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The gender system of Longuda

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Abstract: This article describes the gender system of Longuda. Longuda class marking is alliterative and does not distinguish between nominal form and agreement marking. While it thus appears to be a prototypical example of a traditional Niger-Congo “noun-class” system, this identity of gender encoding makes it look morpho-syntactic rather than lexical. This points to a formerly independent status of the exponents of nominal classification, which is similar to a classifier system and thus less canonical. Both types of class marking hosts involve two formally and functionally differing allomorphs, which inform the historical reconstruction of Longuda noun classification in various ways.

Keywords: Adamawa; agreement; deriflection; gender; noun class; reconstruction

1 Introduction

Longuda, spoken in the northeast of Nigeria, belongs to one of more than a dozen primary units of the Adamawa pool of Niger-Congo (cf. Güldemann 2018: 200–213). The language comprises five dialects. Guyuk is the dialect on which we base our synchronic description in Section 2, while Section 3 deals with the reconstruction of the Proto-Longuda gender system considering all dialects.

Published descriptive data on Longuda is limited thus far and often occurs in contexts of comparative treatments. The first substantial data set appears in Meek (1931), in which a vocabulary and short phrases of two varieties are presented, one of those being Guyuk. Jungrathmayr (1968/1969) focuses on noun class suffixes and a few agreement contexts in the Gwaanda dialect in comparison to class systems in such neighbouring Adamawa languages as Waja, Tula, Cham, Dadiya and Awak. Some results of SIL research are published in Newman (1976) on clause

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structure, Newman and Newman (1977b) on phonology, Newman (1978) on verb structure; Newman and Newman (1977a) provides a dialect survey. The most recent contributions are by Kleinewillinghöfer, notably (1996, 2014), the first giving an overview of nominal form classes in all Longuda dialects (cf. also <https://www.blogs.uni-mainz.de/fb07-adamawa> for additional unpublished work).

The goal of this contribution is a first synchronic and diachronic assessment of the nominal classification system of Longuda according to the approach in Guldemann and Fiedler (2019, this volume). We mostly rely on extensive but partly still unpublished wordlists provided by Ulrich Kleinewillinghöfer and compiled by local linguists, which cover all dialects. The most complete data are from the Guyuk dialect and include some agreement contexts. All data without an indicated source refer to this material. This is complemented by information from the aforementioned publications, notably Meek (1931), Newman (1976), and Newman and Newman (1977a, b). Some recent data were provided by Friederike Vigeland, who works on grammatical aspects of Longuda within her doctoral dissertation. The older the data, the more they may involve phonological indeterminacies. This concerns, in particular, vowel quality due to the existence of ATR harmony in all dialects, which according to Kleinewillinghöfer (2019b) seems to be in a process of erosion. We can also not give consistent information on tone, which thus remains unmarked in most examples.

2 Description

2.1 The morphosyntax of nominal forms

2.1.1 Nominal form (NF) classes

Longuda displays nine nominal form classes realized as suffixes on the noun. Each class surfaces in two primary shapes, depending on the grammatical context (see Section 2.1.3 below). Table 1 displays the nominal form classes including their number behavior and some representative nouns.

As can be seen in Table 1, we call the two suffix variants T(hematic)-form and A-(vowel)-form – terms to be motivated in the following. The characteristic of the A-form is that it universally has the shape *-CA* (surfacing as *-Ca* or *-Ce*, see below). The T-form has a shape *C(V)* in six classes (*-B(V)*, *-HV*, *-L(I)*, *-KI*, *-TI*, *-M(I)*) and just *V* in three classes (*-I*, *-U*, *-A*). For the T-forms with a vowel, the *CV* shape of their corresponding A-form is at least in two cases the transparent result of glide formation, *-I* to *-YA* and *-U* to *-WA* (for the case of the *-A* class, see Section 3). In light of this language-specific detail and the observation that the formal profile of T-forms

Table 1: Nominal form classes of Longuda.

| NF | | | Number | Example(s) in A-form |
|--------|--------|------------------------------|--------|--|
| T-form | A-form | A-allomorphs | | |
| -I | -YA | -ya, -ye | SG | <i>zwa-ya</i> ‘child’, <i>gu-ye</i> ‘thief’ |
| -B(V)* | -BA | -ba, -be | PL | <i>zwa-ba</i> ‘children’ |
| -U | -WA | -wa, -we | TN | <i>guabir-wa</i> ‘time’ |
| | | | SG | <i>lara-wa</i> ‘elephant’ |
| -HV | -HA | -ha, -he | TN | <i>chum-he</i> ‘soot’ |
| | | | PL | <i>lara-ha</i> ‘elephants’ |
| -L(I)* | -LA | -la, -le, -da, -de | TN | <i>yim-la</i> ‘death’ |
| | | | SG | <i>du-le</i> ‘head’, <i>guba-la</i> ‘stone’ |
| -A | -(P)A | -a, -e, -wa, we, -ya, -ye | PL | <i>dwe-e</i> ‘heads’, <i>guba-a</i> ‘stones’, <i>thirsi-ye</i> ‘baboon’ |
| -KI | -KA | -ka, -ke | TN | <i>chuchul-ke</i> ‘shade’ |
| | | | SG | <i>ti-ka</i> ‘tree’, <i>cwa-ka</i> ‘rock’ |
| -TI | -TA | -ta, -te | TN | <i>gu-te</i> ‘theft’ |
| | | | PL | <i>joon-ta</i> ‘noses’, <i>cwa-ta</i> ‘rocks’ |
| -M(I)* | -MA | -ma, -me | TN | <i>duu-me</i> ‘seed’ |
| | | | PL | <i>ti-ma</i> ‘tree’, <i>cwa-ma</i> ‘mountains’ |

