Adjectives in Likpakpaln (Konkomba): Structural and Areal-Typological Aspects

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Abstract

Likpakpaln is a little-described Mabia (Gur) language of northern Ghana. Drawing on primary data, this first study of adjectives in Likpakpaln concludes that the language has a small, closed adjective class of about 20 members that shares grammatical properties with nouns and verbs to varying degrees. Contrary to what is the case in other Mabia languages, Likpakpaln adjectives lack inherent class markers. We identify three types of adjectives, distinguishable from nouns and verbs on morpho-syntactic and semantic grounds. Type 1 items lean towards nouns and never function as predicates of verbal clauses. Type 2 consists of one item, possibly a loan, and appears in a predicate adjective construction typical of languages with large adjective classes. Type 3 adjectives lean towards verbs and may form the predicate of verbal clauses. An understanding of Likpakpaln adjectives can contribute to refining our current knowledge of the genetic and typological position of Likpakpaln in the Mabia family.

Keywords: Likpakpaln; Konkomba; adjective; noun; verb; typology; derivation; Gur; Mabia; Ghana

1. Introduction

The debate over the universality of the adjective category seems to have established that every language has adjectives (Ameka 2001; Dixon 2010a, 73; Nsoh 2011, 45–46; Musah 2018, 118). In this article, we analyse primary data from Likpakpaln, a little-known Mabia (Gur) language of the Niger-Congo phylum, spoken mainly in northern Ghana (see Bodomo 1997, vii, for the use of "Mabia" instead of the older label "Gur"). Our analysis of Likpakpaln relies substantially on Dixon's (1977; 1982a; 2010a) typological framework and also takes other typologically oriented approaches to adjectives into account (e.g., Bhat 1994; Croft 1991).

A key concern of this article is to affirm the existence of an adjective class in Likpakpaln and to describe and analyse its features. We concentrate on identifying the morphological, syntactic and semantic properties of the Likpakpaln adjective as a distinct lexical and syntactic category. Furthermore, we seek to understand the most salient typological features of the adjective class in Likpakpaln. In doing so, we aim to provide future work with a firmer basis on which to rest typological generalisations in this regard.

We argue that Likpakpaln has a closed class of about 20 adjectives. Cross-linguistically, Likpakpaln belongs to the Type *c* languages of Dixon's (2010a, 63) typology. This implies that adjectives assume linguistic characteristics of both verbs and nouns (see section 4). Likpakpaln adjectives lack class affixes in noun-adjective attributive constructions. From a genealogical and typological perspective, Likpakpaln therefore differs sharply in its morphological agreement pattern from other Mabia languages of Ghana (e.g. Dagbani, Dagaare, Kusaal and Gurenɛ). Agreement with a reference noun, and hence morphological marking of adjectives, is also a widespread feature in other non-Mabia Niger-Congo languages of the Kwa and Bantu families (e.g. Segerer 2008; Mpofu 2009).

This article is structured as follows: Section 2 provides an overview of the state of research on Mabia and Likpakpaln. Section 3 describes the data collection and analysis methods employed. In section 4 we discuss the theoretical framework. Section 5 describes some relevant aspects of Likpakpaln nouns and verbs and how they relate to adjectives. In section 6, we turn to the description and analysis of Likpakpaln adjectives as attributive modifiers (6.2), copula complements (6.3), and as predicators in verbal clauses (6.4). Section 7 places the structural properties of Likpakpaln adjectives within the broader typological context and section 8 concludes this article.

We employ the standard Likpakpaln orthography, which either follows IPA conventions (e.g. ŋ = /ŋ/, kp = /k͡p/, ɔ = /ɔ/) or correlates with the corresponding English orthographic conventions in the case of the following graphemes: j = /d͡ʒ/, ch = /t͡ʃ/, y = /j/. Likpakpaln makes use of lexical and grammatical tone and probably features three phonemic tones, i.e. high, mid, and low. We do not, however, mark tone in this study since we have not yet concluded our analysis of the tone system of Likpakpaln. A thorough understanding

of the tone system would, without doubt, have enriched the present study but our preliminary analysis of tone does not seem to alter the main findings of this study in a significant way.

2. The State of Research on Mabia and Likpakpaln

The Mabia languages of West Africa are among the most poorly researched African languages (Cahill 2007, 5; Naden 1988, 12). Likpakpaln, spoken in the Republic of Ghana, is particularly under-researched compared to other languages of the Mabia grouping in the region. Unlike Mabia languages like Dagaare, Dagbani, Gurenɛ, and Kasem, Likpakpaln is not institutionally sponsored or recognised as a language of instruction in Ghana (see Hasselbring 2006; Schwarz 2009). This is unfortunate given that the Likpakpaln native speaker population in Ghana alone is estimated at a significant figure of 831 000 (Simons and Fennig 2017). The same source also provides a figure of 84 700 speakers in neighbouring Togo.

The adjective category in Likpakpaln arouses interest for various reasons. The first is to gain a better understanding of the general structure of the language, given the lack of descriptive work. With regard to lexical categories and their formal manifestations, for instance, the only references remain Adouna (2009), Bisilki and Akpanglo-Nartey (2017), and Miehe, Reineke and Winkelmann (2012). Adouna (2009), however, covers the Naware dialect of Togo, which displays marked structural and sociolinguistic divergence from the Ghanaian varieties. Bisilki and Akpanglo-Nartey (2017) solely treat the nominal morphology of Likpakpaln. Adouna (2009, 258–263) provides a few examples illustrating the attributive and predicative uses of adjectives in Likpakpaln, but only within the general context of his sketch grammar, and so does not answer the questions addressed here. Furthermore, Adouna does not provide typological observations on the adjective class in Likpakpaln.

