

Relativization in Likpakpaln (Ghana): New typological perspectives on the Mabia (Gur) languages

ABRAHAM KWESI BISILKI

University of Education, Winneba, Ghana

bisilki@yahoo.com or bisilki@connect.hku.hk

NICOLAS QUINT

LLACAN - UMR 8135 (CNRS / EPHE / INALCO), Paris, France

nicolas.quint@cnrs.fr

and

KOFI YAKPO 

The University of Hong Kong, Hong Kong

kofi@hku.hk

Abstract

This article provides the first systematic account of relativization in Likpakpaln, an understudied Mabia (Gur) language of Ghana. Broadly speaking, Likpakpaln features two types of relative clauses: restrictive and non-restrictive. Both types of relative clauses are finite and marked by a relative pronoun as well as a clausal definite determiner. The first type is always headed by an indefinite noun. The second is invariably headed by a definite head noun, is additionally marked by a prosodic break, and is usually under focus. The relative pronoun is a composite form comprised of a noun class agreement marker and an invariant relative marker. A number of the features of relative clauses in Likpakpaln align it with other Mabia languages of the region, whereas others distinguish it from these languages. This analysis situates Likpakpaln within its genealogical and areal context while providing new typological perspectives on the Mabia languages as a whole.

Keywords: Relativization, Likpakpaln, Mabia, Gur, Ghana

Résumé

Cet article constitue la première étude systématique des mécanismes de relativisation en likpakpaln, une langue mabia (gour) parlée au Ghana qui demeure très peu étudiée. D'une façon

générale, le likakpaln connaît deux types de propositions relatives : restrictives et non restrictives. Ces deux types de relatives sont finis et marqués par un pronom relatif ainsi que par un déterminant défini bornant la proposition relative à droite. Les propositions restrictives sont caractérisées par un antécédent indéfini. Quant aux propositions non restrictives, elles ont un antécédent défini, sont également marquées par une rupture prosodique, et sont généralement focalisées. Le pronom relatif peut être lui-même décomposé en une marque de classe nominale et une base relative invariable. Les propositions relatives du likakpaln présentent des points communs mais aussi de nettes différences avec les langues mabia voisines. La présente étude s'attache d'une part à montrer la place qu'occupe le likakpaln d'un point de vue phylogénétique et aréal, et d'autre part à fournir des considérations typologiques novatrices portant sur l'ensemble des langues mabia.

Mots-clés: Relativisation, likakpaln, mabia, gour, Ghana

1. INTRODUCTION

This article describes aspects of the morphosyntax and semantics of relativization in Likpakpaln, a Mabilia language of Ghana.¹ We also bring to attention some of the most salient typological correspondences and divergences that exist between relativization in Likpakpaln on the one hand and other Mabilia and neighbouring Kwa languages on the other. The name *Mabilia* for the linguistic grouping designated as *Gur* by colonial linguists reflects recent advocacy by native speaker linguists for ownership and greater authenticity of the label for this branch of Niger-Congo (see Musah 2018, Bodomo 2020).

A relative clause is a subordinate clause that modifies a head noun with which it forms a complex noun phrase (see, e.g., Cristofaro 2003, Saah 2010, Abubakari 2018a). This is why Givón (2001) refers to relative clauses as clause-size modifiers embedded in noun phrases. According to Givón, the salient function of a (restrictive) relative clause is to furnish either anaphoric or cataphoric clues for referent identification. A relative clause, therefore, codes a state or an event, one of whose participants is coreferential with the head noun modified by the clause (Givón 2001). Example (1) serves for illustration (Dzameshie 1995: 28):

- (1) The man **who greeted you** is Kofi's uncle.

In (1), the relative clause is bolded. The subject participant *man* constitutes the head, which is anaphorically modified by the relative clause. The use of the term anaphora implies that the relative clause refers back to the head noun as an antecedent

¹Abbreviations: 1/2/3: 1st/2nd/3rd Person; AGR: Class number (for agreement); AP: Adpositional phrase; CL: (Noun) class marker; COND: Conditional marker; COP: Identity-equative copula; DEF: Definite marker; DEIC: Deictic-presentative marker; DEM: Demonstrative; DET: Determiner; DIST: Distal demonstrative; DP: Discourse particle; EMP: Emphasis; FOC: Focus marker; FUT: Future; HAB: Habitual marker; HOD: Hodiernal past; LOC: Locative; NCA: Noun class Affix; NEG: Negative; OBJ: Object; PART: Polyfunctional particle; PL: Plural; POSS: Possessive; PRF: Perfect; PROG: Progressive; PRON: Pronoun; PROX: Proximal demonstrative; PST: Past; Q: Question marker; QUOT: Quotative; REL: Relative; SBJ: Subject; SG: Singular; SM: Subject marker; VEN: Ventive.

earlier mentioned in discourse (Dixon 2010). The relative pronoun *who*, the subject of the relative clause, is coreferential with the subject participant of the main clause, *man*. The relative clause in (1), centred on the verb *greeted*, is subordinate to the main clause *The man is Kofi's uncle*. Dixon (2010: 338) argues that a more appropriate label for the head noun of a relative clause is 'common argument'. Dixon's proposal is based on the syntactic arrangement that the head noun is a shared argument of both the main clause and the relative/subordinate clause in the relative clause construction.

The topic of relativization has received a considerable amount of attention in crosslinguistic studies, with several Mabia relatives of Likpakpaln, such as Buli, Dagbani, Dagaare, Gurene, Kabiyé, and Kusaal (Atintono 2003, Bodomo and Hiraiwa 2004, Bodomo and Hiraiwa 2010, Hiraiwa et al. 2017, Abubakari 2019), receiving their fair share of studies regarding this phenomenon. However, there are no existing works on relativization in Likpakpaln, a gap our study aims to fill.

The corpus for this study was developed through sociolinguistic and ethnographic techniques of observation, both participant and non-participant (see Quint 2007). We also made use of semi-structured interviews, informal conversations, and first-language-speaker introspection by the first author.

We will show that relativization in Likpakpaln is primarily marked by composite relative pronouns, which consist of a class pronoun, plus the suprasegmental features of nasality and low tone. The class pronoun is the corresponding third person agreement pronoun (see Winkelmann 2012a, 2012b; Bisilki and Akpanglo-Nartey 2017; also cf. Figure 1). Class pronouns in Likpakpaln are also often formally identical to the class prefixes in the nouns of the class pronoun's corresponding class. Relative pronouns, in turn, display formal identity with class prefixes via class pronouns. There are two possibilities for pronoun retention in relative constructions in Likpakpaln: (i) the use of a portmanteau relative pronoun and (ii) the use of an optional resumptive pronoun. Cross-linguistically, subject asymmetries play a crucial role in resumption strategies in relative clauses. However, subject asymmetries and animacy principles do not influence resumption in Likpakpaln. An important finding of this study is that the principles of pronoun resumption in Likpakpaln relative clauses differ considerably from what has been described for its genealogical relatives in the Mabia grouping and its areal Kwa cohabiters in Ghana. This study therefore seeks to contribute to a better understanding of the typology of relativization, within Mabia, the genetic grouping of Likpakpaln, and beyond.

This paper is organized as follows: Section 2 introduces Likpakpaln and its speakers. Section 3 provides a brief description of Likpakpaln noun classes and class pronouns (i.e., third person pronouns) as a source of relative pronouns in the language. In section 4, we provide an overview of relativization strategies in Likpakpaln, with reference to other African languages, and including the typologically interesting feature of pronoun resumption. Section 5 looks at the accessibility of noun phrases to relativization. Section 6 provides a summary of findings and section 7 concludes this study.