Note: *Vowel can be dropped. No evidence for specific vowel quality.

displays a more typical range of formal variation for class affixes in Niger-Congo, we assume that the A-form emerged from the fusion of a functional element *-a* with the more basic T-form, thereby neutralizing all earlier differences involving vowels. Our approach to regard the T-form as basic goes against the traditional view to treat the A-form as the principal representative of nominal classes in Longuda (see also Section 2.1.3). Our analysis is also reflected in the glossing of examples: the T-form is comprised of the NF and the corresponding agreement class, while the A-form is T-form:A, as shown in (1).

- (1) **T-form** vs. **A-form**
- a. *nyu-li* *nyu-la*
 eye-LI.5 eye-LI.5:A
- b. *lara-u* *lara-wa*
 elephant-U.3 elephant-U.3:A

In the A-form, one observes vowel harmony in that *-Ca* is required by a $-ATR$ root and *-Ce* by a $+ATR$ one, e.g., *tv-la* ‘ear’ vs. *tu-le* ‘cloud’. Although one could expect similar ATR -effects in the T-form, e.g., $^{\circ}tv-lr$ ‘ear’ vs. $^{\circ}tu-li$ ‘cloud’, we cannot say anything about it due to indeterminate data. In any case, ATR -harmony does not play a crucial role for the examination of the NF-system.

- (6) a. *dùm-má* > *dùm-tá*
 ‘sleep’ ‘?sleeps’
 b. *mam-ma* > *mam-ta*
 ‘water’ ‘waters’

2.1.2 Agreement and agreement (AGR) classes

The Longuda class system is of the canonical Niger-Congo type in that nominal form and agreement classes correlate strongly – a picture possibly brought to the fore even more so by the restricted data collection focusing on the “noun class” concept. Hence, the system of agreement classes, as given in Table 2, is identical with that for nominal form classes in Table 1. The shape of agreement markers normally corresponds to the shape of the T-rather than the A-form in the system of nominal form classes, which is confirmation for the adequacy of our approach to view the former as basic.

There are various agreement targets, their exact number differing slightly between dialects. For Guyuk, we have complete data for the targets in columns four to six of Table 2. According to Meek (1931) and Vigeland (2019), there is also agreement on possessive pronouns and another demonstrative, for which Kleinewillinghöfer’s Guyuk material is incomplete. Agreement on lower numerals (restricted to 1–5) was already shown in (2) (cf. also (9) below). Agreement on possessive pronouns is exemplified in (11) and (14) below.

Table 2: Agreement classes of Longuda.

| AGR | Exponent | Number | NUM | REL/DEM | ADJ | POSS | DEM | SBJ |
|-----|----------|--------|---------------|-------------|--------------|-----------|----------------|-----------|
| 1 | I | SG | <i>na-i-</i> | <i>iN*</i> | <i>-i</i> | <i>-i</i> | <i>i(a)</i> | <i>a</i> |
| 2 | B | PL | <i>na-b-</i> | <i>ab</i> | <i>-b</i> | <i>-b</i> | | <i>ba</i> |
| 3 | U | TN, SG | <i>na-u-</i> | <i>uN</i> | <i>-u</i> | <i>-u</i> | <i>uw(a)</i> | <i>a</i> |
| 4 | H | TN, PL | <i>na-ha-</i> | <i>aNhe</i> | <i>-he</i> | | | <i>ba</i> |
| 5 | L | TN, SG | <i>na-l-</i> | <i>al</i> | <i>-l</i> | <i>-l</i> | <i>i-l</i> | <i>a</i> |
| 6 | A | TN, PL | <i>na(a)-</i> | <i>aN</i> | <i>-[?]a</i> | | | <i>a</i> |
| 7 | K | TN, SG | <i>na-ki-</i> | <i>aNki</i> | <i>-ki</i> | | <i>iN-k(a)</i> | <i>a</i> |
| 8 | T | TN, PL | <i>na(a)-</i> | <i>aNti</i> | <i>-ti</i> | | | <i>a</i> |
| 9 | M | TN, PL | <i>na(a)-</i> | <i>am</i> | <i>-m</i> | | | <i>a</i> |

Note: *Some relative markers show variation between a nasalized final vowel [ĩ], a vowel followed by a dental nasal [n] or by a velar nasal [ŋ]. We represent the different realizations of the underlying nasal gesture by a capital *N*.

The agreeing relative marker, which is sometimes also described as a demonstrative (see Newman 1976: 49), is illustrated in (7) for object relative clauses and in (8) for subject relative clauses. The latter example shows that the relative clause-initial third-person subject pronoun *a* (see below for some discussion) tends to fuse with the relative marker.