A further motivation to look at adjectives in Likpakpaln stems from the fact that linguists continue to grapple with defining clear-cut boundaries for the adjective category. Musah (2018) and Olawsky (1999; 2004) suggest that adjectives are a distinct class in Mabia. However, the criteria proposed are vague. Their analyses blur differences between semantic properties, morphological features, and syntactic distributions of the expressions classified as adjectives, which tend to overlap greatly with verbs, nouns or both. The analyses therefore do not provide clear semantic and morphosyntactic evidence for the distinction between adjectives and other word classes. In this article, we therefore aim to provide a clearer analysis of the adjective class in Likpakpaln, and in doing so, present new data on the status of adjectives in Mabia.

3. Data for the Study

The data for the present analysis is mainly from the Saboba district in northern Ghana, a traditional Likpakpaln-speaking area. Saboba is well known for its high concentration of Bikpakpaam (speakers of Likpakpaln) in Ghana (see Hasselbring 2006; Maasole 2006; Tait 2018). Likpakpaln speakers are, however, also indigenous to other parts of Ghana. The main method of data collection for this study was elicitation via an adjective wordlist, based on Dixon (2010a, 73–76), conducted between December 2018 and January 2019. Elicitations were cross-validated and complemented through semi-structured interview sessions with two native speakers from Saboba. These two speakers (male and female) are both in their late 40s and have spent most of their lives in their traditional home in Saboba.

There is some degree of multilingualism in the Saboba area due to the presence of other ethnic groups such as the Moshi, Ewe, Chakosi (also known as Anufo), Dagomba, and Hausa (Saboba District Assembly 2018, 4). Nonetheless, Likpakpaln remains the dominant everyday language in Saboba communities. Other linguistic groups in the area constitute minorities vis-à-vis Likpakpaln speakers. Although the motivation to learn to speak Likpakpaln by non-Bikpakpaam is generally rather low, the linguistic minorities in the Saboba area still acquire some level of proficiency in Likpakpaln in order to meet basic interactional needs. The Saboba district is bounded in the south-west by the Yendi Municipal District, a major traditional area of Dagbani speakers (Olawsky 2004, 127). Yendi is some 54 km from Saboba. Dagbani is a minority language in the Saboba district but constitutes a major language in northern Ghana. Hence, Likpakpaln speakers in the area tend to be bilingual in Dagbani, and—provided a certain level of formal education has been attained—in Ghana's official language, English. Finally, we should add that "Konkomba" is the term generally used as an exonym by non-Bikpakpaam Ghanaians to refer to both Likpakpaln and its speakers.

4. Identifying Adjectives: Theoretical and Language-Specific Aspects

The treatment of adjectives as a class in their own right has long been a source of debate in linguistics. The controversy has even led to some linguists changing their persuasions. Dixon (2010a, 73), making reference to his earlier position (Dixon 1977; 1982b), admits his previous conviction that adjectives did not form an independent lexical class. Nevertheless, following support from subsequent work in favour of the recognition of the adjective class (see the contributions in Dixon and Aikhenvald 2004), a comprehensive framework for the analysis of adjectives is offered by Dixon (2010a). It is mostly with recourse to this framework that the present analysis proceeds. We also draw on Pustet's (2003) study of semantic universals governing the distribution of copulas as well as typological and descriptive accounts of adjectives in African languages (e.g. Welmers 1973; Segerer 2008; Mpofu 2009).

Languages vary in terms of the size of their adjective classes. On the one end of the spectrum, we find large and open adjective classes. On the other end, we find languages with closed adjective classes containing very few members. Dixon (2010a) suggests that a language with a large adjective class will normally have hundreds of members, as is the case with English and other languages of Europe. Conversely, a language with a small adjective class may have below five members, as in the case of Yimas (Lower Sepik family, New Guinea; see Foley 1991) and Kham (Tibeto-Burman, Nepal; see Watters 2002). In a similar vein, Segerer (2008, 1) observes that African languages with closed adjective classes have member numbers ranging from 2 to more than 100, citing the case of Dagbani with 101 adjectives and Kele (Niger-Congo, Bantu, DR Congo) with only 2 adjectives.

A second dimension of cross-linguistic variation concerns grammatical properties, specifically the extent to which adjectives overlap formally with the verbal and the nominal categories in a language. Describing these properties requires granular semantic and morpho-syntactic analyses across a variety of features. Dixon (2010a, 77–90) lists a number of heuristic tools to distinguish adjectives from verbs on the one hand and from nouns on the other. Broadly, these concern the distributional potential and morphological possibilities of adjectives within the verb or noun phrase, the potential for adverbialisation, and use in comparative constructions.

The presence or absence of copulas in predications can also serve as a key diagnostic in determining the existence of an adjective class. Drawing on the four semantic parameters of dynamicity, transience, transitivity, and dependency, Pustet (2003) seeks to identify the universal principles that govern the distribution of copulas in nominal, adjectival, and verbal predications through the inherent meaning of the lexical items with which they can combine.

Dixon divides languages into four types with respect to the overlap of adjectives with verbs and nouns. So-called Type *a* languages have adjectives that are similar to verbs. Type *b* has adjectives with nominal properties. Type *c* refers to languages whose adjectives share features with both verbs and nouns. In Type *d* languages, there are no overlaps with either the verbal or the nominal category.

