible dialectical variation in making tense and aspect. Comparative analysis should also be made between Nguu and other closely related Bantu and Niger-Congo languages. This will help situate Nguu within the wider typology of tense and aspect systems, shedding light on historical developments, grammaticalization processes, and potential areal influences shaping its verbal morphology.

### Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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