- (7) a. *ziŭn-ki anki* [*na dwa ...*]
 leaf-KI.7 REL:7 1SG see
 ‘The leaf that I have seen, ...’
 b. *ziŭn-ti ati* [*na dwa ...*]
 leaves-TI.8 REL:8 1SG see
 ‘The leaves that I have seen, ...’
- (8) a. *na dwam zw-ĩ ĩ(y)-[a zi.bula]*
 1SG see child-I.1 REL:1-SBJ:1 play
 ‘I have seen the child which [sic] has played.’
 b. *na dwam thi-ki ank-[a mwar mwar-ka]*
 1SG see tree-KI.7 REL:7-SBJ:7 become.big big-7:A
 ‘I have seen the tree which has grown big.’

Example (9) shows agreement on an attributive adjective (and the numeral *kal* ‘one’; cf. also (8b) for agreement on the predicative adjective *mwar*).

- (9) *bàlĭ-wē¹ fâr-ḽ nâ-ḽ-kâl*
 cow-U.3:A red-3 NUM-3-one
 ‘one red cow’ [Vigeland 2019: 14]

Guyuk has a paradigm of anaphoric subject pronouns, which strongly differs from the agreement system that correlates with adnominal class marking. As seen in the last column of Table 2, there are just two forms *a* vs. *ba*. The former is the default, although associated primarily with singular number. The latter applies predominantly to nouns referring to plural animate concepts, which occur in agreement class 2 for plural humans and in agreement class 4 for plural animals. However, the synchronic selection is strictly based on the two structural classes rather than the semantic feature of animacy. Therefore, inanimates in class 4 also require *ba*, as shown in (10c), while plural animates in other classes always show the subject pronoun *a*. In view of the restricted data at hand, we do not analyze subject pronouns to establish a separate gender system, rather we treat it as a case of extreme syncretism in one agreement context.

¹ The word ‘cow’ is exceptional in that all available examples of typical T-form contexts (see below) fail to show the expected suffix shape *-u*.

- (10) a. *mwa-ya-ma* **a** *sweme*.
 wife-I.1:A-DEM SBJ:1 cultivate
 ‘she (the wife) has cultivated.’
- b. *mwau-ba-ma* **ba** *sweme*.
 wife-BV.2:A-DEM SBJ:2 cultivate
 ‘they (the wives) have cultivated.’
- c. *cirem-he-yn* **ba** *kowe sima*.
 knife-HV.4:A-DEF SBJ:4 fall.down
 ‘they (the knives) have fallen down.’²

2.1.3 The relation between nominal form classes and agreement classes

The inventories of nominal form classes and agreement classes, as described for the Guyuk dialect but apparently representative for Longuda as a whole, can be compared from Table 1 and 2, respectively. With the caveat that our data are restricted, lacking in particular information on possible nouns without class markers, it can be observed that the two types of classes have a complete biunique association with each other, the same number behavior, and even identical form. These features lead to a proto-typical alliterative class system of the Niger-Congo type.

What is more, this picture does not just reflect a very intimate relationship between the two sets of markers, but, in fact, their identity. This is particularly clear from the fact that the existence of two different shapes reported in Section 2.1.1 for nominal suffixes also holds for agreement markers. This entails that the distinction in class markers between a T-form and an A-form is not a morphological property of nouns. Class marking in Longuda thus appears to be a primarily syntactic phenomenon, not only on agreement targets but on nouns themselves.

Before we discuss the relevant data, we briefly review the treatment of the two forms in previous literature. As already mentioned in Section 2.1.1, the A-form used to be seen as the basic class exponent, presumably because it occurs in the nominal citation form. The T-form was not viewed as a form in its own right, rather merely as the result of phonetic reduction. Thus, Newman and Newman (1977b: 60) observed that certain grammatical environments show a reduction of the final vowel of a noun and explained it in two ways. The exponents of the classes with the consonants *b*, *m*, and *l* are reduced to these segments, as the syllabic structure of Longuda allows such codas (Newman and Newman 1977b: 60). Since this is not possible with *h*, *k* and *t*, the vowels of the relevant nominal form classes appear to

² The translation of these clauses is taken from the original data. We do not know the specific syntactic relation between the nouns and the co-referential pronouns.

be centralized. A similar idea of vowel reduction was already proposed by Jung-raithmayr (1968/1969: 175–176).

However, the occurrence of T- and A-forms in the noun phrases of the data available to us sheds new light on the structural properties of noun classes. A first crucial observation from examples given in Section 2.1.2 is that both forms apply to nouns (e.g., A-form in (10) vs. T-form in (7)–(8)) as well as agreement targets (e.g., A-form in (2a) vs. T-form in (7)–(8)).

- (11) a. [*chiba-w*]=*a*
 slave-U.3=*a*
 ‘slave’ [Meek 1931, vol. 2: 363]
- b. [*chiba-u mer-w*]=*a*
 slave-U.3 1_{PL}-3=*a*
 ‘our slave’ [Meek 1931, vol. 2: 363]
- c. [*mwa-u mər-u uw*]=*a*
 field-U.3 1_{PL}-3 DEM:3=*a*
 ‘this our farm’ [Newman and Newman 1977b: 70]

The examples in (11) are particularly instructive. Not only do they show that the A-form arises by adding a morpheme *a* to the T-form, but also that this happens irrespective of the host of class marking and the morpho-syntactic context. The apparently common denominator of the A-forms in (11) is their occurrence at the right edge of the noun phrase (we deviate here from our normal way of glossing the A-form), while all preceding non-final class suffixes revert to the T-form. Thus, the *a* of the A-form appears to be a phrasal enclitic, at least historically.