2. SOCIOLINGUISTIC BACKGROUND

Likpakpaln is a Niger-Congo language of the Mabia, Oti-Volta, Gurma sub-branch (Naden 1988, Bendor-Samuel 1989). Speakers self-identify as Bikpakpaam. The exonym ‘Konkomba’ has, however, become a more widespread referential term for both the people and their language. Tait (1961) suggests that the form Konkomba derives from ‘Kpakpamba’, a term used to refer to the Bikpakpaam by the Dagomba. The Dagomba (speakers of Dagbani) have been long-standing neighbours of the Bikpakpaam (see Barker 1991).

Likpakpaln speakers in Ghana are estimated to number some 831,000 people² (Eberhard et al. 2019). Additional speakers are found in neighbouring Togo (see Adouna 2009, Simons and Fennig 2017). Bimoba and Bassari³ (Ntcham/Ncham), which are spoken in both Ghana and Togo, are said to be the closest linguistic relatives of Likpakpaln (Eberhard et al. 2019).

The Bikpakpaam are indigenous to northern Ghana (Rattray 1932, Maasole 2006), where their presence predates the 1400s (Martinson 1995). The Saboba District in present-day northern Ghana, where most of the data for this study was gathered, is one of the traditional areas of the Bikpakpaam. In the Saboba area, the major languages geographically coterminous with Likpakpaln are Dagbani and Anufo (Chakosi). Minority languages in the area include Ewe and Bimoba (Ghana Statistical Service 2014). Likpakpaln speakers are also found in significant numbers across other parts of Ghana, for example in Atebubu-Amanten and the Kintampo Municipalities in Bono East and the Nkwanta North District and Nkwanta South Municipality in the Oti Region (Immigration and Refugee Board of Canada 1996). The map in [Appendix I](#) shows districts where Likpakpaln is spoken in Ghana.

Likpakpaln is split into numerous lects along clan lines (see Hasselbring 2006, Schwarz 2009). The actual number of dialects is yet to be systematically established, but from first-hand observation and from the first author’s native speaker point of view, the dialects of Likpakpaln are highly mutually intelligible. Members of different clans and, hence, dialects live together and interact significantly on a daily basis in Likpakpaln-speaking areas. Individual Likpakpaln dialects are not restricted to specific geographical areas of the language area. Speakers of any particular dialect can be found everywhere that the Bikpakpaam are located in significant proportions. It is, however, noteworthy that this study is based on the Lichabɔl lect, which is the Likpakpaln-speaker community’s choice of standard in Ghana (Orthography Committee 2020; Steele 1966).

²To the best of our knowledge, there are no specific figures provided for the number of Likpakpaln speakers in any of the reports of the Ghana Statistical Service, which tend to lump Likpakpaln speakers with other Mabia (Gur) groups. This is why we refer to *Ethnologue* on this matter.

³The above-mentioned Bassari language belongs to the Mabia branch of Niger-Congo. It has no direct phylogenetical relationship with its homonym Bassari, spoken in Senegal and Guinea and belonging to the Atlantic branch of Niger-Congo.

Having provided the necessary sociolinguistic background on Likpakpaln, we proceed with a short exposition of Likpakpaln noun classes and their corresponding class markers to provide the necessary backdrop for understanding relative clause formation in the language.

3. LIKPAKPALN NOUN CLASSES AND THIRD PERSON PRONOUNS

Likpakpaln is a noun class language (Winkelmann 2012a, Bisilki and Akpanglo-Nartey 2017), meaning its nouns can be distinguished based on a system of affixal markings on nouns (see, e.g., Bodomo and Marfo 2007) and agreement targets. Noun class prefixes in Likpakpaln are largely formally identical with the corresponding class pronouns (i.e., third person pronouns) of the noun class (Winkelmann 2012a, Bisilki and Akpanglo-Nartey 2017). The correspondences in (2) illustrate the formal similarities between class prefixes and their corresponding class pronouns.

| (2) Class pronoun | Noun |
|-------------------|-----------------------------|
| <i>kī</i> | <i>kī-sáá-k</i> |
| 3SG | CL.SG-farm-CL.SG 'farm' |
| <i>tī</i> | <i>tī-kú-r</i> |
| 3PL | CL.PL-hair-CL.PL 'hairs' |

Figure 1 below shows how nominal prefixes may take the exact form of their corresponding class pronouns. This will receive further corroboration in section 4, where we cover pronoun-antecedent relations in Likpakpaln relative clauses.

Likpakpaln has been characterized as a bilateral noun class language in the sense of Winkelmann (2012b): nouns typically have a pair of circumfixes, that is, co-occurring prefixes and suffixes for the singular and then another pair of co-occurring prefixes and suffixes for the plural. According to Winkelmann, Moba is the only Mabilia language of the Gurma sub-group that deviates from this type of affixal bilateralism. However, it may not be wholly correct to define contemporary Likpakpaln as a fully functional bilateral noun class language because a significant number of Likpakpaln nouns take a prefix only. Table 1 (a)–(c) provides examples of such nouns from classes 3 and 4, respectively. Furthermore, another category of nouns have no affix in the singular and take a suffix only in the plural. Table 1 (d)–(e) illustrates such nouns from classes 1a and 2a, respectively, with the symbol \emptyset in Figure 1 and Table 1 indicating that there is no prefix or suffix in the relevant class. We, therefore, propose that Likpakpaln features a mix of bilateral and non-bilateral noun classes.

Figure 1 summarizes the Likpakpaln noun classes, class affixes and third person class pronouns. Note that the numbers of the agreement classes (AGR) in Figure 1 follow the numbering adopted for Mabilia (Miehe et al. 2012), which take after Williamson's (1989) overarching numbering proposed for Niger-Congo noun class (i.e., agreement class) systems. The missing numbers (e.g., 7, 8, 9) represent agreement classes that are found in other Niger-Congo languages, but are absent in Mabilia

| | Class 3 (SG) | Class 4 (PL) |
|-----|---|--|
| (a) | <i>n̄-d̄⁴</i> CL.SG-stick-Ø 'stick' | <i>í-d̄s</i> CL.PL-stick-Ø 'sticks' |
| (b) | <i>n̄-dí</i> CL.SG-sorghum-Ø 'sorghum (one seed)' | <i>í-dí</i> CL.PL-sorghum-Ø 'sorghum (collective)' |
| (c) | <i>m̄-míí</i> CL.SG-fire-Ø 'fire' | <i>í-míí</i> CL.PL-fire-Ø 'fires' |
| | Class 1a (SG) | Class 2a (PL) |
| (d) | <i>nàndālàà</i> Ø-spider-Ø 'spider' | <i>nàndālàà-tííb</i> Ø-spider-CL.PL 'spiders' |
| (e) | <i>ná</i> Ø-mother-Ø 'mother' | <i>ná-tííb</i> Ø-mother-CL.PL 'mothers' |

Table 1. Examples of prefix-only, suffix-only, and affixless nouns.

(see Mieke et al. 2012). In other words, the gaps in the Figure 1 agreement class numbers show that Mabia languages, including Likpakpaln, lack some of the classes that have been identified for the larger Niger-Congo family.

The items in bold in Figure 1 are the corresponding class pronouns, with singular forms on the left and plural on the right. Classes 1a and 2a are sub-classes of classes 1 and 2. The class pronouns of their superordinate classes 1 and 2 hold for them too, hence the empty pronoun spaces. Number is marked on most nouns by attaching a class prefix, with or without a corresponding class suffix. As we can see, class pronouns are formally largely identical with the corresponding class prefixes attached to the nouns. See Bisilki and Akpanglo-Nartey (2017) for ample data regarding details on the correspondence between class pronouns and noun class prefixes.