In the Mabia and Kwa languages for which there is some data, there is no unanimity on the gradations of overlap between adjectives on the one hand and nouns and verbs on the other. For instance, Dagbani (Mabia) adjectives are coterminous with nouns insofar as adjectives can be marked by class affixes for singular and plural numbers. At the same time, they are distinct from nouns in as much as adjectives can neither serve as NP heads nor take determiners (Olawsky 2004). In Logba (Kwa, Ghana-Togo-Mountain), a basic distinction between nouns and adjectives is that nouns precede adjectives in phrase structure. Equally, nouns have inherent class markers, while adjectives do not (Dorvlo 2008, 98–99). This difference is also found in Likpakpaln: Nouns have obligatory noun class affixes while adjectives lack them. The large range

of language-specific differences between adjectives, nouns, and verbs supports claims that no two languages are the same in relation to a feature (Dixon 2010b, 9).

Furthermore, Dixon (2010a, 73–76) proposes seven universal semantic classes of adjectives. These are dimension, age, value, colour, physical property, human propensity, and speed. These dimensions are, in turn, segmented into Type A (dimension, age, value, and colour concepts) and Type B (physical property, human propensity, and speed) adjectives. Type A adjectives are seen to belong to the core adjective classes (Welmers 1973; Segerer 2008; Dixon 2010a). Furthermore, adjectives are classified into underived and derived types (e.g. Dorvlo 2008, 95; Mpofu 2009, 57–58). Derivation occurs when adjectival words are created from other lexical classes such as nouns or verbs. A language in which there is adjective derivation in this sense is described as having an open adjective class system. The term "primary adjectives" has also been adopted to designate underived adjectives (Segerer 2008, 3).

Closed adjective systems are said to predominate in African languages (Welmers 1973, 250; Dorvlo 2008; Segerer 2008). Likpakpaln, too, has a closed adjective system and hence conforms to the "African" type. Using the heuristic methods proposed by Dixon (2010a, 77–90) and Pustet (2003), we identified six diagnostic criteria of adjectivehood in Likpakpaln:

(1) Likpakpaln adjectives can be distinguished from nouns in that they are morpho-syntactically dependent and are only used in collocation with head nouns. To use an adjectival word in isolation requires nominalisation or verbalisation of the form concerned. These processes, however, also indicate the structural overlaps of adjectives with nouns and verbs.

(2) Adjectives differ morphologically from nouns by lacking their own class markers.

(3) An adjective may not head an NP. Nouns, on the other hand, may occur both as heads and modifiers of NPs.

(4) Nominal modifiers precede the head noun while adjectival (attributive) modifiers follow the head noun.

(5) The largest group of adjectives in Likpakpaln (which we refer to as Type 3; see Table 1 in section 7) can occur as ambitransitive predicates in verbal clauses. Save for a single instance (/tʃaɪn/ *chain* "clean"), adjectives may not occur in the complement position of the existential/locative or identity/equative copula. Likpakpaln nouns do, however, appear as complements of the two copulas.

(6) Semantically, adjectives denote property concepts while nouns may naturally have a broader range of denotations.

The six criteria above are expounded in more detail in the sections to follow. In view of the overlaps between the syntactic categories of nouns, verbs, and adjectives mentioned above, we briefly characterise Likpakpaln nouns and verbs in sections 5.1 and 5.2 before moving on to adjectives in section 6.

5. Nouns and Verbs in Likpakpaln

This section discusses some fundamental morphological, syntactic and semantic features of Likpakpaln nouns and verbs. We consider this to be relevant for an understanding of how adjectives relate to nouns and verbs in the language. Section 5.1 treats nouns and 5.2 highlights relevant aspects of verbs.

5.1. The Noun

Nouns, verbs, and adjectives can share syntactic and semantic characteristics in various ways and to varying degrees in Type *c* languages (see Dixon 2010a). As a case in point in Mabia, adjectives and nouns overlap so extensively in Moore (Ghana and Burkina Faso) that Olawsky (2004, 44) considers it plausible to regard adjectives as forming a class with nouns. Such evidence of relations between nouns and adjectives in other languages of the Mabia family calls for a description of some fundamental features of nouns when one seeks to examine the adjective category in Likpakpaln.

Likpakpaln nouns consist of a stem and affix(es). Affixes are obligatory and instantiate class and number features. A noun may have a prefix or a suffix, or both simultaneously, hence the characterisation of Likpakpaln as a "bilateral noun class language" (Bisilki and Akpanglo-Nartey 2017; Miehe et al. 2012). Bilateral noun classes are a feature of the Mabia languages and are attested in Dagaare (Dakubu 2005, 42), Dagbani (Olawsky 1999, 71), Gurɛnɛ (Nsoh 2002, 2), and Kusaal (Musah 2018, 81–82). However, unlike in Likpakpaln, adjectives in these other Mabia languages also bear morphological markers of their own, for example when they occur as citation forms. In Dagaare for instance, we have the forms: *pɪl-**aa*** (white-SG) and *pɪɛl-**ɪ*** (white-PL). According to Dakubu (2005, 47), the suffixes mark the above adjectives as singular or plural and also as belonging to noun class 6 in Dagaare.