The suspicion that the alternation between T- and A-form is to a large extent a morpho-syntactic phenomenon was in fact entertained by Newman and Newman (1977b: 60) in that they observe that the final vowel reduction, which in our terms is the shift from an A-form to a T-form, takes place in circumscribed contexts:

This change in vowels occurs before the following grammatical environments: (1) before the negative marker *ga*, and the conditional marker *di*, (2) before an adjective or possessive pronoun, (3) before a relative pronoun beginning with a vowel, (4) before relational suffixes -*ra* ‘on’, -*se* ‘under’. (Newman and Newman 1977b: 60)

The T-form environments with relative pronoun, adjective, and possessive pronoun were previously illustrated in (7)–(9), and (11). Examples for the negative and conditional context are depicted in (12) and (13), respectively. The occurrence of the T-form also seems to be typical for questions, as in (14).

- (12) a *haga nyim nyiza-u ga*
 3SG NEG.HAB receive.EMPH ring-U.3 NEG
 ‘He wasn’t receiving the ring’ [Newman 1976: 60]
- (13) *na ningga-bə kwand-i di,*
 1SG give-3PL chief-I.1 COND
 ‘If I give them to the chief...’ [Newman 1976: 43]
- (14) a. *zin-di mi-la*
 name-LI.5 your-5:A
 ‘your name’ [Meek 1931, vol. 2: 365]
- b. *zin-di mi-l bua?*
 name-LI.5 your-5 what
 ‘what is your name?’ [Meek 1931, vol. 2: 365]

Although our data do not suffice for a conclusive statement, it is noteworthy that the above T-form environments have a profile similar to the typical contexts identified by Givón (e.g., 2001: 437–478) for a low degree of nominal referentiality.

The occurrence of the T-form is furthermore universal in our data in connection with certain morphemes, notably after the numeral linker *na-* (cf. (2b) and (9) above) and before locative suffixes, as in (15).

- (15) *a cau-ki-ra*
 PREP leg-KI.7-on
 ‘on the leg’

We turn now to functional aspects of the A-form. A first typical context is non-verbal predicates, both nominal and adjectival, as shown in (16) and (17) (cf. also (8b) with an A-form on an apparent secondary predicate).

- (16) *ni na Baturo-wa*
 1SG COP European-U.3:A
 ‘I am a European.’ [Meek 1931, vol. 2: 364]
- (17) *lara-wa-u ha mwar-wa*
 elephant-U.3:A-DEF COP big-3:A
 ‘the elephant is big’ [?’the elephant is a big one’]

Another regular environment of the A-form is genitive constructions on both the possessor and possessum, as shown in (18).

- (18) a. *cau-ka lara-wa*
 leg-KI.7:A elephant-U.3:A
 ‘the leg of the elephant’
 b. *nyu-la zi-ka*
 eye-LI.5:A snake-KI.7:A
 ‘the eye of the snake’

Furthermore, the A-form occurs without exception if the noun is followed by such determiners as *-u* (cf. the subject noun in (17) above) and *-ma*, as in (19). The second determiner item also occurs as a free demonstrative, as in (20), the preceding class marker being still in the A-form.

- (19) *mwa-wa-ma*
 farm-U.3:A-DEM
 ‘this farm’ [Newman and Newman 1977b: 70]

- (20) *zī-tā ná:-ø-sīr tá-mà*
 snake-TI.8 NUM-8-TWO 8:A-DEM
 ‘those two snakes (out of sight)’ [Vigeland 2019: 14]

With determiners, the requirement of an A-form seems to be a grammatical condition. That is, against the regular patterns reported above, the A-form is also used with negation, in conditional clauses and before locative suffixes as soon as the noun phrase involves *-u* or *-ma*, as in (21) (cf. examples in Newman and Newman 1977b: 71).

- (21) *zə-ka-ya-ma*
 town-KI.7:A-in-DEM
 ‘in this town’ [Newman 1976: 50]

The A-form does not seem to simply correlate with definiteness. In (22), from a story, the noun ‘farm’ is a new referent introduced in the discourse without any determiner but is yet a concrete referent. Thus, the A-form might mark specific reference.

- (22) *ba dau mwa-wa*
 they put farm-U.3:A
 ‘they made a farm’ [Newman and Newman 1977b: 70]

To sum up, class marking in Longuda appears to be a morpho-syntactic rather than a lexical phenomenon in that two basic forms appear on both, agreement targets and nouns, according to certain grammatical conditions. Future research must conclusively determine the relevant factors. We hypothesize that T-forms are preferred on nouns in fixed morphological contexts and/or with low

referentiality, while A-forms tend to occur at the closure of a noun phrase and/or on nouns with at least specific reference.