Singular class 1a nouns have neither a prefix nor a suffix and the corresponding plural class 2a only admit suffixes, in this case either *-tííb* or *-mám*. Classes 20, 22, and 23 have 'transnumeral' pronominal class affixes (Güldemann and Fiedler 2019) – that is, they are neutral with respect to number. The class suffix **ci* denotes a reconstructed class. The noun class system of Likpakpaln features

⁴Throughout this paper, Likpakpaln data is transcribed following the recent orthographic conventions set up by the Likpakpaln Orthography Committee. Note that the recently set up orthography is a review of an earlier version proposed by Steele (1966). The tonal notation conventions adopted in this paper are the following: [à] = low tone, [ā] = mid tone, [á] = high tone. Note however that the orthography does not mark tone.

| AGR SG | NCA SG | PRON SG | PRON PL | NCA PL | AGR PL |
|--------------|-----------|------------|------------|-----------------|-----------|
| 1 | ū-...-Ø | ū | bī | bī-...-b, -m | 2 |
| 1a | Ø-...-Ø | | | Ø-...-tíib/-mám | 2a |
| 3 | Ń-...-Ø | mū | í | í-...-Ø | 4 |
| 5 | lī-...-l | lī | ŋí | ŋī-...-Ø | 6 |
| 14 | bū-...-b | bū | í | í-...-i | *ci |
| 12, 15 | kī-...-k | kī | mū | Ń-...-m | 22 |
| | | | tī | tī-...-r/-l | 21 |
| 22, 23 20 | N-...-N | mū nī | | | |

Figure 1. Likpakpaln noun classes and nominal agreement⁵

mergers and resulting homophony and is therefore not fully symmetrical with respect to the distribution of singular and plural affixes and class pronouns. Classes written in the same line in the leftmost column of Figure 1 have homophonous markers. Classes 22 and 23 are merged into a homophonous class, of which *N-...-N* (a homorganic prefix and suffix) is the class affix and *mū* is the class pronoun. A merger has also occurred in 12 and 15, where *kī* serves as the singular pronoun to both classes, while the corresponding plural nominal class affixes and class pronouns are differentiated for class. The form *mū* also serves as the class pronoun of (singular) class 3. Finally, class 20 at the bottom of Figure 1 is only realized as the 3rd person neuter pronoun *nī* in contemporary Likpakpaln and therefore lacks corresponding nouns. Class 20 therefore features no class affixes in Figure 1.

Having presented the reader with the necessary understanding of class pronouns and their corresponding morphology, we take up relative clause formation in section 4.

⁵Numbers in the leftmost and rightmost columns stand for the corresponding agreement classes (AGR) (also known as ‘noun classes’). The two central columns (PRON SG and PRON PL) contain the singular and plural third person pronominal prefixes that agree with the corresponding singular (NCA SG) and plural (NCA PL) nominal class affixes on the left and right respectively.

4. RELATIVE CLAUSE FORMATION IN LIKPAKPALN AND OTHER MABIA LANGUAGES

This section presents an analysis of relative clause formation in Likpakpaln, comparing the data with other Mabilia languages where relevant. Section 4.1 covers the basic structure of the relative clause, which features a relative pronoun and a clausal determiner. Section 4.2 outlines structural differences between restrictive and non-restrictive relative clauses, while 4.3 discusses relative clauses without overt antecedents, the so-called condensed relative clauses. Finally, section 4.4 focuses on pronoun resumption strategies in Likpakpaln, which exhibits striking differences vis-à-vis the other Mabilia languages and the Kwa languages of Ghana.

4.1. Relative pronouns and clausal determiners

The relative clause is a finite clause in Likpakpaln, marked by a relative pronoun and a clausal definite determiner. The finiteness of relative clauses in Likpakpaln is grounded in their full potential for independent arguments as well as tense, aspect, modality, and polarity marking. The relative pronoun in Likpakpaln is a composite form, comprising two elements: (i) a class pronoun that agrees with the head noun with respect to noun class membership (see Figure 1) and (ii) a relative marker [Ṽ]. The latter is a suprasegmental feature: the vowel (V) in the class pronoun is nasalized and at the same time bears a low tone. We follow the Likpakpaln orthography by representing nasality as <n> following the vowel. This means that the relative pronoun /tĩ/ in (3) is rendered as *tìn*:

- (3) *Ū jóó tĩ-bɔ-r [tìn káá nán ná áá-pĩ].*
 3SG.SBJ hold CL.PL.issue-CL.PL REL NEG GOOD DEF 2SG.SBJ-ON
 ‘S/he’s harbouring evil thoughts against you’, *lit.* ‘S/he holds an issue that’s not good on you.’

Relative pronouns serve three crucial functions in Likpakpaln: (i) They serve as clause markers/linkers; (ii) they fulfil an argument role within the relative clause; (iii) they index the head noun (see section 4.4 for further details). As indicated, relative pronouns bear a formal resemblance to the class prefixes of their head nouns. We see the formal resemblance between the relative pronoun *bìn* and the class prefix of the head noun *bĩ-nì-b* ‘people’ in (4). Likewise, the relative pronoun *ùn* is partially identical with the class prefix of the head noun *ú-nù* ‘person’ (4). In (5), the same holds for the relative pronoun *kìn* and the class prefix of the head noun *kĩ-jĩ-k* ‘knife’.

- (4) *Bĩ-nì-b [bìn nyí dàlbàdàal ná] kán, áá*
 CL.PL-person-CL.PL REL know some.day DEF COND 2SG
pĩ sán gàà n-làn kán, áá gā kán bĩ-nì-b
 DP run sing CL.SG-song COND 2SG FUT see CL.PL-person-CL.PL
àà fèi kī dóó ké bĩ lĩk ké ñmá yé
 PART rise SM stretch.neck QUOT 3PL see QUOT Q COP
ú-nù [ùn bĩ-gàà n-làn gbàan ná].
 CL.SG-person REL PROG-sing CL.SG-song DEF DEF
 ‘If it is people who are level-headed, when you raise a song (i.e., a song that is touching), you’ll see them stretch their necks to see the person that is singing that song.’

- (5) *Kī-jí-k* [kìn ká ná] gí yá.
 CL.SG-knife-CL.SG REL be.sharp DEF be.broken PRF
 ‘The knife that is sharp is broken.’

In one instance, however, the relative pronoun and the noun class prefix show a divergence in form. The class pronoun *mū-* indexes a head noun of noun classes 3, 22, and 23 (see Figure 1). Since the nominal prefix of these noun classes is, however, a homorganic nasal /N/, the two forms diverge in form. Compare (6), featuring the head noun *ń-nyún* ‘water’ and the relative pronoun *mùn*:

- (6) *ń-nyúm* [mùn tún ná] lē bī jóó fú ú-bópúàn.
 CL-water REL hot DEF FOC 3PL take bath CL.SG-baby
 ‘A baby should be bathed with hot water’, lit. ‘It is water that is hot that a baby is bathed with.’

Likpakpaln nouns are not inflected for case. They only display a morphological noun class (or gender) alternation expressing the contrast between singular and plural number (see Figure 1). Relative pronouns do not show case variation either. This distinguishes Likpakpaln and other Mabilia languages, as well as Kwa languages (e.g., Ewe, see Dzameshie 1995), from many Indo-European languages (e.g., Russian, see Keenan and Comrie 1977) where relative pronouns are inflected for case.