The distribution of co-occurring prefixes and suffixes is highly irregular in Likpakpaln. In some instances, a noun in the singular has both a prefix and a suffix, but one of the two affixes is dropped for plural formation (1). In other instances, the reverse holds and a singular noun that only has a prefix takes both a suffix and a prefix in the plural (2):

(1)   ***li**-bɪi-**l***   ***ŋi**-bɪi*
       CL.SG-breast-CL.SG   CL.PL-breast
       "breast"   "breasts"

(2) **u**-*pii*   **bi**-*pii*-**b**
     CL.SG-woman   CL.PL-woman-CL.PL
     "woman"   "women"

To make matters more complicated, other nominals in Likpakpaln do not take any affixes at all when in the singular. Members of this group frequently include loans and kinship terms (Bisilki and Akpanglo-Nartey 2017, 32), as in (3) and (4) respectively. The pluralisation of such nouns is achieved by the suffixation of either *-mam* or *-tiib* alone.

(3) *lɔɔr*   *lɔɔr*-***tiib***
     car   car-CL.PL
     "car"   "cars"

(4) *na*   *na*-***tiib***
     mother   mother-CL.PL
     "mother"   "mothers"

Nouns function as heads and modifiers in the Likpakpaln NP. The modifier role of nouns has been described for some Mabia languages including Dagaare (Dakubu 2005, 47–48), Dagbani (Olawsky 1999), and Kusaal (Musah 2018), but not yet in sufficient detail for Likpakpaln. Unlike nominal modifiers, which are preposed, adjectival modifiers are postposed to the head noun in the Likpakpaln NP (see 6.2 for details). When heading an NP, a noun can take determiners (5) and other modifying elements such as a numeral (6):

(5) [*Si*   **u-ja**   **wei**   *le*]$_{NP}$ *m*   *ban.*
     2SG.INDP   CL.SG-man   DEM   FOC   1SG   search
     "You are the man I am looking for."

(6) *Soja-tiib*   *daa*   [*ŋi-na-yil*   **ŋi-lei**.]$_{NP}$
     soldier-CL.PL   buy   CL.PL-cow-head-CL   CL-two
     "Soldiers have bought two cow heads."

Two issues are noteworthy with respect to (6). The preposed nominal modifier, *u-na* (cow) loses its own noun class marker *u-* and forms a morphological compound with the head noun *-yil* (head). The head noun *-yil* then lexically determines the plural affix for the entire compound, which is *ŋi-*. This gives *ŋi-na-yil* (cow heads). The noun class marker *ŋi-* of the head noun is also imposed on the following numeral modifier *-lei* (two) by grammatical agreement, rendering *ŋi-lei*. Accordingly, a change in the head noun results in a corresponding change of the noun class marker(s), as in (7):

(7) **i**-*na*   **i**-*lei.*
     CL.PL-cow   CL-two
     "two cows."

Nouns can fill copula complement slots in Likpakpaln. The copula complement function is one of the parameters along which nouns and adjectives can be differentiated in Likpakpaln (see 6.3). A lexical noun can follow the equative/identity copula *ye*, as in (8). The complement slot of the locative copula *bi* is reserved for adjuncts, as in (9a), hence the ungrammaticality of (9b):

(8)   *U-na*   **ye**   *ki-wɔku-k*   *la*.
        CL.SG-cow   COP   CL.SG-animal-CL.SG   FOC
        "A cow is an animal."

(9a)   *N-na*   ***bi***   *ki-saa-k.*
         POSS-mother   COP.LOC   CL.SG-farm-CL.SG
         "My mother is at the farm."

(9b)   **U-na*   ***bi***   *ki-wɔku-k.*
         CL.SG-cow   COP.LOC   CL.SG-animal-CL.SG
         Intended: "A cow is an animal."

5.2. The Verb

Apart from a core of lexically transitive verbs, Likpakpaln verbs are ambitransitive, i.e. they participate in a transitivity alternation. For example, the verb *laa* (laugh) may appear in an intransitive (10) and a transitive (11) clause alike. Transitive uses may also involve cognate objects, as in (12):

(10)   *Konja*   **laa**.
        NAME   laugh
        "Konja laughed."

(11)   *Konja*   **laa**   ***u-jɔ.***
        NAME   laugh   CL.SG-friend
        "Konja laughed at his friend."

(12)   *Konja*   **laa**   ***ti-laa-(r).***
        NAME   laugh   CL-laughter-CL
        "Konja laughed (laughter)."

We will shortly see that Likpakpaln adjectives (of Type 3) are also ambitransitive when they appear in verbal slots (see 6.4). Nonetheless, this category of adjectives is morpho-syntactically distinct from primary verbs. The difference between verbalised adjectives and verbs proper is also discussed in 6.4. In the remaining sections, we examine Likpakpaln adjectives and, amidst other typological considerations, point out their similarities to and differences from the characteristics of nouns and verbs identified in 5.1 and 5.2.

6. Adjectives in Likpakpaln

We now discuss the morphology and syntax of adjectives in Likpakpaln, focusing on their structural-functional differences vis-à-vis other modifiers, nouns, and verbs. Importantly, Likpakpaln has a closed adjective class which cannot be extended by derivation (6.1). Likpakpaln adjectives differ from nouns on two structural accounts. First, adjectives lack inherent noun class markers. Likpakpaln adjectives are morphologically (and referentially) non-autonomous. Using an adjectival root requires placing it in juxtaposition to another word or in morphological dependence of an antecedent noun (6.2). Second, unlike nouns, adjectives do not occur as copula complements, with a single exception (6.3). The distinction between verbs and adjectives in Likpakpaln is less clear cut than that between nouns and adjectives. This aligns with cross-linguistic observations that adjectives are grammatically and semantically more similar to verbs than they are to nouns (Bhat 1994, 43). A minority of 6 adjectives (Types 1 and 2; see Table 1) does not appear as predicates of verbal clauses. However, Type 3 adjectives, which make up the majority in the language, may be used as ambitransitive verbs. They may thus form the predicative nucleus of verbal clauses just like any other verb in Likpakpaln (6.4).