2.2 The behavior of nominal lexemes in terms of gender

Longuda gender is a largely fixed property of noun lexemes, but concrete word forms vary regularly for number. Both gender and number are conveyed by the system of nine nominal form and agreement classes, as described in Section 2.1, expressed by the morphological form of the noun itself and on agreement targets. The morphological variation of a noun lexeme is called here its deriflection (see Güldemann and Fiedler 2019, this volume), while its agreement behavior defines its gender. To the extent known, the nominal form classes and agreement classes of Longuda are fully parallel, in line with the traditional “noun class” concept; in fact, the exponents are identical. Hence, the Longuda systems of deriflection and gender coincide. This is shown in Figure 1 (with the caveat that additional data may change the picture to some extent).

According to the available data, the nine noun classes pattern over the two number features singular and plural into nine class-pair genders (and deriflections) for count nouns, three of which seem to be inqorate (3/6, 5/8, and 7/6 symbolized by stippled lines). Furthermore, there are six single-class genders (and deriflections) applying to transnumeral non-count nouns. Some of these are also inqorate, while others may not represent a separate gender but can be conceived of as pertaining to a paired gender. Thus, lexemes with the single class 5~*L(I)* may be singularia tantum of gender 5/6 and lexemes with the single class 4~*HV* may be pluralia tantum of

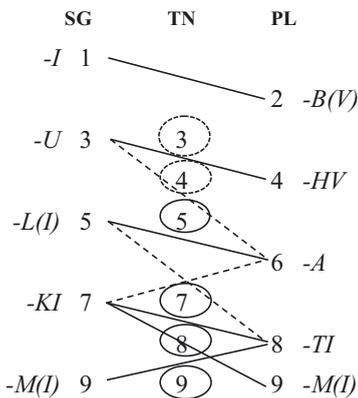


Figure 1: Preliminary deriflection/gender system of Guyuk.

Table 3: Gender/Deriflection patterns of Guyuk with examples.

| AGR | NF | Core semantics | Examples (in A-form) |
|--------------|---------------------|--|--|
| 1/2 (3) | -I/-B (-U) | human, agent derivation – | <i>zwal-iyā/zwal-bā</i> ‘man’ <i>gwabir-wa</i> ‘time’ |
| 3/4 | -U/-HV | kinship animal | <i>kur-we/kur-he</i> ‘father’ <i>lara-wa/lara-ha</i> ‘elephant’ |
| (3/6) (4) | (-U/-A) (-HV) | – – | <i>mo-uwa/m-a²a</i> ‘field’ <i>chum-he</i> ‘soot’ |
| 5 5/6 | -LI -LI/-A | abstract “disabled” human animal animate diminutive body part fruit | <i>yim-la</i> ‘death’ <i>mūnmūnā-lā/mūnmūna-a</i> ‘lame’ <i>thirsi-le/thirsi-ye</i> ‘baboon’ <i>zwa.ji-le/zwa.ji-ye</i> ‘kid’ <i>du-le/dw-e</i> ‘head’ <i>gwanda-la/gwanda-a</i> ‘pawpaw’ |
| (5/8) 7 | (-LI/-TI) -KI | – – | <i>kuŋ-la/kuŋ-ta</i> ‘fight’ <i>chuchul-ke</i> ‘shade’ |
| (7/6) 7/8 | (-KI/-A) -KI/-TI | – tree body part | <i>na-ka/na-a</i> ‘arm’ <i>gauŋ-ka/gauŋ-ta</i> ‘palm tree’ <i>nya-ka/nya-ta</i> ‘mouth’ |
| 7/9 8 | -KI/-M(I) -TI | – abstract derivation | <i>ti-ka/ti-ma</i> ‘tree’ <i>gu-te</i> ‘theft’ |
| 9 9/8 | -M(I) -M(I)/-TI | abstract derivation mass~liquid ?pluralized mass~liquid | <i>jawa-ma</i> ‘tiredness’ <i>thu(m)-ma</i> ‘blood’ <i>ma(m)-ma/mam-ta</i> ‘water’ |

Note: (...) = possibly inquotate pattern.

gender 3/4. Such an analysis is less clear for single-class nouns with 7~KV because these could belong to gender 7/8 or 7/9. Due to our restricted data, we cannot give a full conclusive account of the system as a whole. However, provided the genders 7/8, 7/9 and 9/8 are indeed productive, the system is overall crossed in terms of Corbett (1991: 156–157). Table 3 repeats the system including some information on semantic gender contents.

3 Reconstructing Longuda nominal classification

Our preliminary reconstruction of Proto-Longuda is based on the above morpho-syntactic information from Guyuk and lexical data from all dialects in the form of 80-word lists. We reiterate that the quantity and quality of these data are such that our following conclusions have to be viewed as preliminary.

All Longuda varieties turn out to have the same nine agreement and nominal form classes, which show a straightforward one-to-one correspondence with full

alliteration (Kleinewillinghöfer, p.c.). The possibility aside that there is an additional nominal form class comprising nouns without any class suffix, the language is a case where the traditional “noun class” concept of Niger-Congo is applicable without any reservation (see Güldemann and Fiedler 2019 for problematic cases in the family).

Longuda is, however, far from being a canonical Niger-Congo language. One important observation in this respect is that class markers are without exception suffixes. There is no evidence of noun prefixes and thus no reason to postulate their previous existence other than the conventional but questionable historical-comparative hypothesis that they were lost without any traces.