It is noteworthy that the relativization strategies of Likpakpaln are similar to those of some Mabilia languages, but not others. Similar to Likpakpaln, Kabiyé (Togo) uses a composite relative pronoun. The relative pronoun in Kabiyé can also be decomposed into a homorganic nasal morpheme /N/ and an agreeing pronominal prefix, as (7) shows:⁶

- (7) *Mən-zole* [ε-na ha ñ-gá tede yɔ].
 1SG-like 3SG-see.PST dog REL-PRON yesterday DEF
 ‘I like the dog that he saw yesterday.’ (Kabiyé; Hiraiwa et al. 2017: 9)

By contrast, the neighbouring Mabilia languages Buli, Dagbani, Dagaare, Kusaal, Moore, and Gureɛ use invariant, double relativizers (Hiraiwa et al. 2017, Abubakari 2019). There is no agreement marking component. Examples follow from Buli (8), Dagbani (9), and Dagaare (10), respectively (glosses adapted):

- (8) *Atim nya* [Amoak ale sua naa buui la].
 Atim see.PRF Amoak REL1 possess cow REL2 DEM
 ‘Atim saw the cow that Amoak owned.’ (Buli; Hiraiwa et al. 2017: 5)
- (9) *N ɲubi* [a ni she nim sheli maa].
 1SG eat.PRF 2SG REL1 roast.PRF meat REL2 DET
 ‘I ate the meat that you roasted.’ (Dagbani; Hiraiwa et al. 2017: 5)
- (10) *N di la* [a mongo na Dakoraa nang da].
 1SG eat FOC DEF mango REL1 Dakoraa REL2 buy
 ‘I ate the mango that Dakoraa bought.’ (Dagaare; Hiraiwa et al. 2017: 11)

⁶Comparable composite relative pronouns are also found in other Niger-Congo branches, e.g., Djifanghor Nyun, an Atlantic language (see Quint 2015: 413, 416–417).

Zero-relative constructions are not attested in Likpakpaln, regardless of which noun phrase position is relativized.⁷ Further, all preceding examples have shown that Likpakpaln relative clauses are postnominal (see Asante and Ma 2016 for more on post-nominal relativisation in Mabia).

A typologically interesting feature of Likpakpaln relativization is that it has both externally- (11) and internally-headed (12) relative clauses. In the latter type, the head noun is positioned within the relative clause (the head noun *ú-pííbó* ‘girl’ and the relative pronoun *ùn* ‘REL’ are in bold in both examples). In the internally-headed relative clause in (12), the predicate of the relative clause precedes the head noun while the relative pronoun is stranded on the right side of the head noun. Note that *ū* ‘3SG’ is placed in parentheses in (11) to show that it is an optional resumptive object pronoun (more on this in section 4.4).

- (11) *Ń nyí ú-pííbó [ùn Jágēr bɔ̀n-nī (ū) nā].*
 1SG.SBJ know CL.SG-girl REL JAGER COURT-HAB (3SG) DEF
 ‘I know the girl that Jager is courting.’
- (12) *Ń nyí [Jágēr àà bɔ̀n-nī ú-pííbó ùn nā].*
 1SG.SBJ know NAME PART COURT-HAB CL.SG-girl REL DEF
 ‘I know the girl that Jager is courting.’

Relativized head nouns in Likpakpaln do not co-occur with definite articles and demonstratives. This structural constraint falls in line with the indefiniteness restriction reported for the Mabia languages as a whole (see Hiraiwa et al. 2017; Abubakari 2018a, 2019). The relativization of definite head nouns appears to be prohibited in some neighbouring non-Mabia languages as well, for example, in the Kwa language Nkami (Asante and Ma 2016). However, in the Akan cluster (also Kwa), definite and indefinite head nouns are eligible heads of relative clauses (see Saah 2010, McCracken 2013). Be that as it may, a Likpakpaln noun occurring as an object within the relative clause can take determiners, whether definite (13) or non-definite. Further, independent/emphatic personal pronouns can also be relativized in subject and object positions, see *mìn* ‘1SG.EMP’ in (13) and (14), respectively. Likpakpaln head nouns also co-occur with quantifiers, as well as adjectival and nominal modifiers, see (15) further below.

- (13) *Mìn [ùn jóó ú-píí ñgbà̀n nā] áá nyí wáá-bó-r.*
 1SG.EMP REL hold CL.SG-lady DIST DEF NEG know 3SG.POSS-matter-CL
 ‘I who am married to that lady don’t know her matter [i.e., affairs].’
- (14) *Áá jín múnl mín [ùn máá sī nā].*
 2SG.SBJ eat.PRF refuse.to.give 1SG.EMP CL.SG-REL give.birth 2SG.OBJ DEF
 ‘You have eaten and left I who gave birth to you.’
- (15) *Bī-nààchípó-m bī-léé [bìn bò̀dò kù ú-bó-r nā] só.*
 CL.PL-young.men-CL.PL CL-TWO REL bend farm CL.SG-chief-CL.SG DEF DEIC
 ‘These are the two young men who are farming for the chief.’

⁷In ‘zero’ (Ordem 2017) or ‘gap’ (Comrie and Kuteva 2013) relative constructions, the relative pronoun is not explicitly stated, as in English *I saw the man Ø the managers sacked* (Dixon 2010: 353).

The relative clause regularly ends in the obligatory, invariable definite determiner *ná* ‘DEF’ (see all preceding examples with relative clauses), which otherwise specifies lexical nouns, as in (16) (for further discussion of the functions of the determiner, see Bisilki (2021)):

- (16) *Ú-já ná kún nī.*
 CL.SG-man DEF come VEN
 ‘The man has come [home].’

The use of clausal determiners is common in all Mabia (see Hiraiwa et al. 2017; Abubakari 2018a, 2019) and Kwa languages (Law and Lefebvre 1995, Larson 2003, Saah 2010) of the region. The view is that clausal determiners in Mabia and Kwa encode event deixis in the relative clause (Bombi et al. 2019). The clausal determiner is said to flag the information contained in the relative clause as a pragmatic presupposition, that is, information already shared by the interlocutors. We concur with the analysis of *ná* as a clausal determiner with a discourse-deictic function, which also explains its occurrence in other types of subordinate clauses, among them time clauses (17):

- (17) *Wáár áán ī bá búèn kī-sáá-k ná, tī bá*
 Before EMP 1PL.SBJ HOD go CL.SG-farm-CL.SG DEF 1PL.SBJ HOD
jín bī-sáá.
 eat CL-food.type
 ‘Before we went to the farm, we ate bisaa.’

Finally, there appear to be no restrictions on the type of nominals that can head relative clauses in Likpakpaln. We have seen that independent/emphatic pronouns may even serve as heads of relative clauses (see (13)–(14)). As a matter of fact, any noun not marked for definiteness can be the antecedent of a relative clause in Likpakpaln. This also includes proper nouns like names of persons and places, see (18), in which a human referent named *Táánèèn* is relativized. Note that relative clauses headed by proper nouns in Likpakpaln are restrictive. From a semantic point of view, when a proper noun is relativized, the identity of the relativized referent is necessarily contrasted vis-à-vis other people (or places) that may share the same referent.

- (18) *Táánèèn [ùn áá nán nyí (ū) ná] áá kī*
 NAME REL 2SG.SBJ PST know (3SG.OBJ) DEF NEG no.longer
yé wéé.
 COP PROX
 ‘The Taaneen that you knew is no longer this one (i.e., Taaneen is now a changed person).’

We should add that the sociopragmatics of personal naming, reference and addressing in Likpakpaln communities favour the relativization of personal names in particular. It is very common for people to share personal names within a clan or community. Additionally, people are generally addressed with their first names in everyday life (Bisilki 2017, 2018). In such a context, relativization may become the means by which a particular referent of a personal name is specified and/or contrasted with other potential referents.