6.1. Adjective Derivation

Adjective derivation is traditionally seen as the formation of adjectives from other word classes through a morphological or syntactic process (Mpofu 2009, 57–58; Segerer 2008, 3). Adjectives form a closed class in Likpakpaln, so there is no possibility of extending the adjective class by derivation. Conversely, adjectives may be seen as lexical sources for the nominal and verbal lexical categories in Likpakpaln. First, all Type 3 adjectives can constitute the predicate of verbal clauses by themselves; they do not need to appear as complements of copulas. Second, adjectives may be seen as a source of nouns via the formation of adjectival nouns. Adjective nominalisation is, however, restricted to Type 1 and Type 3 adjectives. Adjectives may only occur in isolation if they bear the noun class affix of a discourse-antecedent noun (see [13] and [14]). Accordingly, an adjective can be cited by attaching a noun class affix to it, which is then in class-number agreement with an antecedent or discursively implied head noun (see Bisilki and Akpanglo-Nartey 2017; Miehe et al. 2012). When this happens, the adjective concerned assumes nominal qualities. The use of *u-sakpiin* in (13) presupposes a singular animate antecedent noun like *u-nii* (person) or *u-nyii* (crocodile). Similarly *bi-bɔmbɔ-m* (14) necessarily refers to an animate plural noun like *bi-ni-b* (people) or *bi-pii-b* (women).

(13) **u**-*sakpiin*
      CL.SG-big
      "big one"

(14) **bi**-*bɔmbɔ*-**m**
      CL.PL-black-CL.PL
      "black ones"

Once it carries an affix, an adjectival noun can perform any argument function or semantic role, and occupy the copula complement slot assignable to other, more prototypical nouns. In (15) and (16), the adjectival noun is a copula complement. It functions as a fronted object in (17) and as the theme object of a verb of possession in (18).

(15) ***Li-dacha-l***   *ngbaan*   *popun*   ***ye***   ***li-sakpen-l***   *la.*
     CL.SG-house-CL.SG   that   ADV   COP   CL.SG-big-CL.SG   EMPH
     "That house is really big." *Lit.* "That house is (of) bigness."

(16) ***Ki-ju-k***   *ngbaan*   ***ye***   ***ki-bamɔŋ***   *la.*
     CL.SG-knife-CL.SG   that   COP   CL.SG-real   EMPH
     "That knife is a real/good/proper one."

(17) ***Bi-sakpem***   *bemina*   *le*   *ti*   *ban*   *ti*   *daa.*
     CL.PL-big   DEM   FOC   we   want   SID   buy
     "It is these big ones that we want to buy."

(18) *N-tiwa*   *kpa*   ***bi-mamam***   *bi-ŋmu.*
     CL-uncle   have   CL.PL-red   CL.PL-five
     "My uncle has five red ones."

From a genetic-typological perspective, this sets the behaviour of Likpakpaln adjectives apart from those of other (Ghanaian) Mabia languages like Dagabani (Olawsky 1999; 2004), Dagaare (Bodomo 1997; Dakubu 2005), Kusaal (Abubakari 2018; Musah 2018) and Gurenɛ (Atintono 2013). In these languages, adjectives bear their own noun class markers comparable to those of nouns (cf. 5.1). Given the wide currency of adjectival class markers in Mabia, it is possible that Likpakpaln adjectives had such markers of their own, but lost them in the course of diachronic change. But this remains for future investigation.

In the following three subsections, we turn to further, more specific characteristics of adjectives in NPs (6.2) and copula clauses (6.3), and as a predicator in verbal clauses (6.4)

6.2. The Adjective as an Attributive Modifier

In the Likpakpaln NP, an adjectival modifier is positioned immediately after the head noun, even if other modifiers are present in the structure. The adjectival modifier forms a noun-adjective (N-A) compound with the head noun. The use of such attributive compounds is a general feature in Mabia (cf. Dakubu 2005; Musah 2018). The noun class affix of the nominal head assumes scope over the whole N-A compound, as shown in (19).

(19) *Konja*   *yor*   ***ti-kur-nyuun***.
     NAME   lift   CL.SG-metal-heavy
     "Konja lifted a piece of heavy metal."

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Where the head noun involved is a member of a class that lacks an affix (i.e. class 1a in Likpakpaln), the corresponding N-A compound does not have an affix either, as with the kinship noun *na* (mother) in (20).

(20) **Na-nyaan**   *aa-nan*   *waa-bo.*
     mother-good   NEG-hate POSS-child
     "A good mother does not hate her child."

The headship of nouns can be demonstrated as follows in N-A attributive constructions. Sentence (19) above remains grammatical when the adjective *nyuun* (heavy) of the N-A compound is deleted as in (21a), but not if the head noun is deleted, see (21b):

(21a) *Konja*   *yor*   **ti-kur***.*
      NAME   lift   CL.SG-metal
      "Konja lifted a piece of metal."

(21b) **Konja*   *yor*   **nyuun***.*
      NAME   lift   heavy
      Intended: "Konja lifted (something) heavy."

The structural pattern observed for N-A attributive compounds also holds for lexicalised N-A compounds, as in (22) and (23). Lexicalised N-A compounds can have varying degrees of metaphorical associations with their components ranging from more to less transparent (cf. Agyekum 2013 for Akan).

(22) *U-ja*   *wei*   *kpa*   **n-yi-puan***.*
      CL.SG-man   DEM have   CL.SG-head-strong
      "This man is haughty/headstrong."