There are also properties of the class suffixes that are uncommon for Niger-Congo standards. In the Guyuk variety, the morpho-syntax of class marking fails to show a clear distinction between adnominal and non-adnominal class markers. While this makes the case for a singular entity of “noun class” even stronger, it questions the distinction between noun classification on the noun and by means of agreement. The identity of gender encoding on both controller and target is best explained by an original situation where the exponents of the noun classification system were originally independent and fused later with different types of hosts (cf. also the article of this volume on Khoekhoe with a similar picture). This is strongly reminiscent of a system of classifiers. More data on Guyuk and other dialects is needed for elucidating this remarkable finding conclusively.

Furthermore, we have described in Guyuk an alternation between a basic T-form and a derived A-form with a final *-a*. The following data from Gwaanda provide evidence for the same phenomenon in other dialects. In (23), the noun *dōō-yà/dōō-bà* ‘man/men’ changes from its A-form to its T-form due to a following agreeing demonstrative (which itself seems to be incompatible with the A-form). The same shift can be observed in (24) with the noun *tswa-kà/tswa-mà* ‘mountain/s’ followed by an agreeing adjective, which itself occurs in the A-form. These data suggest that the distinction between A- and T-form is a general property of Longuda and that this applies to both nominal controllers and agreement targets.

- (23) a. *dōō-y* *yí-bì*
 man-I.1 1-DEM
 ‘this man’
- b. *dōō-b* *bí-bì*
 man-B.2 2-DEM
 ‘these men’
- [Jungraithmayr 1968/1969: 176]
- (24) a. *tswa-k* *mwára-ká*
 mountain-K.7 big-7:A
 ‘big mountain’

- b. *tswa-m* *mwára-má*
 mountain-M.9 big-9:A
 ‘big mountains’

[Jungrauthmayr 1968/1969: 177]

The two different marker sets can inform the internal reconstruction of Longuda in various ways. With respect to the A-forms, recall from Section 1 that Longuda has an ATR harmony system. While reduced to different degrees, we observe in all dialects an alternation of the A-form based on the ATR quality of the lexical root. As shown in Table 4, the dialects show the suffix *-Ce* (Deele *-Cə*) if the suffix is preceded by a +ATR vowel and the suffix *-Ca* if it is preceded by a -ATR vowel. This noun suffix alternation is highly consistent across all Longuda varieties, and on this basis, we are able to infer the original vowel quality of the root despite modern neutralization or defective transcription.

The T-forms of class markers were determined above to be the basic exponents. Hence, they promise to provide even more information on historically earlier states of the noun classification system of Longuda and help to embed it in the bigger picture of the Niger-Congo family, even if not all modern T-forms necessarily retain the original shape. T-form class markers have two shapes, specifically V vs. C(V). The vocalic exponents are found in the three classes 1~I, 3~U, and 6~A, whereby the first two are phonologically straightforward and can be related to similar classes in other Niger-Congo lineages. Class 6~A is more problematic, because it recurrently involves a glottal stop whose status is unclear. Since the available data show this segment rather inconsistently, we do not view it as (the remnant of) a thematic class consonant. Moreover, some data suggest a specific relation between its occurrence and the A-form of the nominal class suffix *-A*, as it fails to show up in the T-form. Compare the following examples where the noun

Table 4: Reflexes of ATR harmony in A-form suffixes across dialects.

| Meaning | ‘rain’ | ‘head’ | ‘ear’ | ‘cloud’ | ‘snake’ | ‘back’ |
|--------------------|--------------|--------------|--------------|---------------|-----------------|---------------|
| <small>ATR</small> | – | + | – | + | – | + |
| Deele | <i>dũ-wâ</i> | – | <i>tô-la</i> | – | – | – |
| Wala | – | <i>dú-lé</i> | <i>tú-wâ</i> | <i>tu-le</i> | <i>zi-ka</i> | <i>zi-ke-</i> |
| Guyuk | <i>du-wá</i> | <i>du-le</i> | <i>tə-wa</i> | <i>tu-le</i> | <i>zi-ka</i> | <i>zi-ke</i> |
| Koola | <i>du-wá</i> | – | <i>tô-lá</i> | <i>twi-lé</i> | – | – |
| Cerii | <i>du-wá</i> | <i>dú-lé</i> | <i>tô-lá</i> | <i>tú-lé</i> | – | <i>zi-ke</i> |
| Gwaanda | <i>dũ-wâ</i> | <i>dú-lé</i> | – | – | <i>(d)zi-ka</i> | – |
| Proto-Longuda | *dũ- | *du- | *tũ- | *tu- | *zi- | *zi- |

swila/swa²a ‘heart/s’ lacks the glottal stop in (25a) before an adjective but shows it before the definite marker *-u*, as predicted by our generalizations in Section 2.1.3.³

- (25) a. *swaa mwar-a*
 heart:A.6 big-6
 ‘the big hearts’
 b. *swa²a-u ha mwar-a*
 heart:A.6:A-DEF COP big-6
 ‘the hearts are big’

Against this background, we advance the following hypothesis to be tested in future research. Under the assumption that the A-form consists of the T-form merged with a functional morpheme *-a*, the glottal stop after the class marker 6~A may be the result of dissimilation indicating the boundary between two different morphemes – a distinction that appears to be preserved best with monosyllabic words. For example, the best analysis of the Koola lexeme *tʊ-l-a/tw-a-²a* ‘ear’ is, as indicated by the word-internal hyphens, that of a tripartite morpheme sequence [root-class.marker-*a*].