4.2. Restrictive versus non-restrictive relative clauses

The relative clause type we have seen so far is the restrictive relative clause, that is, a clause that modifies and restricts the reference of the head noun. We have shown that restrictive relative clauses cannot be headed by nouns that are marked for definiteness in Likpakpaln. We do, however, find relative clauses that take definite head nouns. Such clauses are invariably non-restrictive relative clauses, that is, clauses that provide supplemental information to their head. Such clauses are also referred to as ‘appositive’ relative clauses (Perlmutter and Soames 1979, Asante and Ma 2016, Abubakari 2018a). The information contained in an appositive relative clause is a ‘parenthetical assertion’ (see, e.g., Givón 2001, Dzameshie 1995). This is also why the non-restrictive relative clause in Likpakpaln is normally under focus, as indicated by the focus marker *lē* in (19) and (20) (definiteness markers, relative pronouns, and focus marker in bold). By contrast, *lē* is rarely found in restrictive relative clauses. Furthermore, the boundary between the definite nominal head and the non-restrictive relative clause is characterized by a perceptible prosodic break, indicated by a comma in (19) and (20):

- (19) *Sáá-jí-k ná, [kìn bá dǒ dǒó ná] lē ní bán.*
 2SG.POSS-knife-CL.SG DEF REL HOD lie.down LOC DEF FOC 1SG want
 ‘Your knife, the one which was lying here, is the one I’m looking for.’
- (20) *Tī-nán tée, [tìn kpá lī-kpáb-l ná] lē n*
 CL.PL-meat PROX REL have CL.SG-bone-CL.SG DEF FOC 1SG
būi áá nyán dī kìn.
 say 2SG remove take go.home
 ‘This meat, the one which has a bone in it, is the one I said you should take home.’

4.3. The condensed relative clause

There are relative clauses without overt antecedents in Likpakpaln. We refer to these structures as ‘condensed’ relative clauses (Dixon 2010) because the antecedent is identical to the relative pronoun. Others refer to them as ‘free relatives’ (Yakpo 2019: 402) or ‘headless relatives’ (Saah 2010: 104). We consider the term ‘headless’ to be a misnomer, however, since there is no relative clause without a head noun (Dixon 2010). The fact that a head noun does not overtly appear in a relative clause construction does not mean that there is no antecedent to it. The antecedent is always present, but implicit or infused in the relative pronoun (see also Givón 2001).

The condensed relative clause in (21) features the relative pronoun *ùn*, which refers to an implicit animate antecedent indexed by a noun class 1 class pronoun (i.e., *u-*, see Figure 1). In turn, (22) features the relative pronoun *tìn*, which refers to an implicit non-animate antecedent in noun class 21, equivalent to ‘thing’ or ‘fact’.

- (21) *Í bán [ùn kpá ní-lán ná] lá.*
 1SG.SBJ want REL have CL-wisdom DEF FOC
 ‘I want who is wise.’

- (22) [Tɪn ní nyí ná] lē yé ké wáán dán dín.
 REL 1SG.SBJ know DEF FOC COP QUOT 3SG.NEG.FUT come today
 ‘What I know is that s/he won’t come today.’

There is therefore no formal difference between relative pronouns with overt antecedents and condensed relative clauses with implicit antecedents. The relative pronouns in Likpakpaln condensed relative clauses are therefore also not identical to question words, nor do they function as question words as occurs in some other languages of the world (e.g., English, see Dixon 2010; French, N. Quint, p.c.).

4.4. Pronoun resumption in the relative clause

The resumptive pronoun is the relative clause internal element that is coreferential with the head noun of the relative clause. In other words, it recalls the relativized head noun within the relative clause (see Sigurd 1989, Saah 2010). Research has established that the languages of the major African language families employ three main ways of coding the relativization site within the relative clause, namely pronoun retention, gapping, and correlatives (Kuteva and Comrie 2005, Asante and Ma 2016). The ensuing discussion will show that Likpakpaln uses the pronoun retention strategy.

We should first point out that Likpakpaln pronoun retention exhibits striking differences vis-à-vis other Mabia and Kwa languages of Ghana. Pronoun retention means that a resumptive element is present in the relative clause. In Likpakpaln subject relative clauses, the relativized head noun is picked up in the relative clause by the corresponding class pronoun that forms part of the composite relative pronoun (see e.g., (3)–(6)). Thus, no additional resumptive pronoun is introduced into the relative clause. The class pronoun that is part of the relative pronoun could, therefore, be seen as a portmanteau form. Not only does it index the head noun within the relative clause like a regular resumptive pronoun, it also contributes to the relativization and clause-linking functions by being part of the composite relative pronoun.

The fact that Likpakpaln relative pronouns agree with their antecedents contrasts with other Mabia (Hiraiwa et al. 2017; Abubakari 2018a, 2019) and Kwa (Dorvlo 2008, Asante and Ma 2016, Saah 2010) languages of Ghana, in which it is common for subject resumptive pronouns to co-occur with invariable relativizers in the relative clause. The frequency of resumptive pronouns in subject relative clauses runs counter to the predictions of the relativization accessibility hierarchy (Keenan and Comrie 1977) and is likely an areal West African phenomenon (Yakpo 2019).

In object relative clauses, the relativized object participant is still referenced by the corresponding class pronoun that forms part of the composite relative pronoun. However, the relativized object can be additionally resumed by a coreferential object pronoun in the relative clause. Likpakpaln does not mark (relative) pronouns for morphological case, so the resumptive pronoun may be seen to index the objecthood of the relativized position by virtue of its post-verbal position, standard for object arguments in Likpakpaln, see (23) and

(24). The resumptive object pronoun is also a class pronoun; hence it agrees in number and class with the antecedent of the relative clause. Resumptive object pronouns are optional, and therefore placed in parentheses in (23) and (24). Note that, according to our knowledge of Likpakpaln, resumptive object pronouns have a relatively low frequency, so a majority of object relative clauses lack them.

(23) *Ú-já* [*ùn* *ń* *tíí* (*ū*) *tī-jít-r* *ná*] *bùèn* *ná*.
 CL.SG-man REL 1SG.SBJ give (3SG) CL-food-CL DEF go DEF
 ‘The man whom I’ve given food to is gone.’

(24) *Ń* *nyí* *bī-nàyùk-b* [*bìn* *sòjà-tiib* *chúú* (*bī*) *ná*].
 1SG.SBJ know CL.PL-thief-CL.PL REL soldier-CL.PL hold (3PL) DEF
 ‘I know the thieves that the soldiers have arrested.’

The occurrence of a resumptive object pronoun resumption is not affected by the animacy of the head. Thus, resumption is possible when we have a human head noun (25), a non-human animate head noun (26), and an inanimate head noun (27):

(25) *Táánèèn* [*ùn* *áá* *nán* *nyí* (*ū*) *ná*] *áá* *kī*
 NAME REL 2SG.SBJ PST know (3SG) DEF NEG no.longer
yé *wéé*.
 COP PROX

‘The Taaneen that you knew is no longer this one (i.e., Taaneen is now a changed person).’

(26) *Ú-ηòòb* [*ùn* *Jágēr* *dáá* (*ū*) *ná*] *wáŋ* *áá*.
 CL.SG-goat REL NAME buy (3SG) DEF be.lost PRF
 ‘The goat that Jager has bought is missing.’

(27) *Tī-bó-r* [*tīn* *àà* *lèn* (*tī*) *ná*] *áá* *ŋán*.
 CL.PL-issue-CL.PL REL 2SG.SBJ say (3PL) DEF NEG be.good
 ‘What you said is not good’, lit. ‘The issue that you said is not good.’

All instances of object pronoun resumption covered so far have exclusively featured externally-headed object relative clauses. Pronoun resumption is not found in internally-headed object relative clauses. The object argument in the relative clause serves as the head of the internally-headed relative clause and is the one that the class component of the relative pronoun agrees with, see *ùn* ‘REL’ in (28) and (29). Since the head noun itself is already present in the relative clause, the use of another pronoun is blocked.

(28) [*Jágēr* *àà* *dáá* *ú-ηòòb* *ùn* *ná*] *wáŋ* *áá*.
 NAME PART buy CL.SG-goat REL DEF be.lost PART
 ‘The goat that Jager has bought is missing.’