(23) *Konja*   *kpa*   **li-yi-muan-l***.*
      NAME   have   CL.SG-head-sweet-CL.SG
      "Konja is (born) lucky."

Nominal modifiers differ from adjectival ones in their positioning within the NP. Unlike the adjectival modifier, which is postposed, the nominal modifier is preposed to the head noun. With regard to morphology, nominal modifiers are, however, no different from adjectival modifiers. Both types of modifiers occur stripped of noun class markers in modificational constructions. The compound takes on the affix of the head noun, with this affix attaining scope over the entire construction. Compare the noun-noun (N-N) compounds in (24) and (25):

(24) *u-ŋoob;*   *ti-jii-r*   *ti-ŋɔ-jii-r*
      CL.SG-goat   CL.SG-food   CL.SG-goat-food-CL.SG
      "goat";   "food"   "goat food"

(25) *li-ja-l;*   ***cheechee***   *li-**cheechee**-ja-l*
      CL.SG-seat-CL.SG   bicycle   CL.SG-bicycle-seat-CL.SG
       "seat";   "bicycle"   "bicycle seat"

There is further morphosyntactic evidence for the adjectival status of the property items covered in (19)–(25). The distribution of adjectives in nominal structures not only differs from that of modifier nouns, it also deviates from that of non-adjectival stative or resultative verbs. The latter are not found in N-A attributive compounds at all (26), and instead occur as verbal predicates in relative clauses if an antecedent nominal is to be modified (27).

(26) **N-ti   daa   **cheechee-bi**.*
      POSS-father   buy   bicycle-spoil
      Intended: "My father bought a broken bicycle."

(27) *N-ti   daa   cheechee   **u**   bi   na*.
      POSS-father   buy   bicycle   REL   spoil   DEF
      "My father bought a bicycle that's spoilt/broken."

Adjectives also differ from numeral modifiers. The latter follow the head of the NP and the adjectival modifier. Just like adjectives, numerals have no noun class affixes of their own. Unlike the adjective in an N-A compound, the numeral does not, however, occur bare of a noun class marker. Numerals are not incorporated into the NP but rather occur as independent words in the NP. They are, therefore, subjected to agreement marking and take on the noun class affix of the preceding head noun. In (28), the colour adjective *mam* (red) is postposed to the head noun *-sapɔ* (lady) and incorporated into the N-A compound *bi-sapɔ-mam* (fair ladies). The numeral *-taa* (three) however takes its own noun class marker *bi-*, in agreement with the head noun *bi-sapɔ* (ladies):

(28) ***Bi-*sapɔ*-mam**   **bi-taa**   ba   jir   doo.*
      CL.PL-ladies-red   CL.PL-three   TRM   pass   here
      "Three fair ladies passed by here."

In sum, we note that modifier adjectives and modifier nouns form compounds with head nouns, but they differ in constituent order. Numeral modifiers, in turn, follow the NP like adjectival modifiers but do not form attributive compounds and take the noun class affix of the head noun. Modifier adjectives also differ from stative or resultative verbs in that they can occur in N-A compounds.

6.3. The Adjective as a Copula Complement

Likpakpaln adjectives do not lend themselves to use as adjectival complements to either of the two Likpakpaln copulas *ye* (identity/equative) or *bi* (locative). As a result, the copula clause in (29) is ungrammatical.

(29) *I-kɔla   ye   **ye/bi**   **piin**   la.
CL.PL-fowl   DEM   COP/COP.LOC   white   FOC
Intended: "These fowls are white."

Chain (clean) is the only adjective that can function as an adjectival complement to either copula without any appreciable difference in meaning between the two (30). *Chain* can also occur in N-A attributive constructions (31). But attributive constructions involving *chain* tend to be more idiomatic than literal in meaning as reflected in the translation of (31).

(30) *U-ŋoob*   **ye/bi**   **chain**   *pam.*
CL.SG-goat   COP/COP.LOC   clean   IDEO
"The goat is really clean."

(31) *U-ja*   *wei*   *aa-ye*   **uni-chain**   *u-ba.*
CL.SG-man   DEM   NEG-COP   person-clean   CL.SG-one
"This man is not someone decent."

Unlike some other Likpakpaln adjectives, *chain* cannot be nominalised when it occupies a copula complement slot. Hence (32) is ungrammatical because it is nominalised via agreement with the subject *u-sapuan* (young lady). Contrast this with adjectives like *sakpen* (big) in (15) and *bamɔŋ* (real) in (16), which *have to be nominalised* in order to fill the complement slot.

(32) *U-sapuan   ye   **u-chain**.
CL-young.lady   COP   CL-clean
Intended: "This young lady is clean/neat."

The peculiar distribution of *chain* suggests that it may have entered Likpakpaln as a loan word from an unknown source. Code-switched Akan and English adjectives, for example, are also incorporated into Likpakpaln clauses as copula complements. Compare the Akan and English adjectives *bɔne* (bad) and *clever* in (33).

(33) *Li-sibil*   **ye**   **bɔne**   *la.*
CL.SG-insult   COP   bad   FOC
"Insult(ing) is bad."

(34) *U-bo*   *wei*   **ye**   *clever.*
CL.SG-child   DEM   COP   clever
"This child is clever."

There is areal evidence that languages with a weak adjective-verb distinction make use of copula clauses as a template for the integration of borrowed or code-switched adjectives from languages with large adjective classes (see Meechan and Poplack 1995 for Wolof–French; Yakpo 2009 for Pichi–Spanish; Van den Berg et al. 2017 for Ewe–English/French, Akan–English, and Sranan–Dutch). We return to the divergent

distribution of *chain* in section 7 where we address the broader distribution of adjectives in Likpakpaln.