The situation with C(V) suffixes is again different. The neutralization or loss of the vowel eradicates information for the historical assessment of these class markers. In some classes, the absence of a vowel seems to predominate in the T-form, notably in class 9~*M(I)*. But even here, there are cases with a vowel, as in (26), which suggests an original CV structure.

- (26) *á zì-r má-mì-yè*
 3SG go-REL.PST water-M.9-in
 ‘she went in the water’ [Newman 1978: 33]

What we orthographically represent here as a capital *I* in such class markers as 5~*L(I)*, 7~*KI*, 8~*TI*, and 9~*M(I)* is described by Newman and Newman (1977b: 29) phonetically as a high central vowel [i]. We do not have a phonetic description in the case of 2~*B(V)* and 4~*HV*, but the vowels of these T-forms are never transcribed with *I*. In any case, vowels of class markers appear to have lost their original quality irrespective of whether in the T- or A-form, which is in fact also characteristic for other Niger-Congo languages with class suffixes only (cf. the articles of this volume on Mba and Noon).

For the CV suffix of the class 5~*L(I)*, there is, however, internal evidence for inferring a specific earlier stage. In the comparative Table 5, we mark in bold root-

³ Note, however, that according to Section 2.1.3 one could also expect a glottal stop on the predicative adjective ‘big’ as a reflex of the A-form. Its lack shows the overall inconsistency of the available data.

Table 5: Comparative Longuda data for the singular class 5~L(I).

| Dialect | 'heart' | | 'breast' | | 'ear' | |
|---------------|------------------|-----------------|------------------|-----------------|-----------------|----------------|
| | SG | PL | SG | PL | SG | PL |
| Wala | <i>su-l-a</i> | <i>°sw-a-a</i> | <i>yu-l-a</i> | <i>yw-a-a</i> | <i>tu-w-a</i> | <i>tw-a-a</i> |
| Guyuk | <i>swi-l-a</i> | <i>sw-a-'a</i> | <i>ywi-l-a</i> | <i>yu-a</i> | <i>tə-w-a</i> | <i>t-a-a</i> |
| Cerii | <i>tsu-l-a</i> | <i>°tsw-a-a</i> | <i>nywi-l-a</i> | <i>nyi-ya</i> | <i>twi-l-a</i> | <i>twi-ya</i> |
| Proto-Longuda | <i>*tso-li-a</i> | <i>*tso-a-a</i> | <i>*nyo-li-a</i> | <i>*nyo-a-a</i> | <i>*tʊ-u-a</i> | <i>*tʊ-a-a</i> |
| | | | | | <i>*tʊ-li-a</i> | |

internal changes in mono-syllabic nouns of some dialects involving a high back vowel (all roots have $-ATR$ vowel quality with a single exception in one dialect). We assume that the modern, apparently reduced vowel [i] of the class marker 5~L(I) in the T-form is unlikely to have this assimilatory effect in the lexical root. This phenomenon is rather evidence for reconstructing the original class marker with a high front vowel, as can be inferred from our proto-forms in the last line of Table 5. That is, we explain the root alternant as a frozen assimilatory effect of the vowel quality in the proto-form *li, either by regressive assimilation $*(t)so.li.a > *(t)soi.li.a > swi.l.a$ or by metathesis $*(t)so.li.a > *(t)so.il.a > swi.l.a$. The unexpected mutated root in two plural forms of Cerii (see 'breast' and 'ear') seems to be a yet more advanced analogical formation based on the innovated singular root.

The historical reconstruction of the vowel quality of all other CV class markers requires comparative data from other Niger-Congo lineages. Since such an analysis goes far beyond the topic of this paper, we only point out some Longuda-specific considerations that will inform a wider historical-comparative assessment. A noteworthy observation from Figure 1 is that the classes 7~KI, 8~TI, and 9~M(I) turn up in different deriflections/genders. At least some of these multiple patterns are likely to be the result of merging different proto-classes through the neutralization of vowels specific to classes with identical thematic consonants. Such ideas have already been raised for Longuda by Kleinewillinghöfer and Vigeland (2016).

In addition to modern data on noun classification from geographically and genealogically closer languages, for example, the Tula-Waja group, such analyses can rely on historical treatments of other more distant Niger-Congo lineages with more elaborate class systems, notably De Wolf (1971) on Benue-Congo, Miede and Winkelmann (2007), and Miede et al. (2012a, 2012b) on Gur. On the basis of these sources and merely for illustration, we discuss a few ideas regarding the Longuda class 7~KI, which has three different plural counterparts, namely 6~A, 8~TI, and 9~M(I). Similar observations arise regarding the likely multiple historical origin of the Longuda classes 8~TI and 9~M(I).