(29) *Ń* *nyí* [*Jágēr* *àà* *bòn-nī* *ú-pííbo* *ùn* *ná*].
 1SG.SBJ know NAME PART court-HAB CL.SG-girl REL DEF
 ‘I know the girl that Jager is courting.’

5. RELATIVIZABLE NOUN PHRASE POSITIONS

The responsiveness of different noun phrase positions to relativization has been theorized in the noun phrase accessibility hierarchy by Keenan and Comrie (1977) and Comrie (1989), which suggests the following implicational scale of accessibility to relativization: subject > direct object > non-direct object > possessor. As argued by Comrie (1989), the accessibility hierarchy is an implicational scale and defines the relative ease of relative clause formation for the various positions on the hierarchy. The implicational assumption of the hierarchy is that once a language is able to relativize a certain position on the scale, it should be possible for that language to also relativize all the other positions to the left. Thus, if a language A can relativize possessors, it follows that A should be able to produce relative constructions for all other positions of the hierarchy.

There is no restriction on the type of noun phrase in the main clause that can be relativized in Likpakpaln. This means that subjects (e.g., (6) and (13)), objects instantiating different types of semantic roles (e.g., theme objects, see (11) and (18), and recipient objects, see (25)), adpositional, and possessive noun phrases may be relativized. In this section, we illustrate the relativization of the latter two structures. The fact that possessor noun phrases can be conveniently relativized in Likpakpaln reinforces our claim that no noun phrase position seems to be excluded from relativization in the language.

Likpakpaln employs postpositional locative nouns for the expression of specific spatial relations. In adpositional relative constructions, the postposition is delinked from its head noun by an intervening relative pronoun, to which it then serves as a postposition. The postposition is therefore stranded to the right of the relative pronoun and to the left of the subordinate predicate within the relative clause (30).

- (30) *Lī-jà-l* [*līn pī áá ká ná*] *áá nán.*
 CL.SG-chair-CL.SG REL ON 2SG.SBJ sit DEF NEG be.good
 ‘The chair that you are sitting on isn’t good.’

We also find constructions where the *spatial relation* expressed by a postpositional noun is relativized. Such constructions differ from those involving core arguments in that they use the catch-all locative relativizer *ninchéé* ‘REL.LOC’. *Ninchéé* is a genuine relativizer because it is not used as a locative question word – the latter is *lá* ‘where’ – and therefore means something like ‘the location that’. In the internally-headed relative clause in (31), for example, the inferior spatial relation expressed by *tááb* ‘under(neath)’ is referenced by *ninchéé*. If, by contrast, *téibōl* ‘table’ were the relativized element, the appropriate relative pronoun would be *ùn*.

- (31) [*Bī-sáá àà sí téibōl tááb ninchéé ná*] *lē*
 CL.SG-food.type PART stand table under REL.LOC DEF FOC
kī-jí-k *dó.*
 CL.SG-knife-CL.SG lie
 ‘The knife is lying under the table where the food is.’

Turning to possessor noun phrases, we note that these are cross-linguistically said to be the least likely to be relativized. Since possessors can be relativized in Likpakpaln, it follows that the language should be able to form relatives on all the other positions to the left of the possessor, and we have shown that this is indeed the case.

Likpakpaln permits the relativization of possessed (32) and possessor nouns (33) alike, whether they function as subjects or obliques. Possessed nouns are relativized like core participants. Reference is upheld via the juxtaposition of the possessed noun and the relative clause. In (32), the possessed noun *púú* ‘wife’ functions as the antecedent to an immediately adjacent subject relative clause introduced by the relative pronoun *ùn*.

- (32) *Jágēr áá púú [ùn má ná] nyán ú-bó.*
 NAME POSS wife REL give.birth.PRF DEF take.outside CL.SG-child
 ‘Jager’s wife who gave birth has outdoored [i.e., ceremonially presented] the baby.’

When the possessor is relativized, the relative pronoun immediately precedes the possessed noun in the relative clause. The possessive relative pronoun is a special form, however. The class pronoun is retained, but the relative marker *-ñ* (i.e., the nasalization feature and the low tone) is dropped and replaced by the invariant possessive linker *-áá*. Note, however, that the composite possessive-relative pronoun (comprising the class pronoun and the invariant possessive linker) is transparent, as speakers can reconstruct it in careful speech. In (33), the possessor noun *únàà* ‘cow’ is indexed by the possessive relative pronoun *wáá*, which is composed of the class pronoun coreferential with the head noun and the possessive linker (i.e., *ū+áá*). In (33), the possessed noun *júúl* ‘tail’ functions as the object of the relative clause serial predicate *gàà gíí* ‘cut break’. It can therefore be optionally picked up by a coreferential resumptive object pronoun, in this case *lī*. Internally-headed possessor relative clauses are also common, as in (34), which can be compared with (33). Example (35) features the possessive relative pronoun *láá* (i.e., *lìn+áá*) agreeing with a head noun from agreement class 5, which features the agreement circumfix *lī...l* (see Figure 1).

- (33) *Ū-nàà [wáá júúl bī gàà gíí (lī) ná] kpó áá.*
 CL.SG-COW REL.POSS tail 3PL cut break (3SG) DEF die PRF
 ‘The cow whose tail they cut is dead.’
- (34) [*Bàà gàà gíí ú-nàà wáá júúl ná] (ū)*
 3PL.SBJ.PRF cut break CL.SG-COW REL.POSS tail DEF (3SG)
kpó áá.
 die PRF
 ‘The cow whose tail they have cut is dead.’
- (35) *Lī-nù-l [láá júúl gíí ná] gā kpó.*
 CL.SG-yam-CL.SG REL.POSS tail cut DEF FUT die
 ‘The yam whose tail is broken will die (i.e., rot).’

6. SUMMARY OF RELATIVIZATION

As background to understanding relativization in Likpakpaln, we first provided a brief overview of noun classes and class pronouns in the language (section 3). We then turned to the details of relative clause formation (section 4). Relative clause constructions in Likpakpaln are marked by relative pronouns composed of two morphemes, (i) a class pronoun agreeing in class and number with its antecedent and (ii) an invariant relative marker, the low-toned nasal (\check{V}). Recall that vowel

| Feature/relativized position | SBJ | OBJ | AP | POSS |
|---|------|------|------|------|
| Internally and externally headed relative clauses | yes | yes | yes | yes |
| Optional resumptive pronoun in relative clause | no | yes | yes | yes |
| 'Zero' relative clauses | no | no | no | no |
| 'Condensed' relative clauses | yes | yes | yes? | yes? |
| Preposition stranding | n.a. | n.a. | yes | n.a. |

Table 2. Features of relative clauses in Likpakpaln

nasality is orthographically represented by a following *-n* after the vowel. The relative pronoun is mandatory in the relative clause. Any indefinite noun can be relativized in Likpakpaln and the relative clause invariably terminates in a clausal definite determiner. Nouns marked for definiteness are, by contrast, restricted to non-defining (or appositive) relative clauses. Further, both externally headed and internally headed relative clauses are attested in Likpakpaln.

Table 2 summarizes those relevant features of the Likpakpaln relative clause that are covered in preceding sections, with respect to the position relativized, that is, subjects (SBJ), objects (OBJ) adpositional phrases (AP) and possessor (POSS). 'Yes/ no' in Table 2 indicates that the option concerned is attested/not-attested in the data; 'yes?' indicates that the option is not attested in the data, but might be available; 'n.a.' means that the option does not apply.

7. CONCLUSION

In this study, we have provided the first comprehensive description of the morpho-syntax and semantics of relative clause constructions in Likpakpaln. We conclude that the characterization of relativization strategies in Likpakpaln introduces new perspectives to existing descriptions of the typology of relativization in the Mabia languages (Bodomo and Hiraiwa 2004, Hiraiwa et al. 2017, Abubakari 2018b).