When any adjective other than *chain* is used to predicate a property, it may, therefore, only occur as an ambitransitive verb in a verbal clause, as shown in the next subsection.

6.4. The Adjective as a Verbal Predicate

As mentioned earlier (6.1), Likpakpaln adjectives of Type 3 (see Table 1) can be considered as a source of verb derivation when they are used in the syntactic slot of a verbal predicate. In such instances, the verbalised adjective behaves like any other ambitransitive verb, and may occur in transitive and intransitive clauses alike.

In (35), the adjective *piin* (white) is a resultative verb in an intransitive clause, and in (36), *piir* takes part as a transitive verb in a causative alternation rendering the meaning "whiten." In (37), the adjective *man* (red) appears in a transitive clause with the meaning "redden" (hence "bleach one's skin"). Note that *man* is subjected to distributive reduplication in an instance of verbal plurality that harmonises with the plural reference of the subject "women." The non-reduplicated form, *man* (to become red) is equally grammatical with plural subjects:

(35) *Konja   aa-kekeln   piin*.
       NAME   POSS-cloth   be.white
       "Konja's cloth is white."

(36) *Gmakuuba   **pii-r**   u-yi-l*.
       NAME   white   POSS-head-CL.SG
       "Gmakuuba has whitened his hair/Gmakuba whitens his hair."

(37) *Bi-pii-b   **man-man**   bi-baa*.
       CL.PL-woman-CL.PL   RED-red   CL.PL-self
       "Women have bleached their skin."

In view of the ambitransitivity and therefore very verbal behaviour of Type 3 adjectives, one may be tempted to view them as verbs *tout court* and reject their classification as adjectives. We have, however, already presented evidence for the adjectivehood of Type 3 items with respect to their distributional specificities vis-à-vis resultative/stative verbs. The latter cannot appear as modifiers in N-A compounds, whereas Type 3 adjectives can (see [26]–[27]).

Furthermore, when Type 3 adjectives are employed as verbal predicates, they undergo formal changes that primary verbs do not undergo. This is another reason why we consider the verbal function of Type 3 adjectives to be derived or secondary (Bhat 1999: 191; Croft 1991: 54). For example, the Type 3 adjectives *kpok* (old) in (38) and *nyoo* (deep) in (39) always appear with word-final segments (marked in bold) when used as verbs, irrespective of their tense-aspect specification. As far as we can tell, these

segmental changes are idiosyncratic and not found with primary verbs, compare the verbs *bi* (spoil) in (40) and *doo* (finish) in (41), which do not take on any additional segments in the corresponding contexts (cf. Bisilki and Yakpo 2019).

(38) *Waa-lɔɔr*   *ngbaan*   *kpokl*   *la.*
     POSS.3SG-car   DEM   be.old   DM
     "That car of his/hers is/has become old."

(39) *Li-buu-l*   ***ga***   *fi*   *nyook*.
     CL.SG-hole-CL.SG   FUT   tomorrow   be.deep
     "The hole will be deeper tomorrow."

(40) *Waa-lɔɔr*   *ngbaan*   ***bi***   *la.*
     POSS.3SG-car   DEM   spoil   DM
     "That car of his/hers is spoilt."

(41) *Ti-jiir*   *tei*   ***ga***   ***doo***   *dandaana.*
     CL-food   DEM   FUT   finish   right.now
     "This food will be finished right now."

Only Type 3 adjectives occur as predicators of verbal clauses. Types 1 and 2 do not serve as predicate nuclei on their own in any context, hence the ungrammaticality of the two clauses below featuring the Type 1 adjectives *sakpiin* (big) and *waatir* (small) in (42) and the Type 2 adjective *chain* (clean) in (43).

(42) **Lɔɔr*   *wei*   ***sakpiin/waatir***.
     car   DEM   be.big/be.small
     Intended: "This car is big/small."

(43) **U-bo*   *wei*   ***chain***.
     CL.SG-child   DEM   be.clean
     Intended: "This child is clean/neat."

By contrast, Type 1 adjectives can only occur as nominalised complements to the identity/equative copula *ye* (COP) in order to predicate properties (see [15]–[16]), while *chain* (clean), the only member of the Type 2 class, only occurs as an adjectival complement to the copula *ye* (see 6.3).

7. The Distribution of Adjectives in Likpakpaln

Table 1 presents a summary of the distributions and structural features of adjectives in Likpakpaln. The table shows that there are considerable distributional differences between groups of adjectives with respect to their use as predicates in verbal clauses, their occurrence as copula complements, and their use as attributive modifiers of nouns. Table 1 contains a list of the 21 adjectives we could identify in Likpakpaln. Although this list is probably not conclusive, we do not expect a much greater number of

adjectives to emerge. The adjectives in Table 1 can be subdivided into three types in accordance with their distributional characteristics.