The first class pair 7~*KI*/6~*A* is very rare and thus inqorate. At the same time, it is regularly attested for the lexical item ‘arm/hand’, for which Table 6 gives a cross-dialectal Longuda survey. We assume this to be historically diagnostic because De Wolf (1971: 55) reconstructs the pattern *ku/*a for this lexical item in the Benue-Congo group, whereby it is equally inqorate in the Bantu subgroup. This suggests that Longuda 7~*KI* goes back to *ku, the data in Table 6 supporting the reconstruction of the noun ‘arm, hand’ with the class pair 7~*KI*/6~*A*. The alternative plural form with 8~*TI* in the last three dialects presumably is an innovation having arisen in analogy to the recurrent gender 7~*KI*/8~*TI* to be discussed in the following.

As opposed to the previous class pair, the class pair 7~*KI*/8~*TI* is a substantial deriflection/gender in Longuda. For example, it seems typical for names of trees, for example, *gaun-ka/gaun-ta* ‘palm’, *dabi no-ke/dabi no-te* ‘date tree’, *guakim-ka/guakim-ta* ‘baobab’, *kuanjkua-ka/kuanjkua-ta* ‘indian tamarind tree’, *dangala-ka/dangala-ta* ‘silk-cotton tree’, even though the generic noun *ti-ka/ti-ma* ‘tree’ behaves differently. De Wolf (1971: 53–59) reconstructs for Benue-Congo a word for ‘tree’ in a class pair *ka/*ti. Assuming a relation between this and the Longuda class pairing for tree names, another source of modern 7~*KI* would be *ka. An alternative hypothesis with the same conclusion that 7~*KI* could reflect *ka would arise from comparative Gur evidence. Mieke et al. (2012b: 32) reconstruct a gender *ka/*mu~*mi in this Niger-Congo group, which could be linked to Longuda 7~*KI*/9~*M(I)*.

Finally, one can also invoke comparative evidence that Longuda 7~*KI* may be a reflex of a proto-class *ki. Table 7 lists a few lexemes in Longuda and Proto-Benue-Congo that display a correspondence between 7~*KI* and *ki. The fact that in two cases the noun roots seem to be cognate, too, strengthens this assumed historical relation.

Table 6: Comparative Longuda data for ‘arm, hand’.

| Variety | sg 7~ <i>KI</i> | pl 6~ <i>A</i> or 8~ <i>TI</i> | |
|---------------|-----------------|--------------------------------|---------------|
| Wala | <i>ná-k-á</i> | <i>na-²a</i> | |
| Guyuk | <i>na-k-a</i> | <i>na-a</i> | |
| Gwaanda | <i>ná-k-á</i> | <i>na-²a</i> | |
| Koola | <i>ná-k-á</i> | <i>ná-²á</i> | <i>ná-t-á</i> |
| Deele | <i>ná-k-à</i> | | <i>ná-t-à</i> |
| Cerii | <i>ná-k-á</i> | | <i>ná-t-á</i> |
| Proto-Longuda | *na-k-a | *na-a-a | |

Table 7: Comparative data for an origin of Longuda 7~KI in *ki.

| Language | Longuda (Guyuk) | | Proto-Benue-Congo | |
|-------------|-----------------|-------------------|-------------------|-----------|
| | Root | A-form class pair | Class pair | Root |
| neck | <i>mil</i> | <i>-ke/-te</i> | *ki-/bi- | melu |
| (shin) bone | <i>kuab</i> | <i>-ka/-ta</i> | *ki-/bi- | kupe |
| skin | <i>bong</i> | <i>-ka/-ta</i> | *ki-/bi- | pu, kpage |
| mountain | <i>swa</i> | <i>-ka/-ma</i> | *ki-/bi- | kwol |

Overall, already a superficial Niger-Congo survey suggests that 7~KI in modern Longuda may reflect up to three different proto-classes – a merger that Kleinewillinghöfer (2006: 3) also entertains partly for the geographically and arguably genealogically close language Tula of the Tula-Waja group. In any case, the class merger seems to have been completed already at the Proto-Longuda stage so that any such earlier class distinctions are better assigned to a Pre-Longuda stage.

In Table 8, we summarize the results of the above historical discussion. It is clear that any additional proto-class indicated for Pre-Longuda would render the system of genders and deriflections of early Longuda more complex than that in Figure 1 above but at the same time more similar to that of other Niger-Congo lineages.

Table 8: Suggested NF-reconstructions for Proto- and Pre-Longuda.

| Class | Number | Proto-Longuda | Pre-Longuda |
|-------|--------|---------------|----------------|
| 1 | SG | *I | *i |
| 2 | PL | *BV | *bV |
| 3 | SG, TN | *U | *u |
| 4 | PL, TN | *HV | *hV |
| 5 | SG, TN | *LI | *li |
| 6 | PL | *A | *a |
| 7 | SG, TN | *KI | ?*ku, *ka, *ki |
| 8 | PL, TN | *TI | ?*tu, *ti |
| 9 | SG, PL | *M(I) | ?*ma, *mu |

Abbreviations

Abbreviations follow the Leipzig glossing rules, except the following:

| | |
|------|----------------------|
| ° | inferred form |
| ATR | advanced tongue root |
| C | consonant |
| COND | conditional |
| EMPH | emphatic |
| HAB | habitual |
| NF | nominal form (class) |
| NUM | numeral (linker) |
| PREP | preposition |
| TN | transnumeral |
| V | vowel |

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