First, Likpakpaln makes use of a relative pronoun that agrees in class and number with the relativized head noun. This relative pronoun is composed of two elements. The first is the agreement marker, identical to the corresponding 3SG class pronoun. The second element is the invariant relative marker \check{V} . By contrast, many Mabia languages of Ghana that we have surveyed only employ a monolithic and invariant relative marker (i.e., a subordinator or complementizer) with no agreement marking component. It is therefore noteworthy that unlike other Mabia languages, Likpakpaln uses a suprasegmental feature, namely a low-toned nasal for the function of a relative marker.

Secondly, the absence of separate pronouns for pronoun resumption in Likpakpaln subject relative clauses also differentiates the language from other Mabia languages in the vicinity. Likpakpaln only permits pronoun resumption in oblique relative clauses, where it is optional. Other Mabia languages follow the common areal pattern in which subject relative clauses also allow for or require

resumptive pronouns. We suggest that Likpakpaln may be different in this regard because reference with head nouns is established by default through the class pronoun, which is, in turn, part of the composite relative pronoun.

There are however two aspects of overlap between Likpakpaln and other Mabia languages. Firstly, in all Mabia languages surveyed, including Likpakpaln, relative clauses obligatorily end in a clausal determiner. Secondly, head nouns marked for definiteness are excluded from serving as head nouns in restrictive relative clauses whereas they can serve as head nouns in non-restrictive (appositive) relative clauses. Another essential difference between restrictive and non-restrictive relative clause types in Likpakpaln is the fact that there is no prosodic break in restrictive relative clauses, whereas a prosodic break is used to mark the boundary between the head noun and a following non-restrictive relative clause. In all, this descriptive analysis of Likpakpaln relativization has revealed typologically interesting characteristics specific to Likpakpaln, besides genetic and areal features also found across Mabia and further afield.

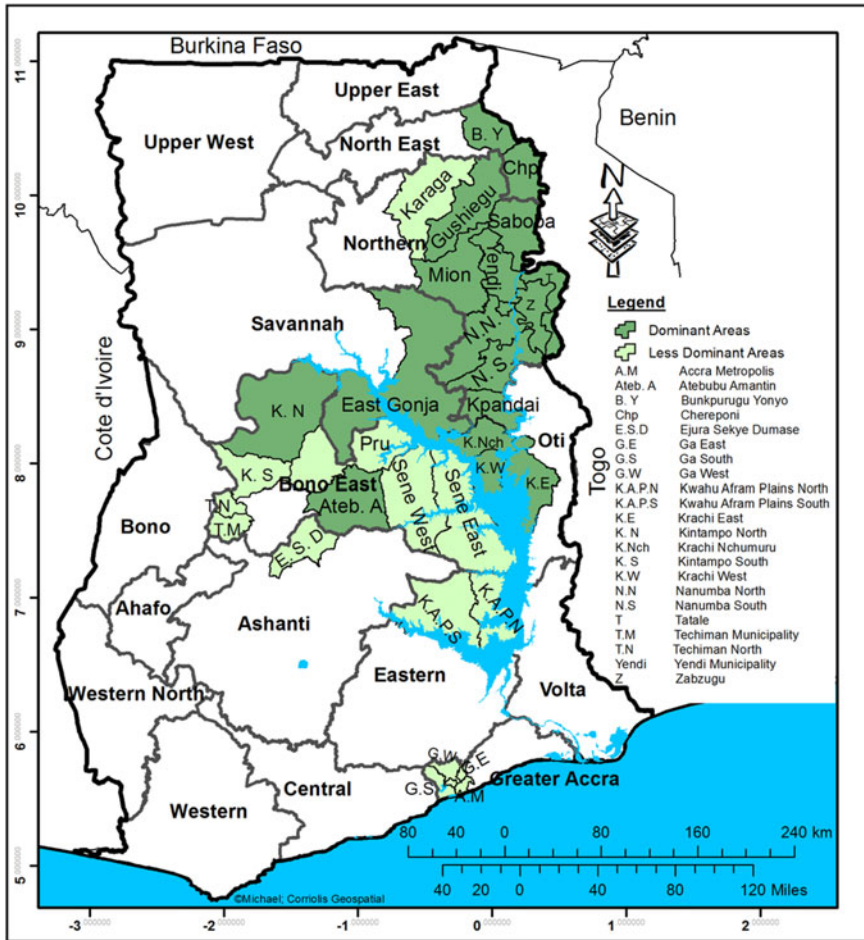
REFERENCES

- Abubakari, Hasiyatu. 2018a. Relativization in Kusaal. *SOAS Working Papers in Linguistics* 19: 3–28.
- Abubakari, Hasiyatu. 2018b. Aspects of the grammar of Kusaal: Syntax-information structure interface. PhD thesis, University of Vienna.
- Abubakari, Hasiyatu. 2019. The syntax and semantics of relative clauses in Kusaal. *Ghana Journal of Linguistics* 8(2): 27–62. <http://dx.doi.org/10.4314/gjl.v8i2.2>.
- Adouna, Gbandi. 2009. Description phonologique et grammaticale du Konkomba–Langue GUR du Togo et du Ghana–Parler de Nawaré. PhD thesis, Université Rennes 2 and Université de Lomé.
- Asante, Rogers K., and Qiuwu Ma. 2016. Relative clause constructions in Nkami. *Studies in African Linguistics* 42(1/2): 27–59.
- Atintono, Samuel A. 2003. A functional analysis of the Gurene relative clause. Unpublished manuscript, University of Education, Winneba.
- Barker, Thomas R. 1991. Small bands of strangers: The contraposed lineage. *Anthropos* 86(1/3): 1–18.
- Bendor-Samuel, John, ed. 1989. *The Niger-Congo languages: A classification and description of Africa's largest language family*. Lanham, MD: University Press of America.
- Bisilki, Abraham Kwesi. 2017. A sociolinguistic analysis of kinship terms in Likpakpaln (Konkomba). *Ghana Journal of Linguistics* 6(3): 33–58.
- Bisilki, Abraham Kwesi. 2018. A study of personal names among the Bikpakpaam (the Konkomba) of Ghana: The linguistics, typology and paradigm shifts. *LSC Language Sciences* 66: 15–27.
- Bisilki, Abraham Kwesi. 2021. Aspects of the grammar of Likpakpaanl: A Mabia (Gur) language spoken in Ghana. PhD thesis, University of Hong Kong.
- Bisilki, Abraham Kwesi, and Rebecca Atchoi Akpanglo-Nartey. 2017. Noun pluralisation as a dialect marker in Likpakpaln “Konkomba.” *Journal of West African Languages* 44(2): 24–42.
- Bodomo, Adams. 2020. Mabia: Its genesis, geographical spread and some salient genetic features. In *Handbook of the Mabia languages of West Africa*, ed. Adams Bodomo, Hasiyatu Abubakari, and Samuel A. Issah, 5–34. Glienicke, Germany: Galda Verlag.