Table 1: Summary of Distributional and Semantic Features of Likpakpaln Adjectives

Type	Semantic Class	Adjective	Verb	Copula Complement	Noun Modifier
1	Dimension	*sakpiin/sakpen* (big)	✗	✗	✓
		waatir (small)	✗	✗	✓
		geŋgeŋ/geŋ (short)	✗	✗	✓
	Value	*bamɔn* (proper/real)	✗	✗	✓
	Speed	*suon* (slow)	✗	✗	✓
2	Property	*chain* (clean)	✗	✓	✗
3	Dimension	*fɔfɔk/fɔk* (long)	✓	✗	✓
		nyoo (deep)	✓	✗	✓
	Age	*kpok* (old)	✓	✗	✓
		pɔɔn (new)	✓	✗	✓
	Value	*nyaan/ŋan* (good)	✓	✗	✓
	Colour	*bɔmbɔn/bɔn* (black)	✓	✗	✓
		pipiin/piin (white)	✓	✗	✓
		man/mɛn/mamɛn (red)	✓	✗	✓
	Property	*pɔɔ* (hard)	✓	✗	✓
		muan (sweet)	✓	✗	✓
		kuan (dry)	✓	✗	✓
		ton (hot)	✓	✗	✓
		diin (soft)	✓	✗	✓
		nyuun (heavy)	✓	✗	✓
		pɔɔ (strong)	✓	✗	✓

Type 1 adjectives may only occur as adjectival nouns with noun class affixes. In this case, they occur as nominal complements of the copula *ye* (see [15] and [16]). They may, therefore, appear neither in the slot of a copula complement bare of a noun class affix like the Type 2 item (see [30]) nor in a verbal slot like Type 3 items (see e.g. [35]). Type 1 items are, therefore, the most nominal of the items listed in Table 1. The only—but crucial—characteristic that distinguishes Type 1 items from regular nouns is that they lack their own noun class markers and agree morphologically with the head of the NP, even in copula structures.

The only Type 2 adjective is *chain* (clean), which may form a predicate with either of the two copulas *ye* (COP) or *bi* (COP.LOC) (see [30]). *Chain* does not appear in a verbal slot. It can modify a noun attributively, but this renders its meaning idiomatic. We have suggested that *chain* is a loan and therefore diverges from all other adjectives in its

distribution. It is interesting that *chain* is the only item in our data that can be used as an adjectival copula complement bare of nominalising morphology. In Likpakpaln, this strategy appears limited to loan adjectives from e.g. Akan and English (see [33]). In combining characteristics of both verbs (they form part of the predicate) and nouns (they are more time stable than verbs and, therefore, require "copularisation" [Pustet 2003]), the Type 2 item *chain* is intermediate between a verb and a noun, as is typical of languages with large adjective classes like English.

Type 3 items constitute the bulk of adjectives in Likpakpaln. Unlike resultative/stative verbs, Type 3 adjectives can appear as modifiers in N-A compounds. They nevertheless share with verbs the feature of being able to constitute the predicate of intransitive and transitive verbal clauses (see [35]–[37]). With nouns they share the feature of taking noun class affixes when employed in a nominal function (see [19] and [20]). Type 3 items may not occur as copula complements. *En gros*, Type 3 items are therefore markedly more verbal than Type 1 and Type 2 items. At the same time, they also fall short of functioning as independent nouns. As with Type 1 items, the noun class affixes of Type 3 items always agree with those of the head noun.

In sum, the notion of adjective class in Likpakpaln is a scalar one, in which the three Types can be situated along a continuum ranging from more nominal to more verbal in nature. The existence of such clines in individual languages has been confirmed by typological research (Givón 1979; Pustet 2003).

8. Conclusion

Likpakpaln is a language with a small adjective class, consisting of about 20 members. Adjectives are distinguishable from the nominal and verbal word classes on morpho-syntactic and semantic grounds. However, the distinction is not discrete but scalar, with a majority of adjectives leaning towards the verbal side (Type 3) and a minority of adjectives being rather nominal (Type 1). A single adjective (Type 2) seems to be a loan and displays the exceptional behaviour of appearing in the complement slot of the two Likpakpaln copulas. We do not claim, however, that this count is complete. Our data collection was based on the "universal" adjective classes and individual members identified by Dixon (2010a), and did not include ideophones, for example.

Further evidence in support of Likpakpaln as a language with a small adjective class, apart from the low number per se, is that it completely lacks adjectives of human propensity (cf. Ameka 2001; Dixon 2010a). On Dixon's (2010a) cross-linguistic scale, Likpakpaln can be identified as a Type *c* language whose adjectives share grammatical properties with nouns and verbs to varying degrees. Similar observations regarding adjectives bearing either or both nominal and verbal properties have been made for the Mabia languages Dagbani, Gurɛnɛ, and Kusaal. See Olawsky (1999; 2004) for Dagbani, Atintono (2013) for Gurɛnɛ and Musah (2018) for Kusaal.

This is the first study of adjectives in Likpakpaln, and accordingly, there is still much ground to be covered. In a next step, the ideophonic component of the lexicon deserves to be considered in detail. Likewise, the morpho-syntactic integration of (Akan, English, Dagbani, etc.) loan adjectives into copula clauses and other structures needs to be understood better. Finally, a thorough comparison of the properties of Likpakpaln adjectives with those of other Mabia languages could help to refine our understanding of the genetic and typological position of Likpakpaln in the Mabia family and the linguistic area covering both the Kwa and the Mabia languages of Ghana and neighbouring countries.

Abbreviations

1	1st Person
2	2nd Person
3	3rd Person
ADV	Adverb
CL	(Noun) class marker
COP	Copula
DEF	Definite
DEM	Demonstrative
DM	Discourse marker
EMPH	Emphasis
FOC	Focus marker
FUT	Future
IDEO	Ideophone
INDP	Independent pronoun
LOC	Locative
NEG	Negative
NP	Noun phrase
PL	Plural
POSS	Possessive
RED	Reduplication
REL	Relative
SG	Singular
SID	Subject identity
TRM	Time reference marker

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