- Bodomo, Adams, and Ken Hiraiwa. 2004. Relativization in Dagaare. *Journal of Dagaare Studies* 4: 53–75.
- Bodomo, Adams, and Charles Marfo. 2007. The morphophonology of noun classes in Dagaare and Akan. In *Studi Linguistici e Filologici Online*.
- Bodomo, Adams, and Ken Hiraiwa. 2010. Relativization in Dagaare and its typological implications: Left-headed but internally-headed. *Lingua* 120(4): 953–983.
- Bombi, Carla, Mira Grubic, Agata Renans, and Reginald A. Duah. 2019. The semantics of the (so-called) clausal determiner *nó* in Akan. In *Proceedings of Sinn und Bedeutung 23, vol. 1*, ed. Teresa M. Espinal, 181–199. Konstanz: University of Konstanz.
- Comrie, Bernard. 1989. *Language universals and linguistic typology: Syntax and morphology*. Chicago: University of Chicago Press.
- Comrie, Bernard, and Tania Kuteva. 2013. Relativization strategies. In *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath. Leipzig: Max Planck Institute for Evolutionary Anthropology. <https://wals.info/chapter/s8>.
- Cristofaro, Sonia. 2003. *Subordination* Oxford: Oxford University Press.
- Dixon, Robert M. W. 2010. *Basic linguistic theory 2: Grammatical topics*. Oxford: Oxford University Press.
- Dorvlo, Kofi. 2008. *A grammar of Logba (Ikpana)*. Utrecht: LOT.
- Dzameshie, Alex K. 1995. Syntactic characteristics of Ewe relative clause constructions. *Research Review from the Inst. of African Studies (IAS), Univ. of Ghana* 11(1/2): 27–42.
- Eberhard, David M., Gary F. Simons, and Charles D. Fennig, eds. 2019. *Ethnologue: Languages of Ghana*. 22nd edn. Dallas, Texas: SIL International. <http://www.ethnologue.com>.
- Ghana Statistical Service. 2014. *2010 population and housing census: District analytical report – Saboba District*. Accra, Ghana: Ghana Statistical Service.
- Givón, Talmy. 2001. *Syntax: An introduction*. Vol. II. Amsterdam: John Benjamins.
- Güldemann, Tom, and Ines Fiedler. 2019. Niger-Congo “noun classes” conflate gender with deriflection. In *Grammatical gender and linguistic complexity. Volume I: General issues and specific studies*, ed. Francesca Di Garbo, Bruno Olsson, and Bernhard Wälchli, 95–145. Berlin: Language Science Press. <https://doi.org/10.5281/ZENODO.3462762>.
- Hasselbring, Sue. 2006. Cross-dialectal acceptance of written standards: Two Ghanaian case studies. PhD thesis, University of South Africa.
- Hiraiwa, Ken, George Akanlig-Pare, Samuel A. Atintono, Adams Bodomo, and Komlan E. Essisewa. 2017. A comparative analysis of internally-headed relative clauses in Gur. *Glossa: A Journal of General Linguistics* 2(1): 1–30. <https://doi.org/10.5334/gjgl.40>.
- Immigration and Refugee Board of Canada. 1996. Ghana: Information on where Konkomba tribe reside and on their tribal or mother language. <https://webarchive.archive.unhcr.org/20230519082604/https://www.refworld.org/docid/3ae6ac251c.html>.
- Keenan, Edward L., and Bernard Comrie. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8(1): 63–99.
- Kuteva, Tania, and Bernard Comrie. 2005. The typology of relative clause formation in African languages. In *Studies in African linguistics typology*, ed. Voeltz F. K. Erhard, 209–228. Amsterdam: John Benjamins.
- Larson, Richard. 2003. Event description in Fòñ and Haitian Creole. In *Development in creole studies*, ed. Dany Adone, 67–90. Berlin: Max Niemeyer Verlag.
- Law, Paul, and Claire Lefebvre. 1995. On the relationship between event determiners and predicate cleft in the Kwa languages: The case of Fongbe. *Linguistique africaine* 14: 7–46.
- Maasole, Cliff S. 2006. *The Konkomba and their neighbours in the pre-European period up to 1914: A study in inter-ethnic relations in northern Ghana*. Accra: Ghana Universities Press.

- Martinson, Harold B. 1995. *The hidden history of Konkomba wars in Northern Ghana*. Ghana: Nyagse Foundation.
- McCracken, Chelsea. 2013. Relative clauses in Asante Twi. *Rice Working Papers in Linguistics* 4: 1–28.
- Miehe, Gudrun, Ulrich Kleinewillinghöfer, Manfred von Roncador, and Kerstin Winkelmann. 2012. Overview of noun classes in Gur (II)(revised and enlarged version). In *Noun Class Systems in Gur Languages*, vol. 2, ed. Gudrun Miehe, Brigitte Reineke, and Kerstin Winkelmann, 5–37. Köln: Rüdiger Köppe.
- Musah, Anthony Agoswin. 2018. *A grammar of Kusaal: A Mabia (Gur) language of northern Ghana*. Berlin: Peter Lang.
- Naden, Tony. 1988. The Gur languages, In *The languages of Ghana*, ed. M. E. Kropp Dakubu, 12–49. London: Kegan Paul International for the International African Institute.
- Ordem, Eser. 2017. Acquisition of zero relative clauses in English by adult Turkish learners of English. *Journal of Education and Training Studies* 5(1): 190–195. <https://doi.org/10.11114/jets.v5i1.2056>.
- Orthography Committee. 2020. Unpublished manuscript. Accra, Ghana.
- Perlmutter, David M., and Scott Soames. 1979. *Syntactic argumentation and the structure of English*. Berkeley: University of California Press.
- Quint, Nicolas. 2007. *Décrire les langues pour comprendre le langage*. Habilitation thesis, Université Louis Lumière-Lyon II, France.
- Quint, Nicolas. 2015. Les classes nominales en nyun de Djifanghor. In *Les classes nominales dans les langues atlantiques*, ed. Denis Creissels and Konstantin Pozdniakov, 405–443. Köln: Rudiger Köppe.
- Rattray, Robert Sutherland. 1932. *The tribes of the Ashanti hinterland*. Vol. I. Oxford: Clarendon Press.
- Saah, Kofi. 2010. Relative clauses in Akan. In *Topics in Kwa syntax* (Studies in Natural Language and Linguistic Theory 78), ed. Enoch O. Aboh and James Essegbey, 91–108. Heidelberg: Springer.
- Schwarz, Anne. 2009. How many focus markers are there in Konkomba? In *Selected proceedings of the 38th Annual Conference on African Linguistics: linguistic theory and African language documentation*, ed. Masangu Matondo and Eric Potsdam, 182–192. Somerville, MA.
- Sigurd, Bengt. 1989. A referent grammatical analysis of relative clauses. *Acta Linguistica* 21(2): 95–115.
- Simons, Gary F., and Charles D. Fennig. 2017. *Ethnologue: Languages of the World*. 20th edition. Dallas, Texas: SIL International. <https://www.ethnologue.com/> (12 July, 2017).
- Steele, Mary. 1966. Konkomba dialect survey. Accra: Ghana Institute of Linguistics.
- Tait, David. 1961. *The Konkomba of northern Ghana*. Ed. Jack Goody. London: Oxford Univ. Press; International African Inst. (IAI).
- Williamson, Kay. 1989. Niger-Congo overview. In *The Niger-Congo languages: A classification and description of Africa's largest language family*, ed. John T. Bendor-Samuel and Rhonda L. Hartell. New York and London: Lanham.
- Winkelmann, Kerstin. 2012a. D 4. Konkomba (Lipakpaln). In *Noun classes in Gur: North central Gur Languages*, vol. II, ed. Gudrun Miehe, Brigitte Reineke, and Kerstin Winkelmann, 472–486. Köln: Rüdiger Köppe Verlag.
- Winkelmann, Kerstin. 2012b. D 7. Gurma: Comparative notes. In *Noun class systems in Gur languages: North central Gur languages*, vol. II, ed. Gudrun Miehe, Brigitte Reineke, and Kerstin Winkelmann, 529–532. Köln: Rüdiger Köppe Verlag.
- Yakpo, Kofi. 2019. *A grammar of Pichi* (Studies in Diversity Linguistics 23). Berlin: Language Science Press. <http://langsci-press.org/catalog/book/85> (27 March, 2020).

APPENDIX I: MAP OF DISTRICTS WHERE LIKPAKPALN IS SPOKEN IN GHANA⁸



(SOURCE: BISILKI 2021: 9)

⁸First author contracted Michael S. Agbozo: Corriolis Geospatial to design this map for a previous study on Likpakpaln.